

Degrading Scientific Standards to Get the Defensive Gun Use Estimate Down

By Gary Kleck

In this article, Florida State University Professor Gary Kleck responds to critics of the National Self-Defense Survey, which found that there are approximately 2.5 million defensive gun uses per year in the United States.

1. Introduction

It has now been confirmed by at least 16 surveys, including the 1993 National Self-Defense Survey (NSDS) of Kleck and Gertz (1995), 12 other national surveys, and 3 state-wide surveys, that defensive use of firearms by crime victims is common in the United States, probably substantially more common than criminal uses of guns by offenders. The estimates of the annual number of defensive uses of guns in the United States range from 760,000 to 3.6 million, with the best estimate, derived from the NSDS, being 2.5 million, compared to about a half a million incidents in which offenders used guns to commit a crime (Kleck 1997, pp. 149-160, 187-189; see also the more recent Centers for Disease Control and Prevention study of Ikeda, Dahlberg, Sacks, Mercy, and Powell 1997, which estimated 1.0 million defensive gun uses linked with burglaries in which the intruder was seen, compared to 0.9 million such incidents derived from the Kleck-Gertz survey, 1995, pp. 184-185, estimates within sampling error of each other).

It has also been consistently and repeatedly confirmed that defensive gun use (DGU) is effective: crime victims who use guns for self-protection are less likely to be injured or lose property than otherwise similar victims in otherwise similar crime situations who either do not resist at all or who use other self-protection strategies (the body of evidence is reviewed in Kleck

1997, pp. 170-175). In recent years, it has become increasingly rare that critics dispute the claim that DGU is effective.

Instead, pro-control critics have focussed their efforts on their claim that, despite the enormous body of evidence indicating otherwise, DGU is actually rare. Thus, they argue, it is of little consequence for gun control policy that DGU is effective, since it is so infrequent. The critics' discussion of the topic of the frequency of DGU is strident, polemical, and extreme. For example, Philip Cook and his colleagues baldly describe large estimates of DGU frequency as a "mythical number" (1997, p. 463). Likewise, an article by David Hemenway (1997a) was brazenly titled "The Myth of Millions of Annual Self-Defense Gun Uses." In another article by Hemenway (1997b), his title implicitly took it as given that DGUs are rare, and that surveys indicating the opposite grossly overstate DGU frequency. For Hemenway, the only scholarly task that remained was to explain *why* surveys did this: "Survey Research and Self-Defense Gun Use: An Explanation of Extreme Overestimation." Finally, McDowall and Wiersema (1994), although well aware of the large number of surveys yielding large DGU estimates, nevertheless flatly concluded, in extremely strong terms, that "armed self-defense is extremely rare" (p. 1884). This conclusion was based entirely on a single survey, the National Crime Victimization Survey (NCVS), which did not even directly ask respondents about defensive gun use.

These critics do not mainly support the low-DGU thesis by affirmatively presenting relevant empirical evidence indicating few DGUs. The only empirical evidence affirmatively cited in support of the low-DGU thesis is the uniquely low estimates derived from the NCVS. The critics appear in no way embarrassed by the fact that the only national estimate they can cite in support of their theory is a survey that does not even ask respondents the key question—whether they have used a gun for self-protection. Instead, the critics get around the large volume of contrary survey evidence by pronouncing all of it invalid and

insisting that all surveys (excepting the NCVS?) grossly overstate the frequency of DGU.

2. The Degradation of Scientific Standards through the Use of One-Sided Speculation

This negative strategy depends almost entirely on one-sided speculation about errors in surveys that supposedly cause overestimation of DGUs. This strategy represents an irresponsible degradation of scientific standards. The central guiding value of scientific inquiry is the primacy of empirical evidence. Advocates of the low-DGU thesis invert this principle by treating speculation as if it can trump evidence. To the extent that one-sided speculative criticism of evidence comes to be accepted as a respectable tool for assessing evidence bearing on public policy issues, the practice will reinforce the already altogether too common practice of simply ignoring or discounting evidence inconsistent with one's political prejudices, and make it virtually impossible to dislodge people from well-entrenched but erroneous positions.

In direct contradiction of scientific principles, the plausibility of speculation commonly relies on the *absence* of relevant evidence, since this is what makes it impossible to decisively rebut the speculation. With respect to both good research and bad, there is no upper limit on the amount of speculative criticism that can be directed at the work. Indeed, precisely because it is speculative, this sort of critique is just as easily applied to good research as to bad.

The only thing worse than criticizing on the basis of speculation is to do it in a persistently one-sided fashion, since this sort of critique is useless for separating the wheat from the chaff or providing scholars with a basis for knowing which are the findings to which they should give greatest weight in drawing conclusions. Indeed, in Hemenway's case, his style of critique perverts the truth-seeking process by selectively attacking the best available research, in hopes of undercutting its credibility,

without applying the same standards to more flawed research yielding contrary findings.

For example, it is a useful exercise to contrast Hemenway's assessment of the NSDS results with his uncritical citation (Hemenway 1997b, p. 1442) of findings from a bizarre study (Kellermann et al. 1995) in which the authors assessed the frequency of DGUs linked with home invasion crimes entirely on the basis of the number of times victims volunteered information about such DGUs to Atlanta police. According to the Atlanta Police Department, the offense report forms that their officers fill out do not include a box or other place calling for information about victim weapon use, nor are officers trained or required to ask crime victims about such things. Thus, information about victim weapon use, no matter how common it might in fact be, would almost never appear in police offense reports (a fact reported in the journal that published the Kellermann article—see Fotis 1996; confirmed by Kooi 1997). Nevertheless, solely on the basis of Atlanta Police Department offense reports, Kellermann and his colleagues concluded that DGUs almost never occurred in connection with home invasion crimes, because they were almost never mentioned in the offense reports!

Having made no effort to uncover any DGUs in a way likely to locate any, Kellermann et al. saw nothing wrong with concluding that they almost never occur. Hemenway likewise treated the results of this study as if they indicate something about how often DGUs actually occur in connection with this sort of crime (“in only 3 cases [1.5%] was a victim able to use a firearm in self-defense”—p. 1442). He evidently either could not see any flaws in Kellermann's reasoning, or did not feel obliged to point them out to readers, if uncritically citing these obviously *non sequitur* conclusions could be used to advance his arguments. Apparently no study could be too transparently and fatally flawed, if it supported the rare DGU thesis.

While this kind of scholarship is to be deplored, it might be less destructive if there were equally numerous and influential

advocates on both sides of the debate. At least then, all relevant evidence would eventually get a fair hearing somewhere, and the truth would have some chance of emerging from this adversary process. The reality, however, is that academic gun control believers greatly outnumber skeptics. Consider, for example, the members of the Criminology Advisory Board of the *Journal of Criminal Law and Criminology*, which published Hemenway's attack on the NSDS. The Board includes such pro-control luminaries as Richard Block, Alfred Blumstein, Roland Chilton, Philip Cook, Jeffrey Fagan, Rosemary Gartner, John Hagan, Richard McCleary, Steven Messner, Daniel S. Nagin, Lawrence Sherman, Wesley Skogan, and Marvin Wolfgang, but does not include even one scholar who has publicly expressed skepticism about gun control (see p. vii of the Summer 1997 issue).

If scholars are allowed to indulge in one-sided speculation that inevitably leads to conclusions preordained by their biases, impressions about the evidence will be determined largely by the numbers of advocates publishing articles, rather than the strength of the evidence. And if compatibility with prevailing ideological positions is allowed to determine the outcome of the debate, it will become impossible to overturn false established ideas and difficult in general to change scholars' minds about anything. This article presents an analysis of this method of assessing evidence, and a rebuttal of the criticisms of large estimates of DGU frequency.

3. How the Scholarly Community Has Handled the DGU Frequency Issue

There has probably been more outright dishonesty in addressing the issue of the frequency of DGU than any other issue in the gun control debate. Faced with a huge body of evidence contradicting their rare-DGU position, hard-core gun control supporters have had little choice but to simply promote the unsuitable NCVS estimate and to ignore, attack, or discount everything else. Authors writing in medical and public health journals are typically the most crudely dishonest—they simply

withhold from their readers the very existence of a huge volume of contradictory evidence. For example, Kellermann and his colleagues discussed the issue of DGU in a recent paper, but omitted any mention of any of the surveys indicating large numbers of DGUs. Instead they cited only the NCVS estimate (1995, p. 1761). Even if Kellermann and his colleagues did not know of all 15 of the other surveys that had been conducted by the time their article was written, they clearly knew of the existence of at least six contradictory surveys, since these early surveys were reviewed in a source that Kellermann et al. cited and presumably had read (see their note 24, citing Kleck 1988). Thus it is fair to say that Kellermann and his colleagues knowingly withheld from their readers information from at least six surveys contradicting their low-DGU claims.

Since the readers, referees and editors of medical journals ordinarily know little about violence outside of the misleading bits of information they obtain from other medical/public health outlets, authors writing for these journals can ordinarily freely suppress contrary information in this way without fear of exposure or censure. Further, editors have insured near-total censorship of contrary information through their own publication decisions (see Kates, Schaffer, Lattimer, Murray, and Cassem 1995 for a review of how medical and public health journals suppress information hostile to a pro-control position). And although these journals sometimes provide for expression of contrary views in letters to the editor, editors of the journals have refused to publish even brief letters challenging the rare-DGU thesis.¹

Pro-control writers publishing in criminological and social science outlets are marginally more sophisticated, “fuzzing over” the extent of contrary evidence through the vagueness of their references to the magnitude of the evidence, and through one-sided and selective critiques of the sources of the contradictory evidence. For example, Reiss and Roth (1993) concealed the extent of the contradictory evidence by vaguely referring to “a

number of surveys” that implied larger estimates (p. 265) and then dropping the matter, with no detailed further discussion of any of these surveys. Then, later in their essay, they uncritically accepted the unreliable NCVS estimates at face value (p. 266), effectively ignoring all the contrary sources. At the time they wrote, there were a least *eight* other surveys yielding DGU estimates, all radically higher than the NCVS estimate, surveys that they knew about because they had been reviewed in sources they cited.

Likewise Cook (1991) blandly referred to “a number of surveys” yielding large DGU estimates, but without mentioning how numerous these surveys were, and giving detailed attention to only one of them. McDowall and Wiersema (1994) censored even more severely; they gave their readers the false impression that conclusions in an earlier article (Kleck 1988) were based on results of a single survey. It is clear that McDowall and Wiersema were aware of at least seven of these other surveys, since they were reviewed in one of the sources they cited (Kleck 1991, p. 146, cited in their note 11).

Once large estimates of DGU frequency became too numerous and widespread to simply ignore, adherents of the rare-DGU thesis shifted to another tactic, which will be discussed at length herein. On those rare occasions when they briefly and very partially address some of the contrary evidence, they counter evidence with one-sided speculation rather than better empirical information. Cook (1991, pp. 54-55) set the pattern, speculating that surveys yield high DGU estimates because respondents telescope incidents into the recall period. “Telescoping” refers to respondents reporting events as having happened during the recall period (e.g. in the year prior to the interview), though they actually occurred earlier. This error contributes to overestimates of the number of times the experience occurred during the recall period.

While some respondents undoubtedly do telescope DGUs into the recall period, this error would not lead to an overestimate of DGU incidence unless the effects of telescoping exceeded the

effects of recall failure, i.e. respondents forgetting or intentionally failing to report genuine DGUs. Cook offered no evidence that any DGU surveys or indeed any crime-related surveys, are afflicted by more telescoping than recall failure.

The relevant technical literature indicates that the relative size of recall failure effects (mostly forgetting) compared to telescoping effects grows with increasingly long recall periods, moving estimates in the direction of a net *undercount* (Sudman and Bradburn 1973; Woltman, Bushery and Carstensen 1984). Since recall failure and telescoping effects appear to be about equal in surveys of crime victimization with a one year recall period (Dodge 1970), this means that for recall periods of five years (used in the Hart, Mauser, and Kleck-Gertz surveys discussed in Kleck 1997), there should be a net undercount of crime-related events such as DGUs, not the overcount Cook hinted at.

Cook labeled the alleged shortcomings of a survey by the Peter Hart organization as “severe” (p. 55) without offering any evidence whatsoever concerning how much effect any alleged flaw would have on DGU estimates. He did not explain how technical problems can be rated as “severe” if one does not even know if they are even minimally consequential.

Reiss and Roth (1993) later picked up on Cook’s theme, essentially repeating his unsupported and one-sided speculations about telescoping, adding in another equally unsupported and one-sided speculation that significant numbers of respondents might have erroneously characterized incidents as DGUs that did not involve any actual use of a gun. Reiss and Roth speculated that many respondents so radically misunderstood the question pertaining to defensive *uses* of guns that they reported incidents in which they merely “brought the gun nearby in anticipation of an encounter that never occurred” (p. 265). Similarly, McDowall speculated that respondents might have thought that merely carrying a gun for protection constituted actually using it for self-defense (1995, p. 137). Kleck and Gertz (1995) tested these

speculations and found little support for them—respondents claiming a DGU nearly all directly confronted their adversaries and, at minimum, pointed their guns at them or referred to the guns verbally in a threatening manner. No more than 13 of 222 cases (6%) initially reported as DGUs were “no-encounter” cases of the sort imagined by Reiss and Roth or by McDowall.

Although there is little empirical basis for these critics’ speculations about the gun use surveys, even if there had been, this would not constitute a sound basis for concluding that the far lower NCVS estimates of DGU frequency are either approximately valid or that they are closer to the correct number than estimates derived from the many other surveys yielding high figures. The speculations about the latter surveys simply do not concern flaws that are serious or common enough to account for such an enormous difference as exists between the NCVS estimates and all other estimates.

For example, Kleck and Gertz (1995) cited direct evidence from Census Bureau research on the NCVS that surveys of crime victimization experiences result in about a 21% telescoping rate—is, estimates will be about 21% too high due to people remembering events as having occurred in the recall period that actually occurred earlier (pp. 171-172). It is absurd to suggest that this rate of telescoping could account for more than a negligible share of, for example, the 30-to-1 difference between the NSDS and NCVS estimates. On the other hand, it is a simple matter to attribute the enormous discrepancy to radical underreporting in the NCVS, since there is already ample evidence of similarly radical underreporting of other violence-related events in this survey, including domestic violence, rapes, and gunshot woundings linked with criminal assaults (Cook 1986; Loftin and MacKenzie 1990).

Survey expert Tom Smith rejected the 21% estimate of telescoping, claiming that the telescoping rate “is more likely to be around 50%” (1997, p. 1468), and even computed adjusted estimates of DGU frequency based on this fanciful rate of error. As support for his 50% figure, he cited three sources of research

on telescoping (see his footnote 42). Two of these sources did not even concern surveys of crime victimization experiences, or indeed anything related, or even similar, to crime. One study pertained to health surveys (Anderson et al. 1979), and another concerned surveys about consumer expenditures on household repairs (Neter and Waksberg 1964). The degree of telescoping obviously is heavily dependent on the subject matter being asked about, so estimates of telescoping linked with one topic can reveal nothing about the frequency of telescoping in connection with another topic, unless the topics are very similar.

Smith did not offer any explanation for why he thought research on surveys on health matters and consumer household repair expenditures was more relevant than the Census Bureau research directly bearing on surveys of crime experiences that had already been cited by Kleck and Gertz.

Smith's third source (Cantor 1989) did briefly address telescoping in surveys of crime victimization experiences, specifically the NCVS, but did not support a claim of a 50% telescoping rate. Smith apparently simply misread this source, since its author directly stated that it was not possible to separately estimate telescoping from the data he examined, since telescoping was but one component in a set of survey errors. In sum, there was no foundation whatsoever for Smith's claims that there is likely to be a 50% rate of telescoping concerning survey reports of DGUs, and no reason to believe that telescoping is any higher than the 21% rate cited by Kleck and Gertz.

In any case, even if some of the critics' speculations about flaws in DGU surveys had been correct and consequential, it is not helpful or honest to speculate only in one direction, such as speculating only about flaws that *might* artificially push DGU estimates up. If one is not willing to seriously consider errors in both directions, one is simply engaging in "adversary scholarship" or "sagecraft" (Tonso 1983), an enterprise aimed not at discovering the truth, but rather at buttressing predetermined positions.

Speculation about the flaws in surveys indicating large numbers of DGUs resemble UFO buffs' beliefs that the federal government captured aliens from other worlds at Roswell, N.M., in 1947. The reason most people do not share these beliefs about UFOs is not that the beliefs can be proven false; they cannot, since it is impossible to prove a negative. Rather, most people reject them because there is no credible evidence that they are true. It is the same with speculations about DGU surveys' supposed flaws. Since it is impossible to prove a negative, one cannot prove that massive misreporting of nonexistent DGU incidents does *not* occur in surveys. There is, however, no evidence whatsoever that such massive misreporting *does* occur. There is an unlimited number of things that humans are capable of imagining existing, but almost all of these things do not in fact exist. It is the main business of science to separate what really exists in the world from that which is merely a logical possibility.

Faced with overwhelming survey support for the idea that DGUs are common, some pro-control scholars belatedly adopted the view that surveys simply cannot yield any useful information about how often DGUs occur. A cynic might conclude that, faced with defeat on the field of empirical evidence, they suddenly developed a radical skepticism toward all survey estimates. For example, prior to 1995, Philip Cook uncritically cited the very low NCVS survey estimates of DGUs (Cook 1991, p. 56; Cook and Moore 1994, p. 272) as solid evidence that DGUs were in fact rare. As late as 1994 he stated, based *solely* on survey research, that "self-defense with a gun is a rare event in crimes like burglary and robbery" (Cook and Moore 1994, p. 275). Then, preliminary frequencies on the DGU questions in the 1994 Police Foundation survey (Cook and Ludwig 1997) became available in early 1995 and the results of the Kleck-Gertz survey were published in December of 1995. Thus, in 1995 it became evident that good quality national surveys, including the 1994 Police Foundation survey that Cook helped design and analyze (eventually published as Cook and Ludwig 1997), were likely to continue indicating the DGUs occurred quite often.

By no later than May of 1996 Cook had radically altered his position to the view that “surveys are a decidedly flawed method for learning about the frequency with which innocent victims of crime use a gun to defend themselves” (Cook and Ludwig 1996). Not only did Cook thereby dismiss all previous survey evidence, but also any evidence that might be generated by surveys in the future. Further, he went beyond stating this position on the accuracy of the scientific evidence—he also forestalled policy use of *any* future evidence on the prevalence of DGU by asserting that “even if we could develop a reliable estimate of [DGU] frequency, it would only be of marginal relevance to the ongoing debate over” gun control (Cook and Ludwig 1996).

Since surveys are the only way we have of measuring the frequency of DGUs, Cook had thereby transformed the claim that DGUs are rare into a nonfalsifiable proposition, i.e. an assertion that, even if it were false, could not, under Cook’s standards, be shown to be false. Note, however, that this radical turnabout in views came about only after the National Self-Defense Survey (NSDS) (Kleck and Gertz 1995) and his own Police Foundation survey (Cook and Ludwig 1996; 1997) had both yielded estimates of annual DGUs, based on large-scale, high-quality national surveys specifically designed to estimate DGU frequency, in the millions .

The Police Foundation survey, while based on a sample only half that of the NSDS, was modeled after, and otherwise comparable to, the NSDS, and included even more questions getting at details of alleged DGUs. It strongly confirmed the results of the Kleck-Gertz NSDS, yielding estimates, where comparable, of annual DGU frequency that were within sampling error of those obtained by Kleck and Gertz (Cook and Ludwig 1997, esp. pp. 62-63). Faced with estimates that he himself had helped develop, but which radically contradicted his earlier acceptance of the very low NCVS estimates, Cook flatly refused to accept the verdict of the evidence. Instead, he and his coauthor indulged in numerous evidence-free pages of one-sided

speculation about how suspected flaws in their and other surveys *might have* led to errors in DGU estimates. They noted a few inconsistencies in responses of their respondents but failed to establish how or why these would lead to a net overestimate of DGU frequency. Equally important, by almost exclusively focussing (by their own admission—see Cook and Ludwig 1996, p. 118) on possible sources of false positives, they failed to make any case for why false positives should outnumber false negatives, such as respondents concealing or forgetting DGUs.

Cook and Ludwig claimed to have established inconsistencies between their results and other statistics, concluding that their large DGU results were therefore implausible. In all cases, their reasoning was fallacious. For example, they cited data on the number of people treated in emergency rooms for nonfatal gunshot wounds and asserted that their own survey's estimates of criminals wounded during DGUs were implausibly high in comparison. In fact, the two sets of numbers are perfectly consistent once one acknowledges that criminals wounded by victims are unlikely to seek medical treatment, since medical personnel are required to report gunshot wounds to police, and most such wounds are survivable without professional medical treatment (Kleck 1997, Chapter 1). Cook and Ludwig dealt with the possibility that most criminals wounded by gun-wielding victims do not receive emergency room treatment by simply announcing that "we find that possibility rather unlikely" (1996). They did not even bother to provide their readers with a rationale for this arbitrary pronouncement, never mind any supporting evidence.

Their assessment might have been based on either of two unsupported premises: (1) a typical GSW is so serious that people suffering such a wound could not substitute self-treatment for professional treatment without placing their lives in peril, or (2) criminals are ignorant of, or indifferent to, the fact that medical personnel treating their wounds would report GSW patients to the police. Unless one accepts these dubious premises, it hard to see how one could reasonably assume that all, nearly all, or even

most criminals wounded during DGUs would seek treatment at an emergency room.

Cook and Ludwig likewise claimed that the estimated number of DGUs connected with particular types of crimes were inconsistent with NCVS estimates of the total number of crimes of a given type, with or without DGUs. For example, they claimed to have shown that the estimated number of DGUs linked with rapes exceeded the total number of rapes, as estimated by the NCVS. One fatal flaw in their reasoning had already been anticipated in a passage in the original article reporting the NSDS estimates (Kleck and Gertz 1995, pp. 167-168), a passage that Cook and Ludwig evidently chose to ignore. That passage noted that the reasoning later applied by Cook and Ludwig relied on the assumption that the universe of events covered by the NSDS (and thus Cook and Ludwig's survey) was a subset of the universe of events covered by the NCVS. This assumption is implausible. As noted in that passage, "a large share of the incidents covered by our survey are probably outside the scope of incidents that realistically are likely to be reported to either the NCVS or police" (p. 167).

It is likely that only a minority of all crime incidents get reported to the NCVS. Therefore, no matter how large the estimated number of DGUs is in a gun survey, the number could still be a plausibly small share of *all* crime incidents, including both those effectively covered by the NCVS and those not covered. Consequently, comparing DGU estimates with NCVS crime estimates can tell us nothing about whether the former are plausible. Ignoring Cook and Ludwig's one-sided speculations and fallacious reasoning, and paying close attention to their empirical results, leads to the conclusion that their survey strongly supported the assertion that DGUs are very common.

Among pro-gun control scholars, the most active in pushing the rare-DGU thesis has been public health scholar David Hemenway, who has presented a critique of DGU survey estimates in a series of overlapping articles (Cook, Ludwig and

Hemenway 1997; Hemenway 1997a; Hemenway 1997b). The most extensive of these papers (Hemenway 1997b) encompassed all of the significant criticisms made of DGU survey estimates, both by Hemenway and by Cook, McDowall, Reiss and Roth, and others. Therefore, the rest of this paper is devoted to a point-by-point refutation of Hemenway's criticisms of the DGU estimates generated by the 1993 National Self-Defense Survey (Kleck and Gertz 1995), as presented in Hemenway's article in the Summer 1997 issue of the *Journal of Criminal Law and Criminology*.

4. The Hemenway Critique of the National Self-Defense Survey

Hemenway's paper was not an attempt to produce a balanced, intellectually serious assessment of estimates of defensive gun use. Instead, his critique served the narrow political purpose of "getting the estimate down," for the sake of assisting the gun control cause. An honest, scientifically based critique would have given balanced consideration to both flaws that would tend to make the estimate too low (e.g., people concealing DGUs because they involved unlawful behavior, and the failure to count any DGUs by adolescents), and to those that contribute to making them too high. Equally important, it would have given greatest weight to relevant empirical evidence, and little or no weight to idle speculation about possible flaws. Hemenway's approach was precisely the opposite—one-sided and almost entirely speculative. Readers who have any doubts about the degree to which Hemenway's paper was imbalanced could carry out a simple exercise to assess this claim: count the number of lines Hemenway devoted to flaws tending to make the estimate too high and the number devoted to flaws making the estimate too low.

Hemenway's one-sided determination to fixate only on possible sources of overestimation was so strong that he failed to recognize even the most conspicuous sources of underestimation. He claimed that Kleck and Gertz obtained an estimate of gun

ownership prevalence in their sample that was “outside the range of all other national surveys” (p. 1434), to the low side, yet was oblivious to the implication of this for DGU estimates—since DGUs are obviously more common among gun owners, any underrepresentation of gun owners in the survey sample would contribute to an *underestimate* of DGUs.²

He likewise noted the underrepresentation of blacks in the NSDS sample (p. 1434), a problem nearly universal in national surveys, yet did not note the implication that underrepresentation of highly victimized subsets of the population would necessarily imply an underrepresentation of persons who had occasion to engage in acts of self-defense, including use of a gun for self-protection. Similarly, Hemenway asserted that the NSDS gives too much weight to persons who are the only adult in their household (p. 1434), yet apparently was not aware that persons who live alone or in smaller households are *less* likely than others to be victims of crimes like burglaries (U.S. Bureau of Justice Statistics 1996, p. 28), and that he was therefore noting a problem likely to contribute to an *underestimation* of DGUs.

Likewise, Hemenway made no mention of the even more obvious fact that surveys confined to adults (as all of the DGU surveys were) by definition exclude all self-reports of DGU experiences by adolescents. Since rates of gun carrying are as high among adolescents as among adults (Kleck and Gertz 1998, pp. 200-201), and persons age 12-17 claim about 24% of all violent victimizations (U.S. Bureau of Justice Statistics 1997, pp. 6, 8), this problem alone could cause surveys to miss as much as a quarter of all DGUs. Nor did Hemenway acknowledge other obvious sources of *underestimation* that Kleck and Gertz had explicitly noted, such as the omission of persons without telephones, who are poorer and thus more likely to be crime victims than others (Kleck and Gertz 1995, p. 170).

The political function of this sort of advocacy scholarship is clear. While high estimates of DGU frequency do not constitute an obstacle to moderate controls over guns such as laws

requiring background checks, they constitute a very serious obstacle to advocacy of gun prohibition. Disarming the mass of noncriminal prospective crime victims would, if high DGU estimates are even approximately correct, result in large numbers of foregone opportunities for defensive uses of guns that could prevent deaths, injuries, and property loss. To acknowledge high DGU frequency would be to concede the most significant cost of gun prohibition. Hemenway's paper was an attempt to neutralize concerns about such costs and to provide intellectual respectability for positions identified with Handgun Control Incorporated (HCI), the nation's leading gun control advocacy group.

Hemenway has close ties to HCI through two key staff members of its "educational" branch, the Center to Prevent Handgun Violence (CPHV). His closest and most frequent collaborator on gun-related research is Douglas Weil, currently Research Director of CPHV, with whom Hemenway has co-written at least five articles on gun topics (Hemenway and Weil 1990a; 1990b; Weil and Hemenway 1992; 1993a; 1993b). (Interestingly, Hemenway did not include Weil, his erstwhile closest collaborator, among those he thanked in his acknowledgements, presumably for their comments on earlier drafts of his paper [Hemenway 1997b, p. 1430], as if to distance himself from an HCI employee). Hemenway also has contributed to, and co-edited, a strongly pro-control 96-page propaganda tract with Dennis A. Henigan, legal counsel to HCI and CPHV (Henigan, Nicholson, and Hemenway 1995). This obscure tract presented a note-for-note rendition of the HCI/CPHV view of the Second Amendment, a view sharply at variance with virtually all scholarly research on the topic (see Reynolds 1995 for a review of the Second Amendment literature).

