

# Is there a Relationship between Guns and Freedom? Comparative Results from 59 Nations

By Howard Nemerov<sup>1</sup> & David B. Kopel<sup>2</sup>

Is there a relationship between firearms ownership in a nation and the level of freedom? Many people have thought so.

The American Founders thought that the relationship was a positive one. James Madison spoke of “the advantage of being armed, which the Americans possess over the people of almost every other nation,” and contrasted the United States with “the several kingdoms of Europe,” where “the governments are afraid to trust the people with arms.”<sup>3</sup> Two centuries later, Senator Hubert Humphrey affirmed the same idea: “Certainly one of the chief guarantees of freedom under any government, no matter how popular and respected, is the right of citizens to keep and bear arms ... The right of citizens to bear arms is just one guarantee against arbitrary government, one more safeguard, against the tyranny which now appears remote in America but which historically has proven to be always possible.”<sup>4</sup>

Conversely, other people agree that there is a relationship between guns and freedom, but think that it is a negative one. U.N. Secretary-General Kofi Annan stated: ““The proliferation of small arms, and munitions and explosives has also aggravated the violence associated with terrorism and organized crime. Even in societies not beset by civil war, the easy availability of small arms has in many cases contributed to violence and political instability. These, in turn, have damaged development prospects and imperilled human security in every way.”<sup>5</sup>

Proponents of both theories can readily cite examples. Widespread ownership of firearms helped Americans win independence from Britain in the American Revolution, and preserve that independence in the War of 1812. The well-armed Swiss were able to deter Nazi invasion during World War II, even though Hitler stated that he would be known as “the butcher of the Swiss.”<sup>6</sup> Conversely, guns in the hands of warlords and terrorists have played a major role in harming civil society in modern nations such as Lebanon and the Ivory Coast.

---

<sup>1</sup> Howard Nemerov is the developer of the neuromuscular physical therapy discipline called the Nemerov Method, based on 18 years of clinical analysis and practical research. He was a software engineer prior to entering the health field. He writes and speaks frequently on firearms policy issues.

<sup>2</sup> Research Director, Independence Institute, Golden, Colorado; Associate Policy Analyst, Cato Institute, Washington, D.C., [www.davekopel.org](http://www.davekopel.org). Author of *The Samurai, the Mountie, and the Cowboy: Should America Adopt the Gun Controls of Other Democracies?* (1992). Coauthor of the law school textbook *GUN CONTROL AND GUN RIGHTS* (NYU Pr., 2002).

<sup>3</sup> THE FEDERALIST NO. 46 (James Madison).

<sup>4</sup> Hubert H. Humphrey, quoted in *Know Your Lawmakers*, GUNS, Feb. 1960, at 4. Humphrey one of the most outspoken congressional leaders of the Civil Rights movement. He later served as Vice-President after being elected in 1964, and was the Democratic party nominee for President in 1968. He is generally regarded as one of the exemplars of post-WWII American liberalism.

<sup>5</sup> Kofi Annan, Statement of the Security Council, Sept. 24, 1999, U.N. Press Release SG/SM/7145, SC/6733.

<sup>6</sup> See STEPHEN P. HALBROOK, *TARGET SWITZERLAND: SWISS ARMED NEUTRALITY IN WORLD WAR II* (2003).

Increased international attention, particularly at the United Nations, to the gun control issue in the 1990s and the early 21<sup>st</sup> century has resulted in much greater academic attention to international firearms issues. Now, for the first time, it is possible to use a large data set, consisting of 55 nations, to see if there is a relationship, positive or negative, between increased gun density and various measures of freedom.

Using data on per capita firearms ownership from the Small Arms Survey (an affiliate of the Graduate Institute of International Studies, in Geneva, Switzerland), this Article examines the relationship between per capita firearms rates and several measures of freedom. These measures are:

- Ratings of political freedom (e.g., free elections) and of civil liberty (e.g., freedom of religion) from Freedom House.
- Ratings of corruption, from Transparency International, and
- Ratings of economic freedom, from the Heritage Foundation.

Part I of this Article describes the various data sources. Part II reports the findings from the comparative data. Part III discusses various ways in which higher levels of firearms density might work to increase or decrease different aspects of freedom.

## **Part I. Data Sources**

### **A. Freedom House ratings of Political and Civil Freedom**

Founded in 1941 by Eleanor Roosevelt and other persons concerned about the threat of fascism, Freedom House has been a leading voice against political and civil oppression, regardless of the ideology of the oppressor. Every year Freedom House published a monograph entitled *Freedom in the World*, in which each country is rated for its level of political rights and civil liberties. Categories are defined as follows:

Political rights enable people to participate freely in the political process, including through the right to vote, compete for public office, and elect representatives who have a decisive impact on public policies and are accountable to the electorate. Civil liberties allow for the freedoms of expression and belief, associational and organizational rights, rule of law, and personal autonomy without interference from the state.<sup>7</sup>

Countries are rated on a scale of 1 to 7 for each category, with 1 representing the greatest individual rights, ratings of 1-2.5 are considered “free”, over 2.5 to 5 “partly free”, and over 5 “not free.” Of the 142 member-states of the United Nations, 46% are rated “free.”<sup>8</sup>

Table 5, in the Appendix, presents the ratings for all U.N. member states for all of the available metrics provided by Freedom House and by other ratings institutions discussed *infra*.

---

<sup>7</sup> *Freedom in the World 2004: Survey Methodology*, Freedom House.  
<http://www.freedomhouse.org/research/freeworld/2004/methodology.htm>.

<sup>8</sup> List of U.N. Member States: <http://www.un.org/Overview/unmember.html> cross-referenced with *Freedom in the World 2007*, Freedom House.  
<http://www.freedomhouse.org/template.cfm?page=363&year=2007>.

## B. World Bank Ratings of Prosperity

The World Bank has developed a ranking system—called Purchasing Power Parity (PPP)—to make valid comparisons regarding the relative wealth of people living in different countries. “The Purchasing Power Parity between two countries is the rate at which the currency of one country needs to be converted into that of a second country to represent the same volume of goods and services in both countries.”<sup>9</sup>

Eighteen of the World Bank’s 20 top-rated PPP countries are also rated “free” by Freedom House, 17 which were given the top rating of “1” in both political and civil rights. The exception was Japan, given a “2” for civil rights. By comparison, the bottom 20 in the PPP only contained two countries rated “free” by Freedom House, and both of those rated 2 in political rights and civil liberties.

Likewise, the 35 U.N. countries rated by Freedom House with the exemplary “1” for both political and civil rights had an average PPP rank of 37 by the World Bank, while the lowest 35 countries—34 rated “Not Free” and 1 rated “Partially Free” by Freedom House—had an average PPP rank of 137. (A lower number means greater wealth average wealth for citizens.)<sup>10</sup>

## C. Transparency International Ratings of Corruption

Transparency International (TI) publishes an annual report entitled *Corruption Perceptions Index*, which tracks the level of government corruption in countries. TI defines corruption as: “the abuse of public office for private gain.”<sup>11</sup> The rating scale ranges from 0 (thoroughly corrupt) to 10 (completely clean).

When cross-referencing the corruption ratings of U.N. member nations with the *Freedom in the World* ratings, we find that corruption correlates with reduced political and civil rights. The countries that are most free, with political and civil rights ratings of “1,” have an average corruption index of 7.1. All countries that Freedom House rates as “free” have an 86.2% better corruption rating than those countries rated “not free” (5.4 to 2.9, respectively).<sup>12</sup>

---

<sup>9</sup> WORLD BANK, ICP 2003-2006 HANDBOOK, ch. 1, available at [http://siteresources.worldbank.org/ICPINT/Resources/Ch1\\_Overview\\_Feb07.doc](http://siteresources.worldbank.org/ICPINT/Resources/Ch1_Overview_Feb07.doc)

<sup>10</sup> World Bank, “GNI per capita 2006, Atlas method and PPP,” in *World Development Indicators Database*, <http://siteresources.worldbank.org/DATASTATISTICS/Resources/GNIPC.pdf>.

<sup>11</sup> Transparency International, *Frequently Asked Questions*, [http://www.transparency.org/policy\\_research/surveys\\_indices/cpi/2007/faq#general1](http://www.transparency.org/policy_research/surveys_indices/cpi/2007/faq#general1). TI explains why it measures “perceived corruption,” as revealed by surveys:

It is difficult to assess the overall levels of corruption in different countries based on hard empirical data, e.g. by comparing the amount of bribes or the number of prosecutions or court cases. In the latter case, for example, such comparative data does not reflect actual levels of corruption; rather it highlights the quality of prosecutors, courts and/or the media in exposing corruption across countries. One strong method of compiling cross-country data is therefore to draw on the experience and perceptions of those who are most directly confronted with the realities of corruption in a country.

*Id.*

<sup>12</sup> *Freedom in the World 2007*, Freedom House, cross-referenced with *Corruption Perceptions Index 2006*, Transparency International, February 3, 2007, [http://www.transparency.org/policy\\_research/surveys\\_indices/cpi/2006](http://www.transparency.org/policy_research/surveys_indices/cpi/2006).

Of the 159 U.N. member nations rated by Transparency International, the overall average corruption index was 4.0, which means that government officials frequently abuse their authority and power to gain personal benefits.