In one of his articles coauthored with Weil, Hemenway claimed that their survey data showed that the National Rifle Association (NRA) misrepresents the gun control views of its own members. Kleck pointed out in a published critique that many of those respondents that Weil and Hemenway treated as

NRA members probably were not, since their figures overstated known NRA membership by a factor of three. This accurate claim is oddly parallel to the inaccurate one Hemenway has since directed at Kleck's work, the main difference being that NRA membership is exactly known, and so it was indisputable that Weil and Hemenway's data grossly overstated NRA membership.

Hemenway's political intentions and strong feelings were evident in his wild overstatements and the grandiose and unwarranted conclusions he drew from weak or irrelevant evidence and fallacious reasoning. He did not get past his title before making his first overstatement, claiming that he had established, without benefit of any new empirical evidence, not only that the NSDS estimates were too high but that they were "extreme overestimates" (Hemenway 1997b, p. 1430). He then announced in his first paragraph that "it is clear that [the Kleck and Gertz] results cannot be accepted as valid" (p. 1430). He went on to falsely claim that "all checks for external validity of the Kleck-Gertz finding confirm that their estimate is highly exaggerated" (p. 1431), when in fact these checks have repeatedly confirmed the conclusion that DGUs are common.

DGUs usually involve unlawful possession of a gun by the gun-wielding victim, and sometimes other illegalities as well (Kleck and Gertz 1995, pp. 150, 156, 174), a point Hemenway did not dispute. Yet, he made the extraordinary and counterintuitive claim that there is a social desirability bias to people reporting their own illegal behavior (Hemenway 1997b, p. 1431)—that is, people will falsely report DGU experiences because they believed this would present them in a more positive, socially desirable light. Hemenway insisted that such a desirability bias is not only plausible, but that it is likely: "the likelihood of social desirability response bias (self-presentation bias) is clear" (p. 1438). By the end of his paper, without having provided any credible supporting evidence, Hemenway concluded that the NSDS was afflicted by an "enormous problem of false positives"

(persons claiming a DGU who did not have one) and “massive overestimation,” flatly stating that “the Kleck and Gertz survey results do not provide reasonable estimates about the total amount of self-defense gun use in the United States” (p. 1444). It was an impressive achievement to be able to arrive at such high-powered conclusions without the inconvenience of gathering or even citing *any* new empirical evidence.

5. The Illegitimacy of One-sided Speculation: An Ounce of Evidence Outweighs a Ton of Speculation

Hemenway’s critical technique, like that of Cook, McDowall, Reiss and Roth, and other proponents of the rare-DGU thesis, was simple: one-sided, and often implausible, speculation about flaws that *might* have afflicted DGU surveys, and that might have been consequential enough to significantly affect their estimates. As a typical example of this technique, he speculated that people claiming DGU experiences might have been mentally ill, hinting that such states of mind would cause people to invent nonexistent DGUs, due to their “different perception of reality” (p. 1435). He did not provide any evidence that even one of the DGU-reporting respondents in the NSDS or any of the other DGU survey was in fact mentally ill, or reported false information about DGUs because of such illness. Indeed, he did not even report any evidence indicating that large numbers of respondents in *any* survey are mentally ill. Hemenway’s idea of supportive evidence was merely to cite estimates of the share of the general population that is thought to suffer from mental illness. It was sufficient for Hemenway that large numbers of DGU reporters *could have* been mentally ill. The mere hypothetical possibility was treated as seriously as actual empirical evidence. The fact that he had no basis for believing that even one DGU reporter in the NSDS or any other DGU survey was mentally ill, or invented a nonexistent event, was effectively treated by Hemenway as a relatively unimportant detail.

Nor did he explain why the “different perception of reality” of mentally ill people would cause them to develop long, detailed,

and internally consistent accounts of nonexistent DGUs. One would think that many forms of mental illness would make it harder for people to provide such consistent-but-false accounts, while disorders such as paranoia would be at least as likely to cause people to withhold information about real events from strangers who called them up on the phone as to motivate them to fabricate nonexistent events. If someone were suffering from a variety of schizophrenia, such as paranoia, why would they invent or falsely recall events featuring their own illegal behavior? Would it not be more common that such persons would be suspicious of the intentions of interviewers and be especially likely to withhold accounts of DGUs that really occurred? And if both kinds of false responses were given, as we assume is the case, why should the former kind be more common than the latter? If it is not, then Hemenway's citation of data on the prevalence of mental illness cannot support his argument that DGUs are overestimated.

Hemenway even speculated that respondents reporting DGUs were deliberately lying for the explicit purpose of boosting DGU estimates, in order to advance their political beliefs opposing gun control (p. 1439). Our point here is not that it is impossible for this sort of thing to happen; certainly one cannot logically rule it out. Rather, the point is that Hemenway's critique was filled with similar speculations about a long string of hypothetical, logically possible sources of false positives, but devoid of any empirical evidence that even one respondent in an actual survey had actually provided a false DGU account due to any of the hypothetically possible causes of such accounts, never mind evidence that enough such errors occurred to substantially distort DGU estimates. It bears repeating that a virtually unlimited number of things are possible in the world, and can be imagined by the human mind, but almost none of the hypothetical possibilities are in fact a part of the world.

The reliance on musings about logically possible errors in the absence of supporting evidence would not be quite so bad had

Hemenway made even a minimal effort at balance in considering the full range of errors possible in surveys. Unfortunately, he devoted his imaginative powers exclusively to thinking up flaws that might have contributed to the overestimation of defensive gun use (DGU) frequency, while either ignoring well established sources of underreporting, or briefly discussing them only for the sake of superficially dismissing them (e.g., p. 1439). Even when Hemenway speculated about sources of response error that are plausible, he offered no rationale for why the problems should lead to more false positives than false negatives. Instead he simply conjured up reasons why they might lead to false positives. As support for his one-sided speculations, Hemenway even cited *other* people guilty of the same dubious practice (p. 1433, notes 11 and 12, citing McDowall et al. 1992 and Reiss and Roth 1993).

All research is flawed. Known flaws should be identified and their likely consequences carefully assessed. Speculation about flaws can play a role in the pursuit of truth by motivating researchers to gather better empirical evidence less afflicted by the flaws. Speculation by itself, however, should not be given any weight in assessing evidence. An ounce of evidence, even though flawed, outweighs a ton of speculation.

6. Deceptive Claims and Insinuations in the Hemenway Critique

Unable to develop any empirical evidence of false positives in the DGU surveys, Hemenway resorted to simply inventing false details about the surveys and the conclusions drawn from them by their authors. Unable to develop valid criticisms of the research actually conducted, he created imaginary straw man versions of it that he could criticize.

For example, Hemenway misrepresented the implications of Kleck and Gertz' findings concerning how many people thought they had saved lives through DGU. He claimed that "the K-G results imply that many hundreds of thousands of murders should have been occurring when a private gun was not available for

protection” (p. 1443). Hemenway in fact knew that the Kleck-Gertz results did *not* imply such a thing, since the authors had explicitly stated (Kleck and Gertz 1995, p. 176) that they had only asked people about their *perceptions* of the likelihood that their DGU had saved a life, and that the results did *not* imply how many murders did not occur as a result of a gun being available for protection: “how many of these were truly life-saving gun uses is impossible to know” (p. 177).

Kleck and Gertz explained why it is not surprising that DGU is so common relative to criminal gun use, noting there are far more gun-owning victims than gun-owning criminals (1995, p. 180). Hemenway characterized this explanation as “nonsensical” because “criminals are more rather than less likely than victims to possess guns” (1997b, p. 1443). He offered no supporting evidence for this “fact,” apparently because he made it up.

Kleck and Gertz were referring to the huge potential for victim gun use in crime incidents, based on the much higher number of prospective victims who *own* guns than criminals, rather than the number who possessed guns during crime incidents, something we do not know from any source. It is possible Hemenway did not understand this, and that his claim referred instead to the distinct issue of gun possession during crime incidents. The NCVS not only does not directly ask victims whether they actually use guns for self-protection, but does not in any way ask whether victims possessed guns during the incident. Nor does any other national survey establish relative gun possession levels during crime incidents among victims and offenders.

Concerning ownership of firearms, the only survey to ask a representative national sample of criminals about gun ownership found, in 1991, that only 24% of state prison inmates personally owned a gun in the month before they were arrested for the offense that got them sent to prison (U.S. Bureau of Justice Statistics 1993, p. 19), while the 1989 General Social Survey indicated that 31% of the general U.S. adult population personally

owns a gun (Kleck 1991, p. 52). While one might selectively speculate that incarcerated criminals underreport gun ownership more than noncriminals, the best available evidence nevertheless indicated, at the time Hemenway wrote, that criminals are *less* likely to own guns than noncriminals, exactly the opposite of what Hemenway flatly stated as fact. Unless he was consciously lying, Hemenway apparently simply did not bother to check whether what he was claiming was correct or supported in any body of empirical evidence.

It would also be wrong to assume that few potential victims carry guns away from home, and conclude therefore that guns are too rarely available in public places to be used very often by victims during crime incidents. The NSDS indicated that each year over 7 million U.S. adults carry guns on their person for self-protection for an average of 138 days per year, implying nearly one billion person-days of such carrying (Kleck and Gertz 1998), compared to 0.7-1.6 million DGUs in public places (Kleck and Gertz 1995). Thus, there are about 1,000 times as many instances of defensive carrying as would be needed to account for all of the DGUs that the NSDS estimated occur in public places each year. The NSDS estimates of carry prevalence are not unique: a 1993 survey by the strongly pro-control Gallup firm found an even higher prevalence of defensive gun carrying on the person (Kleck 1997, Ch. 6; Kleck and Gertz 1998). Consequently, there is good reason to expect huge numbers of victims would not only own guns but would possess them at the time they were victimized.

Hemenway also misled readers by quoting Kleck and Gertz out of context in a way that suggested that they somehow felt that the NCVS was a good survey for estimating DGU frequency (p. 1441), when their position was actually the reverse. On pp. 156-157 of their article, Kleck and Gertz had written that (1) years of careful refinement and evaluation had made the NCVS an excellent vehicle for getting respondents to report illegal things that other people had done to them, but that (2) it was singularly ill-suited to getting people to admit possibly illegal

things (such as DGU) that they themselves had done. Hemenway quoted only the first part of this statement (see text attached to his note 46), a bit of creative editing that served to invert the sense of the passage.

In some instances, Hemenway's speculations about alleged problems were unconscionable since he knew that Kleck and Gertz had already directly addressed them and had presented evidence contradicting the speculation, and Hemenway had offered no rebuttal of the evidence, or argumentation as to why it was invalid or irrelevant. For example, he speculated (p. 1438) that respondents might have reported incidents "in which they were afraid, they retrieved a gun, and nothing bad happened." Kleck and Gertz had explicitly addressed this issue in the article (1995, pp. 162-163) and stated that they had insured the respondents claiming a DGU had (1) actually confronted an adversary, (2) had actually done something with their gun (e.g. pointed it at an adversary), and (3) could state a specific crime (i.e. "something bad") that they thought was being committed against them. In short, Hemenway falsely hinted that Kleck and Gertz did nothing to rule out this sort of report as a DGU.

Hemenway claimed the Kleck and Gertz did little to reduce what Hemenway imagined to be a huge overestimation bias. Since there was no reason to believe such a thing existed when the NSDS was designed, and even less reason to believe it now, this is comparable to saying that Kleck and Gertz did nothing to prevent demons from possessing their interviewers. With a convenient vagueness, Hemenway did not say precisely what he thought Kleck and Gertz should have done to reduce this supposed bias, and therefore does not specify anything they failed to do.

In any case, the claim is false. On p. 161 of their article Kleck and Gertz explained that "all interviews in which an alleged DGU was reported by the respondent were validated by supervisors with call-backs" and, on p. 163, that Kleck "went through interview sheets on every one of the interviews in which

a DGU was reported, looking for any indication that the incident might not be genuine.” They also reported on p. 172 that they debriefed their interviewers after the calling was finished, asking them about possible false reports and found that “only one interviewer spoke with a person he thought was inventing a nonexistent event.” It would be more accurate to say that they did virtually *everything* that could ethically be done to guard against false reports.

On p. 1439, after noting that Kleck and Gertz had concluded that virtually all respondents in the NCVS who in fact had a DGU experience fail to report the experience to NCVS interviewers, Hemenway asserted that “there is certainly no precedent for this extreme pattern of lying.” This is a falsehood in two ways. First, it is a mischaracterization of the Kleck-Gertz conclusion, since they only wrote that “virtually none of the victims who use guns defensively tell interviewers about it in the NCVS” (1995, p. 168). They did not assert that this was due to lying. Quite the contrary—they had explicitly pointed out (p. 155) that since the NCVS never directly asks respondents explicitly about DGU, it is not even necessary for a respondent to lie in order for the DGU to go unreported. The NCVS makes it easy for this to happen, since all a respondent need do to conceal a DGU is to remain silent about their gun use, refraining from volunteering the information in response to an unspecific prompt about the respondent’s possible protective actions. Thus, precedents about levels of “lying” are irrelevant to the arguments they made.

Second, if one generously assumed that Hemenway merely expressed himself badly, and was only claiming that underreporting, due to any causes, of this magnitude was unprecedented, then he knew this claim was false. Specifically in connection with the very survey in question, Kleck and Gertz cited prior research indicating that the NCVS appeared to miss approximately 97% of rapes and sexual assaults, and over 90% of spousal assaults (p. 168, citing the review by Loftin and MacKenzie 1990). Since Hemenway did not rebut (or mention)

this prior research, but had been made aware of it by the Kleck-Gertz article, he knew that there was indeed ample precedent for believing that the NCVS could miss nearly all DGUs.

Hemenway invented still another claim about Kleck and Gertz' conclusions. He asserted that the Kleck and Gertz claimed "that *many* responders who actually did use a gun in self-defense in the past year forgot to report it on their survey" (p. 1440, emphasis added). He did not cite a page where the authors made this claim, because there is no such page. While there undoubtedly are at least a few respondents who did forget a minor DGU, Kleck and Gertz argued that the main reason respondents would fail to report a DGU was because people are reluctant to report experiences in which they engaged in criminal behavior, or behavior others might define as criminal (pp. 156-157, 171).

Hemenway also deceived by omission when discussing telescoping as a source of overestimation in the NSDS (p. 1439), as if it were a flaw in the survey that he had discovered. What he did not say is that Kleck and Gertz had already addressed this issue in their article, used prior research to estimate its likely magnitude, and had shown that it was likely to have only a minor impact on estimates (Kleck and Gertz 1995, pp. 171-172).

Hemenway also misled his readers when he claimed that Kleck and Gertz "do not provide detailed information about their survey methodology" (p. 1433), since he knew that they did in fact provide unusually detailed information about the methods used in the NSDS, including such arcane information as procedures for taking indirect reports from proxies, selection of interviewers, random monitoring of interviews, rates of validation call-backs by supervisors, and details of the sampling procedures (Kleck and Gertz 1995, pp. 160-163). Indeed far more detail was provided than is customary in journal articles reporting survey results.

Noteworthy here is Hemenway's hypocrisy in criticizing (pp. 1433-1434) Kleck and Gertz for not reporting details that he

never reported in his own published survey reports, such as methods for weighting data, or survey organization procedures for handling busy signals or answering machines (contrast Hemenway's criticisms with the sketchy information provided in Hemenway et al. 1995; Hemenway and Richardson 1997, pp. 188-190; Weil and Hemenway 1992; 1993a).

In this case, Hemenway's insinuation was that the absence of details on some extremely specialized technical matters in the Kleck-Gertz report somehow indicated there were in fact problems with how the matters were handled. Yet, the criticism was so devoid of content that Hemenway did not even bother saying why any of these hypothetical problems, even if they had existed, would have caused the DGU estimate to be too high, and thus why his insinuations had any bearing on the topic at hand.

Hemenway also misrepresented the conclusions of other scholars to generate spurious support for his positions. For example, he miscited David Cantor (1989) to support his theory of extraordinarily high rates of telescoping in DGU surveys, contrasting these surveys with the NCVS. Unlike most surveys, including the DGU surveys, the NCVS is a "bounded" survey in that the same respondents are repeatedly interviewed at six month intervals and asked about crime experiences that occurred in the six months since the previous interview. This serves to establish a clear "bound" on the time period respondents are supposed to speak about, eliminating the telescoping that afflicts unbounded surveys. As support for his claim of high telescoping in the DGU surveys (all of them unbounded), Hemenway reported that "Unbounded rates of reported victimization are typically 30% to 40% higher than bounded rates" (p. 1439), citing Cantor.

What Hemenway did not pass on to his readers was Cantor's explicit conclusion that one could *not* attribute all of this difference to telescoping by respondents in the unbounded interviews, and that some of it was due to *underreporting* in the bounded interviews. Cantor stated, in terms clear enough that Hemenway could not have honestly misunderstood, that it was

impossible to tell how much of the 30-40% difference was due to telescoping. Thus, Hemenway's tactic was to raise the issue of telescoping, cite the 30-40% discrepancy figure, and then let readers "draw their own conclusions" that this represented the level of telescoping. If one more honestly recognized that only part of this discrepancy is due to telescoping, and assumed, for example, that only half of it is due to telescoping, one would arrive at a telescoping rate of 15-20%, i.e. almost exactly the same as the 21% figure cited by Kleck and Gertz.

In this same vein, Hemenway mischaracterized the published opinions of pro-control scholars as part of an effort to exploit prestige bias by invoking the name of the well-respected National Research Council (NRC). He alleged that a report by the NRC "finds" that Kleck's earlier estimates "appear exaggerated." This is a mischaracterization, since this was not a "finding" of the NRC, or of any of its panels, but merely a personal opinion expressed by an NRC report's authors, Albert Reiss and Jeffrey Roth (1993). These authors had no relevant evidence of their own, and simply relied on the same technique of one-sided speculation that Hemenway later used, in a none-too-subtle effort to "get the estimate down."

The Reiss-Roth opinions were, in any case, irrelevant to the purposes of Hemenway's paper, which was intended as a critique of the Kleck-Gertz survey, conducted after the Reiss-Roth report was written, rather than an assessment of the many less sophisticated early surveys reviewed in the Kleck papers that Reiss and Roth addressed. This passage appears to serve no purpose other than to provide Hemenway with an excuse to cite someone else's outdated and equally unfounded personal opinions that "Kleck's conclusions rest on limited data and assumptions" (p. 1432).

The citation of the Reiss-Roth critiques of older studies also ignored the fact that estimates have gotten larger as methods have been improved and the problems cited by Reiss and Roth (and Kleck 1991, pp. 108-111) were solved. The expectation of

critics that problems in the surveys were inflating DGU estimates was contradicted by the simple fact that the more technically sound the surveys became, the larger the DGUs estimates got (compare Cook and Ludwig 1997 and Kleck and Gertz 1995 with the pre-1991 surveys critiqued in Reiss and Roth 1993, and summarized in Kleck 1997, pp. 187-189).

7. Red Herrings and the Issue Not Addressed

Much of Hemenway's paper was a red herring in that it implicitly misstated the central technical question about survey estimates of DGU frequency. Much of it was devoted to elaborate speculations about why people might falsely claim to have used a gun defensively, as if it were somehow in dispute that some respondents might have provided false positive responses (pp. 1430, 1438-1440). He inaccurately hinted that Kleck and Gertz unreasonably ignored the possibility that some of their respondents provided false positives (p. 1439), a claim that served to portray them as being as doctrinaire and unreasonably one-sided as Hemenway was.

We assume as a matter of course that the NSDS was like all other surveys in that some respondents gave inaccurate responses to questions, and that these errors included both false positives and false negatives. The central question is not whether there were some false positives, nor even how many false positives there were, but rather what the relative balance was between false positives and false negatives. Survey estimates cannot be too high unless false positives outnumber false negatives, and cannot be "extreme overestimates" unless false positives *greatly* exceed false negatives. Because Hemenway made no effort to assess the frequency of false negatives, it was logically impossible for him to say what this balance was, and therefore impossible to draw meaningful conclusions about whether the NSDS estimates were too high or low.

Another red herring in Hemenway's paper (pp. 1431-1433) was his discussion of eight earlier surveys Kleck had carefully critiqued in *Point Blank* (1991, pp. 104-111). Kleck and Gertz

made great efforts to fix as many of the problems of those surveys as they could when they conducted the NSDS. What, then, was the point of Hemenway citing criticisms of those surveys as “Background” (p. 1431), if not to score a few cheap debating points by hinting that what was flawed in the earlier surveys must also be flawed in the Kleck-Gertz survey? If the NSDS did indeed still share some flaws with those earlier surveys, it was unnecessary to bring up the flaws of the earlier surveys; Hemenway could have simply addressed these flaws in connection with the NSDS and documented that it had a given problem. On the other hand, if some criticisms applicable to those earlier surveys did *not* apply to the NSDS, it was dishonest to cite critiques of the former that mostly addressed flaws that were fixed in the NSDS, in a context where readers would assume that they were relevant to the NSDS.

Similarly, Hemenway tried to get some mileage out of the fact that the NCVS has larger sample sizes than those in the DGU surveys (p. 1432), even though the only effect this has on estimates is that it reduces random sampling error (and thus the width of an interval estimate). It does not affect, on average, the size of the estimate, which is what Hemenway was challenging. Since Hemenway did not dispute this point, he presumably knew that his observations about the huge NCVS sample sizes were irrelevant to the issue at hand, but may have hoped to score some cheap points with readers who did not know this.

Hemenway also could not resist citing (p. 1443) some irrelevant research that purported to show that a gun in the home raises the risk of homicide (contrary to Hemenway’s phrasing, the study did not merely claim that a gun was “associated with” an increased risk). Hemenway believed that this finding was somehow inconsistent with the NSDS findings on the number of people who believed their DGU might have saved a life. In fact, all that this research (Kellermann et al. 1993) accomplished was that it reconfirmed the commonplace finding in criminological research that the same things that increase one’s risk of violent

victimization also increase the probability that one will acquire a gun for self-protection, and that there will therefore sometimes be a positive association between victimization risk and gun ownership, even if the latter has no impact on the former. (For extended critiques of this study, see Kates et al. 1995, pp. 268-276; Kleck and Hogan 1997; Kleck 1997, Ch. 7). There is, in fact, nothing in this study's data that is incompatible with the assertion that the net causal effect of owning a gun is, on average, to reduce the likelihood one will become a victim of homicide.

Note however, that citation of this study would be a red herring even if one believed that keeping a gun in one's home does increase the risk of homicide victimization, since it would not imply anything about whether actual defensive *use* of guns saves lives or how often it might do so, never mind how often people believe they saved a life with a DGU. It is perfectly possible that DGU saves lives with great frequency, but that, with even greater frequency, guns in a person's home somehow contribute to the likelihood of one resident of a home killing another.

8. The Nature of False Positives

It is hard to discern exactly what kinds of false positives Hemenway believed show up most often in all these DGU surveys. He waffled on the issue of whether people are: (1) consciously inventing nonexistent events; (2) consciously but honestly misrepresenting accounts of real events that did not really involve DGU (e.g., they involved an aggressive use of a gun that the respondent wrongly regarded as defensive); or (3) unconsciously distorting real events. He seemed to have doubts himself about possibility (1) occurring very often, hastening to assure readers that false responders do not necessarily have to lie (p. 1435), but was otherwise unwilling to commit himself to the relative frequency of these types of misreports.

It is worth emphasizing how much trouble NSDS respondents had to go to in order to falsely report a completely nonexistent event as a DGU. Hemenway cited a survey in which 10% of the

respondents told interviewers that they had seen something they thought was a spacecraft from another planet (p. 1438), insinuating that one could reasonably expect similarly large numbers of people to falsely claim to have used a gun for self-protection. Unlike respondents in the UFO survey, however, respondents in the NSDS who wanted to falsely report a nonexistent DGU could not qualify as having had such an experience merely by saying “Yes.” Rather, they had to provide as many as 19 internally consistent responses covering the details of the alleged incident. In short, to sustain a false DGU claim, respondents had to do a good deal of very agile mental work, and stay on the phone even longer. On the other hand, all it took to yield a false negative was for a DGU-involved respondent to speak a single inaccurate syllable: “No.” The point is not that false positives were impossible but rather that it took far more time and trouble to provide a false positive than a false negative.

Consider also the context in which Hemenway imagined all these false reports to have been provided. Randomly selected people were called unexpectedly, and questioned rapidly by total strangers, for no more than 15 minutes, with one question immediately following another. There was no prolonged opportunity to invent a nonexistent event, rehearse inaccurate details, or to otherwise get a false story straight. Respondents providing a false positive account of a DGU had to be not only dishonest but very quick-witted and creative as well.

Regarding possibility (2), Kleck and Gertz (1995, p. 174) noted that most of the reported DGUs were linked with the types of crimes—burglaries, robberies, and sexual assaults—where there is little possibility of participants being honestly mistaken about who was the victim and who was the offender, or whether their gun use was genuinely defensive. While some respondents may well have consciously misrepresented aggressive actions as defensive, and a very few might have consciously invented entirely fictitious events, it is hard to see how respondents could report an account of a real burglary, robbery, or sexual assault in

which they were aggressors and somehow unconsciously or honestly distort their own criminal, aggressive use of a gun into a “defensive” use.

An honest misunderstanding of real events in a way that would falsely qualify them as DGUs is more plausible in connection with assault incidents, such as those where people prefer to characterize their partly aggressive, partly defensive behavior in “mutual combat” incidents as purely defensive in character. Kleck and Gertz addressed this latter possibility in their original article and showed that it could not account for more than a small fraction (probably less than a tenth) of the incidents they counted as DGUs (1995, p. 174). Hemenway did not refute that evidence.

Hemenway’s view of the world was that it is full of potential survey respondents who are simultaneously mischievous or delusional, yet also extremely energetic, persistent, mentally agile, and disciplined enough to invent, on short notice, long, complicated, and internally consistent tales for strangers who unexpectedly call them on the telephone. This strange world is not the one familiar to survey researchers. Instead, their world is a more mundane one in which people who incorrectly answer questions about illegal behavior are mostly those who do not want to tell strangers about their own unlawful behaviors and consequently say “no” when the correct answer was “yes.”

9. Raising the Dead: Resuscitating the NCVS Estimates of DGU

Hemenway (1997b, pp. 1431-1432) contrasted NCVS (victim survey) estimates of DGU with the NSDS estimates, but was evasive as to exactly why he did this. He never explicitly stated that he considered the NCVS estimates to be even approximately accurate, perhaps because he knew that this position was indefensible. He made no effort to rebut Kleck and Gertz’ detailed explanation (1995, pp. 153-157) of why the NCVS grossly underestimates DGU frequency, and did not even discuss or mention most of their arguments or evidence. Thus, the

assertion that the NCVS estimate is far too low remains un rebutted. But if the NCVS estimates are *not* accurate, what was point of Hemenway citing them in the context of a challenge to the very different NSDS estimates?

Exploiting the tactic of “maintaining deniability,” Hemenway did not explicitly state that he thought that the NCVS provides an accurate estimate of DGU frequency, but this is bound to be the meaning that was communicated to some readers by his use of the NCVS results. We can see only two possibilities. Either (1) Hemenway recognized that the DGU estimates derived from the NCVS are grossly inaccurate, but dishonestly presented them to readers as if they were reasonably accurate, or (2) he continued to believe they are fairly accurate, despite his inability to rebut Kleck and Gertz’ case for their inaccuracy, but was unwilling to explicitly commit himself to the accurate-NCVS position. In short, he wanted to have it both ways, using the invalid NCVS estimates to cast doubt on large DGU estimates, while preserving the option of later claiming that he was not naive enough to think the NCVS estimates were even approximately correct.

If Hemenway really did believe that the NCVS estimates are approximately accurate, he may well be the last scholar in this field to cling to this belief. After touting the NCVS estimates of DGU for years, even authors as strongly wedded to the rare-DGU position as Philip Cook (Cook 1991; Cook and Moore 1994) and David McDowall (McDowall and Weirsema 1994) have ceased portraying the NCVS estimates as valid. Instead, they have shifted to the agnostic views that (1) no survey, including the NCVS, can yield meaningful estimates (Cook and Ludwig 1996; 1997) or that (2) “the frequency of firearm self-defense is an issue that is far from settled” (McDowall 1995), views incompatible with the position that the NCVS estimates are at least approximately valid and therefore have settled the matter. By December of 1994, Cook had taken a position directly contradicting Hemenway’s seeming acceptance of the NCVS estimates, stating that there are “persuasive reasons for believing

that the [NCVS] yields total incident figures that are much too low” (Kates et al. 1995, p. 537, quoting a December 20, 1994 letter from Cook). Echoing these views, another strongly pro-control scholar, Tom Smith, has written that “it appears that the [DGU] estimates of the NCVSs are too low” (1997, p. 1462).

Kleck and Gertz provided a detailed explanation of why the NCVS grossly underestimates DGU frequency, and noted that its DGU estimates had been repeatedly disconfirmed by other surveys (1995, pp. 153-157). Still, Hemenway gave the impression that he was using the NCVS estimates as a standard against which he judged the DGU estimates of other surveys (Hemenway 1997b, pp. 1431-1432). In this connection, he falsely claimed that the NCVS asks “about self-defense gun use” (p. 1432) when in fact, as Kleck and Gertz pointed out, one of the many problems with the NCVS as a vehicle for estimating DGU frequency is that it never directly asks respondents about DGU (1995, p. 155). Instead it merely provides respondents with an opportunity to volunteer information about a DGU in response to a general question about self-protection actions.

As Tom Smith, Director of the National Opinion Research Center, has noted, specifically in connection with the NCVS: “Indirect questions that rely on a respondent volunteering a specific element as part of a broad and unfocused inquiry uniformly lead to undercounts of the particular of interest” (Smith 1997, pp. 1462-1463).

Nor did Hemenway acknowledge that the NCVS is the only survey that has ever yielded annual DGU estimates under 700,000, and that its estimates, centering around 80,000, are far below those generated by at least *fifteen* other surveys (Kleck and Gertz 1995, pp. 153-159). Instead, he inverted reality by falsely hinting that it was the NSDS estimate that was the deviant result.

It is tempting to think that the NCVS estimates should be given greater credibility than any one survey because the NCVS has been continuously fielded since 1973, and thus could be regarded as, in some sense, a series of surveys rather than just

one survey, which have provided independent confirmation of low DGU estimates. Hemenway himself, however, noted that “consistency of findings is irrelevant when the methodology among...the surveys is similar.” He made this point with respect to the DGU surveys, but it is far more applicable to the NCVS, since great care has been taken to keep the NCVS, despite periodic revisions, consistent over time. In contrast, there was, contrary to Hemenway’s claims, great diversity in methodology among the DGU surveys (Kleck and Gertz 1995, pp. 157-160).

The NCVS is more accurately viewed as a single ongoing survey, with interviews conducted monthly since 1973 by the same government agency, using methods intentionally kept extremely consistent from 1973 right up to a redesign in 1992. Thus, the flaws that afflicted the NCVS for measuring DGUs in 1973 were, for the most part, still with it in 1992 when the McDowall and Wiersema (1994) and Cook (1991) estimates that Hemenway favorably cited (1997b, p. 1432) were generated. We can only heartily agree with Hemenway that reproducing the same result over and over with the same flawed measurement tool does not provide much evidence about anything. Hemenway just got it wrong as to which surveys this observation is best applied to.

10. Fallacious Reasoning—Hemenway’s “Checks on External Validity”

In their original article, Kleck and Gertz cautioned against two kinds of fallacious reasoning. Instead of taking the warnings seriously, Hemenway seems to have treated them as signposts to deceptive arguments that might prove useful for propagandistic purposes. Both fallacious arguments involve a misapplication of *reductio ad absurdum* argumentation, based on the misperception that estimates from the NSDS were inconsistent with known crime counts and the erroneous assumption that the NCVS provides correct estimates of the absolute frequency of crime.

Hemenway argued that the NSDS estimates are implausible because this survey implied a number of DGUs occurring in connection with burglaries that exceeded the total number of burglaries of occupied residences estimated by the NCVS, and thus the DGU estimate was impossible, or at least implausibly high (p. 1441). This argument rested on an unstated assumption that the universe of DGU events sampled by the NSDS is a subset of the universe of crime events covered by the NCVS. However, Kleck and Gertz had explicitly warned in their paper that “a large share of the incidents covered by our survey are probably outside the scope of incidents that realistically are likely to be reported to the NCVS or police” (1995, p. 167). This is true because DGUs typically involve criminal behavior, such as unlawful gun possession, by the gun-using victim, who therefore is often unwilling to report the incident. Once it is recognized that many DGU events are outside the realm of crime incidents effectively covered by the NCVS, it is logically impossible to treat any NCVS estimates as imposing an upper limit on how many DGUs there plausibly could be.

Hemenway’s logic was also fallacious in assuming that one can cast doubt on conclusions based on a large body of data by deriving implausible implications from smaller subsets of the data. The NSDS estimates of total DGUs are likely to be fairly reliable partly because they are based on a very large ($n=4,977$) sample, while any estimates one might derive pertaining to one specific crime type are necessarily less reliable because they rely partly on a far smaller subsample, i.e. the c. 194 sample DGU cases, of which 40 were linked to burglaries.

Hemenway’s *reductio ad absurdum* logic is equivalent to arguing that Gallup presidential election polls cannot accurately estimate the share of the entire electorate voting for the Democratic candidate (something we know they *can* do, usually to within two percentage points—Gallup 1992) because they commonly yield implausible estimates for small subsets of the electorate, such as rural Hispanic Jews. One undoubtedly could obtain implausible estimates of voter preference for the

Democratic candidate, such as 0% or 100%, based on a very small number of sample cases, for many subsets of the population. This would imply nothing, however, about the ability of the survey to estimate voter preferences in the entire population. Thus, even if estimates of DGUs linked to a given specific crime type were implausible, which they are not, this would imply nothing about whether estimates of the total number of DGUs, based on the full sample, are accurate.

Finally, even if one ignored these logical fallacies, Hemenway's argument still would fail, because it depends on an indisputably erroneous assumption. Hemenway stated that "from the NCVS, we know that there were fewer than 6 million burglaries in 1992" (1997b, p. 1441), and made similar statements about rapes (p. 1442). In fact, we do not "know" any such thing. No competent criminologist believes that the NCVS provides complete coverage of all burglaries, or any other crimes, occurring in the U.S. And once one concedes that there may be far more crimes than the NCVS estimates, Hemenway's argument collapses, since it becomes impossible to argue that estimates of the number of DGUs linked to a given type of crime are implausibly high relative to the total number of crimes of that type—we simply do not know the latter number.

In a second variety of this fallacious line of reasoning, Hemenway cited estimates of the number of gunshot wound (GSW) victims treated in emergency rooms and falsely claimed that "K-G report that 207,000 times per year the gun defender thought he wounded or killed the offender" (1997b, p. 1442). In fact, Kleck and Gertz did not compute or report this 207,000 estimate. Quite the contrary—they specifically cautioned against using NSDS data to generate such an estimate because an estimate of defensive woundings would be based (unlike the estimates of DGU frequency in general) on a small sample (the approximately 200 respondents who reported a DGU) and because NSDS interviewers had done no detailed questioning of

respondents regarding why they thought that they had wounded their adversaries.

In any case, there is nothing even mildly inconsistent about this GSW estimate and emergency room data on persons treated for GSWs. Hemenway necessarily made the implicit assumption that DGU-linked woundings are entirely a subset of woundings treated in medical facilities. If one more plausibly assumes that most less serious DGU-linked woundings are not medically treated, the number of medically treated GSWs cannot be used as an upper limit on the number of DGUs that result in a wounding, since DGU-linked woundings would exist largely outside the set of medically treated GSWs. If, for example, the total annual number of GSWs, treated or untreated, was 400,000, there would be nothing implausible about 200,000 of them being DGU-linked, especially in light of the fact that the vast majority of victims of medically treated GSWs linked to alleged “assaults” are known criminals (Kleck 1997, Chapter 1).

It is unlikely that a criminal wounded by a victim during the commission of a crime would seek medical attention for any but the most life-threatening GSWs, since medical personnel are required by law to report treatment of GSWs to the police. Less than a tenth of assault GSWs are life-threatening (Kleck 1997, Chapter 1). Thus, almost all of the DGU-linked woundings of criminals probably lie outside the universe of GSWs treated in emergency rooms and other medical facilities. The number of medically treated GSWs therefore cannot serve as an upper limit on either the total number of GSWs or on the number that occur in connection with a crime victim’s DGU. In sum, since we do not know the total number of crime victimizations such as rapes or burglaries, or the total number of GSWs, we cannot possibly know if any given DGU estimate is implausibly large relative to these unknown (and possibly unknowable) quantities.

It is worth stressing that crucial logical fallacies in Hemenway’s *reductio ad absurdum* arguments were explicitly noted in the original 1995 article by Kleck and Gertz (pp. 167-168, 172-174), before Hemenway presented them. Thus, because

Kleck and Gertz had explicitly warned against making the very arguments that Hemenway would later make, Hemenway was clearly aware of the fatal flaws in his arguments. Since he did not rebut any of the arguments that Kleck and Gertz used to conclude that this line of reasoning was fallacious, it is reasonable to conclude that when Hemenway made his *reductio ad absurdum* arguments, he knew they were fallacious. Thus, his use of these arguments can be reasonably viewed as part of an intentional effort by Hemenway to deceive his readers, and not merely the product of sloppy thinking.

11. The UFO Analogy

Perhaps the most bizarre part of Hemenway's paper was the analogy he drew between survey reports of DGUs and reports of contacts with aliens from other planets. Hemenway noted that 10% of respondents in a Gallup survey told interviewers that they had seen an alien spacecraft. Here too Hemenway was dealing in a red herring. No one disputes that some behaviors or experiences can be greatly overestimated in surveys. Rather, the relevant issue is whether DGU happens to be one of those experiences. The extent and kinds of response errors in surveys are heavily dependent on subject matter, so that extent of misestimation with respect to one topic cannot cast any light on the likely degree of error in misestimating another topic unless the topics are very similar.

We assume that most of the 10% of respondents in the UFO survey who responded affirmatively to the spacecraft question were having a little fun with the interviewers, though a few may well have been serious. On the other hand, it is harder to believe that respondents would regard questions about crime victimization and DGUs in so frivolous a light. In addition, Hemenway's analogy ignored the fact that all it took to be counted as an alien spacecraft spotter was the one-syllable response "Yes," while it took as many as 19 logically consistent responses providing details about the incident to be counted as a defensive gun user.

12. The Positive Social Bias Speculation

Hemenway did not deny or rebut the claim that most of the DGUs reported in the NSDS involved illegal behavior on the part of the respondents (Kleck and Gertz 1995, pp. 155, 171-174). Instead, he simply ignored it, perhaps because he recognized that it would be difficult to persuade readers that survey respondents are biased in favor of *over*reporting their own unlawful behavior. He insisted that the predominant bias surrounding DGU reports is a “social desirability bias,” with respondents making false reports of DGUs to present themselves as “heroic” (Hemenway 1997b, p. 1431).

He ignored the information that Kleck and Gertz provided in their article on the distinctly unheroic character of the DGU accounts provided. What was most striking about the reported events was their banality. If Hemenway’s speculations had merit, false portrayals of heroism should have involved frequent claims of facing down gun-wielding bad guys and exciting shootouts. In fact, respondents reporting DGUs claimed to have faced adversaries with guns in only one in six cases, claimed involvement in a shootout (both parties shooting) in just 3% of the cases, and usually reported opponents with no weapons at all. Likewise, they rarely boasted about their deadly shooting, with only 8% even claiming to have wounded an adversary (Kleck and Gertz 1995, pp. 173, 175).

The more pertinent issue, however, is not how respondents regarded their own actions, but rather how they thought interviewers were likely to regard their actions. Regardless of how respondents may have viewed their alleged DGUs, they would not be likely to falsely report imaginary DGUs or to mischaracterize events as DGUs if they thought that interviewers were inclined to view alleged DGUs in a negative light, and possibly as criminal behavior.

Hemenway offers no reasons why respondents would think interviewers would have favorable views of such actions. All the respondents knew about the interviewers, besides their sex (mostly female), was that they were calling from Florida State

University, and thus were presumably working for college professors, as indeed they were. Thus, respondents who thought about the matter at all were likely to think they were providing information for people generally regarded as liberal intellectuals, hardly the sorts of people likely to provide a sympathetic reception for accounts of DGUs, whether genuine or false. Consequently, there is little logical reason to expect a social desirability bias to operate with many respondents.

In any case, the one-sided focus on social desirability is itself a red herring. The key issue is not whether some respondents might think DGUs are heroic (this is undoubtedly true for at least some people), but rather whether this sentiment is so strong and pervasive that it would, on net, outweigh the seemingly more common and natural tendency to conceal one's illegal behaviors from strangers who call on the phone. By addressing only the social desirability of reporting heroic acts, Hemenway distracted readers from the issue of the relative balance of sources of response errors. He provided no evidence or even argumentation as to why any social desirability effects should outweigh simple concerns about revealing one's unlawful behaviors.

Hemenway did not deny Kleck and Gertz' claim that most DGUs do involve illegal behavior, though he did his best to distract readers' attention from this fact, e.g. by stating that "self-report surveys tend to overestimate rare events which *carry no social stigma*" (Hemenway 1997b, p. 1435). Since when does criminal behavior carry no stigma? If it *does* carry a stigma, and if most DGUs *do* involve criminal behavior, then it something of a puzzle how Hemenway reached the conclusion that not only is there, on net, a positive social desirability bias to reporting DGUs, but that it is clear and obvious that there is such a bias.

13. Making Something Out of Nothing—Hemenway's Numerical Exercises

It would be understandable if some readers of Hemenway's article believed that he did present, in his Section V, evidence on

the relative balance of false positives and false negatives. In fact, this section presented no empirical evidence at all. Instead, Hemenway's numerical examples demonstrated nothing more than that if one arbitrarily *assumes* particular rates of false positives and false negatives, along with extremely low actual DGU rates, one can support the claim that DGU could be greatly overestimated. Hemenway cannot be faulted for his arithmetic. If there were any credibility to the misreporting rates that he assumed out of thin air, they would indeed imply huge overestimates.

Hemenway's argument was fallacious because it was circular—it required that he assume the very conclusions he was trying to support. Specifically, Hemenway assumed as starting points of his exercise that (1) there is a nonnegligible rate of reporting false positives, and (2) DGUs are in fact extremely rare. He stated that “with few actual positives [i.e. few genuine DGUs], it is impossible for a screen to pick up many false negatives,” and that “it follows that, for events with low incidence ... the estimated incidence will tend to be greater than the true incidence” (p. 1436).

All one can validly conclude from this exercise is that there is more *potential* for false positives than false negatives, i.e. that there hypothetically *could* be more false positives than false negatives. Of course, this banal point would apply to estimation of literally any trait that characterized less than half of the population. The problem is that Hemenway did not present any empirical evidence that there were *any* false positives among the cases that Kleck and Gertz treated as DGUs, nor among those so treated in other DGU surveys, never mind the large numbers he assumed.

Whether there actually *are* more false positives than false negatives in surveys of DGU or other crime-related experiences is an issue to which Hemenway never brought any empirical evidence to bear, as distinct from speculations and assumptions. Rather, he jumped from the fact that this potential exists to the non sequitur conclusion that “you *inevitably* [emphasis added]

get a large number of false positives relative to the number of true positives” (p. 1437) and thus an overestimate.

Instead of citing relevant empirical evidence, Hemenway argued indirectly by analogy. Drawing a strained analogy between reporting of diseases in surveys and reporting of illegal behavior like DGUs, he quoted epidemiologists who stated that “if the population is at low risk for having the disease, results that are positive will mostly be false positives” (p. 1436). While that may well be true about reporting of diseases, direct empirical evidence (to be discussed in a later section) indicates that it is clearly not true about the reporting of rare illegal behaviors.

No survey respondent believes that they will be arrested for falsely reporting a disease they do not have, and for most diseases few respondents would expect interviewers to have negative views of the respondent’s health problems. In contrast, much of criminological survey research has been organized around the problem that many respondents do believe they could suffer arrest, or at least embarrassment and other negative consequences, if they reported having committed illegal acts (Hardt and Peterson-Hardt 1977; Hindelang et al. 1981; Kleck 1982). While falsely reporting a disease would typically elicit sympathy, falsely reporting illegal behavior would rarely do so. Observations about the relative frequency of false positives and false negatives in surveys of disease simply have no bearing on the issue at hand.

Note also that, even with respect to diseases, Hemenway was unable to locate *any* examples of overestimating prevalence by a factor of 30, which is what one would have to believe the NSDS did, if one accepts the NCVS estimate of DGU frequency as accurate.

Hemenway’s claim that the NSDS results were “extremely sensitive” to small changes in the specificity rate (the percent of true negatives accurately detected) also relies on assuming the conclusion. The main reason that the example estimates he computed (see his Tables 2A-2C) were so sensitive to the

specificity rate is because Hemenway assumed extremely low actual DGU rates, i.e. he assumed the very conclusion he was trying to support. Thus, instead of using the empirically-based 1.33% estimate Kleck and Gertz obtained, Hemenway assumed imaginary DGU rates of 0.32%, 0.04% and 0.08%, respectively (in his Tables 2(A), 2(B), and 2(C)) (pp. 1444-1445). Because he arbitrarily assumed that there are so few true positives (genuine DGUs), even a handful of false positives could indeed outnumber them and substantially distort the estimates.

For example, in his Table 2(B), the main reason Hemenway's assumed rate of false positives of 1.3% had such a proportionally large distorting effect on the estimate was because he assumed, without any empirical foundation, that the actual DGU prevalence rate was virtually zero, so that just 64 false positives could be 32 times higher than his assumed number of just two (!) true positives, in a sample of 5,000 cases (p. 1445). For what it's worth, the estimates *would* be highly sensitive to the specificity rate, *if* the true DGU rate were as low as Hemenway assumed, but then it is the DGU rate that is at issue.

In our view, a more realistic version of Hemenway's hypothetical scenarios, one more in tune with research on errors in surveys of illegal behavior, might have 48 true positives, 48 false negatives (and thus 96 persons with a genuine DGU), 18 false positives, and 4,886 true negatives in a sample of 5,000 cases, implying 50% test sensitivity (the percent of true positives accurately detected) and 99.6% test specificity. Under this alternative set of hypothetical assumptions, the true DGU prevalence would be 1.92%, while the measured rate would be 1.32%, as was obtained in the NSDS, implying that the true DGU rate was actually 45% higher than the one estimated.

Of course, the question remains, which is the more plausible set of assumptions about the distribution of survey response errors—Hemenway's or ours? Unlike Hemenway, who relied on assumed numbers and strained analogies to the reporting of diseases, we prefer to rely on actual empirical evidence directly

addressing the relative prevalence of different kinds of response error in previous surveys of illegal behavior.³

14. Prior Research on the Validity of Survey Estimates of Illegal Behavior

Hemenway provided a discussion of “misclassification in surveys generally” (pp. 1434-1437) whose most notable feature was its utter silence about surveys concerning illegal behavior and crime-related experiences. While Hemenway cited surveys about height, automobile ownership, diseases, and other topics of negligible similarity to the topic at hand, he said nothing about evidence concerning the validity of responses to questions requiring respondents to report their own illegal behavior. Surely surveys of unlawful and crime-related behaviors are more pertinent to the validity of DGU survey estimates than the surveys Hemenway addressed. We will correct this conspicuous omission.

A large body of empirical evidence indicates that, when asked questions about their own illegal behavior, survey respondents, on net, underreport their involvement, and that false negatives outnumber false positives by a wide margin. The strongest tests of validity on such questions concern illicit drug use. Unlike with other illegal behaviors, there is a strong external criterion that analysts can use to judge the validity of survey self-reports concerning drug use, because consumption of illicit drugs leaves physical traces that can be reliably detected using physiological means such as urine tests and hair assays. Further, illicit drug use may be the only illegal behavior for which validity checks can effectively detect false positives as well as false negatives.

Research using improved chemical tests has repeatedly demonstrated that respondents self-report less drug use in interviews and on questionnaires than is later revealed by hair or urine analysis, even when interviewed under conditions of anonymity and confidentiality (Amsel et al. 1976; Cisin and Parry 1980; Magura et al. 1987; Wish 1987; Baumgartner et al. 1990;

Dembo et al. 1990; Wish and Gropper 1990; Mieczkowski 1990; Mieczkowski et al. 1991, p. 246; Falck et al. 1992; Magura et al. 1992; McNagny and Parker 1992; Feucht et al. 1994; Hindin et al. 1994; Cook et al. 1995; Hoffman et al. 1995; Magura et al. 1995; see Wish et al. 1995 for a general review).

For example, among patients at a walk-in clinic who had positive urine tests for illicit drug use, only 28% had admitted the use in interviews (McNagny and Parker 1992), i.e. actual use was 3.6 times higher ($100/28=3.6$) than reported use. Among a group of juvenile arrestees, while hair analysis indicated 56.8% had used cocaine, only 7.4% self-reported it in interviews (Feucht et al. 1994), implying that actual use levels were 7.7 times higher than self-reports indicated. In a group of youthful jail releasees, while 67% tested positive for cocaine with hair analysis, only 23% self-reported cocaine use in the preceding 90 days, and only 36% reported ever using it (Magura et al. 1995). Among employees of a manufacturing plant, actual drug use prevalence as measured by hair and urine analysis, was 50% higher than the estimate produced by self-reports (Cook et al. 1996).

Some studies separately reported numbers of false positives and false negatives. Among a group of 114 arrestees, 85 of whom later tested positive for cocaine use on hair analysis, 61 falsely denied use in interviews (false negatives), while *none* reported use but tested negative (false positives) (Mieczkowski et al. 1991, p. 246). Likewise, among 86 subjects studied by Baumgartner et al. (1990), there were 16 who falsely denied cocaine use by self-report, but only *one* who reported drug use without a hair assay confirming it, again indicating false negatives are common and false positives close to nonexistent.

These examples could be multiplied, but to no purpose. The evidence is clear that people are far more likely to fail to report illegal behavior in which they have engaged than they are to falsely report illegal behaviors in which they have not engaged, and that self-report surveys therefore *underestimate* illegal behavior. To use Hemenway's epidemiological terms, while "test specificity" probably approaches 100% (i.e. extremely few false

positives), “test sensitivity” is probably less than 50% (i.e. many false negatives).

It is unfortunate there is no way to estimate false positives and false negatives as authoritatively with DGUs as with illicit drug use. We are forced to make do with validity checks on surveys addressing other experiences analogous to DGU. While this is less than ideal, it cannot be seriously argued that surveys of disease, health care, height, weight, and similar topics discussed by Hemenway are as analogous to surveys of DGU as surveys of illegal behavior or crime-related experiences.

15. Libeling the NSDS Interviewers

The interviewers who worked on the NSDS were named individually at the beginning of Kleck and Gertz’ article (1995, p. 150). Without any evidence, Hemenway hinted that these individuals acted unethically, by distorting or inventing responses. In discussing an alleged “limitation” of the NSDS, Hemenway wrote: “the survey was conducted by a small firm run by Professor Gertz. The interviewers knew both the purpose of the survey and the staked-out position of the principal investigator regarding the expected results” (Hemenway 1997b, p. 1433). The unmistakable insinuation was that some of the interviewers faked or altered interviews to create phony accounts of “DGUs” that would please the principle investigator.

To our knowledge, none of the interviewers knew anything about Kleck’s views on DGU or what results he expected, since Kleck did not inform them of those views. Hemenway did not claim to have communicated with even one of the interviewers, to find out what they knew prior to interviewing. Therefore, he had no basis whatsoever for this outrageous charge. It was apparently sufficient for Hemenway that the interviewers *could* have done such a thing in order to publicly hint that they did.

An interviewer obviously could not accidentally or innocently record an entire false account of a DGU, with as many as 19 logically consistent responses; a single errant mark on an answer sheet would not generate a false positive. Furthermore, as Kleck

and Gertz stated in their article, every single interview in which a DGU was alleged was validated by a call-back by a supervisor (Kleck and Gertz 1995, p. 161). An interviewer-faked incident therefore could not have survived the quality control procedures unless a supervisor colluded. Such a thing could only be accomplished intentionally. How, then, could readers have interpreted Hemenway's remarks except to the effect that he was suggesting that the interviewers were intentionally recording nonexistent interviews, inventing DGUs, or otherwise knowingly distorting responses?

It was reprehensible that Hemenway recklessly impugned the integrity and honesty of these individuals without any facts to support his allegations. His insinuations were irresponsible and offensive. Hemenway owes the NSDS interviewers and supervisors a public apology. It is no defense that he recklessly smeared a set of 14 interviewers as a group, rather than one particular individual. This passage was not only offensive, but diagnostic of the attitude underlying Hemenway's entire critique, i.e. a willingness to write almost anything that might advance his political agenda.

It is worth mentioning in this connection that a colleague of Hemenway's, Deborah Azrael (e.g., see Hemenway, Solnick and Azrael 1995), separately contacted both Kleck and Gertz while Hemenway was preparing his critique, without, however, telling either of them that she was doing it at Hemenway's behest. She contacted Kleck under the guise of setting up his participation in a planned "conference" on guns and violence to be hosted by the Harvard School of Public Health. No such conference was held. In the course of several hours of conversation with Azrael, however, Kleck interpreted the general thrust of her questions to be a "probing" for weaknesses in the NSDS. A major theme of her conversation with Gertz was the search for something ethically dubious in the funding of the research. In short, it seemed to both Kleck and Gertz that Hemenway's colleague was "digging for dirt" at Hemenway's behest.

16. The Survey Hemenway Chose Not to Mention

The NSDS estimates were subsequently strongly confirmed by yet another large-sample national survey, sponsored by the National Institute of Justice (NIJ), and conducted under the auspices of the Police Foundation. We can be certain that Hemenway knew about this survey because he served on the NIJ Advisory Committee for the project and was thanked for his comments on a draft of the grant report describing the survey's findings, including its DGU estimates (Cook and Ludwig 1997, p. x). Kleck was the principle consultant on the Police Foundation survey, wrote most of the associated grant proposal and most of the questionnaire, and participated in numerous meetings with Hemenway and Cook.

Hemenway did not mention the results of this survey in his critique, perhaps for an understandable reason: it almost exactly confirmed the NSDS results. The NSDS yielded an estimate of 2.55 million DGUs, using a person-based one-year estimate (Kleck and Gertz 1995, p. 184). The most comparable estimate generated by the Police Foundation survey was 2.45 million, well within sampling error of the NSDS estimate. Many variants of this estimate were even higher (Cook and Ludwig 1997, p. 62).