#### **D. Heritage Foundation Economic Freedom Index**

The Heritage Foundation's annual Economic Freedom Index analyzes ten economic variables for each country. Heritage Foundation explains economic freedom as follows:

The definition of economic freedom therefore encompasses all liberties and rights of production, distribution, or consumption of goods and services. The highest form of economic freedom provides an absolute right of property ownership, fully realized freedoms of movement for labor, capital, and goods, and an absolute absence of coercion or constraint of economic liberty beyond the extent necessary for citizens to protect and maintain liberty itself. In other words, individuals are free to work, produce, consume, and invest in any way they please, and that freedom is both protected by the state and unconstrained by the state.<sup>13</sup>

The Heritage Foundation rates countries by the following scale: Economically "free" countries have an overall score of 80-100; "mostly free" between 70 and 79.9; "moderately free" between 60 and 69.9, "mostly unfree" between 50 and 59.9; and economically "repressed" countries less than 50.<sup>14</sup>

There are 142 United Nations countries that are rated by all three organizations—Freedom House (Freedom Rating), Transparency International (Corruption Index) and Heritage Foundation (Economic Freedom Index). For those countries covered under all indices, there is a correlation between the World Bank Purchasing Power Parity and Heritage Foundation Economic Freedom. Countries in the top quartile the Economic Freedom Index had an average PPP of 42.00 (lower is better) and an Economic Index of 74.40 (mostly free; higher is better). The second quartile of economic freedom averaged a PPP rank of 89.91 and an Economic Index of 63.47 (moderately free). The third quartile of economic freedom ranked 142.53 and 57.43 (mostly unfree), respectively. The bottom quartile of economic freedom had an average PPP of 157.29 and an Economic Index of 50.46 ("mostly unfree," and less than a half-point away from "repressed").<sup>15</sup> The relationship works the other way, too: When countries are ranked in quartiles by PPP, every step up in a quartile is associated with a higher Economic Freedom Index score.

The top quartile of economically free countries had an average of 1.51 in combined political and civil rights, "free" according to the Freedom House rating system. By comparison, the bottom quartile for economic freedom rated an average of 4.86 for political/civil freedom, towards the lower end of "partly free".<sup>16</sup> There thus appears to be a link between political/civil rights, and economic freedom.

Conversely, there also seems to be a link between autocratic, totalitarian government and poverty. As Heritage Foundation explains:

All government action involves coercion. Some minimal coercion is necessary for the citizens of a community or nation to defend themselves, promote the evolution of civil

---

<sup>13</sup> TIM KANE, KIM R. HOLMES,, MARY ANASTASIA O'GRADY ET AL., 2007 INDEX OF ECONOMIC FREEDOM 38 (2007), <http://www.heritage.org/research/features/index/downloads/Index2007.pdf>.

<sup>14</sup> *Id.*, at 3.

<sup>15</sup> *GNI per capita 2006, Atlas method and PPP*, World Bank, July 1, 2007, cross-referenced with *2007 Index of Economic Freedom*, Heritage Foundation.

<sup>16</sup> 2007 INDEX OF ECONOMIC FREEDOM, cross-referenced with *Freedom in the World 2007*.

society, and enjoy the fruits of their labor. This Lockean idea is embodied in the U.S. Constitution. For example, citizens are taxed to provide revenue for the protection of person and property as well as for a common defense...

When government coercion rises beyond the minimal level, however, it becomes corrosive to freedom—and the first freedom affected is economic freedom. Logically, an expansion of state power requires enforcement and therefore funding, which is extracted from the people. Exactly where that line is crossed is open to reasoned debate.<sup>17</sup>

As there is a relationship between reduced freedom and increased government corruption, so there is a relationship between corruption levels, personal freedom, and economic freedom: More economic, political, and civil liberty exists in those countries with the least government corruption. For example, when rated by corruption, the third and fourth quartiles—those which are most corrupt countries—contain *all* of the countries rated as economically “repressed” by Heritage Foundation. *All* of the economically “free” countries lie in the least-corrupt quartile.<sup>18</sup>

For the 142 nations that are rated by all three NGOs, the average Freedom House rating is 3.20 (Partly Free), the average Corruption Index is 4.15 (more corrupt than not), and the average Economic Freedom Index is 61.50 (just on the freer side of the border between “Moderately Free” and “Mostly Unfree”).

## **E. Small Arms Survey Data on Firearms Ownership**

The Small Arms Survey is a research institution on international firearms issues. It is affiliated with the Graduate Institute of International Studies in Geneva Switzerland. Every year, the Small Arms Survey publishes an eponymous book entitled *Small Arms Survey*. The *Small Arms Survey*, and the rest of the work of the Small Arms Survey, is the finest scholarly work produced by academic supporters of increased firearms restrictions.

Like the Heritage Foundation and the other organizations which supplied data used in this Article, the Small Arms Survey has a very strong policy agenda, and the policy agenda colors much of the recommendations, analysis, presentation, and choice of topics of the Small Arms Survey. Nevertheless, the Small Arms Survey is respected for its rigorous treatment of data. No other organization in the world has come remotely close to supplying so much useful data for analysis of international firearms policy issues.

The 2003, 2004, 2005 and 2007 editions of *Small Arms Survey* contain tables estimating the number of firearms per citizen in various countries. Collectively, the four volumes provide data on 59 nations which are also rated by Freedom House, Transparency International, and the Heritage Foundation.

In estimating per-capita gun ownership, the Small Arms Survey has a much more difficult task than do their peers who are producing other international ratings. For example, the Heritage Foundation rankings of economic freedom are based on laws, such as statutes establishing tax rates or written regulations about imports or securities. A scholar must be able to read complex legal documents in a foreign language, but if the scholar can do so, accurately rating the nation’s level of economic freedom is straightforward.

In contrast, the Small Arms Survey authors have two forms of data to use: government gun registration records, and household surveys in which people are asked about gun ownership. Both are problematic.

---

<sup>17</sup> 2007 INDEX OF ECONOMIC FREEDOM, at 38.

<sup>18</sup> *Id.* cross-referenced with *Freedom in the World 2007* cross-referenced with *Corruption Perceptions Index 2006*.

## 1. The incompleteness of registration data

Registration data, in countries which have comprehensive firearms registration laws, will provide data about the quantity of *legal* guns, but will necessarily not include the illegal guns. Some illegal guns may be owned for criminal purposes (e.g., by professional armed robbers or human traffickers). Other illegal guns may be owned by otherwise law-abiding citizens who were not able to obtain a gun through the legal process (if the legal process was highly restrictive, with a strong presumption against citizen gun ownership). Or the citizen might own several guns which have been in the family for a long time, which were unregistered when they were acquired. (Perhaps there was no registration law, or perhaps they were acquired during a war, picked up from a fallen enemy soldier.<sup>19</sup>) Fearing future confiscation, the family might have chosen not to apply with a registration law.

Such non-compliance with registration is not unreasonable (from the viewpoint of someone who wants to keep her gun), since registration lists have been used for gun confiscation of certain types of guns in the United Kingdom, the Bermuda,<sup>20</sup> China,<sup>21</sup> Cuba under Batista and Castro,<sup>22</sup> Ireland,<sup>23</sup> communist Poland,<sup>24</sup> Australia,<sup>25</sup> Great Britain,<sup>26</sup> and New York City.<sup>27</sup> Gun registration lists were also used by the Nazis.<sup>28</sup>

An example of how registration records can result in a massive undercount is Great Britain. Except for Luxemburg (which bans all guns), and Japan, Great Britain has the strictest gun controls in the democratic world. Every legally-owned rifle and handgun in the nation was registered ever since the Firearms Act of 1921. Before registration records were used to confiscate all handguns in 1997, there were about 50,000 pistol licenses extant.

Yet before the confiscation of all legal handguns, there had been over 300,000 illegal handguns voluntarily surrendered nationwide since the end of World War II—an indication of a large pool of illegal guns.<sup>29</sup> Late 1970s estimates put the number of illegal guns at two million, compared with two and a half million legally owned.<sup>30</sup>

---

<sup>19</sup> For example, France requires gun registration, but “Almost every surviving member of the Resistance has kept his personal arms, unregistered,” and many of their children do the same. In 1968, police officials estimated that only 10% of handguns in Paris were registered. LIBRARY OF CONGRESS, GUN CONTROL LAWS IN FOREIGN COUNTRIES (rev.ed 1976). Norway also has many unregistered guns left over from the anti-Nazi resistance. *Id.* ; WILLIAM TONSO, GUN AND SOCIETY 8 (1983).

<sup>20</sup> GUN CONTROL LAWS IN FOREIGN COUNTRIES.

<sup>21</sup> GUN CONTROL LAWS IN FOREIGN COUNTRIES.

<sup>22</sup> GUN CONTROL LAWS IN FOREIGN COUNTRIES.

<sup>23</sup>

<sup>24</sup> GUN CONTROL LAWS IN FOREIGN COUNTRIES

<sup>25</sup> Peter Reuter & Jenny Mouzos, *Australia: A Massive Buyback of Low-Risk Guns* in EVALUATING GUN POLICY 129 (Jens Ludwig & Philip Cook eds., 2003).

<sup>26</sup> Joseph Olson & David B. Kopel, *All the Way Down the Slippery Slope: Gun Prohibition in England and Some Lessons for Civil Liberties in America*. 22 HAMLINE L. REV. 399 (1999).

<sup>27</sup> *Id.*

<sup>28</sup> Stephen P. Halbrook, “Arms in the Hands of Jews Are a Danger to Public Safety”: Firearm Registration and the Night of the Broken Glass, Working Paper, [http://works.bepress.com/stephen\\_halbrook/1/](http://works.bepress.com/stephen_halbrook/1/); Stephen P. Halbrook, *Nazi Firearms Law and the Disarming of the German Jews*, 17 ARIZ. J. INT’L & COMP. L. 483 (2000).

<sup>29</sup> Burton; Yardley and Stevenson, p. 74.

<sup>30</sup> Currah, *The Rush for Fake Guns in Britain*, S.F. CHRON. & EXAMINER, July 15, 1979; Dobson and House, *Sunday Telegraph*, December 17, 1978; Birch, *An Englishman's View of Gun Control*, GUNS & AMMO, Dec. 1981, at 31-32 (reporting discussion with police sergeant). Others argue that the amount of illegal weapons exceeds the amount of

One method to estimate the number of illegal guns (which in Great Britain includes guns owned by otherwise law-abiding citizens who do not register their guns) is to look at the number of illegal guns voluntarily surrendered each year. Unless there is a special amnesty in effect, most illegal guns surface on the death of the owner and surrender by the heirs. This approach analyzes the number of annual surrenders in relation to the variations over time in the number of deaths.