Hemenway himself had ample opportunity, as a member of the Advisory Committee, to suggest solutions to problems he saw in this survey, or to suggest other steps "to reduce the bias or to validate the findings by external measures," and to show that DGUs are really far less common than so many surveys have indicated. When the Police Foundation survey almost exactly confirmed the NSDS results, Hemenway's response was to suddenly decide that surveys inevitably overstate DGU frequency.

This appears to be a very recent revelation to Hemenway. In repeated and prolonged meetings of the Advisory Committee in 1994, during which the members discussed at length the long series of questions asking about DGUs, Hemenway did not once share his remarkable theory that all that effort was for naught,

and that surveys could not generate even approximately accurate estimates of DGU frequency.

Philip Cook, who also served on the same committee, likewise underwent the same sudden conversion, after the Police Foundation survey yielded DGU estimates every bit as large as those of the NSDS and earlier surveys. Since no new evidence bearing on the ability of surveys to estimate this parameter had come to light since 1994, one can only wonder how and why these revelations came so belatedly to Cook and Hemenway. Cynics might suspect that, metaphorically speaking, once they found they could not win the game, they decided to take their ball and go home.

It is instructive to consider the conspicuously one-sided implications that Hemenway and Cook have derived from their novel theory that surveys are likely to overestimate rare phenomena. Neither of them has acknowledged that one obvious implication is that the National Crime Victimization Survey is likely to overestimate the frequency with which gun crimes are committed, and thus overstate the harm done with firearms.

Most of the Hemenway-Cook arguments for DGU overestimation in surveys (excepting the minor argument concerning telescoping) apply with at least equal force to surveys estimating the frequency of serious crimes, including gun crimes, since such events are also, in absolute terms, quite rare, regardless of whether one accepts evidence indicating that gun crimes are more rare than DGUs.

It is a mildly amusing pastime to go through articles by Hemenway and Cook that push this theory (e.g. Cook, Ludwig and Hemenway 1997, pp. 465-467; Hemenway 1997a; Hemenway 1997b, pp. 1435-1437) and simply substitute “gun crime” for DGU to see how neatly the same theory could be used to argue for survey overestimation of gun crime.

Hemenway and Cook seem to have either missed this implication, or have not chosen to share it with their readers. If Hemenway honestly believed that surveys are likely to overestimate rare phenomena, he would be chastising his friends

at HCI and CPHV for citing NCVS estimates that overstate the frequency of gun crime.

More likely, Hemenway will soon be developing a specialized ad hoc explanation of why his theory applies only to estimates of beneficial uses of guns but not to estimates of harmful uses. It should be stressed that we are not arguing that surveys overestimate gun crime. Rather, surveys almost certainly underestimate both defensive and criminal uses of guns (Kleck and Gertz 1995, pp. 170-171).

In light of Hemenway's claim that "all checks for external validity of the Kleck-Gertz finding confirm that their estimate is highly exaggerated" (Hemenway 1997b, p. 1431), it is hard to see how one could justify Hemenway's calculated decision to withhold from his readers the results of the Police Foundation survey, when it almost exactly confirmed the NSDS estimates, and thus constituted about as strong an external validity check as one could ask for.

It is doubtful whether any evidence or reasoning will ever dissuade Hemenway from his remarkable theory that all surveys are likely to overestimate rare events, so he presumably would justify his decision to not mention the Police Foundation survey by asserting that all surveys are now irrelevant to the issue. But even if one accepted this radical view, the results of the Police Foundation project at minimum established that all Hemenway's speculations about supposed flaws specifically afflicting Kleck and Gertz' NSDS (Hemenway 1997b, pp. 1433-1444) cannot account for their large DGU estimates, since the Police Foundation survey yielded estimates almost identical to those of the NSDS.

This raises the question: what was the point of all of Hemenway's unsupported speculations about flaws supposedly afflicting the NSDS in particular, if he knew that they could not account for the NSDS estimates being as high as they were? Perhaps they were presented in the hope that less rigorous readers would assume that, methodologically speaking, where

there's smoke, there must be fire. Pile on enough criticisms, and readers will assume that at least a few of them must be valid.

Perhaps the only thing more appalling than Hemenway's dishonest ideological diatribe was that fact that a respectable professional journal, the *Journal of Criminal Law and Criminology*, decided to publish it. Its Criminology Editor, John Hagan, attributed his decision to publish the paper to the fact that two or three outside reviewers recommended publication. This was an evasion of editorial responsibility, since all that it takes for an editor to get such recommendations is to select reviewers with strong published views consistent with the author's thesis who are willing to overlook its dishonest tactics, one-sidedness, speculative character, and complete lack of supporting evidence.

In this case, the obvious candidates would be any of the large number of strongly pro-control members of the journal's Criminology Advisory Board (there are at least eleven of them, listed in Section 2 of this article), or others who have also indulged in one-sided speculation on this issue, such as Philip Cook, David McDowall, Albert Reiss, Jeffrey Roth, Steven Messner, Franklin Zimring, and so on.

After Kleck and Gertz supplied Hagan with a long series of documented instances of deceptive claims, red herrings, and inaccuracies in the Hemenway paper, Hagan did not dispute their claims. Instead, he claimed that publishing Hemenway's paper would somehow "contribute" to the gun control debate. To suggest that publishing a long series of falsehoods, inaccuracies, red herrings, irrelevancies, libelous insinuations, and personal ideology disguised as scholarly criticism somehow "contributes" to the scholarly debate over gun use is both bizarre and offensive to the community of scholars who play by the rules and who do not indulge in one-sided speculation as a substitute for even-handed, intelligent assessment of existing evidence and for doing the hard work of getting *better* empirical evidence. Intellectually debased argumentation only muddies the waters and makes the already difficult task of assessing the evidence even more difficult.

17. Conclusions—The Political Functions of the DGU Critiques

Hemenway and like-minded critics have failed to cast even mild doubt on the accuracy of the NSDS estimates and other high estimates of DGU frequency. Leaving aside problems with the DGU surveys already noted in the Kleck-Gertz article, the critics' claims have been effectively rebutted. The conclusion that there are large numbers of defensive uses of guns each year in the United States has been repeatedly confirmed, and remains one of the most consistently supported assertions in the gun-violence research area.

Given the political purposes of the critics, however, it is inconsequential that all of their claims have been rebutted. Although it is easy enough to rebut each of Hemenway's claims, the political functions of a piece like this one were served the instant it was published. Even if a "critique" is completely devoid of serious intellectual content, and each of its points are thoroughly refuted in the pages of the publishing journal, once the piece appears in print in a respectable journal, propagandists can cite the publication, either in propaganda tracts or in interviews with reporters, as evidence that "surveys indicating large DGUs have been discredited."

Indeed, this is precisely how the Hemenway piece has already been cited, before it was even published. In a letter to the *Journal of the American Medical Association*, three public health gun control advocates stated that "the reasons that this survey [the NSDS] is incapable of yielding an accurate estimate of defensive gun use are described at length in the Hemenway article" (Vernick, Teret, and Webster 1997, p. 703). Apparently a series of unsupported and one-sided speculations was a sound enough basis for these individuals to reject the findings of at least 15 large-scale, professionally conducted surveys.

We can be confident that ideologues and fanatics will in future cite these one-sided speculations as authoritative proof that large DGU estimates have been "discredited," while pro-control

academics who fancy themselves moderates will conclude that while Hemenway and others like him may have been wrong on some points, they had nevertheless somehow “cast doubt” on the estimates or “raised serious questions” about them.

The critiques can be cited by gun control advocates, pro-control scholars, and reporters alike in good conscience, as part of a “balanced” presentation of the issue. Hemenway’s outrageous and unsupported speculations will be cited in scholarly sources alongside the NSDS estimates, implicitly giving equal weight to careful empirically based estimates and the one-sided speculations of a pro-control extremist. The fact that the balance is completely spurious, and that only one side of the debate can present credible supportive empirical evidence, is politically irrelevant. Since it is highly unlikely that either reporters or the rest of the audience for propaganda will bother to read a rebuttal, the complete lack of any intellectual merit to the DGU critiques will not be evident, and thus will not in any way reduce its political utility.⁴

Thus, critiques of the DGU surveys effectively serve a political, propagandistic function regardless of how one-sided, illogical, intellectually hollow and devoid of empirical support they may be. The critiques can be cited by those who are unwilling to accept the verdict of empirical evidence, providing a fig leaf of respectability to what is basically a political position, that DGUs cannot, and *must* not, be frequent. Left unmentioned will be one simple fact. In all of the critiques, critics did not once cite the only thing that really could legitimately cast doubt on the large DGU estimates: better empirical evidence.

NOTES

1. For example, when I wrote a brief Letter to the Editor to the *American Journal of Public Health* to point out the journal had published a seriously inaccurate estimate (to the low side) of DGU frequency (McDowall and Wiersema 1994), the editors refused to publish the letter.

2. The claim that the NSDS estimate of household gun prevalence was “outside the range of all other national surveys” (Hemenway 1997b, p. 1434) was, however, false. The NSDS 38% figure was one of three U.S. household gun prevalence figures in the 37-38% range, and one of *eight* in the 37-42% range during 1993-1996, i.e. within sampling error of each other (Kleck 1997, Ch. 3). This falsehood crudely served to present the NSDS results as erratic or deviant, and the survey methods as eccentric.
3. Oddly enough, in his rendition of extreme estimates in surveys covering a wide variety of phenomena, it did not occur to Hemenway to mention his survey with Weil (Weil and Hemenway 1993a) in which he overestimated NRA membership by a factor of three (see Kleck 1993).
4. A Washington Post reporter, Bob Thompson, brought up the critiques of the DGU surveys in interviews with me, and when I offered to send him my written rebuttal of the critiques, he explicitly told me that he was not interested in reading it.

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Comprehensive Bibliography Of The Second Amendment In Law Reviews

By David B. Kopel

This article lists articles about the Second Amendment or gun control that have been published in law reviews. David B. Kopel is an adjunct professor law at New York University School of Law, and Editor-in-Chief of the Journal on Firearms and Public Policy.

This bibliography contains only law journals. It does not include bar association journals and the like. An html version of this bibliography, which will be updated from time to time, is available at <http://i2i.org/suptdocs/crime/bibliography.htm>. The html bibliography will contain links to online versions of many articles.

If the law school affiliation is not clear from the journal's name, a parenthetical explains the journal's home.

Articles labeled "Comment", "Note", "Casenote" and the like are written by the student editors of the law journals. In the past, some journals did not publish the names of student authors, or published only initials.

Full-text Internet versions of many of the articles listed here can be found at the websites for the Journal on Firearms and Public Policy (<http://www.saf.org/journal.html>); The Second Amendment Law Library (<http://www.2ndlawlib.org>); and at the Independence Institute <http://i2i.org/crimjust.htm> and <http://i2i.org/waco.htm>.

Some of the most important of these articles can be found in Robert Cottrol, editor, Gun Control and the Constitution (N.Y.: Garland Press), which is available in a 3-volume set, and in a shorter one-volume paperback.

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Note, Leonce Armand Richard III, *Strict Products Liability: Application to Gun Dealers Who Sell to Incompetent Purchasers*, 26 (1984): 889.

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Armed Self Defense: The Canadian Case

By Gary Mauser

There is a vigorous debate over the frequency with which private citizens resort to the use of firearms for self defense. No information has been previously available about how often firearms are used defensively outside of the United States. This paper estimates the frequency with which firearms are used for self protection by analyzing three telephone surveys of the general public in Canada and a fourth survey of the general public in the United States. Canadians report using firearms to protect themselves between 60,000 and 80,000 times per year from dangerous people or animals. Between 19,000 and 37,500 of these incidents involve defense against human threats. The results of the American survey confirm estimates about the frequency firearms are used for self protection in the United States (Kleck 1988, 1991). In comparison with the number of households with firearms, the frequency with which Canadians use firearms to defend themselves against human threats is somewhat less than that of Americans. Policy makers in both the United States and in Canada should be aware the private ownership of firearms has benefits as well as costs for society. Firearms bans may cost more lives than they save.

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Self defense is a troublesome right. On the one hand, it would seem obvious that all people have—or should have—the inherent right to use physical force to defend themselves from assault. Not surprisingly, the criminal codes of many countries includes self defense as a legitimate justification for the use of deadly force. On the other hand, the right of self defense threatens our faith in the rule of law. It is too easy for revenge or even aggression to be confused with legitimate self defense. The intensity of this debate increases when the use of firearms in self defense is considered.

Self defense can be distinguished from all other reasons for using force, such as revenge. Self defense entails those acts intended to protect one's physical safety or property, or to protect the safety or property of others. Clearly, one is morally and legally justified to use force to protect oneself, or one's family, from dangerous animals, such as grizzly bears. As well, it is morally and legally proper to use physical force, even deadly force under certain conditions, in order to protect oneself, one's family, or one's property from criminal aggression.

Revenge, however, involves retribution, or an attempt to punish an offender. The desire to punish, or to revenge oneself against a criminal, is not a legal reason for the use of force, of any degree, especially not deadly force. Certainly in a given incident, elements of vengeance might be mixed with a concern with self defense, but logically, retribution is not necessarily involved in self defense.

Criminologists have tended to ignore self defense, possibly because of its ethical ambiguity, and have preferred to view victims as either sharing culpability or as being passive targets for criminal aggression. Many scholars view victims as involved in "mutual combat" and therefore as blameworthy as the offender (Wolfgang 1958).

Other scholars reject the “mutual combat” model, at least for family violence, rape, or violence against children (Berk et al 1983). In this perspective, a women being attacked by a rapist is seen as a passive target for the rapist, but most male-on-male violence would be viewed as “mutual combat.” Despite the ethical ambiguity of self defense, it is not difficult to find exceptions to the “mutual combat” model. For example, women may legitimately use violence to resist becoming a rape victim, store owners (men or women) may legitimately use violence to avoid being robbed or killed by an armed robber, or anyone may use force to resist attack by a stranger.

As a consequence, criminologists have begun to expand the model of moral inequality to include situations where the victim is not passive, but instead takes forceful actions that are largely defensive (Kleck 1988).

The question of the defensive use of firearms has recently attracted the interest of criminologists. A hot debate has arisen over the frequency with which citizens use firearms to defend themselves or their families. Kleck (1988, 1991) estimated that between 700,000 and 1,000,000 people in the United States use a firearm in self protection each year. After a number of methodological improvements were made, this estimate was later increased to between 2.1 million and 2.5 million defensive gun uses annually (Kleck and Gertz 1995). An alternative estimate is that there are about 80,000 to 82,000 uses annually (Cook 1991). Differences in methodology account for this enormous discrepancy. Cook’s estimate is based upon the prestigious National Crime Victimization Survey (NCVS), which involved interviews with 59,000 households, while Kleck’s earlier analysis was based upon a collection of thirteen representative surveys of the general public. The surveys used by Kleck were conducted by a variety of professional survey organizations for diverse clients. These clients include media, pro-gun and anti-gun groups and independent academics.

Kleck and Gertz (1995) argue that the NCVS is unsuited to estimate defensive gun use because it is a non-anonymous survey conducted by a branch of the federal government and was not designed to sample people who use firearms to resist criminal violence. First, it is easy to withhold information about a defensive gun use in the NCVS. Not only are R's screened for victimhood before they are asked if they did anything to protect themselves, but R's are never directly asked if they used a firearm to defend themselves.

Second, because a defensive gun use is legally controversial, even under the best circumstances, many respondents would be expected to be afraid of admitting to an employee of the U.S. government that they may have committed an illegal act, or that they may be in possession of an illegal gun.

The debate over the use of firearms in self protection has been almost entirely restricted to the United States. In Canada, for example, the prevailing attitude appears to be that there is no need for self defense (Friedland 1984). Not only do the police actively discourage self defense in general, but armed self defense is widely considered to be illegal.

Exceptionally few Canadian organizations argue that citizens have the right to defend themselves with weapons.¹ The most dramatic illustration of the official discouragement of armed self defense is the recent passage of an omnibus bill by the Canadian Parliament that, among other provisions, prohibits and confiscates without compensation, over half of all legally owned handguns in Canada on the grounds that they are small and so might be used for self defense.²

This lack of debate is particularly surprising because Canada and the United States "... probably resemble each other more than any other two countries on earth" (Lipset 1985, p 109). Both countries were former British colonies; both have had a "frontier experience," and both have shared similar waves of immigration (Lipset 1985; Tonso 1982). Almost a third of Canadian households (30 percent) have firearms as compared with half of

households in the United States; and the violent crime rate in Canada (1,132 per 100,000) is apparently higher than that in the United States (746 per 100,000) in 1993 (Mauser and Margolis 1992; StatisticsCanada 1994; FBI, 1994).³

Despite the strong similarities, Canada differs in many ways from the United States. Some scholars have even argued that the United States is unique in the world, particularly with respect to its gun culture (Hofstadter 1970; Friedland 1984). Canada has long had much stricter firearms laws than the United States. Handguns have been registered since 1934, and a police permit has been required to purchase a firearm since 1978 (Hawley 1988). Unfortunately, little is known about how often Canadians use weapons to defend themselves from criminal violence. Although a few studies have investigated the carrying of weapons by Canadians (Sacco 1995; Kong 1994), and others have examined attitudes towards the use of firearms in self defense (Mauser 1990; Mauser and Margolis 1992), there are virtually no published studies that estimate the frequency with which firearms are used in self defense in Canada.⁴ It is possible that Canada's "gun culture" resembles the United States more than has been assumed.

This article examines the extent to which firearms are used in self defense in Canada, and compares these estimates with the available estimates of how often Americans use firearms to protect themselves. In view of the similarities between the two countries, it is argued here that Canadians do not differ from Americans as much as has been thought with respect to the defensive use of firearms.

The first section of the article briefly compares the two countries, the legal situation, the nature of violent crime, and the sociology of firearms ownership. The main section of the article estimates the frequency with which Canadians use firearms in self defense and compares these rates with those in the United States. The approach taken is based upon questions that have been asked by other researchers so that the results are

comparable with similar studies in the United States (Kleck, 1988, 1991).

The Canadian situation

Unlike the United States Constitution, the Canadian Constitution, in Section 92(14), mandates that the federal government is responsible for enacting criminal law and that the provinces are principally responsible for enforcement (Hogg 1992). Some variability inevitably arises across the country, but there is a high degree of national uniformity because there are frequent conferences among the provincial attorneys general, and most provinces rely upon the RCMP to act as the local police force. Despite disavowals by police officials, the Canadian criminal code does include the right of citizens to use deadly force to protect themselves (sections 34, 35, and 37). The key provision in the Canadian criminal code (§34) is that, no one may use “more force than is necessary” and then only when “he believes on reasonable grounds that he can not otherwise preserve himself from death or grievous bodily harm.” In section 35, the code goes on to require that one must show that “he declined further conflict and quitted or retreated from it (the assault) as far as it was feasible to do so before the necessity of preserving himself ... arose.” Moreover, the right to use physical force to defend non-family members is more limited than it is in many American states, as are the Canadians’ rights to repulse trespassers on their own property, or to use force to stop the commission of serious or violent crimes (Viz. sections 24, 40, and 41).

Self defense is also circumscribed in Canada by more conditions than are typically found in the United States. A wide range of self defensive weapons (e.g., Mace, pepper spray, small handguns) are prohibited.⁵ Ownership of any of these weapons is punishable by up to ten years imprisonment. For all practical purposes, it has been impossible to own a handgun for self protection since 1977.⁶ Recent firearms legislation now requires

firearms to not only be unloaded when stored in one's residence but must also be put under lock and key (Section 86(3) of the Canadian Criminal Code).⁷

Another important difference between the United States and Canada is enforcement. Judging from newspaper reports, anyone who uses a weapon in self defense is much more likely to be charged in Canada than would be the case in the United States. Even if the attacker is not injured seriously. The charges may be "possession of a prohibited weapon," "careless use," or "unsafe storage of a firearm," rather than "assault" or "attempted murder." Apparently, the Crown is determined to discourage people from using "violence" to defend themselves.⁸ Anyone who uses a firearm to defend him or herself must be financially able to prove in court that he or she acted in self defense.

The murder rate is typically much higher in the United States than in Canada. In Canada, the murder rate in 1993 was two per 100,000 residents; this is only one-fifth of the murder rate in the United States that year, where it was almost ten per 100,000. Despite the existence of "violent crime rate" indices, the murder rate is perhaps the best way to compare the two countries. This is due to the exceptional reliability of homicide statistics as well as the ambiguity of indices of "violent crime."

A few crime rates are higher in Canada than in the United States. In 1993, the burglary rate in Canada, at 1,414 per 100,000, was almost 50 percent higher than the US rate of 1,099 per 100,000. Even more striking is the comparison between the two countries in sexual assault. The Canadian "forcible rape" rate, at 121 per 100,000, is much higher than the rate in the United States, forty-one per 100,000. However, this may be artificially high due to the difficulty of estimating "forcible rape" from Canadian crime data. There is no category identical to "forcible rape" in the Canadian criminal code, so it has had to be approximated, and therefore the comparison may be too inclusive.⁹

The burglary comparison is more trustworthy than rape, as burglary is defined the virtually same way in both countries. Nevertheless, international comparisons are always problematic as there may be differences in the reliability of the police reports.

Despite the generally lower crime rate in Canada, intensive media coverage of brutal crimes has frightened the general public. This concern is reflected in the results of various surveys. The 1993 General Social Survey found that 25 percent of Canadians age fifteen years or older say that they feel somewhat or very unsafe walking alone in their neighborhood after dark.¹⁰ Women are four times as likely as men to say that they feel somewhat or very unsafe walking alone in their neighborhood after dark (Sacco 1995). A related question generated a similar response: One in four Canadians reported feeling very or somewhat worried when alone in their homes at night. Again, women said they were more worried than did men (Sacco 1995).

Self defense courses for women are available at many Canadian universities and community centers. Many women's groups encourage women to learn how to protect themselves against rapists. The market for self defense items (e.g., dogs, martial arts courses, bear spray and personal alarms) is estimated to be \$11-15 million just in British Columbia, Canada's westernmost province (Lai 1994). Although it is a prohibited weapon, "bear spray" is widely sold by women's groups.¹¹ Surprisingly, a nationally recognized columnist recently called for women to arm for self defense (Amiel 1995).

Before examining firearms use in Canada and the United States, it is important to compare the ownership and use of firearms in the two countries. Substantially fewer Canadians have firearms than Americans. Between 28 percent and one-third of Canadian households have one or more firearms, while between 45 and 50 percent of households in the United States do so. Canadians have almost as many rifles (29%) as Americans (32%), but they have far fewer handguns. Estimates range between 3 percent and 7 percent of Canadian households have

one or more handguns, while between 22 percent and 27 percent of households in the US do so (Mauser and Margolis 1992; Mauser and Buckner 1997).

For the most part, Canadians own firearms for the same reasons that Americans do. The principal reason given for owning firearms in either country is “hunting.” Between 5 percent and 10 percent of Canadians as well as Americans cite “target shooting” or “part of a gun collection” as their primary reason for firearms ownership. The principal difference has to do with self defense. Canadians are much less likely (5 percent) than Americans (22 percent) to volunteer “self defense” as their main reason for owning a firearm.

Methods

This article is based upon three telephone surveys of the general public in Canada and a fourth survey of the general public in the United States, all of which have been conducted under the direction of the author during the past decade (See Table 1). All four surveys involved professional survey firms and random digit dialing methods to generate representative samples of the general public. All R’s were interviewed over the telephone by professional interviewers. The most recent survey was conducted by Canadian Facts (CF), between January 18 and 23, 1995 and used stratified random sampling methods to interview 1,505 R’s, eighteen years of age or older, in all ten provinces, but not in either of the territories (Mauser and Buckner 1997).¹² Canadian Facts is one of the largest private survey companies in Canada.

Table 1. The telephone surveys which asked about frequency of defensive use of firearms

Survey research firm	Sowden	CSUR	CSUR	Canadian Facts
Year of interview	1988	1990	1990	1995

Target Population	BC	Canada	United States	Canada
Population covered	Residents	Residents	Residents	Residents
Telephone interview	Yes	Yes	Yes	Yes
Sample Size	403	393	344	1,505
Stratified Random Sampling	Yes	Yes	Yes	Yes
Random Digit Dialing	Yes	Yes	Yes	Yes
Professional interviewers	Yes	Yes	Yes	Yes
Gun type covered	All firearms	All firearms	All firearms	All firearms
Distinguished uses against persons vs. against animals	Yes	Yes	Yes	Yes
Excluded military, & police uses	Yes	Yes	Yes	Yes
Defensive questions asked of:	All Rs	All Rs	All Rs	All Rs
Defensive question refers to:	Household	Household	Household	Household
Time frame of question about defensive use of firearms.	Ever	Five years	Five years	1 & 5 years
Percent who used a firearm against animals or humans	4.0%	3.1%	4.1%	2.1%
Implied total annual number of defensive uses of firearms	80,000	62,500	754,000	66,000
Percent who used a firearm against human threat	1.9%	1.6%	3.8%	0.6%

Implied annual number of defensive uses of firearms against human threats	37,500	32,000	700,000	19,000
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Early in 1990, a survey of the general public in the United States was undertaken simultaneously with a survey of the Canadian general public (Mauser & Margolis 1992). Both of these surveys were conducted by the Center for Social and Urban Research (CSUR) at the University of Pittsburgh.¹³ Representative samples of adult residents, eighteen years of age or older, were drawn using stratified random sampling methods to ensure adequate representation from both countries. Professional interviewers completed 393 telephone interviews in all Canadian provinces (including ninety-three interviews of residents in Quebec conducted in French), but not in either of the territories, and 344 in the United States during the period of March 20 through April 10, 1990. The target population in the United States included all states, except Hawaii and Alaska, and the District of Columbia.

A third survey of the general public in Canada was conducted by Sowden Research between April 5-9, 1988 (Mauser 1990). Sowden Research is a professional survey research firm in British Columbia.¹⁴ In this study, a representative sample of adult residents, eighteen years of age or older, was drawn using stratified random sampling methods to ensure adequate representation of all households in British Columbia. Professional interviewers completed 403 interviews over the telephone with throughout BC.

Although none of these studies had self defense as its principal focus, each study included a short series of questions about the use of firearms for self protection. These questions were based upon Kleck's analysis of a similar series of questions originally used in the 1981 Hart Poll (Kleck 1988, 1991). Nearly identical questions were asked in both the CSUR and CF studies.

In the CF study, respondents were first asked: “Within the past five years, have you yourself, or another member of your household used a gun, even if it was not fired, for self-protection, or for protection of property at home, at work, or elsewhere? Please do not include military service, police work, or work as a security guard.” If the respondent answered, “yes,” he or she was then asked, “Was this to protect against an animal or a person (or both).” The questions used in the CSUR study were almost identical. Respondents in both Canada and the US were first asked: “Aside from military service or police work, in the past five years, have you yourself, or a member of your household, used a gun for self-protection, or for protection of property at home, at work, or elsewhere, even if it wasn’t fired?” If the respondent answered, “yes,” he or she was then asked, “Was this to protect against an animal or a person (or both).”

Despite the small differences among these questions, the formulation used in these surveys is superior to the original 1981 Hart question. First, this version asks about the defensive use of all types of guns, not just handguns. Second, it is more precise because it asks about a specific time period rather than the vague “have you ever used a gun.” Third, it asks about the self defense of people as well as the protection of property. Fourth, it excludes the defensive uses of firearms as part of military and police duties. Finally, it distinguishes between defensive uses against animal threats and human threats. However, both the Hart and the Mauser questions ask about firearms use by anyone in the family, not just those of the respondent. As others have shown, this leads to substantial underreporting of the defensive firearms uses of other household members (Kleck and Gertz 1995). It is preferable to rely upon the experiences of the Rs themselves.

The CF study also included two further follow-up questions, “Did this incident or any of these incidents happen in the past twelve months?” and, “Was it you who used a gun defensively or did someone else in your household do this?” The first question facilitates annual estimates of firearms use, and the second

question, by identifying how many (if any) of the incidents involved the R, helps to increase confidence in the analysis.

The question used in the 1988 Sowden study differed the most from the other studies in that it asked if respondents had “ever” used a firearm for self protection, rather than asking if they had used a firearm for self protection “in the past five years.” (See Table 1 for a comparison of the question wordings). It is preferable to ask about a fixed time period rather than leaving it open because problems with memory loss have been found to increase with the use of longer periods of recall (Sudman and Bradburn 1973). Since relatively few people use their firearms in self protection, it was felt that a relatively long time period was required. Therefore, it was decided to use a five-year period. In hindsight, a one-year time period would have been better.

In all surveys, R’s were asked these questions without screening for gun ownership or for prior victimization. This point is important because some R’s may not have firearms now, but may have used firearms defensively when they did have access to firearms. Similarly with screening for victimhood: R’s may not report being a victim because they do not consider themselves a victim, having successfully frightened off the attacker with a firearm.

The similarity of the questions used in these Canadian surveys permits greater confidence in comparing the Canadian results with those conducted in the United States. The CSUR study is particularly important in this regard. In this study, surveys were conducted simultaneously of the general publics in both the US and in Canada. A number of surveys of the general adult population in the United States have used basically similar questions.¹⁵

The Use of Firearms in Self Defense

This section estimates how often Canadians use firearms to defend themselves, and compares these estimates with how often

Americans are estimated to use firearms to protect themselves. For purposes of estimation, the two best surveys were the CSUR and CF studies because they were based upon nationwide samples and the question was limited to a five-year period. Table 2 presents the percentages from each of the four surveys and estimates the numbers of people who used firearms to protect themselves against human or animal threats or both. In the CF survey, 2.1 percent of R's report that someone in their household had used a firearm for self protection during the past five years, and in the CSUR survey, 3.1 percent of R's report having done so. The Sowden survey estimated that 4.0 percent of R's reported that someone in their household had used a firearm for self protection during the past five years. These are very small percentages, but, when it is realized that there were 10,079,442 households in Canada in 1991, they translate into surprisingly large numbers of Canadians.

Table 2. Estimating the annual frequency of defensive gun use.

	Sowden(a)	CSUR Facts (b)	CSUR Canada(c)	US (c)
Percentages:				
Animal	2.1%	1.5%	1.5%	0.3%
Person	1.4%	0.5%	1.3%	3.5%
Both	0.5%	0.1%	0.3%	0.3%
Total	4.0%	2.1%	3.1%	4.1%
Number, in past 5 years:				
Animal	211,700	147,000	151,200	275,800

Person	141,100	52,000	131,000	3,218,200
Both	50,400	8,600	30,200	275,800
Total	403,200	207,600	312,400	3,769,800
Number, per year:				
Animal	42,500	47,100	30,200	55,200
Person	27,500	16,600	26,300	643,600
Both	10,000	2,700	6,000	55,200
Total	80,000	66,400	62,500	754,000

Source: Survey of BC general public conducted in 1988 (Mauser 1990); survey of Canadian general public conducted in 1995 (Mauser and Buckner 1997); surveys of general publics in the United States and Canada conducted in 1990 (Mauser and Margolis 1992).

a - The wording of the question asked by Sowden was, “Aside from military service or police work, have you yourself, or a member of your household, ever used a gun for self-protection, or for protection of property at home, at work, or elsewhere, even if it wasn’t fired?” A follow-up question asked, “Was this to protect against an animal or a person (or both).”

b - The wording of the question asked by Canadian Facts was, “Within the past five years, have you yourself, or another member of your household used a gun, even if it was not fired, for self-protection, or for protection of property at home, at work, or elsewhere? Please do not include military service, police work, or work as a security guard.” Then the R was asked, “Was this to protect against an animal or a person (or both).” A follow-up question was, “Did this incident or any of these incidents happen in the past 12 months?”

c - The wording of the question asked by CSUR in both the US and in Canada was, “Aside from military service or police work, in the past five years, have you yourself, or a member of your household, used a gun for self-protection, or for protection of property at home, at work, or elsewhere, even if it wasn’t fired?” A follow-up question asked, “Was this to protect against an animal or a person (or both).”

NB #1: There were 10,079,442 households in Canada in 1991. (Statistics Canada 1993).

NB #2: There were 91,947,410 households in the US in 1990. (US Bureau of the Census 1991).

NB#3: The US population age eighteen or over was 186,532,400 in 1990.

NB#4: The annual estimate for the Sowden and CSUR surveys are based upon the assumption of equal probability during the past five years.

NB#5: The annual estimate for the Canadian Facts survey is based upon R's statements that 32 percent of these incidents occurred in the past 12 months.

The three Canadian survey results are quite similar and mutually reinforcing. The Canadian Facts survey, with a sample size of 1,505, has the smallest random sampling error. The 95% confidence interval estimate for the CF survey is plus or minus 0.7 percentage points for the five-year estimate. The confidence interval estimates for the other two surveys are larger because the sample sizes are smaller. The 95% confidence interval estimate for the CSUR survey is 1.7 percentage points for the five-year estimate, and it is 1.9 percentage points for the Sowden survey.

In order to estimate annual frequencies, three simple and logical steps were taken. First, it was conservatively assumed that only one person in the household had used a firearm for self protection during this time period, and had done so only once. This is very conservative because it has been found that more than one member of a household have used a firearm in self defense and that household members typically have used a firearm in self defense more than once (Kleck and Gertz 1995). Second, it was assumed, when other information was lacking, that the probability of use was the same for each of the years during this time period, thus, the total was simply divided by five. Given that there is a greater likelihood of forgetting incidents the earlier the event occurred, this probably underestimates the frequency with which firearms were used during the past twelve months. Third, this percentage was multiplied by the number of households in the 1991 Canadian census.

In the 1995 CF survey, it was not necessary to divide the five-year reports by five, because 32 percent of R's reported that some of these incidents had occurred during the past twelve

months. Thus it is possible to know that 0.67 percent of the total sample used a firearm for self protection at least once during the past twelve months. If it is conservatively assumed that only one such incident occurred during this period, to only one individual in a household, then this implies some 66,000 individuals used a firearm for self protection during the past twelve months. In the 1990 CSUR survey, no follow-up question was included, so it is unknown how many of the reported incidents occurred during the past twelve months. Thus, to estimate annual frequencies, it was necessary to assume that R's were equally likely to have used a firearm in self protection throughout the five-year period. If only one such incident occurred during the past five years, then this implies that approximately 0.62 percent of R's, or 62,500 individuals, used a firearm during the past twelve-month period. (These calculations are shown in Table 2).

The 1988 Sowden survey, while still useful, is less satisfactory than either the CF or CSUR surveys. First, the target population was the general public in British Columbia, not the Canadian general public, so, strictly speaking, the results may only be generalized to BC. Despite this limitation, the BC results have been extrapolated to Canada in order to compare them with the two national results by simply multiplying the percentage of households that report using firearms in self defense by the number of households in Canada. This is not unreasonable as BC has the same percentage of households with firearms as the Canadian national average.

Second, the question asked R's in the BC study if they had "ever" used a firearm for self protection, rather than asking if they had used a firearm for self protection "within the past five years," as in both the CSUR and CF studies. Despite these limitations, these results are still indicative. In the Sowden survey, 8.0 percent of R's reported that at least one person in their household had "ever" used a firearm in self protection. In order to approximate the frequency with which firearms were used during the previous five years, the estimates generated by the

Sowden study were divided in half to give 4.0 percent. Due to memory loss, R's would be expected to have forgotten a greater percentage of earlier events. A review of previous surveys shows that this is a conservative correction, and it gives a proportion more in line with the findings of the other two surveys in this study.¹⁶ These percentages were then projected to the national level, as has been done with the CSUR and CF surveys, giving an estimate of 80,000 defensive uses of firearms during the past 12 months. Despite the limitations, this survey estimate, while somewhat higher than the two national estimates, still falls within the limits of sampling error.

In summary, Canadians reported using firearms between 62,500 and 80,000 times per year to protect themselves from wild animals or criminal violence. The best estimate is that firearms are used defensively around 66,000 times per year. The three surveys agree that most of these defensive uses of firearms were to protect against wild animals. The Canadian Facts survey found that 1.6 percent of R's reported that someone in their household had used a firearm to protect him or herself against animal threats during the past five years. The CSUR Canadian survey found a nearly identical percentage (1.8%), and the Sowden survey found that 2.6 percent of R's reported using a firearm to protect themselves against threats from wild animals. This contrasts starkly with the CSUR American survey which found that only 0.6 percent of R's reporting using a firearm to protect against animal threats during the past five years. The findings of the CSUR American survey is consistent with other American surveys (Kleck 1991).

Perhaps the most controversial question is how often do Canadians report using firearms to protect themselves against human threats. Based upon the three representative surveys described in this paper, the best estimate is that Canadians use firearms against human threats about 30,000 times per year. The two best surveys methodologically were the 1995 Canadian Facts survey and the 1990 CSUR survey. The CF survey found that

firearms were used against human threats around 19,000 annually, and the CSUR survey estimated that over 32,000 Canadians did so. The Sowden survey, as expected, had the highest estimate, 37,500 incidents annually.

How do these results compare with what is known about the frequency with which firearms are reported to have been used in self defense in the United States? The best point of comparison are the two CSUR surveys, because they involved identically worded questions and were conducted simultaneously in both the United States and Canada by the same professional interviewers. Table 2 shows the frequency with which firearms are used in self defense in the United States. According to the CSUR survey, conducted in 1990, firearms are used in self defense over 750,000 times per year in the United States. The bulk of these defensive uses of firearms, approximately 700,000 uses, are to repel human threats. The remaining defensive uses of firearms deal with animal threats. As reported elsewhere, these results are consistent with Kleck's estimates that between 700,000 and 1,000,000 Americans used firearms defensively against human threats each year during this time period (Kleck 1991, pp 104-111).

Kleck's estimates are based upon thirteen surveys that were methodologically quite similar to the surveys presented in this article. Although not directly comparable due to methodological improvements, Kleck and Gertz (1995) sharply increased the estimate of Americans who use firearms annually to protect themselves from human threats to between 2.1 million and 2.5 million.

How does Canada compare the United States in the extent to which firearms are used to defend against human threats? As may be seen in Table 2, 1.6 percent of the Canadian sample reported using firearms against human threats during the past five years, while 3.8 percent of the American sample did so. In other words, Canadians use firearms against human threats around 30,000 times per year, while an estimated 700,000 Americans do

so each year. Since Canada has roughly 10 percent of the adult population of the United States, Canadians use firearms to repel human threats less than half as often as do Americans. This lower level may be due to the smaller percentage of Canadians who are firearms owners, since fewer Canadian households have firearms than do than American households, as well as to the lower level of violent crime in Canada.

How plausible are these estimates for Canadian using firearms in self defense? While at first they may seem surprising, these estimates are not out of line with the number of gun owners in Canada. Surveys show that between 28 percent and one-third of all households in Canada have at least one firearm (Mauser and Margolis 1992). Thus, given that there were just over ten million households in 1991 in Canada, an estimate of 30,000 defensive uses of firearms implies that between 0.9 percent and 1.1 percent of these households use firearms for defensive purposes in any given year.

In the US, in the same year there were 97.1 million households, an estimated 49 percent, or 47.6 million, households with firearms, and an estimated 700,000 minimum defensive uses of firearms per year.¹⁷ This yields 1.6 percent of American households that use firearms for defensive purposes in any given year. Thus the Canadian rate is hardly implausible, as it is between one-half and three-quarters of the rate in the United States.

But would Canadians use firearms to defend themselves? Surveys show that over half (60 percent) of Canadians report that, if they had a firearm, they would use it to protect themselves or their families (Mauser and Buckner 1997). Unsurprisingly, firearms-owners report they are more willing to use a firearm to protect themselves or their families than are other Canadians (67 percent vs. 59 percent).

The percentages of Canadians found to use firearms in self protection are not out of line with the other steps Canadians are taking to protect themselves from criminal violence. The 1993

General Social Survey found that 12 percent Canadians reported that they carry something routinely to protect themselves from victimization. Women report taking greater precautions than do men: 17 percent of women report carrying something routinely for protection, while only 7 percent of men report doing so (Sacco 1995).

The GSS also found that 32 percent of Canadians fifteen years of age or older reported they had installed new locks, 15 percent reported they had installed a burglar alarm, 12 percent had obtained a dog, 10 percent had taken a self-defense course, and 2 percent reported they had obtained a gun (Sacco 1995). The finding that 2 percent of the Canadian population reported they had ever “obtained a gun” to protect themselves or their property from crime provides additional confirmation of the findings of this study.

However, the GSS offers only indirect support for the findings of this study because the questions asked in the GSS differ importantly from those asked here. The GSS asked if the R “obtained a gun,” while the question in this study concerned “using a gun.” Also, the GSS question was limited to human threats, but the question asked in this study involved both animal as well as human threats. Furthermore, the GSS question did not include a specific time frame, while here the question focused upon the past five years. In the light of these results, it should not be too surprising that 3 percent of the adult population report having actually used a firearm for self protection during the past five years.

How could so many Canadians use firearms in self defense without it having become common knowledge before this? The answer is that self defense activity is basically invisible to government. First, there is no reason to report it, such as there is with property crimes or with crimes involving serious victimization.

As well, both the defender and aggressor may have strong reason not to report the incident, given the moral ambiguity of the

act. If the defender used a firearm (or any other weapon) to defend him or herself, there is a strong possibility that s/he would face legal charges.

Finally, even though medical doctors are required to report gun-shot wounds, the available statistics suggest that self defense uses of firearms rarely result in serious physical injury to either participant, so that in the vast bulk of the cases there is no injury that would require reporting (Kleck, 1991).

The survey estimates presented here of the number of people who use firearms in self defense are, if anything, probably too low. The underestimate is probably most severe for the defense use of firearms against human threats. Given the sensitive nature of defensive use of firearms, it is possible that many respondents have concealed actual incidents so the true number is quite likely much higher than reported here. A number of criminologists have shown that survey estimates of criminal and defensive gun uses have been underestimated. Cook (1985) has shown that NCVS estimates of woundings with firearms are too low. Other researchers have argued that survey estimates of a large range of violent events have been under-reported. For example, Loftin and MacKenzie (1990) have speculated that spousal violence and rapes might be many times more than reported in NCVS.

An unknown number of defensive gun incidents would be expected to involve violent criminals defending themselves against other criminals (Wright and Rossi 1986). Such incidents would not be expected to be reported in telephone surveys. Due to their high mobility, low income, and probable reticence to be interviewed, criminals are among the least likely persons to be interviewed in surveys of the general population (Cook 1985; Kleck 1991). This implies that a sample bias exists that underestimates the total number of people who use firearms to protect themselves against human threats.

Undoubtedly, some R's may have included the "carrying," or the merely "having" the firearm available in case of an attack, as an example of "use." However, there is ample evidence in

criminological surveys that improvements in the measurement procedures yields higher estimates of controversial behaviors. Kleck and Gertz (1995) found that the estimated number of defensive uses of firearms in the US more than doubled when they improved the measurement procedures. Contrary to what some researchers have speculated, a large number of respondents were not found to have invented or exaggerated defensive gun use incidents. In their study, Kleck and Gertz found that by using a shorter time-period (one year rather than five years), and by interviewing the family member who had been involved in the self-defense incident, rather than relying upon a family informant, the problem of forgetting about incidents that had happened years earlier was considerably reduced. As has often been the case in criminology, better measurement procedures has increased the estimate of the controversial behavior (Hindelang et al 1981).

Conclusions

The survey results reported here show that firearms are used in Canada more often than many had believed in the defense of people and property. Canadians were found to use firearms about 30,000 times per year against human threats, compared with around 700,000 Americans estimated to do so each year. Compared to the number of households with firearms, Canadians use firearms to protect themselves against human threats between one-half and three-quarters as often as Americans. These findings suggest that Canada is more similar to the United States than had been thought by some scholars. The lower proportion of firearms owners who do so in Canada than in the US may however reflect the lower rate of criminal violence in Canada.

This paper also estimated the number of Americans who used firearms to protect themselves or their families. The CSUR survey of the general public in the United States paper estimated that approximately 700,000 Americans use firearms defensively

against human threats annually. This estimate is consistent with other survey estimates and it confirms Kleck's original estimate in 1988 (Kleck 1988, 1991). These CSUR results constitute yet another independent survey that differs dramatically from estimates based upon the National Crime Victimization Survey.

This study provides the best available estimate of the frequency with which Canadians use firearms for self protection and it has significant implications for public policy. These estimates are only approximate, given the small sample sizes and the small incidence rates. However, the high level of agreement among the three samples of the general public provide strong support that firearms are used in Canada to protect people against violence. Since firearms are used in Canada around 66,000 times each year to defend against either human or animal threats, and more importantly, approximately 30,000 times annually to protect against criminal violence, this implies that the private ownership of firearms contributes significantly to public safety. It is unknown how many lives are actually saved, but if a life were saved in only 5 percent of these incidents, then the private ownership of firearms would save more than 3,300 lives annually in Canada. To put this in perspective, it should be noted that firearms are involved in the deaths of around 1,400 people annually in Canada (about 1,100 of these are suicides). While the exact number may be debatable, the results of these three survey studies makes it plausible that the private ownership of firearms saves some Canadian lives.

The results of this study support the responsible ownership of firearms. These findings are consistent with moderate firearms regulations but not with efforts to prohibit the private ownership of firearms. Given that firearms are potentially dangerous, laws or regulations are highly desirable that encourage responsible firearms ownership, such as background checks by the police, safety training, or safe-storage of firearms. Moreover, it is reasonable to pass legislation in order to keep firearms out of the hands of children, ignorant users, or career criminals.

The findings of this study suggest that the private ownership of firearms offers benefits to the community as well as costs. Thus, laws that are intended to discourage, or have the effect of discouraging, firearms ownership from otherwise responsible adults might act perversely to decrease public safety rather than to increase it. Since prospective victims without criminal records are more likely to obey gun bans than are criminals, gun bans would be expected to produce larger relative reductions in defensive gun use by noncriminal victims than in criminal use of firearms. Additional firearms legislation may not act to save lives as claimed, but it may actually cost lives by rendering it too difficult to obtain a firearm when one is needed.

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Appendix

Comparison of actual violent crimes in Canada and the United States (1993)

	U.S. rate per 100,000 population	U.S. frequency	Canada rate per 100,000	Canada frequency

Murder	10	24,526	2	630
Robbery	255	659,757	104	29,961
Forcible rape	41	104,806	121	34,764
Aggravated assault	440	1,135,099	201	57,655
Violent crime (US definition)	746	1,924,188	428	123,010
Burglary (Breaking & Entering)	1,099	2,834,808	1,414	406,582
Population (1993)		257,908,000		28,753,000

Sources: Uniform Crime Reports for the United States. FBI. 1993; Canadian Crime Statistics, Cat. 85-205, Statistics Canada, 1993. These data are based on reports by local police departments.

Note #1. As of August 1995, when this was written, 1993 was the most recent year that all of the crime statistics were available for both countries.

Note #2: Crime rates may be compared because both Canada and the United States use the same definitions for violent crimes, the Uniform Crime Report system. Despite this, there are a few notable exceptions. To facilitate comparison between the two countries, Canadian crimes have been aggregated to fit the categories used by the FBI. Murder refers here to “murder and non-negligent manslaughter,” and, in Canada, includes all “homicides.” “Burglary” in the US is equated with “breaking and entering” in Canada. “Violent crime” in the United States includes murder, non-negligent manslaughter, forcible rape, robbery, and aggravated assault but does not include “abduction,” or “other sexual offenses,” as does the Canadian category of “violent crime.” Thus, both “abduction” and “other sexual offenses” have been excluded in this table from the Canadian data. A few terms are only used in the US and are impossible to replicate exactly with Canadian statistics. To approximate “aggravated assault,” all categories of assaults were aggregated, except assault level 1 and sexual assaults, with “attempted murder.” To approximate the “forcible rape” category in the US, all Canadian sexual assaults were aggregated (levels 1, 2 and 3), but “other sexual offenses” were excluded.

ENDNOTES

1 There is only one national group in Canada, the National Firearms Association, that supports the use of firearms in self defense. Unlike in the

United States, it is extremely rare for a women's group to support firearms ownership for protection. However, many women's groups teach self defense tactics and advocate (and sell) "bear spray" for women's self defense as well as "non-violent" alternatives such as whistles and alarms.

2 The Governor General assented to Bill C-68 on December 5, 1995. This bill will be proclaimed into law section by section over the next few years. Section 12(6) of this bill will prohibit all handguns that are .25 or .32 calibre or that have a barrel length of 4 inches or less. Justice Minister Allan Rock testified before the Justice Committee of the House of Commons in February 1995 that these firearms were to be prohibited and confiscated because they were likely to be used for self defense.

3 In general, crime rates in Canada and the United States are comparable because both countries use the same definitions for violent crimes, the Uniform Crime Report system. Nevertheless, there are a few important exceptions, so that "violent crime" is defined somewhat differently in the two countries. "Violent crime" in the United States includes murder, non-negligent manslaughter, forcible rape, robbery, and aggravated assault but does not include "abduction," or "other sexual offenses," as does the Canadian category of "violent crime." To properly compare the violent crimes indices in the two countries, a number of modifications are required. First, both "abduction" and "other sexual offenses" must be excluded from the Canadian data. Second, Canadian crime data should be re-categorized to fit the definitions used by the FBI and the violent crime rate for Canada recalculated. A few terms are only used in the U.S. and are impossible to replicate exactly with Canadian statistics. To approximate "aggravated assault," all categories of assaults were aggregated, except assault level 1 and sexual assaults, with "attempted murder." To approximate the "forcible rape" category in the US, all Canadian sexual assaults were aggregated (levels 1, 2 and 3), but "other sexual offenses" were excluded. These adjustments reduced the Canadian Violent Crime Index in 1993 from 1,132 to 428 per 100,000 (Statistics Canada 1994).

4 The only exception is a brief outline of these studies in reply to published criticism of my unpublished conference papers (Mauser 1995).

5 The Canadian Criminal Code prohibits the ownership of a wide variety of weapons, e.g., Mace, pepper sprays, certain types of knives, nunchakus. As well, it is illegal to carry anything that is intended to be used as a weapon

(Sections 87, 88, 89, 90(c) and Orders-in-Council SOR/74/29774-05-07, SOR/78-277 78-03-28, inter alia).

6 Bill C-51, passed by Parliament in 1977, removed “protection of property” from the list of legal reasons for most people to own “restricted weapons,” 98 percent of which are handguns (CC §109.3 (c)(iii)). Applicants who say they want to own a firearm for self protection are routinely refused the appropriate permits. Nevertheless, a very small number of people (e.g., trappers, judges, geologists, politicians) in Canada are allowed to own handguns for self-protection under other sections (CC §109.3 (c)(i) and (ii)).

7 Handguns require two locks: not only must a handgun be locked in a “container” that “cannot readily be broken open,” but it must also “be rendered inoperable by a secure locking device.” The criminal code defines the general responsibility of the firearms owner (Greenspan 1994) and are augmented by RCMP regulations, Regulations Respecting the Storage, Display, Handling and Transportation of Certain Firearms, CC § 6, JUS-92-193-02.

8 An example will illustrate the situation: In January 1995, an 81 year old Palmerston, Ontario, jeweler was charged with weapons and assault charges after firing his pistol at two burglars, neither of whom were injured. The court granted the jeweler a conditional discharge and ordered him not to possess a firearm for one year (Bellis 1995).

9 As explained in note #3, all Canadian sexual assaults were aggregated (levels 1, 2 and 3), and “other sexual offenses” were excluded in order to approximate the “forcible rape” category that is used by the FBI in the US.

10 The GSS is a periodic survey, conducted by Statistics Canada, of the Canadian general population, aged 15 years or over, living in all 10 of the Canadian provinces, but excluding the territories (N = 10,000).

11 In principle, it is illegal to own any prohibited weapons. It is passing curious why many police departments tolerate the open sale and ownership of “bear spray.” “Bear spray” is a stronger concentration of pepper spray (capsaicin) than “dog spray.” The prohibition on the sale and ownership of Mace, due to its ineffectiveness as protection against animals, remains strictly enforced.

12 This study was funded by the Langley Symposium, a Canadian civic group.

13 This study was funded by the International Council for Canadian Studies, a program of the Canadian Embassy in Washington, DC.

14 This study was funded by a National Rifle Association hunter services grant.

15 See Kleck (1991) and Kleck and Gertz (1995) for an expanded analysis of these questions.

16 A review of the surveys reported in Kleck and Gertz (1995) shows that, on average, the percentage of R's reporting they "ever" used a firearm in self protection is more than twice as high as it is when R's are asked if they used a firearm during the "past five years."

17 The US Bureau of the Census reported that there were 91.9 million households in the United States in 1990. The December 1993 Gallup Survey reported that 49% of households in the United States own firearms (Moore and Newport 1994).

“Lotts” More Guns and Other Fallacies

Infecting the Gun Control Debate

By Andrew J. McClurg¹

In this article, University of Arkansas Law Professor McClurg analyzes what he considers to be fallacious arguments on both sides of the gun control issue. Analyzing rhetoric from the National Rifle Association, from Handgun Control, and from other sources, Professor McClurg dissects various fallacies including: failure of each side to acknowledge the strongest arguments against the side’s preferred interpretation of the Second Amendment; unsupportable claims about the meaning of the Miller case; and a wide variety of statistical claims about the cause-and-effect relationship of guns and crime. Professor McClurg’s other journal articles on gun policy involve Child Access Prevention Laws; The Tortious Marketing of Handguns; The Rhetoric of Gun Control; Strict Liability for Handgun Manufacturers; and Handguns As Products Unreasonably Dangerous Per Se. He also teaches a seminar on “Gun Violence and the Law.”

I. Introduction

In 1992, I published *The Rhetoric of Gun Control*.² Concentrating on the pitiful “dialogue” surrounding passage of the Brady bill, I analyzed and critiqued numerous fallacies of reasoning on both sides of the gun control debate. Here we are almost eight years later. It would be nice to think we—“we” being the participants in the gun control debate—were eight years wiser, but that is not the case. Blatantly fallacious

argumentation continues to dominate popular gun control discourse.

A fallacy is a type of incorrect argument. A fallacious argument is one that appears correct and may even be extremely persuasive, but which proves upon examination to be logically defective. Examples of fallacies range from the commonplace (begging the question, straw man arguments) to the esoteric (*ignoratio elenchi*, undistributed middle term). David Fischer lists 112 fallacies in his classic work, *Historians' Fallacies*,³ and discusses even more than that. Fearnside and Holther analyze 56 common reasoning defects in *Fallacy: The Counterfeit of Argument*.⁴ Edward Damar discusses 64 fallacies in *Attacking Faulty Reasoning*.⁵ (All of these are recommended reading for persons interested in the art of practical argumentation.)

Fallacy-laden arguments in the gun control arena are destructive to the nation and the participants in the debate. They serve to inflame and further polarize already antagonistic opinions, making it impossible for us to move toward any middle ground. They also damage the credibility of both sides. A major reason the two sides of the gun debate are not listening to one another is because we do not trust the other's arguments.