Since the fall of the Iron Curtain, there has been a very large flow of illegal guns from former Warsaw Pact military stocks into the rest of Europe (including Great Britain) and Africa. But if we counter-factually assume that the current British controls are perfectly effective—that there are no new guns being added to the illegal pool—, and we further assume that all heirs always surrender all guns, then the surrender data would indicate that there are approximately 400,000 illegal handguns and 800,000 illegal long guns. About 80,000 of the illegal guns are in the London metropolitan area. If one assumes that only half of all heirs surrender the ancestor's gun, then the number of illegal guns approximates with other estimates of two million or more illegal guns.<sup>31</sup>

Other evidence indicates that most guns owned before the effective date of a registration law are never registered. Colin Greenwood writes that in years before the Firearms Act, there were about 30,000 handgun sales annual, and that most handgun owners did not register.<sup>32</sup>

In 1988, pump action and semi-automatic shotguns were brought into the registration system. About 200,000 such guns were sold between 1978 and 1988, and at least 100,000 such guns were in private possession before then. But fewer than 100,000 pump action or semi-automatic shotguns were registered in response to the 1988 law, out of the total pool of 300,000.<sup>33</sup> The English tradition of hiding guns from the government dates back to at least 1642.<sup>34</sup>

## 2. Undercounting by household surveys

Based on American experience, we also know that household surveys result in very large underestimates of gun ownership.<sup>35</sup> For example, David Bordua and Gary Kleck conducted a survey of Illinois residents who had a Firearms Owners Identification Card (FOID), a license which has been required for legal gun ownership in Illinois since 1966. Everyone who has a FOID card has identified himself to the government as a gun-owner. Yet when the Bordua/Kleck survey called FOID card owners to ask various questions about their gun-owning practices, the number who admitted owning a gun was about 10 percent less than the number who has a FOID card.<sup>36</sup>

---

legal ones. MICHAEL YARDLEY & JAN A. STEVENSON, REPORT ON THE FIREARMS (AMENDMENT) BILL 26 (2d ed.)(London: Piedmont, 1988)

<sup>31</sup> YARDLEY & STEVENSON, at 28-29.

<sup>32</sup> COLIN GREENWOOD, FIREARMS CONTROL: A STUDY OF ARMED CRIME AND FIREARMS CONTROL IN ENGLAND AND WALES 238, 242. (1971).

<sup>33</sup> Cadmus, *A War of Attrition*, GUNS REVIEW, Nov. 1990, at 804.

<sup>34</sup> Joyce Malcolm, *The Right of the People to Keep and Bear Arms: The Common Law Tradition*, in FIREARMS AND VIOLENCE: ISSUES OF PUBLIC POLICY 294 (Don B. Kates ed., 1984).

<sup>35</sup> GARY KLECK, POINT BLANK: GUNS AND VIOLENCE IN AMERICA 455-60 (1991); Ann P. Rafferty, John C. Thrush, Patricia K. Smith & Harry B. McGee, *Validity of a household gun question in a telephone survey*, 110 PUB. HEALTH REP. 282 (1995).

<sup>36</sup> Theoretically, a person might pay for a FOID card and never buy a gun.

If so such a significant percentage of people who know that they are on a government list of gun-owners will deny gun ownership to a pollster, it stands to reason that an even larger number of gun owners who are *not* already on a government list would deny ownership to a pollster.

One reason for denial could be that the gun is not legally owned. Another reason could be that the owner wants to maintain his privacy; he might fears that the survey data might be given to the government, and if gun confiscation became a policy in the future. Or the gun-owner simply might have a strong sense of privacy about gun ownership.

In addition, there is significant tendency for spouses to underreport ownership. If the husband has a gun, and the wife considers the guns to be “his guns,” then a household survey asking about guns in the home will often produce a “yes” if the husband answers the survey, but a “no” if the wife answers the survey.<sup>37</sup>

It is impossible to know the true size of what Kleck calls “the Dark Number” of households which have guns, but which are not on a government list and will not admit ownership to a pollster. Kleck’s best estimate is that household surveys miss gun ownership in about 5-10% of American homes. So if a household survey reports that 45% of American homes have guns, then the true figure would probably be about 50-55%.<sup>38</sup>

The underestimation rate in other nations would very likely be greater in most other countries than in the United States. It is an accurate stereotype that Americans are far more willing to divulge personal facts to near-strangers than are the people of most other nations. Strike up a conversation with the American who is sitting on your left during a transatlantic flight, and you are far more likely to be told some intimate detail about his family life or medical history than if you strike up a conversation with the Frenchman sitting on your right.

Extensive data show that polling respondents often will give a pollster the answer that is perceived as socially correct.<sup>39</sup> In most of the United States and Switzerland, cultural mores are strongly supportive of gun ownership in general (even if there is support for certain gun controls). In many other countries, such as the United Kingdom, “gun culture” is an epithet. Accordingly, one might expect that the rate of false denials by gun owners would be higher in the U.K. than in the U.S. Thus, while household survey data indicate that 4% of households in England and Wales have a gun, the true figure may be more than double that.<sup>40</sup> Underestimates in other nations could be as large, or larger.

### **3. Manufacturing data**

An alternative method of measuring guns per capita is to use manufacturing records. Since the 1940s, American gun manufacturers have been required to report data on every firearm they produce. A researcher can look at annual manufacturing data, adjust it to account for exports and imports (which are also precisely tracked in the U.S.), and subtract the number of guns sold to the government. Thus, one can produce a reasonably good estimate of guns per

---

<sup>37</sup> GARY KLECK, *TARGETING GUNS: FIREARMS AND THEIR CONTROL* (1997).

<sup>38</sup> KLECK, *POINT BLANK*, at 457.

<sup>39</sup> SEYMOUR SUDMAN & NORMAN M. BRADBURN. *RESPONSE EFFECTS IN SURVEYS: A REVIEW AND SYNTHESIS*, (1974).

<sup>40</sup> Forty-seven U.K. households per thousand admitted to a pollster that they owned a gun. Martin Killias, *Gun Ownership and Violent Crime: The Swiss Experience in International Perspective*, 1 *SECURITY J.* 169, 171 (1990).



capita.<sup>41</sup> However, historical gun manufacturing data from most other nations are not remotely so precise as the U.S. data.

Thus, in using the Small Arms Survey data, we should recognize that its estimates for per capita gun ownership in many of the nations may be far too low. Likewise, the underestimates in some nations may be significantly greater than in others.

Accordingly, we will use the firearms per capita data in broad classes, rather than attempting to draw precise estimates from a particular per capita figure.

## II. Results

Table 5, in the Appendix, presents the data for each country. The 59 nations with per-capita firearms estimates are listed in order, from least to most. The list begins with the low-firearms countries of Romania, Japan, Moldova, and Poland. It ends with the high-firearms countries of Switzerland, Finland, Yemen, and the United States.

For each country, the ratings are supplied for political freedom, civil freedom, prosperity, economic freedom, and corruption.

Next, we divide the nations into four quartiles, based on their gun ownership rates. For the nations in each quartile, we average their ratings for freedom (the combined Freedom House political and civil figure), corruption (the Transparency International perception of corruption figure), and economic freedom (the Heritage Foundation Economic Freedom Index). Results are presented in Table 1.

**Table 1: Firearms Ownership versus Liberty Indices, by quartile**

| <i>Quartile</i> | <i>Firearms Per<br/>1,000<br/>Population</i> | <i>Freedom Index<br/>(1-7, lower is<br/>better)</i> | <i>Corruption<br/>Index (0-10,<br/>higher is better)</i> | <i>Economic Index<br/>(0-100, higher<br/>is better)</i> |
|-----------------|--|---|--|---|
| 1               | 388  | 1.93  | 7.09   | 69.79   |
| 2               | 145  | 2.80  | 4.35   | 63.59   |
| 3               | 81   | 2.53  | 4.75   | 62.57   |
| 4               | 24   | 2.32  | 4.31   | 63.03   |
| Average 2-4     | 84   | 2.56  | 4.47   | 63.06   |

---

<sup>41</sup> The method is not precise because:

1. It still requires an estimate about the number of guns in private hands before the manufacturing data law was enacted.
2. It does not account for the home manufacture of guns (which is legal in the United States for personal use, but not for commercial purposes).
3. It does not account for guns that wear out, or rust so as to become non-functional. Guns tend to be extremely durable consumer products, unless they are neglected for a long time in a high-rust environment.
4. It does not account for guns confiscated by the police, or voluntarily surrendered to the police. The latter number is trivially low. Gun “buybacks” bring in a several thousand guns, cumulatively, in the U.S. in a typical year, out of gun supply of over 200 million. The former number is higher, but a large fraction of confiscated guns are resold by the police to licensed firearms dealers, who in turn sell them to customers who pass the federally-required background check, or a state equivalent.

The most notable difference between the quartiles involves corruption. The top quartile has a 7.09 (out of a possible 10) for non-corruption, meaning that the average of the top quartile could be called “mostly clean.” All the other quartiles score a 4+, a score indicating moderate corruption.

The differences on the Freedom Index are not as large. One reason is the Freedom Index has 7 steps (a 1-7 scale), whereas the Corruption Index has 11 steps (a 0-10 scale). But even taking into account the relative compression of the Freedom Index, the differences between the first quartile and the rest are relatively smaller. Still, the first quartile countries average is “free”, while all the other quartiles are “moderately free to partly free.”

For economic freedom, all the quartiles achieved a “moderately free” ranking. The first quartile has the best results, but not quite good enough for a 70, the threshold for “mostly free.”

For all measures of freedoms, the top firearms quartile does beat every other quartile in every category.

This is not to say that every country within a quartile is better than countries in lower quartiles. For example, the top firearms quartile is best for freedom overall, but it includes Angola (“not free”), Saudi Arabia (“not free”) and Yemen (“partly free”). Angola is also economically “repressed” while Saudi Arabia and Yemen are economically “mostly unfree”. Conversely, the bottom quintile includes Japan and the Netherlands, both with have extremely low levels of firearms ownership, relatively low levels of government corruption, and high levels of personal and economic freedom.

The similarity in ratings among the three lower quartiles is interesting. For example, their Corruption Indexes averaged between 4.31 and 4.75 and their Economic Freedom indexes are nearly identical, between 62.57 and 63.59.

While the first quartile is better in all categories, the relationship between firearms and freedom is not consistent among the lower three quartiles. For example, the second quartile is slightly better for economic freedom, the third quartile is best for non-corruption, and the fourth quartile is best for political/civil freedom.

Thus, if there is some kind of cause-and-effect relationship between firearms and freedom (discussed *infra*), the effect appears to exist only for countries with high levels of firearms ownership. The effect does not appear evident between groups of countries with relatively low levels of firearms vs. countries with hardly any firearms.

If we hypothesize that the firearms effect (however it might operate) occurs only if there is a critical mass of gun ownership, then we can contrast the high-ownership quartile with all the rest. The last line of Table 1 presents the averaged data for the lower three quartiles.

Countries in quartile 1 averaged a 360.0% higher civilian firearms ownership rate, a 32.2% better Freedom Index, a 58.6% better Corruption Index, and a 10.7% better Economic Index.

Separating out the top 11 countries, in terms of civilian firearms ownership—roughly the top 20%—highlights this distinction even more clearly.

**Table 2. Firearms Ownership versus Liberty Indices, by quintile**

| <i>Quintile</i> | <i>Firearms Per 1,000 Population</i> | <i>Freedom Index (1-7. lower is better)</i> | <i>Corruption Index (0-10. higher is better)</i> | <i>Economic Index (0-100. higher is better)</i> |
|-----------------|--------------------------------------|---|--|---|
| Top Quintile    | 448                                  | 1.36  | 7.44   | 71.37   |
| Quintile 2      | 180                                  | 2.83  | 5.33   | 66.73   |
| Quintile 3      | 121                                  | 2.50  | 4.21   | 60.86   |
| Quintile 4      | 64                                   | 2.96  | 4.37   | 61.35   |
| Quintile 5      | 20                                   | 2.25  | 4.54   | 64.12   |
| Quintiles 2-5   | 96                                   | 2.64  | 4.61   | 63.26   |

When we sort by quintiles, the top firearms quintile improves on economic freedom, so as to enter the higher class of “mostly free,” while the lower quintiles are “moderately free.” The first and second quintiles both improve notably in corruption ratings. There is still a large gap between the first and second quintiles, although not as quite large as the gap between the first and second quartiles. For political and civil freedom, the top quintile’s advantage becomes even more pronounced.

Again, the rankings of the lower quintiles are not strictly in order of firearms per capita. The second quintile is better than all lower quintiles for corruption and economic freedom, but the lowest quintile beats quintiles 2-4 for political/civil freedom.

If we combine all four of the lower quintiles, the top quintile had a 366.2% higher civilian firearms ownership rate, averaged a 93.3% better Freedom Index, a 61.2% better Corruption Index, and a 12.8% higher Economic Index.

When we looked at countries, which had the most guns, we saw that (on the whole) they had the most freedom, but the relationship was strong only for high-gun countries. There was not a difference between medium-gun and low-gun countries. Suppose we look at the relationship the other way: Do countries with the most freedom have the most guns? Table 3 provides the results.

**Table 3: Freedom Rating Versus Firearms and Other Indices**

| <i>Freedom Rating</i> | <i>Freedom Index</i> | <i>Firearms Per 1,000 Population</i> | <i>Corruption Index</i> | <i>Economic Index</i> |
|-----------------------|----------------------|--------------------------------------|-------------------------|-----------------------|
| Free (1)              | 1.00                 | 225                                  | 7.39                    | 73.06                 |
| Free (1+)             | 2.04                 | 81                                   | 3.99                    | 61.29                 |
| All Free              | 1.33                 | 180                                  | 6.32                    | 69.34                 |
| Partly Free           | 3.57                 | 129                                  | 3.09                    | 57.80                 |
| Not Free              | 5.86                 | 132                                  | 2.83                    | 53.93                 |

When sorted by the Freedom Index, the most “free” countries (score of 1 for both political rights and civil liberties) had the highest density of civilian firearms, and averaged the best Corruption Index and Economic Index of any group. Countries rated “free” but having

higher (less free) Freedom scores than 1.00 had a lower firearms ownership rate than any other group, and also had a worse Corruption Index and a lower Economic Index than the most “free” countries. “Partly free” countries had much lower ratings in all indices than all “free” countries. “Not free” countries had the poorest scores.

Again, the guns/freedom relationship appears only at the high end. The fully free countries (perfect scores in both political rights and civil rights) have two to three times as many guns per capita the other countries. The countries which had good but imperfect freedom scores had lower firearms density than the partly free and the not free nations, and these latter two groups were nearly identical in density. So if there is some relationship of guns and freedom, the relationship appears, once more, to significant almost entirely in the countries with the most guns and the most freedom.

We also looked at differences within most-free countries. Of the 59 countries, 26 scored a Freedom House 1 on political freedom and civil liberty. These countries included some countries with very low levels of firearms ownership (e.g., Poland, Hungary, Estonia) as well as countries with much higher levels (e.g., Norway, Uruguay). We sorted these most-free countries into thirds, by per-capita firearms ownership. The results are in Table 4.

**Table 4. Firearms Ownership versus Indices among the Most-Free Countries in the World**

| <i>Third</i> | <i>Firearms Per<br/>1,000<br/>Population</i> | <i>Corruption<br/>Index</i> | <i>PPP</i> | <i>Economic Index</i> |
|--------------|--|-----------------------------|------------|-----------------------|
| 1            | 463  | 7.84                        | 23.38      | 72.39                 |
| 2            | 197  | 8.16                        | 26.44      | 75.40                 |
| 3            | 42   | 6.23                        | 48.56      | 71.31                 |
| Average 2-3  | 119  | 7.19                        | 37.50      | 73.36                 |

In the Economic Freedom Index, the thirds have very close scores. For PPP (wealth) the bottom third of gun ownership is significantly less wealth. In corruption, the top two-thirds are separated by only a third of a point, but they are both notably better than the bottom third. This data suggest that, among the most-free countries, higher levels of corruption and lower levels of wealth may have a significantly inhibiting effect on gun ownership.<sup>42</sup>

---

<sup>42</sup> To what extent does the United States single-handedly affect the data? Our averages are based on countries, not adjusted for population, so the U.S. has no more weight than does the Netherlands. The U.S. certainly raises the per capita firearms ownership rate for any group in which it is included, but even without the U.S., the top quarter and quintile for firearms have much higher firearms ownership than lower groups. The U.S. has a PPP of 4 and an Economic Freedom Index of 82, both among the best in the world, and thus improves the economic grades for any group in which it is included. The U.S. corruption score is 7.3, which is good by world standards, but relatively weak among the most-free countries. Since 25 other countries have a 1/1 perfect score on political/civil freedom, eliminating the U.S. would make little difference in the relationship between firearms and political/civil freedom.

### III. Cause and Effect

The data appears to establish some relationship between guns and freedom. In Part III, we sketch out some causal mechanisms. These various mechanism are by no means exclusive of each other. It would not be surprising if the various mechanisms reinforce each other.

First of all, it should be acknowledged that guns and freedom may not have a direct cause and effect relationship. Instead, they could both be caused by something else. Perhaps cultures with greater respect for individualism, or for the inherent dignity of the human person, or for some other moral value lead to greater respect for all kinds of rights—political, civil, arms, economic, and due process.

#### A. Freedom causes guns

Another set of explanations would be that increased levels of freedom tend to lead to increased levels of gun ownership. For example, greater economic freedom leads to greater prosperity, which in turn gives people more money to buy all sorts of consumer goods, including firearms.

Support for this explanation would be supported by evidence from the last half-century in the United States. Although business regulation has in many respects grown over the last half-century, in many other respects economic freedom has increased in the United States. Federal tax rates are far lower; the top rate was 92% in 1952, and 35% in 2007.<sup>43</sup> Free trade agreements have greatly reduced international trade barriers. The abolition of Jim Crow laws has allowed much greater participation by black people in the economy.

Thus, it is not surprising that per capita gun ownership in the U.S. has risen by 158% over the last half-century. America formerly had about one gun for every three people. Now, there is nearly one gun for every American.

Non-corruption could also increase gun ownership. If two nations have very similar black letter gun laws, but the first nation is much less corrupt than the second, then citizens in the first nation will have an easier time getting permits or licenses, completing purchases which need government approval, and so on.

The 59-nation data, whether sorted into quartiles or quintiles, showed a strong relationship between non-corruption and higher levels of gun ownership, so the level of non-corruption may be one of most important explanatory factors in gun ownership rates. Even within the countries with perfect scores for political and civil freedom, the third with the lowest gun ownership rates had a notably worse corruption score than the other two.

The due process theory might partly explain why Germany, which requires a license in order to purchase a firearm, nevertheless is not in the bottom third for per-capita ownership rates. The German licensing system is generally administered according to objective criteria, and there is no expectation that a prospective gun owner might have to bribe a police officer to get a license.

The German data are also consistent with the “economic freedom causes guns” hypothesis. The German has a much higher per-capita GDP than most of the countries whom it

---

<sup>43</sup> Internal Revenue Service, *Table A.--U.S. Individual Income Tax: Personal Exemptions and Lowest and Highest Bracket Tax Rates, and Tax Base for Regular Tax, Tax Years 1913-2006*, available at <http://www.irs.gov/pub/irs-soi/histaba.pdf>

outranks in per capita ownership. Again, even within the countries with full economic and civil freedom, the lowest-third for firearms per capita were much lower in PPP than the other two.