Guns are a serious menace to public health in the United States. Gun control critics need to acknowledge at least that much about an instrumentality responsible for more than 35,000 fatalities and 100,000 injuries annually. On the other side, gun control advocates should accept that guns are here to stay. If it helps, I am not a gun prohibitionist. I probably would be if I thought prohibition would work, but in a nation where more than 200 million privately owned firearms circulate freely, I do not think it would work. Like everyone else, I do not want only the bad guys to have the guns. I have come to accept that, for better or worse, guns are a permanent fixture in our society. However, as a teacher of tort and products liability law who views all products and their associated dangers from a cost-benefit, injury

avoidance perspective, I strongly believe much closer regulation of guns is warranted.

As we prepare to enter the new millennium, our united goal should be the responsible management of our existing guns, or as Don Kates put it, “promoting solutions that are consistent with more guns.”⁶ To have any hope of moving effectively in that direction, both sides are going to have to work together, or at least be more honest advocates and willing listeners in the debate. Perhaps this essay, simply by virtue of its placement in this journal, is a small step in that direction.

A troubling aspect of the overall gun control debate is that both gun proponents and gun opponents end up writing largely for audiences that already agree with their respective positions. In the vernacular, the debaters are usually “preaching to the choir.” Neither side seems to be listening to the other. When we study opposing viewpoints, it is usually with the single-minded purpose of refuting them. I have been guilty of this on many occasions. Conversely, while opposing arguments are reflexively dismissed, we uncritically accept questionable studies, statistics and viewpoints that happen to coincide with our own position.

We cannot hope to move toward common ground concerning our nation’s gun policies—an excruciatingly oppositional issue *screaming* for common ground—unless and until we are prepared to honestly examine our own positions on issues vital to the debate. The fallacies of reasoning in gun control discourse are numerous and pervasively employed. Living in the heart of gun country, I could fill a multi-volume treatise of fallacies just by clipping letters to the editor from the local newspaper. For attention here, I selected just two areas to explore. They are notable both for their practical importance in determining firearms policy in the United States and the extent to which they are contaminated by fallacies. These two areas are: (1) the defective argumentation over whether the Second Amendment establishes an individual right to bear arms or only a collective state right, with special attention to the U.S. Supreme Court’s 1939 decision in *United States v. Miller*; and (2) statistical abuse and misuse,

concentrating on studies purporting to prove cause and effect relationships between guns, gun laws and gun violence, including John R. Lott, Jr.'s celebrated and scarily influential book, *More Guns, Less Crime*.⁷

Some preliminary observations are in order. First, this essay focuses on the methods of argumentation employed, not the correctness of the conclusions reached. I will attempt to be fair and balanced in critiquing fallacies committed by each side. However, I make no pretense of complete objectivity. I am a partisan. I support much stronger gun control, particularly safe storage and other product safety laws designed to prevent access to guns by unauthorized users. (I believe all advocates in the debate have an ethical obligation to disclose their allegiances where they are not otherwise clear from the context and to disclose any financial compensation paid to them by partisan organizations.)

Second, although reasoning fallacies often are intentional rhetorical tricks used willfully to skew an argument, many fallacies result from unconscious self-deception. We often accept false arguments or propositions because our passion and self-interest allow us to deceive ourselves. I will avoid ascribing improper motives to anyone with regard to the fallacies discussed.

Third, I confess, as I have before, that I have used fallacious reasoning in debating guns, especially emotional fallacies and statistical fallacies of the type discussed below. Fallacies are hard to avoid. They are endemic to the art of persuasive argumentation. Debaters use them precisely because they are effective, even if defective. Of course, the fact that fallacies are common is not a justification for resorting to them. We should all strive to avoid crooked thinking. I will try to avoid it here.

Finally, my opinion that gun control discourse is in a state of serious disrepair does not apply to all commentators on all firearms issues. The most egregious fallacies occur in popular, as opposed to scholarly, debate. There are a number of excellent

scholars writing in this area who contribute positively to the debate, including many of the people who serve on the Board of Advisors for this distinguished journal. I am not sure why there are not more “anti-gun” scholars. This seems paradoxical given the general left-leaning tendencies of academia. That there are virtually no women scholars in the area is also interesting.

II. The Second Amendment Debate: “It’s *Miller* Time”

Fundamental to any discussion of gun control is the meaning of the Second Amendment, which provides that “[a] well regulated Militia, being necessary to the security of a free State, the right of the people to keep and bear Arms, shall not be infringed.” The Amendment is subject to two very different interpretations: an “individualist” view that the Amendment protects an individual’s right to keep and bear arms and a “collectivist” view that the Amendment protects only a collective state right to maintain organized militia such as the National Guard.

Collectivists find support for their interpretation in the linguistic structure of the Amendment, arguing that the “well regulated Militia” preamble serves to restrict the clause relating to the right to keep and bear arms. Individualists such as Eugene Volokh rebut the linguistic argument by noting that the first thirteen words of the Amendment are merely its justification clause, an introduction of sorts to the operative “right to keep and bear arms” clause. More importantly, individualists focus on the fact that in the 18th century, the “militia” included all able-bodied males in the community, not just those who belonged to organized state defense groups.

Each side has an ace in the hole in the Second Amendment debate that the other side usually refuses to acknowledge. The individual rights theorists appear to have the greater weight of historical authority on their side. The vast majority of recent scholarly articles have concluded from the historical data that the constitutional framers intended the Amendment to create and protect an individual right to bear arms (although it should be

noted that a small cadre of prolific pro-gun scholars is responsible for most of these articles).

In the opposing corner, the collectivists have an overwhelming edge in judicial support. Federal courts since *Miller* that have squarely weighed in on the issue have, with one recent exception discussed below, usually rejected an individual right interpretation of the Second Amendment, ruling instead that the Amendment guarantees a right to bear arms only in connection with organized state militia.⁸

Understandably, in presenting the Second Amendment, each side touts its strength. Individualists focus on their historical and scholarly support and collectivists trumpet their almost unblemished judicial record. How do the individualists and collectivists deal with the troubling weaknesses in their respective positions? Usually by pretending they do not exist or, at best, downplaying them in misleading fashion. Individualists usually fail to mention the line of court decisions refuting their position. Collectivists act similarly with regard to the adverse historical data and scholarly support.

In behaving this way, each side commits the fallacy of one-sided assessment.⁹ It is fallacious to ignore countervailing evidence or arguments in an attempt to persuade. Virtually any argument can be made to sound convincing if relevant authority tending to disprove the argument is overlooked or ignored. Audiences lacking personal knowledge of an issue are easily led astray when they receive only one side of an argument that has two viable sides, which is true of most gun-related issues. Given the fundamental importance of the Second Amendment to the overall debate and the vital nature of the opposing arguments to a contextual understanding of the Amendment, these fallacies are egregious.

The web-sites for Handgun Control, Inc. (HCI)¹⁰ and the National Rifle Association (NRA)¹¹ serve as interesting paradigms of the gun control debate on many issues, including this one. Both web-sites are sophisticated, although the NRA

gets the nod as the better, more professionally constructed site from an aesthetic and technical point of view. Both sites contain extensive libraries of information concerning firearms issues. Both sites devote particular attention to legal issues, including the meaning of Second Amendment.

Not surprisingly, the HCI site asserts that the Second Amendment stands only for a collective state right to maintain an organized militia,¹² while the NRA site advances an individual right position.¹³ However, both organizations are guilty of committing the fallacy of one-sided assessment for inadequately acknowledging and addressing the strong authority against their respective interpretations. Since HCI and the NRA are probably the two dominant national sources of information on firearms issues, these omissions are unacceptable.

The HCI site tackles the opposing interpretative authority very superficially in a section refuting what the organization labels as “NRA MYTH 7,” which it defines as: “The authors of the Constitution clearly stated their intention that the Second Amendment protect the possession of arms, even absent a connection with the militia.”¹⁴ HCI devotes five paragraphs to the historical argument, explaining how the NRA has taken quotations from James Madison and Patrick Henry out of context. The presentation is biased and incomplete.

On the other side, the NRA web-site substantially downplays the overwhelming judicial rejection of its individual right position. A person interested in learning about the Second Amendment could visit the NRA web-site and read a substantial volume of material concerning the Second Amendment and gun rights generally—some of it of high quality—yet come away not understanding that every modern federal court except one ever to address the issue has linked the right to possess firearms to the maintenance of an organized state militia. For example, in a section called “Fables, Myths & Other Tall Tales,” the NRA page states: “Fable: The Second Amendment to the Constitution does not protect an individual right to keep and bear arms.”¹⁵ The text in support of this proposition cites a short statement about the

second amendment which was made in fourth amendment case (*United States v. Verdugo-Urquidez*), emphasizes the historical support for an individual right interpretation and states that several legal scholars agree with it, and quotes a wholly one-sided “observ[ation]” from *United States v. Miller*—but nowhere does it mention that every court but one to expressly consider the issue has rejected the NRA’s interpretation. The NRA site gets some credit for offering a “Fact Sheet” listing and discussing federal court cases regarding the Second Amendment.¹⁶ However, the capsule summaries of each case are incomplete and almost wholly one-sided.

Throughout the modern era, the historical interpretative debate has been largely disconnected from and irrelevant to the real world of the constitutionality of gun laws. As in all matters of federal constitutional law, a constitutional provision does not necessarily mean what the framers intended it to mean. It means what courts say it means. Whether this coincides with the framers’ intent is often just a matter of happy coincidence. Whether this is good or bad is not the point. It just “is.”

As just one of many possible illustrations, it is as clear as anything in constitutional law that the drafters intended the Bill of Rights to restrict only federal action. The first eight amendments to the Constitution were not intended to apply to the states. The Court so held in *Barron v. Baltimore*¹⁷ in 1833. However, through some judicial sleight of hand occurring largely under the watch of Chief Justice Earl Warren in the 1960s, the Court “incorporated” almost all of the Bill of Rights into the Fourteenth Amendment due process clause and made them binding on the states. (Regrettably for the pro-gun movement, the Second Amendment is one of the only liberties in the Bill of Rights that the Court has not made binding on the states,¹⁸ which, I confess, is the wicked reason I chose the incorporation example to demonstrate my point.) As a result, states are bound by these restrictions despite the clear intent of the drafters to the contrary.

Law is what courts make it. The NRA knows that and should more openly and accurately inform the American public of the current state of the law. Conversely, HCI should make a fuller presentation of the historical evidence for and against its collective right position. Both proponents and opponents of gun control need and are entitled to accurate and complete information regarding this vital issue.

In this country, the ultimate arbiter of law is the U.S. Supreme Court. In the end, the Second Amendment means what the Supreme Court—the world’s most powerful tribunal—says it means nothing more or less. With so much at stake, it makes sense that both sides of the gun debate have devoted much attention to *United States v. Miller*,¹⁹ the Supreme Court’s only significant foray into Second Amendment interpretation. Unfortunately, they once again devolve into fallacious one-sided assessments when doing so.

The defendants in *Miller* were charged with transporting an unregistered sawed-off shotgun in interstate commerce in violation of the National Firearms Act of 1934. They claimed the indictment infringed their Second Amendment rights and the district court agreed, sustaining a demurrer to the indictment. On direct appeal, the Supreme Court reversed, holding that possession of the sawed-off shotgun was not protected by the Second Amendment.

Did *Miller* endorse the collective right view or the individual right view of the Second Amendment? We will see in a moment. But first it will be interesting to compare how the case has been presented by the two sides in the gun control debate.

Anti-gun forces interpret *Miller* as clearly establishing a collective right “organized militia” view of the Second Amendment, stating:

- The Supreme Court in *Miller* “ruled . . . that the Second Amendment has nothing to do with individual rights to bear arms but rather the right of the states to an armed militia.”²⁰

- The Supreme Court has “ruled at least three times that the Second Amendment has not the slightest thing to do with an individual’s right to bear arms,” *Miller* is claimed to be “the most trenchant of these decisions.”²¹
- “These words alone [two sentences from the Court’s opinion] undercut any individual right interpretation of the Second Amendment.”²²
- “It is firmly settled that there is no constitutional right to bear arms,” citing *Miller*.²³

In stark contrast to these collective right interpretations, pro-gun commentators have asserted about *Miller*:

- “[I]t is clear that *Miller*, even with its limitations, supports the view that the second amendment guarantees an individual right to keep and bear guns, including handguns.”²⁴
- “[D]espite the shortcomings of the *Miller* opinion, the Supreme Court correctly concluded that the Second Amendment protects an individual’s right to keep and bear arms and thus rejected the untenable collective right theory.”²⁵
- “*Miller* remains an affirmation of the constitutional protection of the popular right to keep and bear military weapons.”²⁶

Are all these people talking about the same case? *Miller* could not have established *both* a collective right interpretation and an individual right interpretation of the Second Amendment. Something is amiss, which is that both sides try to squeeze more out of *Miller* than is warranted by the Court’s opinion. The truth is, *Miller* offered a little something for everyone. It is an ambiguous decision that failed to unequivocally adopt either a collective right or an individual right interpretation of the Second

Amendment. To assert that the opinion clearly stands for one position without fully presenting the other side is a fallacious one-sided assessment.

The key passage from the Court's opinion, from which both sides draw support is this paragraph:

In the absence of any evidence tending to show that possession or use of a "shotgun having a barrel of less than eighteen inches in length" at this time has some reasonable relationship to the preservation or efficiency of a well regulated militia, we cannot say that the Second Amendment guarantees the right to keep and bear such an instrument. Certainly it is not within judicial notice that this weapon is any part of the ordinary military equipment or that its use could contribute to the common defense.²⁷

In the next paragraph, the Court explains how the Constitution originally granted Congress the power to call forth the militia to execute the laws of the Union, suppress insurrections and repel invasions, as well as the power to organize, arm and discipline the militia, while reserving to the States the power to appoint officers and train them according to discipline prescribed by Congress.²⁸ "With obvious purpose to assure the continuation and render possible the effectiveness of such forces," the Court stated, "the declaration and guarantee of the Second Amendment were made. It must be interpreted and applied with that end in view."²⁹

Supporters of gun control argue with some persuasiveness that by casting the issue in terms of whether a sawed-off shotgun bears a reasonable relationship to the maintenance of organized state militia, the Court endorsed the collective right interpretation. Opponents counter by quoting the Court's observation that the militia is comprised of "all males physically capable of acting in concert for the common defense."³⁰ This statement, they argue, makes the Court's emphasis on the militia consistent with an individual right interpretation.

Adherents of the individual right view also suggest that the defendants in *Miller*, who did not appear before the Supreme Court, lost only because of a failure of proof. They emphasize the Court's caveat in the above-quoted paragraph that "in the absence of any evidence" the Court would not take judicial notice that a sawed-off shotgun is a weapon that could be used by the militia to contribute to the common defense, suggesting that had such evidence been presented the result might have been different. Based on this, individualists assert *Miller* can be read to protect an individual's right to keep and bear any weapon with proven military utility.

But when all is said and done, the only certainty about *Miller* is that it failed to give either side a clear-cut victory. Most modern scholars recognize this fact. For example, Professor Eugene Volokh describes *Miller* as "deliciously and usefully ambiguous" in an article about using the Second Amendment as a teaching tool in constitutional law.³¹ That is probably the most accurate statement that can be made about the case.

We may finally find out what *Miller* "means" in the near future. The ante in the Second Amendment dispute was raised considerably in April 1999 when a Texas federal district court dismissed an indictment against a Lubbock man charged with unlawfully possessing a firearm while under a domestic restraining order. U.S. District Judge Sam Cummings ruled the statute prohibiting such possession (18 U.S.C. § 922(g)(8)) infringed the defendant's Second Amendment rights.³² This case—*United States v. Emerson*—is the first federal decision since the trial court's decision in *Miller* to declare a gun control law to be in violation of the Second Amendment. Much will be at stake if this case climbs the appellate ladder toward the Supreme Court. It will be interesting to watch how partisans on both sides construe *Miller* along the way.

III. Statistical Cause and Effect Studies: The Folly of *Post Hoc* Reasoning and Causal Oversimplification

The three classic rules for home buying, as any realtor will affirm, are “location, location, location.” The three rules for nineties-style arguing about gun control are “statistics, statistics, statistics.” Statistics rule the gun debate. They form the perfect pocket sound bite in our attention span-challenged society. Typically exaggerated, taken out of context or just plain misrepresented, gun control statistics are habitually spouted by pundits, politicians and partisan organizations. The media picks them up and disseminates them widely and repeatedly, often on editorial pages to back up pro or anti-gun diatribes. The most popular gun control statistics settle into the consciousness of mainstream America, where Joe Blow further distorts them in arguments at the coffee shop and letters to the editor.

My frustration with the statistical war recently prompted me to parody a “typical” gun control debate in my monthly humor column in the *American Bar Association Journal*. Here is an excerpt:

Gun Control Proponent: Last year in Japan, only one person was killed by a gun, while in the U.S. more than seventeen million people were killed just from getting hit in the head with ejecting shell cartridges.

Gun Control Opponent: Japan is a very regimented society. Only one Japanese citizen out of a hundred thousand gets to experience the excitement of dodging gunfire. Besides, every day in America, twenty million people use guns in self-defense and millions more use them to safeguard the country from British invasion.

Proponent: Nonsense. Studies show a gun in the home is one hundred and forty-six million times more likely to be used to kill a snail darter than for self-defense.

Opponent: Pro-gun control statistics are one billion times stupider than anti-gun control statistics.

Proponent: If you laid all the preposterous claims of gun control opponents end to end, they would circle the universe three hundred times and still have enough left over for infinity.

Opponent: There's a 99.99999999 percent chance that the rude remark I'm about to make concerning your mother will cause the veins in your neck to explode.

Proponent: Statistically speaking, gun owners are six-and-a-half trillion times uglier than non-gun owners.

Opponent: My machine gun can pump bullets into your abdomen at a rate of one-zillion rounds per minute.

Proponent: I'm a gazillion-bazillion times more likely to strike you in the head with this microphone than I was five minutes ago.³³

Unfortunately, while I can see levity in the battle of statistics, I also see danger. Each side is so mired down in statistical claims that we lose sight of the big picture. While reliable, relevant statistics are obviously useful to bolstering arguments, they are not a *substitute* for reasoned argument. However, too many lazy debaters rely almost exclusively on statistics to confer a veneer of substance on what are otherwise just naked opinions. Worse, too many members of the public seem willing to accept pure statistical "argument" of the issues. Since so many of the statistics bandied about are fallaciously misleading, this does not bode well for reasoned debate. Rhetoricians have identified several logical fallacies directly associated with statistics. David Fischer discusses several of them in *Historians' Fallacies*, including:

- the fallacy of generalizing from an insufficient sampling;³⁴
- the fallacy of statistical special pleading, which occurs when an investigator applies a double standard of evidentiary interpretation—one standard to evidence which sustains her generalizations and another to evidence which contradicts them;³⁵
- the fallacy of statistical impressionism, which occurs when one attempts to force an imprecise impressionistic interpretation into exact numbers;³⁶
- the fallacy of false extrapolation, which consists of extrapolating data beyond the breaking point to make future projections (Fischer gives this humorous example: since the average size of the American family was 3.71 persons in 1940 and 3.54 persons in 1950, one might, extrapolating from this data, argue that the American family is shrinking at an arithmetical rate of .22 persons per decade so that in 2070 the average size of the American family will be .90 persons);³⁷ and
- the fallacy of statistical nonsense, which Fischer describes as “a catchall category for a miscellany of statistical mumbo jumbo, all of which has one quality in common: it is, *in context*, literally meaningless.”³⁸

Examples of each of these statistical fallacies can be found in the gun debate. However, this essay will concentrate on a broader category of fallacy associated with statistics—causal fallacies—and explore how they are routinely abused in conjunction with statistical studies purporting to prove (or which are popularly interpreted as proving) cause and effect relationships between guns, gun laws and gun violence.

The gun control war has become far more sophisticated in recent years with the advent of these studies. On the anti-gun side are a number of studies funded by a wing of the U.S. Centers for Disease Control and Prevention (CDC) known as the

National Center for Injury Prevention and Control. Virtually all of these studies have reached results favoring gun control, finding correlations between owning guns and higher homicide and suicide risks and between gun control laws and lower crime rates. On the pro-gun side is John Lott's widely-publicized study contained in his book *More Guns, Less Crime*, which purports to prove that non-discretionary concealed weapons laws reduce violent crime.

As all lawyers remember from their first-year law school course in Torts, few legal doctrines are as bereft of meaningful content than that of causation. Even ignoring the illusory principles of proximate cause and concentrating on the comparatively concrete concept of causation in fact, "causality may have no more reality than a dragon or a mermaid."³⁹ This is because the search for a causal nexus, within or outside of the law, requires that we apply a hypothetical alternative test in which we must compare what happened under a set of known circumstances with what would have happened under a set of hypothesized circumstances. The problem is that we can never know with any degree of reliability what would have happened under the hypothetical circumstances because they never occurred.

As a result, we are often left to draw inferences based on causal oversimplification or *post hoc, ergo propter hoc* (after this, therefore because of this) reasoning. We reason that because one event followed another, the latter was caused by the former. While *post hoc* reasoning is universally condemned as fallacious,⁴⁰ it is not always defective. In some instances our everyday experience allows us to draw reasonable inferences of causation from a sequence of events. This is common, for example, in the law.

As an illustration, consider the simple facts of an old Louisiana case where a woman tripped and fell while descending stairs which were unlit and lacking a handrail. In a lawsuit against the railroad that owned the stairs, the court ruled that, even

absent specific evidence of causation, a reasonable inference could be drawn that the failure to light the stairs and provide a handrail caused the trip and fall.⁴¹ In effect, the court held that *post hoc* reasoning could be validly applied to determine the cause of this occurrence. While it is possible the woman would have fallen even if the stairs had been properly lit and a handrail provided, common experience tells us that traversing unlit stairs with no handrail greatly increases the chance of an accident occurring.⁴² Falling down unsafe stairs, the court said, is a natural and ordinary sequence of events.

While we still can never be certain of the cause, the three requirements for establishing a regularistic causal proposition between X (the fall) and Y (the unlit stairs and no handrail) are satisfied. Those three criteria are:

- a correlation between X and Y;
- a proper temporal relationship (X occurred before Y in a relevant time frame); and
- at least a presumptive agency that connects them.⁴³

In our example, a correlation does exist. The woman fell while using stairs that were unlit and with no handrail. A proper temporal relationship also exists. Most significantly, a presumptive agency connects the two events: the common body of experience which informs us that descending unlit stairs with no handrail is likely to lead to a fall. When dealing with simple, closely connected events with few variables, *post hoc* reasoning is not completely fallacious.

However, as events become more complex, *post hoc* reasoning becomes defective. The ability to draw reliable inferences of causation decreases rapidly and substantially as the number of causal variables increases. To isolate one event as “the cause” of another when there are hundreds or even thousands of relevant antecedents is a gross oversimplification that is virtually guaranteed to be fallacious. “[T]he real cause is the whole of these antecedents,” said John Stuart Mill, “and we

have, philosophically speaking, no right to give the name of cause to any one, exclusively of the others."⁴⁴

"Can any causal connection be answered by an empirical method?" asks Fischer in *Historians' Fallacies*.⁴⁵ The most plausible answer appears to be "Not very likely." Empirical studies can establish correlations, but a correlation can never by itself establish a cause. Every textbook on statistics warns against confusing correlation with cause.⁴⁶

I confess that I know very little about statistics. The discussion that follows is directed more at the rhetorical flaws of using statistics in the gun debate to draw causal connections than at the statistical analyses themselves. The discussion is in no way complete. More than 200 studies of guns and gun control have been conducted.⁴⁷ Cataloging all the statistical flaws in the gun control debate would require multiple volumes. I have selected for critique three causal fallacies on the pro-gun control side:

- the claim that the Brady bill has reduced violent crime,
- a comparative study of Seattle and Vancouver that purports to show that gun control laws reduce homicide rates, and
- a study of the correlation between suicide and guns kept in the home.

On the anti-gun control side, the choice for discussion was obvious: John Lott's book, *More Guns, Less Crime*. No study of guns has ever generated such a stir.

A. Statistical Cause and Effect Claims on the Pro-Gun Control Side.

1. "Brady bull."

Statistical cause and effect claims in gun discourse range from the simple to the highly sophisticated. At the "simple" end of the spectrum are obviously fallacious *post hoc* claims such as this one touted on an HCI web page: "CRIMES WITH GUNS

DOWN FASTER THAN VIOLENT CRIMES OVERALL, 1996 FBI Data Show Brady Law's Continuing Effectiveness In Reducing Gun Crimes.”⁴⁸ Employing painfully defective *post hoc* reasoning, the text proclaims that violent firearm crime has declined since implementation of the Brady bill in February 1994 and that this data “provides more compelling evidence that the Brady law is working.”

The *post hoc* fallacy is enormous. I support the Brady bill and feel confident it has prevented *some* crimes in denying handguns to 173,000 would-be purchasers who failed background checks and in deterring many convicted felons from ever attempting an over-the-counter handgun purchase. However, the fact that firearm violence dropped after passage of the Brady bill is hardly “compelling” evidence that the Brady bill caused the decline.

2. Gun laws and homicide rates.

At the “sophisticated” end of the statistical cause and effect pro-gun control spectrum are numerous public health studies funded by the CDC, almost all of which have reached negative conclusions concerning guns and gun ownership. The CDC-supported studies have been vigorously attacked by the pro-gun forces who assert the researchers are biased and their methodologies substandard.⁴⁹ Some of the accusations consist of unfair, *ad hominem*-laced partisanship, but some criticism is warranted.

In 1988, the *New England Journal of Medicine* published the results of a comparative study between Seattle, Washington and Vancouver, British Columbia, purporting to show an association between gun control laws and lower homicide rates.⁵⁰ This was one of the earliest and most widely publicized of the public health studies. The essential premise of the article was the Seattle and Vancouver are very similar cities in terms of demographics, geography and overall crime rates, but Seattle has a much higher homicide rate which, according to the article, is best explained by the fact that Seattle has lax gun laws and

Vancouver has strict gun laws. Specifically, the abstract of the article asserted:

Despite similar overall rates of criminal activity and assault, the relative risk of death from homicide, adjusted for age and sex, was significantly higher in Seattle than in Vancouver Virtually all of this excess risk was explained by a 4.8-fold higher risk of being murdered with a handgun in Seattle as compared with Vancouver. . . . We conclude that restricting access to handguns may reduce the rate of homicide in a community.⁵¹

The *Tale of Two Cities* article has been condemned by pro-gun researchers on several grounds, including the attempt to isolate Canada's gun laws as the primary cause for the discrepancy in homicides, downplaying or ignoring numerous other cultural and demographic differences between the two cities that could play a role in homicide rates. Criminologist Gary Kleck, a respected researcher, said of the study:

The research is worthless. There isn't a legitimate gun control expert in the country who regarded it as legitimate research. There were only two cities studied, one Canadian, one U.S. *There are literally thousands of differences across cities that could account for violence rates, and these authors just arbitrarily seized on gun levels and gun control levels as being what caused the difference.*⁵²

Kleck is correct. There are probably thousands of differences between the two cities. Not all of them are as relevant to the homicide rate as access to guns, but it seems impossible to isolate Vancouver's gun laws as a primary explanation for the difference in homicide rates, certainly not without devoting much more attention to other possible explanations than did the *Tale of Two Cities* study.

3. Gun laws and suicide rates.

Even if the statistical study itself is not causally fallacious, the popular interpretation of it may be. That appears to be the case with respect to a well-known CDC-funded study showing a strong correlation between firearms in the home and firearms suicide.