Another possibility is that political liberty and/or civil liberty help cause gun ownership. Political systems which are more open may allow people who own guns, or who want to, or who want other people to have the choice, to more effectively participate in the political system, and to have their wishes expressed. In Canada, for example, firearms rights advocates played an important role in the 2006 election of Stephen Harper's Conservative party. The Harper government cancelled a plan, which had been created by the previous, Liberal government, which would have raised the price of all new guns imported into or manufactured in Canada by about 200 dollars. (The plan was ostensibly required to comply with an international treaty improving the marking standards for guns, but no other party to the treaty had interpreted the marking provisions in such an extreme and expensive way.)

Like abolition of the death penalty in European nations, increasing gun control tends to be a top-down process. So although an open political system also facilitates participation and influence by advocates of additional restrictions or prohibition, the comparative gain for anti-gun citizen activists is less. Since the restrictionists are more likely to already have the sympathy of the central authorities, the restrictionists have less need to be able to mobilize a large citizen movement, and have a government which responds to that movement.

Civil liberty, such as freedom of religion and speech, could also be a factor in higher gun ownership. Civil liberty can foster a culture of individual self-actualization, in which a person feels that he can control the course of his life by choosing his religion (or choosing not to be religious), freely saying what he thinks and reading whatever he wants, and so on. Gun ownership can be another means by which people assert responsibility for their own lives—choosing to own a tool which will give them the means of protecting themselves and their families, rather than relying on the state. Or providing some food for the family by hunting, rather than having to buy all of one's food from supermarkets.

## **B. Guns Cause Freedom**

One way that guns cause freedom is by facilitating a revolution or war of independence which replaces one regime, often a colonial one, with a freer government. Examples of successful revolutions or wars of independence in which personally-owned arms played an important role would be the American revolution against Britain, the Greek revolution against the Ottoman Empire, the Israelis against the British, the Irish against the British, and the Swiss against the Austrian Empire. Long after the new nation has secured its freedom, high levels of gun ownership may persist (or may grow) partly as a result of the collective positive memory of the pro-freedom benefits of guns.

Guns in citizen hands may also help protect an already-free nation, by contributing to the defeat of a foreign invader, or by helping to deter a foreign invasion. An example of the former would be the American victory at the Battle of New Orleans in 1815.<sup>44</sup> An example of the latter is Swiss deterrence of Nazi invasion during World War II.<sup>45</sup>

---

<sup>44</sup> Although, unbeknownst to the combatants, a peace treaty had already been signed, had the British won at New Orleans it is unlikely they would have abandoned the city, but instead would have held on to their chokehold on the economy of much of the territories of the United States. See ROBERT REMINI, *THE BATTLE OF NEW ORLEANS* (1999).

<sup>45</sup> HALBROOK, *supra*.

Firearms can also promote freedom in more localized ways, too. During the 1950s and 1960s, American civil rights workers were able to protect themselves from the Ku Klux Klan (a state-sanctioned terrorist organization) because so many civil rights workers had guns. The father of American Secretary of State Condoleezza Rice carried a shotgun as part of a neighborhood civil rights safety patrol.<sup>46</sup> (Which is why Secretary Rice opposes the government having a registration list of guns and their owners.) Similarly, former First Lady Eleanor Roosevelt carried a handgun for protection against Klansmen during her civil rights travels in the South in the 1950s.<sup>47</sup>

More broadly, responsible gun ownership promotes a culture in which gun-owners feel competent to protect their families and to use potentially-dangerous tools successfully. The culture of responsibility and competence fostered by gun ownership can help be a foundation of broader cultural attitudes towards individual rights. This is one reason why American gun organizations such as the National Rifle Association and Gun Owners of America are strong supporters of First Amendment free speech, Fourth Amendment freedom from unreasonable or warrantless searches, Fifth Amendment property rights, and Tenth Amendment federalism.

### **C. Freedom Reduces Guns**

Under certain conditions, increased freedom can lead to decreases in gun ownership rates. Under U.N. auspices, governments in nations such as Mali have attempted to entice formerly-oppressed tribal groups to surrender their guns. The promise is that the government will treat the tribal groups better, will be less corrupt, will be more respectful of due process, and so on, once the guns are surrendered.

For several years, the Mali disarmament program was successful. More recently, the government has not been keeping its promises, and the Tuareg tribes in northern Mali have been re-arming. Even so, Mali shows that there can be circumstances in which greater freedom leads to fewer guns.

In other nations, such as the Netherlands, a long history of democracy, respect for the rule of law, and clean government may result in people believing that they have no need for guns as a safeguard against tyranny.

### **D. Guns Reduce Freedom**

There are many modern nations where it is easy to see how the widespread presence of guns in the wrong hands reduces freedom. Guns in the hands of warlords in the Ivory Coast, the Congo, and in Sudan/Uganda (the Lord's Resistance Army) wreak havoc on civilian populations, and make it nearly impossible for civil society, and its attendant freedoms, to exist. Guns in the hands of terrorists and extremists in places such as Lebanon, Gaza, the West Bank, and other places in the Middle East or South Asia are used to assassinate moderates<sup>s</sup> for exercising their right of free speech, to murder women for not submitting to rigid gender stereotypes, and to kill people for exercising their freedom to choose their own religion.

---

<sup>46</sup> Barry Schweid, *Rice says gun rights are as important as right to free speech and religion*, Associated Press, SIGN ON SAN DIEGO, May 11, 2005, available at <http://www.signonsandiego.com/news/nation/20050511-1803-rice-guns.html>.

<sup>47</sup> Dave Kopel, Paul Gallant, & Joanne D. Eisen, *Her Own Bodyguard: Gun-packing First Lady*, NAT'L. REV. ONLINE, Jan. 24, 2002, available at <http://www.nationalreview.com/kopel/kopel012402.shtml>.

## Conclusion

There are many causal mechanisms by which guns and freedom can advance or inhibit each other. The mechanisms which are most influential at a given point in time may vary widely from nation to nation. Historically and today, we can find ways in which freedom has increased guns, guns have increased freedom, freedom has reduced guns, and guns have reduced freedom. International firearms scholars, except those based in North America, have tended to focus their research only on the latter two relationships, while ignoring the first two. Some of the more enthusiastic proponents of gun prohibition have asserted that the relationship between freedom and guns is always negative.

The data in this Article reveal a more complex picture. The highest national levels of gun ownership are associated with more political freedom, more civil liberty, much less corruption, and slightly more economic freedom. The relationship is not a universal, and counter-examples are easy to find. Interestingly, the guns/freedom relationship appears to exist only at the highest levels of gun ownership; the relationship does not appear to exist if one compares mid-level gun countries with low-level gun countries.

For persons concerned with political freedom, civil liberty, and freedom from corruption, the data provide reason for caution about embracing a broad agenda of reducing civilian gun ownership globally. There may be particular countries where reductions might enhance freedom, but the data raise serious doubts about whether the gun-reducing agenda makes sense as a categorical imperative, at least if freedom ranks highly in one's hierarchy of values.

When we acknowledge that guns can have a positive *and* a negative relationship with freedom, then we can begin to look for more sophisticated, carefully tailored approaches to gun policy, which attempt to address the negative effects, and which are careful not to reduce the apparently significant positive effects. Such an approach offers a better possibility of enhancing freedom than does a simplistic program that only considers negative effects.



**Table 5, All UN member-states, ratings in all available categories**

| UN Members          | FH 2007 |    |     |        |      | Economic Ratings |      |        |                      |
|---------------------|---------|----|-----|--------|------|------------------|------|--------|----------------------|
| Year(s) covered     | 2006    |    |     |        | 2006 | 2006             | 2006 |        |                      |
| Country             | PR      | CL | AVE | Rating | CI   | PPP              | EI   | Rating | Firearms per capital |
| Afghanistan         | 5       | 5  | 5   | PF     |      |                  |      |        |                      |
| Albania             | 3       | 3  | 3   | PF     | 2.6  | 127              | 61.4 | ModF   | 0.160                |
| Algeria             | 6       | 5  | 6   | NF     |      | 112              | 52.2 | MU     |                      |
| Andorra             | 1       | 1  | 1   | F      |      |                  |      |        |                      |
| Angola              | 6       | 5  | 6   | NF     | 2.2  | 166              | 43.5 | R      | 0.205                |
| Antigua and Barbuda | 2       | 2  | 2   | F      |      | 72               |      |        |                      |
| Argentina           | 2       | 2  | 2   | F      | 2.9  | 64               | 57.5 | MU     | 0.127                |
| Armenia             | 5       | 4  | 5   | PF     | 2.9  | 126              | 69.4 | ModF   |                      |
| Australia           | 1       | 1  | 1   | F      | 8.7  | 24               | 82.7 | F      | 0.155                |
| Austria             | 1       | 1  | 1   | F      | 8.6  | 15               | 71.3 | MF     | 0.170                |
| Azerbaijan          | 6       | 5  | 6   | NF     | 2.4  | 124              | 55.4 | MU     |                      |
| Bahamas             | 1       | 1  | 1   | F      |      |                  | 71.4 | MF     |                      |
| Bahrain             | 5       | 5  | 5   | PF     | 5.7  | 50               | 68.4 | ModF   |                      |
| Bangladesh          | 4       | 4  | 4   | PF     | 2.0  | 167              | 47.8 | R      |                      |
| Barbados            | 1       | 1  | 1   | F      | 6.7  |                  | 70.5 | MF     |                      |
| Belarus             | 7       | 6  | 7   | NF     | 2.1  | 90               | 47.4 | R      |                      |
| Belgium             | 1       | 1  | 1   | F      | 7.3  | 20               | 74.5 | MF     | 0.160                |
| Belize              | 1       | 2  | 2   | F      | 3.5  | 113              | 63.7 | ModF   |                      |
| Benin               | 2       | 2  | 2   | F      | 2.5  | 191              | 54.8 | MU     |                      |
| Bhutan              | 6       | 5  | 6   | NF     | 6.0  |                  |      |        |                      |
| Bolivia             | 3       | 3  | 3   | PF     | 2.7  | 153              | 55.0 | MU     | 0.022                |
| Bosnia-Herzegovina  | 3       | 3  | 3   | PF     | 2.9  |                  | 54.7 | MU     |                      |
| Botswana            | 2       | 2  | 2   | F      | 5.6  | 75               | 68.4 | ModF   |                      |
| Brazil              | 2       | 2  | 2   | F      | 3.3  | 91               | 60.9 | ModF   | 0.088                |
| Brunei Darussalam   | 6       | 5  | 6   | NF     |      |                  |      |        |                      |
| Bulgaria            | 1       | 2  | 2   | F      | 4.0  | 85               | 62.2 | ModF   |                      |
| Burkina Faso        | 5       | 3  | 4   | PF     | 3.2  | 184              | 55.0 | MU     |                      |
| Burundi             | 4       | 5  | 5   | PF     | 2.4  | 209              | 46.8 | R      |                      |
| Cambodia            | 6       | 5  | 6   | NF     | 2.1  | 152              | 56.5 | MU     |                      |
| Cameroon            | 6       | 6  | 6   | NF     | 2.3  | 165              | 54.4 | MU     |                      |
| Canada              | 1       | 1  | 1   | F      | 8.5  | 19               | 78.7 | MF     | 0.315                |
| Cape Verde          | 1       | 1  | 1   | F      |      | 122              | 58.4 | MU     |                      |
| Central Afr. Rep.   | 5       | 4  | 5   | PF     | 2.4  | 186              | 50.3 | MU     |                      |
| Chad                | 6       | 6  | 6   | NF     | 2.0  | 188              | 46.4 | R      |                      |
| Chile               | 1       | 1  | 1   | F      | 7.3  | 81               | 78.3 | MF     | 0.108                |
| China               | 7       | 6  | 7   | NF     | 3.3  | 102              | 54.0 | MU     | 0.031                |
| Colombia            | 3       | 3  | 3   | PF     | 3.9  | 105              | 60.5 | ModF   | 0.073                |
| Comoros             | 3       | 4  | 4   | PF     |      | 173              |      |        |                      |

|                    |   |   |   |    |     |     |      |      |       |
|--------------------|---|---|---|----|-----|-----|------|------|-------|
| Congo (D.R.)       | 5 | 6 | 6 | NF | 2.0 | 207 |      |      |       |
| Congo (Rep.)       | 6 | 5 | 6 | NF | 2.2 | 197 | 43.0 | R    |       |
| Costa Rica         | 1 | 1 | 1 | F  | 4.1 | 83  | 65.1 | ModF |       |
| Cote d'Ivoire      | 7 | 6 | 7 | NF | 2.1 | 179 | 55.5 | MU   |       |
| Croatia            | 2 | 2 | 2 | F  | 3.4 | 70  | 55.3 | MU   | 0.115 |
| Cuba               | 7 | 7 | 7 | NF | 3.5 |     | 29.7 | R    |       |
| Cyprus             | 1 | 1 | 1 | F  | 5.6 | 45  | 73.1 | MF   |       |
| Czech Republic     | 1 | 1 | 1 | F  | 4.8 | 48  | 69.7 | ModF | 0.050 |
| Denmark            | 1 | 1 | 1 | F  | 9.5 | 9   | 77.6 | MF   | 0.180 |
| Djibouti           | 5 | 5 | 5 | PF |     | 160 | 52.6 | MU   |       |
| Dominica           | 1 | 1 | 1 | F  | 4.5 | 114 |      |      |       |
| Dominican Republic | 2 | 2 | 2 | F  | 2.8 | 95  | 56.7 | MU   |       |
| Ecuador            | 3 | 3 | 3 | PF | 2.3 | 138 | 55.3 | MU   | 0.027 |
| Egypt              | 6 | 5 | 6 | NF | 3.3 | 136 | 53.2 | MU   |       |
| El Salvador        | 2 | 3 | 3 | F  | 4.0 | 129 | 70.3 | MF   |       |
| Equatorial Guinea  | 7 | 6 | 7 | NF | 2.1 | 84  | 53.2 | MU   |       |
| Eritrea            | 7 | 6 | 7 | NF | 2.9 | 194 |      |      |       |
| Estonia            | 1 | 1 | 1 | F  | 6.7 | 57  | 78.1 | MF   | 0.030 |
| Ethiopia           | 5 | 5 | 5 | PF | 2.4 | 190 | 54.4 | MU   |       |
| Fiji               | 6 | 4 | 5 | PF |     | 119 | 59.8 | MU   |       |
| Finland            | 1 | 1 | 1 | F  | 9.6 | 17  | 76.5 | MF   | 0.550 |
| France             | 1 | 1 | 1 | F  | 7.4 | 23  | 66.1 | ModF | 0.320 |
| Gabon              | 6 | 4 | 5 | PF | 3.0 | 130 | 53.0 | MU   |       |
| Gambia (The)       | 5 | 4 | 5 | PF | 2.5 | 176 | 57.6 | MU   |       |
| Georgia            | 3 | 3 | 3 | PF | 2.8 | 147 | 68.7 | ModF |       |
| Germany            | 1 | 1 | 1 | F  | 8.0 | 28  | 73.5 | MF   | 0.300 |
| Ghana              | 1 | 2 | 2 | F  | 3.3 | 157 | 58.1 | MU   |       |
| Greece             | 1 | 2 | 2 | F  | 4.4 | 42  | 57.6 | MU   | 0.110 |
| Grenada            | 1 | 2 | 2 | F  | 3.5 | 99  |      |      |       |
| Guatemala          | 3 | 4 | 4 | PF | 2.6 | 135 | 61.2 | ModF |       |
| Guinea             | 6 | 5 | 6 | NF | 1.9 | 163 | 55.1 | MU   |       |
| Guinea-Bissau      | 4 | 4 | 4 | PF |     | 203 | 45.7 | R    |       |
| Guyana             | 2 | 3 | 3 | F  | 2.5 | 136 | 58.2 | MU   |       |
| Haiti              | 4 | 5 | 5 | PF | 1.8 | 180 | 52.2 | MU   |       |
| Honduras           | 3 | 3 | 3 | PF | 2.5 | 148 | 60.3 | ModF |       |
| Hungary            | 1 | 1 | 1 | F  | 5.2 | 56  | 66.2 | ModF | 0.020 |
| Iceland            | 1 | 1 | 1 | F  | 9.6 | 10  | 77.1 | MF   |       |
| India              | 2 | 3 | 3 | F  | 3.3 | 145 | 55.6 | MU   | 0.043 |
| Indonesia          | 2 | 3 | 3 | F  | 2.4 | 143 | 55.1 | MU   |       |
| Iran               | 6 | 6 | 6 | NF | 2.7 | 94  | 43.1 | R    | 0.053 |
| Iraq               | 6 | 6 | 6 | NF | 1.9 |     |      |      | 0.390 |
| Ireland            | 1 | 1 | 1 | F  | 7.4 | 14  | 81.3 | F    |       |
| Israel             | 1 | 2 | 2 | F  | 5.9 | 37  | 68.4 | ModF | 0.081 |
| Italy              | 1 | 1 | 1 | F  | 4.9 | 31  | 63.4 | ModF | 0.432 |

|                  |   |   |   |    |     |     |      |      |       |
|------------------|---|---|---|----|-----|-----|------|------|-------|
| Jamaica          | 2 | 3 | 3 | F  | 3.7 | 141 | 66.1 | ModF |       |
| Japan            | 1 | 2 | 2 | F  | 7.6 | 21  | 73.6 | MF   | 0.003 |
| Jordan           | 5 | 4 | 5 | PF | 5.3 | 120 | 64.0 | ModF | 0.087 |
| Kazakhstan       | 6 | 5 | 6 | NF | 2.6 | 101 | 60.4 | ModF |       |
| Kenya            | 3 | 3 | 3 | PF | 2.2 | 185 | 59.4 | MU   |       |
| Kiribati         | 1 | 1 | 1 | F  |     | 89  |      |      |       |
| Korea (North)    | 7 | 7 | 7 | NF |     |     | 3.0  | R    |       |
| Korea (South)    | 1 | 2 | 2 | F  | 5.1 | 44  | 68.6 | ModF |       |
| Kuwait           | 4 | 4 | 4 | PF | 4.8 | 30  | 63.7 | ModF |       |
| Kyrgyzstan       | 5 | 4 | 5 | PF | 2.2 | 175 | 59.9 | MU   |       |
| Lao P.D.R.       | 7 | 6 | 7 | NF | 2.6 | 172 | 49.1 | R    |       |
| Latvia           | 1 | 1 | 1 | F  | 4.7 | 65  | 68.2 | ModF |       |
| Lebanon          | 5 | 4 | 5 | PF | 3.6 | 128 | 60.3 | ModF | 0.139 |
| Lesotho          | 2 | 3 | 3 | F  | 3.2 | 139 | 54.1 | MU   |       |
| Liberia          | 3 | 4 | 4 | PF |     |     |      |      |       |
| Libya            | 7 | 7 | 7 | NF | 2.7 |     | 34.5 | R    |       |
| Liechtenstein    | 1 | 1 | 1 | F  |     | 3   |      |      |       |
| Lithuania        | 1 | 1 | 1 | F  | 4.8 | 67  | 72.0 | MF   |       |
| Luxembourg       | 1 | 1 | 1 | F  | 8.6 | 1   | 79.3 | MF   |       |
| Macedonia        | 3 | 3 | 3 | PF | 2.7 | 106 | 60.8 | ModF | 0.160 |
| Madagascar       | 4 | 3 | 4 | PF | 3.1 | 198 | 61.4 | ModF |       |
| Malawi           | 4 | 3 | 4 | PF | 2.7 | 207 | 55.5 | MU   |       |
| Malaysia         | 4 | 4 | 4 | PF | 5.0 | 80  | 65.8 | ModF |       |
| Maldives         | 6 | 5 | 6 | NF |     |     |      |      |       |
| Mali             | 2 | 2 | 2 | F  | 2.8 | 193 | 53.7 | MU   |       |
| Malta            | 1 | 1 | 1 | F  | 6.4 | 54  | 67.8 | ModF | 0.130 |
| Marshall Islands | 1 | 1 | 1 | F  |     |     |      |      |       |
| Mauritania       | 5 | 4 | 5 | PF | 3.1 | 158 | 53.2 | MU   |       |
| Mauritius        | 1 | 2 | 2 | F  | 5.1 | 71  | 69.0 | ModF |       |
| Mexico           | 2 | 3 | 3 | F  | 3.3 | 79  | 65.8 | ModF | 0.150 |
| Micronesia       | 1 | 1 | 1 | F  |     | 98  |      |      |       |
| Moldova          | 3 | 4 | 4 | PF | 3.2 | 154 | 59.5 | MU   | 0.010 |
| Monaco           | 2 | 1 | 2 | F  |     |     |      |      |       |
| Mongolia         | 2 | 2 | 2 | F  | 2.8 | 168 | 60.1 | ModF |       |
| Montenegro       | 3 | 3 | 3 | PF |     |     |      |      |       |
| Morocco          | 5 | 4 | 5 | PF | 3.2 | 132 | 57.4 | MU   | 0.050 |
| Mozambique       | 3 | 4 | 4 | PF | 2.8 | 189 | 56.6 | MU   |       |
| Myanmar (Burma)  | 7 | 7 | 7 | NF | 1.9 |     | 40.1 | R    |       |
| Namibia          | 2 | 2 | 2 | F  | 4.1 | 97  | 63.8 | ModF |       |
| Nauru            | 1 | 1 | 1 | F  |     |     |      |      |       |
| Nepal            | 5 | 4 | 5 | PF | 2.5 | 178 | 54.0 | MU   |       |
| Netherlands      | 1 | 1 | 1 | F  | 8.7 | 12  | 77.1 | MF   | 0.020 |
| New Zealand      | 1 | 1 | 1 | F  | 9.6 | 36  | 81.6 | F    | 0.250 |
| Nicaragua        | 3 | 3 | 3 | PF | 2.6 | 142 | 62.7 | ModF |       |