A web page titled “Firearms Facts” contained on the HCI web-site states, without explanation or qualification, that: “The presence of a gun in the home increases the risk of suicide fivefold.”⁵³ This factoid is derived from a study conducted by noted gun researcher Arthur Kellerman and several colleagues (collectively referred to here as “Kellerman” for purposes of convenience) published in a 1992 article in the *New England Journal of Medicine*.⁵⁴ Kellerman’s claim was actually a bit more modest. His study suggested that keeping guns in the home increased the risk of suicide by a 4.8 ratio rather than a 5.0 ratio. So already, before we even get to the study, we find the ratio being exaggerated without justification for popular rhetorical purposes by four percent.

Kellerman studied all suicides occurring in Shelby County, Tennessee (Memphis area) and King County, Washington (Seattle area) during a thirty-two month period between 1987 and 1990. Data was collected for each suicide from the police, medical examiner and by interviewing proxies for the victim concerning risk factors for suicide such as alcohol and drug use, history of depression or mental illness and gun ownership. Answers to the interview questions were compared to a set of control subjects from the same neighborhood, matched with the victim by sex, race and approximate age. The result was 438 matched pairs of suicide victims and controls.

Analyzing and comparing various risk factors for suicide present in the victims and the controls, the study concluded “that keeping one or more firearms was strongly associated with an increased risk of suicide in the home” by a ratio of 4.8.⁵⁵ The study found that firearms were more prevalent in the homes of

the suicide victims than in the homes of the matched controls. Guns were kept in 65 percent of the suicide victims' homes but in only 41 percent of the control subjects' homes.⁵⁶ Handguns, which were used in 72 percent of the firearm suicides studied,⁵⁷ were present in 49.5 percent of the victims' homes but in only 23.4 percent of the controls' homes.⁵⁸

To an untrained eye, the study appears to have been well thought out and carried out. Specific objections leveled against the study itself seem unwarranted. For example, Don Kates, in criticizing the study, emphasized a possible alternative explanation for the association between guns in the home and firearm suicides—that gun ownership may be associated with personality traits related to suicide.⁵⁹ However, he failed to mention that the authors noted this same possibility.⁶⁰ Kates also suggested the authors biased the study by excluding suicides outside the home.⁶¹ This criticism is unjustified since the very purpose of the study was to study the association between guns kept in homes and firearm suicides occurring in homes. Indeed, the title of the article is "Suicide in the Home in Relation to Gun Ownership."

However, even assuming the Kellerman suicide study was methodologically sound, causal fallacies have arisen in the oversimplified interpretation and presentation of the study offered by HCI and other gun control advocates. Uninformed members of the public might reasonably interpret the HCI factoid that "[t]he presence of a gun in the home increases the risk of suicide fivefold" to mean: "If I have a gun in my home, it's five times more likely that someone in my home will commit suicide." The naked unexplained "fact" suggests that guns in homes are responsible for causing suicide at a dramatically increased rate.

In truth, as Kellerman openly documented in the study, several suicide risk factors in addition to gun ownership were also far more prevalent for suicide victims than for control subjects. Depression or mental illness was present in 83.5 percent of the suicide victims, but only 6.4 percent of the control subjects.⁶² Thirty-six percent of the suicide victims took prescribed

psychotropic medication, while only 3.5 percent of the control group did so.⁶³ Alcohol abuse was reported in “substantially higher percentages” by the suicide proxies than by the controls.⁶⁴ Thirty-six percent of the suicide victims lived alone as compared to 18 percent of the control subjects.⁶⁵ The suicide victims were “far more likely” (27.8 percent vs. 8.5 percent) to have been arrested than the control subjects.⁶⁶ Illicit-drug use was reported by 19.2 percent of the suicide proxies but only 3.1 percent of the controls.⁶⁷

Thus, several risk factors other than the presence of a gun in the home correlate with suicide, some of them at much higher risk ratios than the 4.8 ratio for guns. According to the study, the odds of suicide for a person living alone are 5.3 higher than for persons not living alone.⁶⁸ The suicide odds are 4.1 higher for persons who did not graduate from high school than for graduates.⁶⁹ However, one does not hear people arguing that living alone or not graduating from high school should be avoided because they greatly increase the risk of suicide.

But again, this data was all fairly set forth in Dr. Kellerman’s study. As with many statistical claims, the fallacy occurs primarily in the reporting. One sentence-summaries of the results of complex studies will be grossly oversimplified and fallacious every time. Both HCI and the NRA employ similar lists of firearms “facts” on their web-sites. “Facts” that are subject to biased interpretation should be omitted from these lists.

Closing out this discussion, I feel compelled to mention that I am biased in favor the Kellerman study based on my belief—grounded in common sense rather than statistical analysis—that reducing guns in the home (or at least safely securing them) would reduce suicides. Suicide is often an impulsive act, particularly among adolescents. Firearms offer the easiest, quickest, most dependable and convenient means to end one’s life in a moment of despair. But that is the subject of another article, which, in fact, is in progress.

B. Statistical Cause and Effect Claims on the Anti-Gun Control Side: "Lotts" More Guns, Less Crime.

John Lott is one of the most prolific and influential writers on guns and gun control of all-time.⁷⁰ No one will ever accuse Lott of suffering from writer's block. His guest editorials and op-ed pieces promoting concealed weapons carrying and opposing gun control have appeared in newspapers on at least 110 occasions.⁷¹ He has been referred to in more than 1,100 newspaper stories.⁷² Most of the attention he generates comes from his book, *More Guns, Less Crime*,⁷³ which itself has been mentioned by name in 218 newspaper stories.⁷⁴

This book—a massive nationwide statistical analysis that purports to prove that non-discretionary concealed weapons laws reduce violent crime—has achieved what every literary agent dreams of in an academic tome: “crossover potential.” Written for the stately University of Chicago press, as of June 16, 1999, the book charted a very respectable “490” on Amazon.com’s sales chart, the “Billboard chart” of book sales. An *Excite* Internet search of “John R. Lott, More Guns Less Crime” turned up 3,911,222 matches. While there are undoubtedly many false positives in this list (I did not go through them all), the first several dozen sites listed reveals that this book is making a dramatic impact on the consciousness of the American people.

Lott has developed a devoted cult following among gun lovers and has become a marked man among gun haters. A web page for the “Maryland Self-Defense League” markets “More Guns—Less Crime” bumper stickers and urges people to purchase Lott’s book.⁷⁵ The Violence Policy Center maintains a “Who Is John Lott” page that portrays Lott as an extremist by quoting excerpts from his academic and popular writings.⁷⁶

More Guns, Less Crime has provided potent ammunition for those who favor nondiscretionary concealed weapons laws—laws that require issuance of a concealed handgun permit to any person who meets the minimum state-prescribed criteria, which generally consist of passing a background check and a firearms safety course. Thirty-one states now have such “right-to-carry

laws.” Without committing my own *post hoc* fallacy, it appears Lott’s book and the buzz it has generated is playing a crucial role in the passage of these laws.

By any measure, *More Guns, Less Crime* is an important work, but is Lott’s conclusion that right-to-carry laws deter and reduce violent crime valid? I confess that Lott’s book *sounds* persuasive. Lott is articulate and a master of his field. Not being an econometrician, I would not hazard a critique of his methods. He could make mincemeat of me without even breaking a sweat. But therein lies part of the problem. Dependent as Lott’s book is on reams of data and “cross-sectional,” “time-series” and “regression” analyses, his statistical methodologies are impenetrable to most readers and, therefore, insulated from critical scrutiny to a large extent. One Amazon.com reviewer (the book has already generated forty-four reader reviews—another impressive stat) who gave the book a four star rating (out of five) said: “Regressions, scatter diagrams, means, standard deviations, whew! It’s enough to make the non-initiated’s head spin.”

Statistics is one of the most inaccessible of all fields to non-experts. In writing this article, I sought the help of two colleagues in answering what appeared to be a fairly straightforward statistical interpretative question. One colleague graduated with a mathematics degree from the University of Virginia with highest distinction. The other is completing his doctoral dissertation in sociology, which required completion of several courses in statistics. We think we figured out the answer, but only after considerable discussion. If three law professors with a combined twenty-five years of higher education have to labor over answering a single statistical question, how much of Lott’s study can possibly be understood by the average reader? Yet Lott’s book is being accepted as gospel by large numbers of the American public.

Of course, most believers will never even read the book. Instead, they will rely on word-bite summaries of Lott’s conclusions, which appear frequently in newspapers and other

publications. Here is how an article called "Gunfight Arithmetic" in *Guns Magazine* presents Lott's complex statistical study to its readers:

- "Says Professor Lott, 'The probability of serious injury from a criminal confrontation is 2.5 times greater for women offering no resistance than for women resisting with a gun.'" ⁷⁷
- "Explains Lott, 'The more people who obtain permits over time, the more violent crime rates decline. After concealed handgun laws have been in effect for five years, murders declined by at least 15 percent, rapes by 9 percent, and robberies by 11 percent.'" ⁷⁸
- "Professor Lott's authoritative research indicates that American citizens may use guns in self defense as often as 2 million times a year."⁷⁹ (Another layer of distortion: although Lott frequently cites the self-defense claim in op-ed pieces, it was Gary Kleck's research that came up with this number.)

Apparently, any pro-gun statistic takes on an aura of authority so long as it begins with "Lott says," even statistics he did not develop.

What do other experts say of Lott's study?⁸⁰ In the first published critique of Lott's work, Dan Black and Daniel Nagin reanalyzed the data and concluded it provides no basis for drawing confident conclusions about the impact of right-to-carry laws on violent crime.⁸¹ Among their findings:

The estimates [of the impact of right-to-carry laws on violent crime] are disparate. Murders decline in Florida but increase in West Virginia. Assaults fall in Maine but increase in Pennsylvania. Nor are the estimates consistent within states. Murders increase, but rapes decrease in West Virginia. Moreover, the

magnitudes of the estimates are often implausibly large. The parameter estimates that RTC laws increased murders by 105 percent in West Virginia but reduced aggravated assaults by 67 percent in Maine. While one could ascribe the effects to the RTC laws themselves, we doubt that any model of criminal behavior could account for the variation we observe in the signs and magnitudes of these parameters.⁸²

Black and Nagin concluded that the large variations in state-specific estimates raised the concern that Lott's results could be dictated by a single state for which Lott's model poorly fitted the data. They decided that state was Florida, due to its volatile crime rates influenced by a flourishing drug trade and the Marcel boat lift of 1980 and the fact that Florida passed several gun control restrictions during the relevant period. Reanalyzing the data without Florida, Black and Nagin found:

While the estimated impact of RTC laws on assault is relatively unaffected, without Florida there is no evidence of any impact on homicides and rapes. Thus, for these two crimes—the two crimes that account for 80 percent of the total social benefit of the RTC laws . . . —the evidence of a deterrent effect vanishes with the removal of a single state from the analysis.⁸³

Lott offered a detailed refutation of this reanalysis.⁸⁴

Dr. Stephen Teret, director of the Johns Hopkins Center for Gun Policy and Research, calls Lott's work "unsubstantiated," asserts it contains "factual and methodological flaws," characterizes his conclusions as "implausible," and states that Lott's methodology is "incorrect" and "discredited."⁸⁵ Lott responds to these criticisms in point by point rebuttals.⁸⁶

In his book, Lott discusses twenty-three specific criticisms lodged against the validity of his study.⁸⁷ As I studied each specific criticism, I thought: "Aha. A fatal flaw. They've got him now." Then I would read Lott's detailed response and not know

what to think. I finished the chapter scratching my head, essentially clueless about who had the upper hand.

"Who is right?" is not the relevant question for purposes of this essay. I note these critiques not to try to prove Lott wrong, but because they confirm my basic belief that it is impossible for any statistical study to reliably isolate one causal factor out of hundreds or thousands or millions and say *this* factor caused violent crime to decline by *this* amount. Lott boasts that his study contains "54,000 observations and hundreds of variables available over the 1977 to 1994 period" and that it contains "by far the largest data set that has ever been put together for any study of crime, let alone for the study of gun control."⁸⁸ This may be a plus, but the more calculations involved, the more potential there is for bias and error to creep into the analysis.

Even Lott makes statements such as:

- "Many potential causes of crime might fluctuate in any one jurisdiction over time, and it is very difficult to know which one of these changes might be responsible for the shifting crime rate."⁸⁹
- "While I make use of the arrest-rate information, I include a separate variable for each county to account for the different average crime rates each county faces, which admittedly constitutes a rather imperfect way to control for cross-country differences such as expected penalties."⁹⁰
- "This aggregation of crime categories makes it difficult to isolate crimes that might be deterred by increased handgun ownership and crimes that might be increasing as a result of a substitution effect."⁹¹

Although Lott offers detailed solutions to the concerns he raises, the more he turns to alternative analyses and variables to compensate for possible shortcomings, the greater my perception of the study as one gigantic statistical bootstrap undertaking.

Interestingly, in refuting criticisms of his study, Lott's weakest defense is to the simplest complaint: that he is guilty of fallacious *post hoc* reasoning.⁹² He concedes in response that "[a]n obvious danger arises in inferring causality because two events may coincide simply by chance, or some unknown factor may be the cause of both events."⁹³ He defends against the criticism by noting that "this study uses the most comprehensive set of control variables yet used in a study of crime." "For a critic to attack the paper," he opines, "the correct approach would have been to state what variables were not included in the analysis."⁹⁴

A multitude of causes contribute to either higher or lower violent crime rates. The deterrent effect of carrying concealed weapons is one of these factors. Other gun-related factors include the numbers of guns, gun distribution, gun marketing practices, types of guns, safe storage of guns, gun control laws, post-sale access to guns and firearm education. The list of non gun-related factors influencing the violent crime rate is almost endless: unemployment, poverty, illicit drug use, media violence, racial and ethnic demographics, police resources, mental illness, immaturity, alcohol abuse, arrest and conviction rates, lengths of prison sentences, the "broken window" effect, opportunity, the rise and decline of gangsta rap music, diet, climate, family status, cultural homogeneity, sexual disorders, bad tempers, road rage, private security guards, hopelessness, abuse as a child, despair, desperation, protective canines, crowded living conditions, home security systems, greed, educational levels, machismo, increased awareness of crime, gang membership and more.

Lott's study attempted to account for some of these causes, but not nearly all of them. There is no way it could. The bottom line is that any attempt to isolate the impact of one causal factor in a situation involving an extremely large number of other possible explanations seems doomed to be fallacious.

In discussing statistical cause and effect fallacies on the pro-gun control side, I mentioned the *Tale of Two Cities* study that attributed Vancouver's lower homicide rate in comparison to

neighboring Seattle to the fact that Vancouver has stricter gun laws. Recall the blistering critique of that study by pro-gun criminologist Gary Kleck, who said “[t]here are literally thousands of differences across cities that could account for violence rates, and these authors just arbitrarily seized on gun levels and gun control levels as being what caused the difference.” If there are “literally thousands of differences between cities” that contribute to violence rates, there must be literally millions of differences between the 3,054 counties in the United States studied by Lott.

My intuitive belief about the study is that—regardless of how carefully and thoroughly it was conducted—there are simply too many variables contributing to violent crime to isolate concealed weapons laws as a major cause in deterring or reducing it. It simply is not something that is capable of being proved by a statistical study. While Lott’s study is obviously far more sophisticated than simple *post hoc* reasoning, in the end, I believe it amounts to basically a *post hoc* argument that: States passed nondiscretionary concealed weapons laws; violent crime went down in some categories in some states; therefore, non-discretionary concealed weapons laws cause violent crime to go down. In the absence of other proof—which may never exist—it would be reckless for state legislators or anyone else to rely on this single study in making the major firearms policy decision to allow citizens to carry concealed handguns.

IV. Conclusion

Aristotle first classified logical fallacies in the fourth century, B.C., listing thirteen of them in *Sophistical Refutations*. As the art of practical argumentation evolved, so did Aristotle’s list. Modern rhetoricians have classified more than one hundred different fallacies. Many if not all of them are present in the gun control debate. Indeed, the gun control debate—because of the emotional nerve it touches—may be the most fertile breeding ground for reasoning defects in all of political discourse.

An issue as important to health and safety as the responsible management of 200 million instrumentalities capable of instantly ending human life demands reasoned discussion and consideration. The rampant demagoguery that pervades both sides of the gun control debate is detrimental to our national interest because it keeps us from inching towards much needed compromise solutions.

My modest goal in writing this essay was to generate some thoughtful consideration of how we should go about debating one of the most important public policy issues facing the nation. It was not my intention to change anyone's opinions concerning the substantive issues discussed herein, nor do I harbor any illusions that has occurred. I hope my attempt at evenhandedness (recognizing that my bias shows through in places) demonstrates my good faith and will encourage other participants in the debate to behave similarly.

There are reasonable arguments on both sides of almost every issue regarding guns and gun control. That is the threshold, critical point that all interested parties need to accept. We should stop automatically attaching *ad hominem* labels such as "gun nut" and "gun grabber" to our opponents and recognize that we have legitimate bases for disagreement. In addition to listening to what our opponents are saying, we need to begin critically examining our own arguments. Unexamined beliefs on any issue of substance—personal, political or professional—are dangerous.

What a pleasant surprise (or perhaps more accurately, a cardiac arrest-causing event) it would be to hear this type of response to an opposing opinion about gun control: "I understand where you're coming from. I can see why you would be worried about [fill in the blank]. My concern with your position is [fill in the blank]. Do you think there is some way we could come up with a proposal that would address both of our concerns?"

It could happen.

Author's Note

When David Kopel asked me to contribute to the 11th Journal on Firearms and Public Policy and said he welcomed my article submissions, I was flattered, although a bit bewildered. After all, the journal seems clearly designed for gun proponents, not longstanding gun critics like myself.⁹⁵ When I mentioned this concern to David, he explained that the one-sided content of the journal stems in part from the fact that he has a difficult time getting gun control advocates to submit articles, which is a shame. David deserves credit for his good faith effort to solicit differing viewpoints for this journal.

END NOTES

1. Nadine H. Baum Distinguished Professor of Law, University of Arkansas at Little Rock. E-mail: ajmclurg@ualr.edu. I am grateful to Debby Vickers for her exceptional research assistance. Copyright 1999, Andrew J. McClurg.

2. Andrew J. McClurg, *The Rhetoric of Gun Control*, 42 *Am. U. L. Rev.* 53 (1992).

3. David Fischer, *Historians' Fallacies* (1970).

4. W. Ward Fearnside & William B. Holther, *Fallacy: The Counterfeit of Argument* (1959).

5. T. Edward Damer, *Attacking Faulty Reasoning* (1980).

6. Don B. Kates, et al., *Public health pot shots: how the CDC succumbed to the gun “epidemic,”* *Reason*, Apr. 1997, at 24. I would take issue only with the word “more.” While I do not promote banning all guns, I support reducing the supply of new guns.

7. John R. Lott, Jr., *More Guns, Less Crime* (1998).

8. See, e.g., *United States v. Nelsen*, 859 F.2d 1318, 1320 (8th Cir. 1988) (responding to defendant’s claim that Second Amendment protects a fundamental right to keep and bear arms, court said “this has not been the law for at least 100 years” and that “cases have analyzed the second amendment purely in terms of protecting state militias, rather than individual rights”); *Quillici v. Village of Morton Grove*, 695 F.2d 261, 270 (7th Cir. 1983) (“Construing the [Second Amendment] according to its plain meaning, it seems clear that the right to bear arms is inextricably connected to the preservation of a militia [W]e conclude that the right to keep and bear handguns is not guaranteed by the Second Amendment.”).

9. What I am calling the “fallacy of one-sided assessment” also travels under different names. See Damar, *supra* note 5, at 60-61 (“Neglect of Relevant Evidence”); Jack L. Landau, *Logic for Lawyers*, 13 *Pac. L.J.* 59, 93 (1981) (“Suppressed Evidence”).
10. Handgun Control, Inc. Home Page: <http://www.handguncontrol.org>.
11. National Rifle Ass’n Home Page, <http://www.nra.org>.
12. See, e.g., *Guns and the Judiciary*, Interview with Dennis Henigan, in Handgun Control, Inc website, <http://www.handguncontrol.org/legalaction/c2/c2henigan.htm>.
13. See, e.g., *Fables, Myths & Other Tall Tales, About Gun Laws, Crime and Constitutional Rights*, in National Rifle Ass’n Home Page, ILA Research & Information Division, <http://nraila.org/research/Fables.html>.
14. *Exposing the NRA’s Second Amendment Mythology, A Guide for Gun Control Advocates*, in Handgun Control, Inc. Home Page, <http://www.handguncontrol.org/legalaction/c2/c2nrmyth.htm>.
15. *Id.*
16. *Fact Sheet, Federal Court Cases Regarding the Second Amendment*, ILA Research & Information Division, in National Rifle Ass’n Home Page, <http://www.nraila.org/research/rifcourt.html>.
17. 32 U.S. 243 (1833).
18. *Presser v. Illinois*, 116 S.Ct. 252, 265 (1886) (holding the Second Amendment declaration that the right to bear arms shall not be infringed “means no more than that it shall not be infringed by Congress. This is one of the amendments that has no other effect than to restrict the powers of the National Government . . .”). While it is true *Presser* was decided before any of the rights in the Bill of Rights were made binding on the states, *Presser* as of this late date remains good law and a painful thorn in the side of the pro-gun movement.
19. 307 U.S. 174 (1939).
20. Amitai Etzioni, *Gun Control: A Vanilla Agenda*, 1 *Responsive Community* 6, 9 (1991).

21. Wayne King, Sarah and James Brady; Target: The Gun Lobby, N.Y. Times (Magazine), Dec. 9, 1990, at 80.
22. Roy G. Weatherup, Standing Armies and Armed Citizens: An Historical Analysis of the Second Amendment, 2 Hastings Const. L. Q. 961, 999 (1975).
23. Eric A. Pullen, Guns, Domestic Violence, Interstate Commerce, and the Lautenberg Amendment: “Simply Because Congress May Conclude That A Particular Activity Substantially Affects Interstate Commerce Does Not Necessarily Make It So,” 39 S. Tex. L. Rev. 1029, 1070 n.308 (1998).
24. Richard E. Gardiner, To Preserve Liberty—A Look at the Right to Keep and Bear Arms, 10 N. Ky. L. Rev. 63, 92 (1982).
25. Nelson Lund, The Second Amendment, Political Liberty, and the Right to Self-Preservation, 39 Ala. L. Rev. 103, 110 (1987)
26. Ronald Docal, Comment, The Second, Fifth and Ninth Amendments—The Precarious Protectors of the American Gun Collector, 23 Fla. St. U. L Rev. 1101, 1120 (1996).
27. 307 U.S. at 178.
28. Id.
29. Id.
30. Id. at 179.
31. Eugene Volokh, et al., The Second Amendment As Teaching Tool In Constitutional Law Classes, 48 J. Legal Educ. 591, 604 (1998).
32. United States v. Emerson, ___ F. Supp. 2d ___, 1999 WL 198865 (N.D. Tex. 1999) (“The rights of the Second Amendment should be as zealously guarded as the other individual liberties enshrined in the Bill of Rights.”).
33. Adapted from McClurg, Hold Your Fire, supra note 6, at 14.
34. Fischer, supra note 2, at 104-109.
35. Id. at 110-13.
36. Id. at 113-16.
37. Id. at 120-25.

38. Id. at 116-18.

39. W.P. Montague, *The Ways of Knowing, or the Methods of Philosophy* 199 (J.H. Muirhead ed., 1928).

40. For a discussion of the fallacies involved in post hoc reasoning, see Damer, *supra* note 4, at 68-69; Fearnside & Holther, *supra* note 3, at 21-22; Fischer, *supra* note 2, at 166-67.

41. See *Reynolds v. Texas & Pac. Ry. Co.*, 37 La. Ann. 694, 698 (La. 1885).

42. Id. at 698 (explaining that where character of defendant's negligence greatly multiplies chance of plaintiff's accident and is of character naturally leading to occurrence of accident, mere possibility that accident might happen without defendant's negligence is insufficient to break chain of causation between negligence and injury).

43. Fischer, *supra* note 2, at 169

44. Quoted in *id.* at 183.

45. Id. at 164.

46. Id. at 167.

47. Lott, *supra* note 7, at 21-22.

48. CRIMES WITH GUNS DOWN FASTER THAN VIOLENT CRIMES OVERALL, 1996 FBI Data Show Brady Law's Continuing Effectiveness In Reducing Gun Crimes, in *Handgun Control, Inc. Home Page*, <http://www.handguncontrol.org/helping/gunuse/htm>.

49. See, e.g., Kates, *supra* note 5 (partisan critique of studies); Edgar A. Suter, Guns in the Medical Literature B A Failure of Peer Review, 83 *J. Med. Ass'n Georgia* 133 (1994) (partisan critique of studies); Gary Taubs, Violence Epidemiologists Test the Hazards of Gun Ownership, 258 *Science* 213 (1992) (describing criticisms of studies).

50. John Henry Sloan, et al., *Handgun Regulations, Crime Assaults, and Homicide: A Tale of Two Cities*, 319 *New Eng. J. Med.* 1256 (1988).

51. Id. at 1256.

52. *Firearm Regulations and Rates of Suicide*, Letter by Paul H. Blackman, NRA, 323 *New Eng. J. Med.* 136 (1990) (quoting Gary Kleck broadcast on All

things considered, National Public Radio, Dec. 16, 1989). I added the emphasis to Kleck’s argument that there are “literally thousands of differences” between cities because I intend to return to it when we get to John Lott’s national study of the effect of concealed weapons laws on violent crime rates.

53. Firearm Facts, in Handgun Control, Inc. Home Page, <http://www.handguncontrol.org/protecting/D4/d4firefc.htm>.

54. Arthur L. Kellerman, et al., Suicide In the Home In Relation To Gun Ownership, 327 New Eng. J. Med. 467 (1992).

55. Id. at 470.

56. Id.

57. Id. at 469.

58. Id. at 470.

59. Kates, supra note 5, at 27.

60. Kellerman, supra note 54, at 471 (“[W]e cannot exclude the possibility that gun owners (and people who live in homes with guns) may be psychologically predisposed to commit suicide.”).

61. Kates, supra note 5, at 28.

62. Kellerman, supra note 54, at 470.

63. Id.

64. Id. at 469.

65. Id.

66. Id. at 469-70.

67. Id. at 469.

68. Id. at 470.

69. Id.

70. This critique is not personal in nature. I debated John Lott at the Federalist Society’s Inaugural Faculty Division Conference in New Orleans in January 1999. I found him to be a pleasant, knowledgeable and fair debater. I respect his work. Lott has endured repeated, unfair ad hominem attacks (itself a virulent

fallacy) because of his position as an Olin Fellow at the University of Chicago. The fellowship is funded by the John M. Olin Foundation. John M. Olin also founded the Olin Corporation, a subsidiary of Winchester, Inc. that makes ammunition. Numerous news sources have attacked Lott's credibility by painting him as a hired gun (excuse the pun) for the firearms industry. This is false. The Olin Foundation is an independent foundation administered by a committee of University of Chicago law professors. According to the president of the Olin Foundation, the Foundation had no knowledge of who applied for the fellowships, nor did it ever suggest Lott be awarded one of them. Lott, *supra* note 8, at 125. This is a prime example of the treachery of fallacy in the gun debate. I confess that before I read Lott's book, I accepted the well-publicized accusations as true.

71. Search of NEXIS, NEWS library, PAPERS file (June 15, 1999) (search terms: "byline(john and lott)"). The search turned up 110 entries. I did not peruse each one.

72. *Id.* (search terms: "john /1 lott"). The search results included 1,176 documents, but some of them refer to other persons with the name "John Lott."

73. Lott, *supra* note 8. The book is based on an earlier article published by Lott and David B. Mustard. See John R. Lott, Jr. & David B. Mustard, Crime, Deterrence, and the Right-To-Carry Concealed Handguns, 26 *J. Leg. Stud.* 1 (1997). For purposes of convenience and because Lott is the sole author of the book, I refer to the concealed weapons research as "Lott's work," not intending to take anything away from Mustard's contributions.