|                            |   |   |   |    |     |     |      |      |       |
|----------------------------|---|---|---|----|-----|-----|------|------|-------|
| Niger                      | 3 | 3 | 3 | PF | 2.3 | 203 | 53.5 | MU   |       |
| Nigeria                    | 4 | 4 | 4 | PF | 2.2 | 195 | 52.6 | MU   |       |
| Norway                     | 1 | 1 | 1 | F  | 8.8 | 5   | 70.1 | MF   | 0.360 |
| Oman                       | 6 | 5 | 6 | NF | 5.4 | 63  | 63.9 | ModF |       |
| Pakistan                   | 6 | 5 | 6 | NF | 2.2 | 161 | 58.2 | MU   | 0.120 |
| Palau                      | 1 | 1 | 1 | F  |     |     |      | R    |       |
| Panama                     | 1 | 2 | 2 | F  | 3.1 | 103 | 65.9 | ModF |       |
| Papua New Guinea           | 3 | 3 | 3 | PF | 2.4 | 164 |      |      |       |
| Paraguay                   | 3 | 3 | 3 | PF | 2.6 | 132 | 56.8 | MU   | 0.144 |
| Peru                       | 2 | 3 | 3 | F  | 3.3 | 121 | 62.1 | ModF | 0.028 |
| Philippines                | 3 | 3 | 3 | PF | 2.5 | 122 | 57.4 | MU   | 0.048 |
| Poland                     | 1 | 1 | 1 | F  | 3.7 | 68  | 58.8 | MU   | 0.015 |
| Portugal                   | 1 | 1 | 1 | F  | 6.6 | 49  | 66.7 | ModF |       |
| Qatar                      | 6 | 5 | 6 | NF | 6.0 | 16  | 60.7 | ModF |       |
| Romania                    | 2 | 2 | 2 | F  | 3.1 | 86  | 61.3 | ModF | 0.003 |
| Russian Federation         | 6 | 5 | 6 | NF | 2.5 | 78  | 54.0 | MU   | 0.090 |
| Rwanda                     | 6 | 5 | 6 | NF | 2.5 | 187 | 52.1 | MU   |       |
| Saint Kitts and Nevis      | 1 | 1 | 1 | F  |     | 74  |      |      |       |
| Saint Lucia                | 1 | 1 | 1 | F  |     | 111 |      |      |       |
| Saint Vincent & Grenadines | 2 | 1 | 2 | F  |     | 110 |      |      |       |
| Samoa                      | 2 | 2 | 2 | F  |     | 116 |      |      |       |
| San Marino                 | 1 | 1 | 1 | F  |     | 11  |      |      |       |
| Sao Tome & Principe        | 2 | 2 | 2 | F  |     |     |      |      |       |
| Saudi Arabia               | 7 | 6 | 7 | NF | 3.3 | 58  | 59.1 | MU   | 0.263 |
| Senegal                    | 2 | 3 | 3 | F  | 3.3 | 177 | 58.8 | MU   |       |
| Serbia                     | 3 | 2 | 3 | F  | 3.0 |     |      |      | 0.375 |
| Seychelles                 | 3 | 3 | 3 | PF | 3.6 | 60  |      |      |       |
| Sierra Leone               | 4 | 3 | 4 | PF | 2.2 | 200 | 48.4 | R    |       |
| Singapore                  | 5 | 4 | 5 | PF | 9.4 | 26  | 85.7 | F    |       |
| Slovakia                   | 1 | 1 | 1 | F  | 4.7 | 59  | 68.4 | ModF | 0.030 |
| Slovenia                   | 1 | 1 | 1 | F  | 6.4 | 43  | 63.6 | ModF | 0.050 |
| Solomon Islands            | 4 | 3 | 4 | PF |     | 170 |      |      |       |
| Somalia                    | 7 | 7 | 7 | NF |     |     |      |      |       |
| South Africa               | 2 | 2 | 2 | F  | 4.6 | 77  | 64.1 | ModF | 0.132 |
| Spain                      | 1 | 1 | 1 | F  | 6.8 | 33  | 70.9 | MF   | 0.110 |
| Sri Lanka                  | 4 | 4 | 4 | PF | 3.1 | 134 | 59.3 | MU   |       |
| Sudan                      | 7 | 7 | 7 | NF | 2.0 | 171 |      |      |       |
| Suriname                   | 2 | 2 | 2 | F  | 3.0 | 96  | 52.6 | MU   |       |
| Swaziland                  | 7 | 5 | 6 | NF | 2.5 | 131 | 61.6 | ModF |       |
| Sweden                     | 1 | 1 | 1 | F  | 9.2 | 18  | 72.6 | MF   | 0.315 |
| Switzerland                | 1 | 1 | 1 | F  | 9.1 | 7   | 79.1 | MF   | 0.460 |
| Syria                      | 7 | 6 | 7 | NF | 2.9 | 144 | 48.2 | R    |       |

|                          |   |   |   |    |     |     |      |      |       |
|--------------------------|---|---|---|----|-----|-----|------|------|-------|
| Tajikistan               | 6 | 5 | 6 | NF | 2.2 | 183 | 56.9 | MU   |       |
| Tanzania                 | 4 | 3 | 4 | PF | 2.9 | 205 | 56.4 | MU   |       |
| Thailand                 | 7 | 4 | 6 | NF | 3.6 | 87  | 65.6 | ModF | 0.161 |
| Timor-Leste (East Timor) | 3 | 4 | 4 | PF | 2.6 |     |      |      |       |
| Togo                     | 6 | 5 | 6 | NF | 2.4 | 181 | 49.8 | R    |       |
| Tonga                    | 5 | 3 | 4 | PF |     | 92  |      |      |       |
| Trinidad and Tobago      | 2 | 2 | 2 | F  | 3.2 | 62  | 71.4 | MF   |       |
| Tunisia                  | 6 | 5 | 6 | NF | 4.6 | 93  | 61.0 | ModF |       |
| Turkey                   | 3 | 3 | 3 | PF | 3.8 | 88  | 59.3 | MU   | 0.130 |
| Turkmenistan             | 7 | 7 | 7 | NF | 2.2 |     | 42.5 | R    |       |
| Tuvalu                   | 1 | 1 | 1 | F  |     |     |      |      |       |
| Uganda                   | 5 | 4 | 5 | PF | 2.7 | 181 | 63.4 | ModF |       |
| Ukraine                  | 3 | 2 | 3 | F  | 2.8 | 107 | 53.3 | MU   | 0.090 |
| United Arab Emirates     | 6 | 5 | 6 | NF | 6.2 | 35  | 60.4 | ModF |       |
| United Kingdom           | 1 | 1 | 1 | F  | 8.6 | 13  | 81.6 | F    | 0.056 |
| United States            | 1 | 1 | 1 | F  | 7.3 | 4   | 82.0 | F    | 0.900 |
| Uruguay                  | 1 | 1 | 1 | F  | 6.4 | 82  | 69.3 | ModF | 0.368 |
| Uzbekistan               | 7 | 7 | 7 | NF | 2.1 | 169 | 52.6 | MU   |       |
| Vanuatu                  | 2 | 2 | 2 | F  |     | 151 |      |      |       |
| Venezuela                | 4 | 4 | 4 | PF | 2.3 | 108 | 47.7 | R    | 0.140 |
| Vietnam                  | 7 | 5 | 6 | NF | 2.6 | 150 | 50.0 | MU   |       |
| Yemen                    | 5 | 5 | 5 | PF | 2.6 | 199 | 53.8 | MU   | 0.610 |
| Zambia                   | 3 | 4 | 4 | PF | 2.6 | 196 | 57.9 | MU   |       |
| Zimbabwe                 | 7 | 6 | 7 | NF | 2.4 | 173 | 35.8 | R    |       |

The colors below indicate the edition of the annual *Small Arms Survey* where the per capita data for a particular nation is supplied.

2007 - Chapter 2-Completing the Count: Civilian Firearms

Table 2.3, page 47

Table 2.9, page 59

2005 - Chapter 3, The Count Continues: Stockpiles

Table 3.3 - Registered firearm ownership in Japan and selected European countries, page 78

Table 3.9 - Estimate Civilian Firearms in the Middle East, page 91

2004 - Chapter 2, From Chaos to Coherence?

Table 2.3 - Estimated total civilian firearms in 11 Latin American countries, 2003, page 51

page 45

2003 - Chapter 2, Fewer Blanks: Global Firearm Stockpiles

Table 2.2 - Family portrait: Known civilian firearms in the European Union, page 64

Table 2.3 - Rest of the family: Known civilian firearms in other European countries, page 65

**Table 6, All ratings for countries for which there are per-capita firearms data**

| Ranking by<br>firearms per<br>capita | FH 2007 |    |     |        | TI   | Economic Ratings |      |        | Firearms<br>per<br>citizen |
|--------------------------------------|---------|----|-----|--------|------|------------------|------|--------|----------------------------|
|                                      | 2006    |    |     |        | 2006 | 2006             |      |        |                            |
|                                      | PR      | CL | AVE | Rating | 2006 | PPP              | EI   | Rating |                            |
| Romania                              | 2       | 2  | 2   | F      | 3.1  | 86               | 61.3 | ModF   | 0.003                      |
| Japan                                | 1       | 2  | 1.5 | F      | 7.6  | 21               | 73.6 | MF     | 0.003                      |
| Moldova                              | 3       | 4  | 3.5 | PF     | 3.2  | 154              | 59.5 | MU     | 0.010                      |
| Poland                               | 1       | 1  | 1   | F      | 3.7  | 68               | 58.8 | MU     | 0.015                      |
| Hungary                              | 1       | 1  | 1   | F      | 5.2  | 56               | 66.2 | ModF   | 0.020                      |
| Netherlands                          | 1       | 1  | 1   | F      | 8.7  | 12               | 77.1 | MF     | 0.020                      |
| Bolivia                              | 3       | 3  | 3   | PF     | 2.7  | 153              | 55.0 | MU     | 0.022                      |
| Ecuador                              | 3       | 3  | 3   | PF     | 2.3  | 138              | 55.3 | MU     | 0.027                      |
| Peru                                 | 2       | 3  | 2.5 | F      | 3.3  | 121              | 62.1 | ModF   | 0.028                      |
| Estonia                              | 1       | 1  | 1   | F      | 6.7  | 57               | 78.1 | MF     | 0.030                      |
| Slovakia                             | 1       | 1  | 1   | F      | 4.7  | 59               | 68.4 | ModF   | 0.030                      |
| China                                | 7       | 6  | 6.5 | NF     | 3.3  | 102              | 54.0 | MU     | 0.031                      |
| India                                | 2       | 3  | 2.5 | F      | 3.3  | 145              | 55.6 | MU     | 0.043                      |
| Philippines                          | 3       | 3  | 3   | PF     | 2.5  | 122              | 57.4 | MU     | 0.048                      |
| Czech Republic                       | 1       | 1  | 1   | F      | 4.8  | 48               | 69.7 | ModF   | 0.050                      |
| Morocco                              | 5       | 4  | 4.5 | PF     | 3.2  | 132              | 57.4 | MU     | 0.050                      |
| Slovenia                             | 1       | 1  | 1   | F      | 6.4  | 43               | 63.6 | ModF   | 0.050                      |
| Iran                                 | 6       | 6  | 6   | NF     | 2.7  | 94               | 43.1 | R      | 0.053                      |
| United Kingdom                       | 1       | 1  | 1   | F      | 8.6  | 13               | 81.6 | F      | 0.056                      |
| Colombia                             | 3       | 3  | 3   | PF     | 3.9  | 105              | 60.5 | ModF   | 0.073                      |
| Israel                               | 1       | 2  | 1.5 | F      | 5.9  | 37               | 68.4 | ModF   | 0.081                      |
| Jordan                               | 5       | 4  | 4.5 | PF     | 5.3  | 120              | 64.0 | ModF   | 0.087                      |
| Brazil                               | 2       | 2  | 2   | F      | 3.3  | 91               | 60.9 | ModF   | 0.088                      |
| Russian Fed.                         | 6       | 5  | 5.5 | NF     | 2.5  | 78               | 54.0 | MU     | 0.090                      |
| Ukraine                              | 3       | 2  | 2.5 | F      | 2.8  | 107              | 53.3 | MU     | 0.090                      |
| Chile                                | 1       | 1  | 1   | F      | 7.3  | 81               | 78.3 | MF     | 0.108                      |
| Greece                               | 1       | 2  | 1.5 | F      | 4.4  | 42               | 57.6 | MU     | 0.110                      |
| Spain                                | 1       | 1  | 1   | F      | 6.8  | 33               | 70.9 | MF     | 0.110                      |
| Croatia                              | 2       | 2  | 2   | F      | 3.4  | 70               | 55.3 | MU     | 0.115                      |
| Pakistan                             | 6       | 5  | 5.5 | NF     | 2.2  | 161              | 58.2 | MU     | 0.120                      |
| Argentina                            | 2       | 2  | 2   | F      | 2.9  | 64               | 57.5 | MU     | 0.127                      |
| Malta                                | 1       | 1  | 1   | F      | 6.4  | 54               | 67.8 | ModF   | 0.130                      |
| Turkey                               | 3       | 3  | 3   | PF     | 3.8  | 88               | 59.3 | MU     | 0.130                      |
| South Africa                         | 2       | 2  | 2   | F      | 4.6  | 77               | 64.1 | ModF   | 0.132                      |
| Lebanon                              | 5       | 4  | 4.5 | PF     | 3.6  | 128              | 60.3 | ModF   | 0.139                      |
| Venezuela                            | 4       | 4  | 4   | PF     | 2.3  | 108              | 47.7 | R      | 0.140                      |
| Paraguay                             | 3       | 3  | 3   | PF     | 2.6  | 132              | 56.8 | MU     | 0.144                      |
| Mexico                               | 2       | 3  | 2.5 | F      | 3.3  | 79               | 65.8 | ModF   | 0.150                      |
| Australia                            | 1       | 1  | 1   | F      | 8.7  | 24               | 82.7 | F      | 0.155                      |

|               |   |   |     |    |     |     |      |      |       |
|---------------|---|---|-----|----|-----|-----|------|------|-------|
| Albania       | 3 | 3 | 3   | PF | 2.6 | 127 | 61.4 | ModF | 0.160 |
| Belgium       | 1 | 1 | 1   | F  | 7.3 | 20  | 74.5 | MF   | 0.160 |
| Macedonia     | 3 | 3 | 3   | PF | 2.7 | 106 | 60.8 | ModF | 0.160 |
| Thailand      | 7 | 4 | 5.5 | NF | 3.6 | 87  | 65.6 | ModF | 0.161 |
| Austria       | 1 | 1 | 1   | F  | 8.6 | 15  | 71.3 | MF   | 0.170 |
| Denmark       | 1 | 1 | 1   | F  | 9.5 | 9   | 77.6 | MF   | 0.180 |
| Angola        | 6 | 5 | 5.5 | NF | 2.2 | 166 | 43.5 | R    | 0.205 |
| New Zealand   | 1 | 1 | 1   | F  | 9.6 | 36  | 81.6 | F    | 0.250 |
| Saudi Arabia  | 7 | 6 | 6.5 | NF | 3.3 | 58  | 59.1 | MU   | 0.263 |
| Germany       | 1 | 1 | 1   | F  | 8.0 | 28  | 73.5 | MF   | 0.300 |
| Canada        | 1 | 1 | 1   | F  | 8.5 | 19  | 78.7 | MF   | 0.315 |
| Sweden        | 1 | 1 | 1   | F  | 9.2 | 18  | 72.6 | MF   | 0.315 |
| France        | 1 | 1 | 1   | F  | 7.4 | 23  | 66.1 | ModF | 0.320 |
| Norway        | 1 | 1 | 1   | F  | 8.8 | 5   | 70.1 | MF   | 0.360 |
| Uruguay       | 1 | 1 | 1   | F  | 6.4 | 82  | 69.3 | ModF | 0.368 |
| Italy         | 1 | 1 | 1   | F  | 4.9 | 31  | 63.4 | ModF | 0.432 |
| Switzerland   | 1 | 1 | 1   | F  | 9.1 | 7   | 79.1 | MF   | 0.460 |
| Finland       | 1 | 1 | 1   | F  | 9.6 | 17  | 76.5 | MF   | 0.550 |
| Yemen         | 5 | 5 | 5   | PF | 2.6 | 199 | 53.8 | MU   | 0.610 |
| United States | 1 | 1 | 1   | F  | 7.3 | 4   | 82.0 | F    | 0.900 |

The colors below indicate the edition of the annual *Small Arms Survey* where the per capita data for a particular nation is supplied.

2007 - Chapter 2-Completing the Count: Civilian Firearms

Table 2.3, page 47

Table 2.9, page 59

2005 - Chapter 3, The Count Continues: Stockpiles

Table 3.3 - Registered firearm ownership in Japan and selected European countries, page 78

Table 3.9 - Estimate Civilian Firearms in the Middle East, page 91

2004 - Chapter 2, From Chaos to Coherence?

Table 2.3 - Estimated total civilian firearms in 11 Latin American countries, 2003, page 51

page 45

2003 - Chapter 2, Fewer Blanks: Global Firearm Stockpiles

Table 2.2 - Family portrait: Known civilian firearms in the European Union, page 64

Table 2.3 - Rest of the family: Known civilian firearms in other European countries, page 65