74. Search of NEXIS, NEWS library, PAPERS file (June 15, 1999) (search terms: "more guns, less crime").

75. [Http://www.mcdl.org/mg'lc.htm](http://www.mcdl.org/mg'lc.htm).

76. [Http://www.vpc.org/fact_sht/wholott.htm](http://www.vpc.org/fact_sht/wholott.htm).

77. Gunfight Arithmetic, *Guns*, June 1999, at 14.

78. *Id.*

79. *Id.*

80. To Lott's credit, he willingly makes his data available to critics for review.

81. Dan A. Black & Daniel S. Nagin, Do Right-To-Carry Laws Deter Violent Crime?, 27 J. Leg. Stud. 209 (1998).

82. Id. at 214.

83. Id.

84. John R. Lott, Jr., The Concealed-Handgun Debate, 27 J. Leg. Stud. 221 (1998).

85. Critical Commentary on a Paper by Lott and Mustard, <http://www.health.su.oz.au/cgc/teret.htm>.

86. John Lott's Response to Stephen Teret's 'Critical Commentary on a Paper by Lott and Mustard,' http://www.best.com/~ddfr/Lott_v_Teret/Response_to_Teret.html.

87. Lott, supra note 8, at 128-57.

88. Id. at 147.

89. Id. at 22.

90. Id. at 26.

91. Id. at 28.

92. Id. at 152-54.

93. Id. at 153.

94. Id.

95. See Andrew J. McClurg, Child Access Prevention Laws: A Common Sense Approach To Gun Control, St. Louis Pub. L. Rev (publication forthcoming); McClurg, Hold Your Fire, A.B.A.J., Feb. 1999, at 14; McClurg, The Tortious Marketing of Handguns: Strict Liability Is Dead, Long Live Negligence, 19 Seton Hall Leg. J. 777 (1995); McClurg, The Rhetoric of Gun Control, supra note 2; McClurg, Strict Liability for Handgun Manufacturers: A Reply to Professor Oliver, 14 U. Ark. Little Rock L. Rev. 511 (1992); McClurg, Handguns As Products Unreasonably Dangerous Per Se, 14 U. Ark. Little Rock L. Rev. 599 (1991).

A SYSTEMATIC APPROACH TO CONTROLLING FIREARMS MARKETS

By William J. Vizzard

A national system of gun registration and gun licensing would substantially assist the prosecution of felon-in-possession cases, without imposing unreasonable burdens on legitimate gun owners, argues William J. Vizzard. Professor Vizzard is an Associate Professor of Criminal Justice at California State University-Sacramento. Before that, he served as a Special Agent, Resident Agent in Charge, Group Supervisor, Special Agent in Charge, and Operation Officer (headquarters) for the Bureau of Alcohol, Tobacco and Firearms. He is the author of two books on firearms policy: "In the Crossfire: A Political History of the Bureau of Alcohol, Tobacco and Firearms" (1997) and "Evolution of Gun Control Policy in the United States" (1993).

I. Introduction

For over sixty years, the nation has debated the desirability of gun control.¹ Unfortunately, little of that discussion has focused on specific policy options and even less has engaged the details of administration and implementation of options.² The direct result too often has been ideologically driven policy discussions, in which both advocates and opponents emphasized symbolism and ideology, without providing detailed descriptions of policies.³ Even when the general outlines of policy have been delineated, inadequate attention has been given to crafting the details of policy.⁴ The result has been initiatives shaped primarily by political and symbolic concerns. Recent examples can be observed in the crafting of the Brady Law. Presumably seeking to reduce opposition to the bill from citizens suspicious of federal

authority, the drafters of Brady required record checks of buyers to be processed by local authorities. Opponents quickly responded with constitutional challenges under the Tenth Amendment reservation clause which succeeded before the Supreme Court.⁵ Efforts by several states and the federal government to prohibit assault weapons ignored the difficulties of definition and have been bypassed by manufacturers, who simply produce new models.⁶

Conversely, much of the research on gun control issues has been difficult to translate into concrete public policy proposals.⁷ Although increased funding by the National Institute of Justice has expanded the body of basic research in recent years, this work tends to focus on the current patterns of firearms acquisition and possession, particularly among youth. Only a few authors have attempted to examine the dynamics of firearms markets, and fewer still have considered alternative systems of market regulation. Legislative staffs and the bureaucracy display a conspicuous absence of detailed knowledge of the mechanics of firearms markets.⁸

II. The State of the Literature

The literature relating directly to details of firearms regulation is quite meager. Several authors have conducted critical examinations of the current federal gun control laws, although the majority of this work has been written by opponents of those laws and focuses on alleged abuses of citizens rights by the Bureau of Alcohol, Tobacco and Firearms (ATF).⁹ If we assume that abolition of all federal regulation of firearms commerce is no more likely than firearms prohibition, such critiques serve to provide little guidance as to the costs, benefits or preferable form of firearms regulation, particularly as such regulation would apply to controlling markets. Some scholars have attempted to describe the structure, vulnerability and incentives of illicit markets, without detailed evaluation options for molding those markets.¹⁰

Two articles, published concurrently, have addressed directly the details of market regulation and the links between the primary, or licensed commercial market, and the secondary, or unregulated market. Cook, Molliconi and Cole utilized a summary of available literature on firearms acquisition, possession and use to review the structure and interdependence of these markets and the effectiveness of the existing federal regulation for discouraging the acquisition of handguns by prohibited persons, particularly felons and juveniles; the authors then advanced some proposals for enhancing the effectiveness of those regulations.¹¹ Jacobs and Potter responded to Cook et al with a more detailed analysis of weaknesses in existing regulation and an evaluation of potential corrective measures to address these weaknesses.¹²

Cook et al focused primarily on the secondary firearms market, although they did address the primary market and its regulation in an effort to explain its impact on the secondary market.¹³ Their analysis of the available data suggests that the majority of firearms acquired for use in crime are acquired through the secondary market and that each new cohort of offenders must acquire new firearms.¹⁴ They concluded that most purchasers would prefer to acquire firearms from the primary market, where access and choice is greatest, but that existing restrictions on acquisition by felons, juveniles and other specified classes diverts many of these buyers to secondary markets.¹⁵

Although they admittedly could not calculate precisely the magnitude of the secondary market, they estimated that as many as fifty percent or more of all handgun acquisitions are from friends, relatives, unlicensed dealers, casual transfers, theft and unlawful sales by licensed dealers.¹⁶ Their conclusion confirms a position assumed by most of the critics of gun control, who have long argued that prohibited persons will simply bypass existing regulation. Cook et al countered, however, that regulation of the primary market does have influence on the secondary market by reducing supply.¹⁷

To decrease the flow of firearms to the secondary market, Cook et al suggested improvement in the existing procedures for

licensing and supervision of dealers by federal, state and local authorities and efforts to impact trafficking in stolen firearms.¹⁸ They also suggested extending the waiting period and record checks of handgun purchasers to transactions in the secondary market.¹⁹ Although Cook et al suggested more stringent regulation and extension of existing regulations, the details of such suggestions and a detailed analysis of implementation problems were not addressed.

Jacobs and Potter critiqued Cook et al by examining the weaknesses in the current regulation of the primary market and by reviewing potential difficulties with implementation of alternative schemes for expansion of regulation to the secondary market. They began by reviewing the Brady amendment to the Gun Control Act (GCA), which requires licensed dealers to obtain photo identification from a potential handgun purchaser and submit the name and identifying information to a Chief Law Enforcement Officer (CLEO) for a record check. If not notified by the CLEO that the purchaser is a prohibited person, the dealer can deliver the firearm after five business days.²⁰ Jacobs and Potter noted that there appears to be little risk associated with an attempted acquisition by a prohibited person, and that no means exists to determine what portion of ineligible buyers shift to the secondary market once denied.²¹

Jacobs and Potter found the effectiveness of the Brady procedures wanting on several other accounts. They characterized the underlying licensing structure upon which the entire process depends as weakened by inadequate procedures, oversight and regulation, which Jacobs and Potter attribute both to limits on ATF jurisdiction and resources.²² In this, Jacobs and Potter are closely aligned with Cook. Jacobs and Potter also find that the failure to identify handgun purchasers with fingerprints, the ease of using “straw purchasers” to bypass record checks, the lack of control on the secondary market, and limits on availability and accuracy of databases provide numerous

opportunities for bypassing Brady checks and thus limit Brady's potential impact on firearms acquisition.²³

Jacobs and Potter's greatest contribution to the literature is their detailed examination of the mechanisms available for enforcing Brady requirements and of potential alternatives for remedying the weakness inherent in the current structure.²⁴ As attorneys, they recognized the problems in developing evidence of violations of the Brady requirements by either the seller or buyer. This led them to examine alternatives for "thickening" the regulatory web, including Cook's proposal to extend Brady to private transactions.²⁵ They concluded that Cook's proposed amendment to Brady would be bypassed readily, thus leading to a call for the additional requirements of owner licensing and handgun registration.²⁶ They argued that owner licensing would be impractical because of the requirement for a "massive" new bureaucratic apparatus, the probability of widespread non-compliance, and the likelihood that it would not reduce crime.²⁷ They also conclude that national registration would be neither manageable nor enforceable.²⁸ Ultimately, they speculate, "Perhaps it would make sense to give up on the idea that there is some system of regulation that can prevent criminals from obtaining handguns."²⁹

III. Another View

Any effort to prescribe a system of market regulation for firearms based on available social science knowledge faces serious limitations that are unlikely to abate with further study or research. Social problems are not so much solved as altered.³⁰ The desirability of a change depends on a number of factors, cost and political will being primary among them. In addition, the exact outcomes of any social policy are seldom predictable in detail. Scholars can suggest possible models, calculate incentives, test opinions, and speculate on potential reactions, but only experimentation will ever answer fully the question.³¹ Even after

a policy has been adopted, pertinent behavior and reaction to that policy may change in response to social learning, changing values or an altered environment.

The inability to predict the exact outcome of policy is not, however, an argument against the examination of potential outcomes. Some policy is always in effect, even when the policy is *laissez faire*. Examination offers policy makers and the polity alternative perspectives and models. It helps to define options and identify interests, and, at its best, can provide criteria of evaluation policy implementation. The United States currently has in place a gun control policy, or rather a multitude of policies.³² Any effort to affect significant change in those policies in any direction will face significant obstacles.³³

This article is intended to offer specific proposals for rationalizing that policy, by addressing the gaps in the current regulatory scheme, while creating regulatory standards that are more uniform, understandable and easily followed than those currently in existence. It also attempts to expand the rational basis for a regulated market from a simply *ex ante* strategy. These proposals are not based on new research but on the existing literature and the author's many years of experience in implementing existing firearms policy.³⁴

A. The Utility of Market Regulation

Fairly widespread consensus has emerged in the literature that the present population of firearms in the United States exceeds 200 million,³⁵ that the composition of the population and markets has shifted away from sporting arms and toward handguns, assault rifles and combat shotguns, and that this trend is increasing.³⁶

The sheer magnitude of this reservoir of unrecorded and unregulated firearms has provided the most daunting argument against efforts at systematic regulation. Cook and his fellow authors came to an interesting conclusion, however, from their interview research with young offenders and other data. They postulated that most of the firearms used by young offenders are

newly acquired, and, “That each new cohort of violent offenders must obtain guns somewhere.”³⁷ Research reflects that sources consist of friends, relatives, theft, the secondary market and the primary market,³⁸ the latter being far less significant for young offenders than older ones.³⁹ This led the authors to the conclusion that policy should be crafted to disrupt supplies of firearms “leaking” from primary markets into these alternative sources, as well as preventing high risk individuals from obtaining firearms directly through the primary market. Kennedy reached similar conclusions from his examination of firearms use by youthful offenders in Boston.⁴⁰ Thus, the potential for reducing the flow of firearms to potential offenders, particularly youths, may be substantially more promising than the population numbers first imply.

B. An Alternative Paradigm for Utility

The justification for market regulation does not rest entirely upon the ability of such regulations to deny firearms ante facto to high risk persons likely to utilize them in criminal acts. An alternative conceptualization exists for the utility of firearm laws. American crime control policy has progressively shifted toward identification, arrest, prosecution and extended incarceration of serious, repeat offenders as the means of controlling serious crime. Although there is major controversy regarding the deterrent impact of these laws, the impact on the incarcerated offenders is undeniable. The opponents of firearm control, in fact, have been at the forefront of the post facto strategy of “getting tough on criminals.”⁴¹ Both advocates and opponents of gun controls, however, have conceptualized the value of controls almost solely as direct prevention strategies while ignoring their potential for facilitating incarceration strategies.⁴²

Changing sentencing structures, over the past decade, have significantly altered the potential impact of illegal firearm possession on many offenders. A person with three prior violent felony convictions is subject to a mandatory minimum fifteen-

year sentence under federal law if convicted of possessing any firearm.⁴³

Some states have gone even further. Under California's "three strikes" law, any person with two prior convictions for serious or violent felonies is subject to a 25 year to life sentence for a third felony conviction.⁴⁴ Under these statutes, serious offenders do not have to be convicted of murder, rape, robbery or other violent offenses to face extended incarceration. Simple possession of a firearm by persons in this high risk class is adequate. This fact allows for very effective proactive strategies by police and parole authorities that involve far less risk and more likelihood of success than strategies focused on apprehending these offenders in the course of burglaries or robberies.⁴⁵

Available research supports the rationality of using firearm laws in this manner. Wright and Rossi's survey of incarcerated felons revealed that a subset of about 20% of these felons accounted for about 50% of all felonies and most of the violent felonies reported by the sample.⁴⁶ This group also reported habitually acquiring, possessing and carrying firearms.⁴⁷ Subsequent survey research of arrestees and incarcerated juvenile offenders has produced data supportive of Wright and Rossi's findings.⁴⁸ A strategy of targeting this group of firearm predators for arrest and prosecution for firearms possession has the dual advantages that they are both vulnerable and appropriate targets.

With such severe sanctions, however, offenders seldom plead guilty and routinely seek any available strategy to avoid conviction.⁴⁹ Because witnesses in firearms possession cases are often police officers and because the elements of the crime are rather simple, the most effective defense strategies are to challenge the legitimacy of the search or to create doubt about proof of the element of possession.

Suppression of evidence obtained under the authority of a search warrant has, however, become extremely difficult under the good faith rule.⁵⁰ Guns seized without warrants are also

difficult to suppress under a variety of specific situations, including parole searches, searches contemporaneous with arrest, open view, consent, and so-called *Terry* pat-downs. By allowing officers to pat down or frisk specifically for weapons on a standard of reasonable suspicion, *Terry* significantly expands police authority in street encounters.⁵¹ Given the difficulty of suppressing searches in recent years, the most common defense has become an effort to raise reasonable doubt about the defendant's possession of the firearm.⁵²

Systems of licensing and controls on transfers provide investigators with several advantages in proving possession. In an uncontrolled environment, any third party who is not prohibited from possessing firearms, can, with little risk, come forward and claim possession of a firearm.⁵³ Thus, in most jurisdictions, a friend or relative of the accused can claim possession of a seized firearm, knowing that there is no record of transactions between individuals to disprove the claim nor potential of prosecution for failure to register the firearm or obtain a license. Although this defense is of little value when the firearm is recovered from the defendant's person, it is an effective strategy for raising doubt when the gun is recovered from a car or residence.

Licensing systems and transfer records deter this sort of perjury by creating risk of prosecution for both the perjury and the failure to comply with registration and licensing laws.⁵⁴ These laws also have potential for providing investigators other advantages. They furnish leads that allow investigators to locate witnesses and evidence relative to the history and ownership of the firearm.⁵⁵

Two specific examples from my own experience are helpful as illustrations of the utility of firearms records in establishing proof of possession. In the first case, a subject with multiple felony convictions fled police serving a search warrant at his residence. While being pursued across an open field at in the dark, the subject turned and pointed what appeared to be a handgun in the direction of pursuing police. One officer fired, and the subject continued running to a small lake, where he swam to

an island. A subsequent search by divers revealed a revolver in the mud at the bottom of the lake. The firearm was later traced through several owners to a residence where the suspect had been present a week before the incident.

In a similar case, an individual with multiple violent convictions was discovered in a small shed by officers responding to a report of gunshots. The officers also discovered a recently fired revolver hidden in the shed. Although the suspect denied any knowledge of the firearm, it was subsequently traced to a former girlfriend, who testified that the subject had taken it from her house.

Both of these individuals, who between them were responsible for at least five homicides,⁵⁶ were convicted in jury trials and received extended sentences. Both were potentially violent, criminally active and routinely carried firearms illegally. Unfortunately, these successful examples are less common under current law than cases in which the trail is cold.

In addition to providing means for incarcerating career offenders, firearm possession and transfer regulations can provide a wedge that allows police to solve other crimes. A highly visible example was provided by the arrest of Timothy McVeigh for carrying a concealed handgun, which led to the solution of the Oklahoma City federal building bombing.⁵⁷

A final advantage for the prosecution has little or no importance in law but much in practical litigation. Although lack of knowledge of a prohibition is no defense in law, it has significant potential to sway juror sympathy in status offenses. Bypassing a license requirement that is general knowledge provides strong evidence of knowledge and intent in cases involving possession of firearms by prohibited persons and may serve as evidence of prior intent in violent offenses.

C. The Deficiencies of Current Regulation

The existing literature concedes that the present mechanisms for controlling firearms dealers in the primary market are inadequate and that the law does not provide effective sanctions

to prevent licensed dealers from transferring firearms to the secondary market.⁵⁸ There is also consensus that transactions in the secondary market essentially are uncontrolled and uncontrollable under the present law.⁵⁹ The conclusion that the existing federal law is inadequate to regulate either the primary or secondary market is also widely accepted among those with experience administering the law.⁶⁰ This conclusion was not significantly altered by the passage of the Brady Act requirement for point of sale checks on handguns, primarily because it did not mandate a central index of sales records.⁶¹

The current regulatory scheme for firearms is primarily dependent upon a network of over 100,000 licensed federal firearms dealers.⁶² The Bureau of Alcohol, Tobacco and Firearms (ATF) lacks both the resources and the jurisdiction to assure compliance among such a large population⁶³ Besides having the burden of supervising a large number of dealers, ATF is constrained by an almost total lack of discretion regarding the issuance of licenses as well as by limits on inspection authority and sanctions. Under existing law, ATF must issue a license to any applicant over 21 years of age who states that he intends to engage in the business from a premises and that the business to be conducted will not in violation of state or local law. ATF may only deny the license if the applicant is a felon or falls into one of the other specifically prohibited categories, has willfully violated the federal firearms laws, or has made a false statement on the application.⁶⁴ Licenses are issued for three years, and the initial cost is two hundred dollars. A three-year renewal may be obtained for ninety dollars.⁶⁵

Once licensed, a dealer is obligated to maintain records of all firearm acquisitions and dispositions, obtain identification from all purchasers and provide identifying information on all handgun purchasers to the chief local law enforcement officer (CLEO) for a background check.⁶⁶ CLEOs are required to destroy all records of purchaser identity within 20 days.⁶⁷ Although the dealer is required to maintain a record of all acquisitions and dispositions, no central record or index of such transactions is

required or allowed.⁶⁸ ATF may inspect a dealer only once every twelve months to assure compliance with the law.⁶⁹

Assuring compliance is difficult under such circumstances. ATF has only about 1,000 inspectors to oversee manufacturers, wholesalers and retailers of firearms and explosives, as well as manufacturers and wholesalers of alcoholic beverages.⁷⁰ An in-depth audit of a large dealer can take a team of inspectors several days.⁷¹ In addition, many dealers operate from their homes and do not maintain regular business hours, making inspection both difficult and time consuming.⁷² More important, inspectors lack any effective means of determining what firearms a dealer has purchased, thus the most expedient means of foiling an audit is to fail to record the receipt of the firearm.⁷³

The lack of central indexes and cross-referencing precludes any effective means for randomly auditing dealers to determine compliance with records keeping and Brady reporting requirements. Although systematic tracing of firearms seized from prohibited persons and criminals will often point at a specific dealer, substantial time can elapse between the inception of such transactions and the detection of a pattern, during which illegal transactions continue to occur. In addition, such traces do not constitute proof and only provide the beginning point for what is often a protracted investigation.

For many years, ATF required only a name, social security number and date of birth from applicants for a license; however, fingerprints and photographs of the applicant are now required with an application.⁷⁴ This requirement, combined with more extensive licensing review, has made obtaining licenses under false identities more difficult, but applicants still are not subjected to the sort of in-depth background inquiry that would detect a well planned and executed effort at establishing a false identity.⁷⁵

Once firearms are sold by licensed dealers, all federal regulatory control ceases. Although federal law prohibits sales by individuals to minors, out-of-state residents and persons prohibited from receiving and possessing firearms, no regulatory mechanism

exists to record transfers or require reporting by transferors or transferees.⁷⁶

D. Gaps in the Criminal Law

Although the gaps in the regulatory structure have been documented by previous writers, equally important gaps in the criminal law have received less attention.⁷⁷ The problem of detecting and prosecuting “straw” purchasers, who execute purchase documents as surrogates for prohibited persons, with or without the knowledge of the dealer, requires little explanation. Although an illegal transfer takes place between the purchaser of record and the ultimate recipient, the transaction record reveals no violation. Dealers, who knowingly participate in the conspiracy, are also criminally culpable. Such transactions, however, are difficult both to detect and to prove. They take place in private, with all knowledgeable parties motivated to conceal the details.

Although the majority of dealers apparently comply with the law, the potential impact on the availability of firearms in the secondary market of even a small percentage of dealers under the current structure is significant. Because dealers can order unlimited numbers of firearms without attracting any attention and can operate illegally for a substantial period before detection, a single dealer can divert numerous firearms before action can be taken to stop him.⁷⁸ Although effective prevention through systematic monitoring offers numerous advantages over dependence on deterrence through criminal prosecution, by default the current legal and regulatory structure places primary dependence on prosecution. Yet the law contains significant barriers to effective prosecution of licensed dealers engaged in unlawful transactions and traffickers who act as conduits between the dealers and ultimate purchasers.

Two significant changes to the federal law by the 1986 McClure-Volkmer amendments substantially weakened ATF’s capacity to prosecute illegal trafficking.⁷⁹ The first of these changes applied solely to licensed dealers. Falsification of records

by dealers was reduced from a felony to a misdemeanor, regardless of quantity of firearms or circumstances.⁸⁰ Although transfers to prohibited persons remained a felony, such transfers are far more difficult to prove than falsification of, or failure to maintain, records.⁸¹

Prosecuting unlicensed traffickers also became considerably more difficult after McClure-Volkmer because of revisions in the definition of what activity constituted engaging in the business. The revised definition requires the expenditure of time, attention and labor as a regular course of business, with the principal objective of livelihood and profit, and excludes transactions for the purpose of enhancing a collection.⁸² This definition has afforded such rich potential for defenses against charges of unlicensed dealing that prosecutions declined precipitously and have remained rare.⁸³

A direct result of the McClure-Volkmer amendments was to curtail radically virtually all prosecutions of unlicensed dealers and place additional dependence on undercover investigations of licensed dealers.⁸⁴ In addition to the usual difficulties created by issues of logistics and entrapment, undercover investigations of licensed dealers are complicated further by current interpretation of the law prohibiting delivery of firearms to prohibited persons. Prohibited purchasers seldom are motivated to cooperate and lack credibility. No audit trail exists to substantiate transactions. Thus, in the majority of cases, the only option is to utilize an agent, or an informant under an agent's control, to make purchases of firearms from the dealer⁸⁵—a tactic used sparingly by ATF because of ATF's political sensitivity to gun interests.⁸⁶

Because agents provide greater credibility, superior understanding of the law and far more reliability, they are the better choice, yet informants are the only option in most instances.⁸⁷ Although the law prohibits the transfer of firearms to persons a dealer knows, or has reasonable cause to believe, is in one of the prohibited categories, current interpretation requires that the recipient actually be a member of the prohibited class for

the crime to be complete.⁸⁸ Thus, ATF must regularly depend on actual felons or other prohibited persons, rather than on trained agents, to make undercover purchases and later to testify in these politically sensitive cases. Such informants often prove to be less than ideal witnesses.⁸⁹

Because record falsification was reduced to a misdemeanor, however, such complex investigations are routinely necessary to establish a felony violation that will be prosecuted. The existing law and regulations, therefore, provides neither regulatory controls nor criminal deterrents effectively to prevent unlicensed dealing or unlawful trafficking by licensed dealers. Additionally, sanctions for these offenses are quite lenient.⁹⁰ In spite of this, most licensed dealers apparently make a diligent effort to comply with the law.

IV. Improving the Existing System

Cook et al and other gun control advocates have focused substantial attention on the failure of ATF to reduce the large number of so-called “kitchen table dealers,” who obtain licenses for their own convenience but do not, in fact, engage in the firearms business.⁹¹ The additional licensing requirements included under the Brady Amendment, which require fingerprints and a photograph from each firearms dealer applicant and raise the cost of an initial three-year license from 30.00 to 200.00 dollars, have significantly reduced the number of dealers. That reduction appears to be concentrated among those not engaged in commercial enterprises.⁹²

License demand, therefore, appears to be rather inelastic, at least among marginal dealers. Pricing structure appears to offer an effective means for regulating the number of dealers without bureaucratic intervention. A fee that would cover the costs of a reasonable level of regulatory oversight, say one thorough inspection per year, would further reduce the number of dealers, be equitable and be likely politically palatable.

The exact level of such a fee would require some analysis; however, a rough estimate is about 350 dollars per year, with a larger fee for initial processing.⁹³ Current fees are 200 dollars for the initial three-year license and 30 dollars per year for a three year renewal.⁹⁴ Thus, any fee based on the minimum cost of administrating licenses would likely reduce the number of licensees significantly.

Such a change would also shift the cost of administration to those who benefit: the dealers. It is likely that the number dealers remaining under such a system would not overtax ATF's existing resources. If, however, additional resources were needed, licensing fees would provide revenue to offset the needed increases in staff.⁹⁵ A likely side effect of a decreased number of licenses would be an increase in the value of a license to the remaining dealers. The increased opportunity cost of losing a license would provide greater incentive to comply with law and regulations.

Since the passage of the GCA in 1968, ATF has attempted to identify licensees not legitimately engaged in the business and to convince them to surrender their licenses. In a few cases, ATF has refused to renew licenses to individuals who cannot provide evidence of being engaged in the business. This strategy has been a multifaceted failure.⁹⁶

The requirement to issue a license to any qualified individual who declares an intention to engage in the business from a premises puts ATF at a distinct legal disadvantage.⁹⁷ The criteria have always been ambiguous; volume alone is no indicator of intent to do business.

In addition to difficulties of administration, the engaged-in-the-business standard created serious credibility problems for ATF's enforcement efforts.⁹⁸ Administratively, ATF advised individuals who sold only a few firearms to friends and associates that they did not meet the standard for engaging in the business and should turn in their licenses. At the same time, agents were using a like number of sales to undercover agents to prove other

individuals were engaged in the business without a license. Although examination of the details of the cases revealed far less contradiction than appeared on the surface, such actions undercut ATF's legitimacy and held it up to ridicule by interest groups and Congress.⁹⁹

The majority of these licensees, who are not engaged in active commerce, are also not engaged in illegal trafficking.¹⁰⁰ The primary difficulty they create is the regulatory burden generated by their numbers and the cover those numbers provide to the few illegal traffickers who hide among their ranks.

Although the increase in licensing fees is likely the least complex and controversial means of reducing the number of dealers, it does not address all the weaknesses in the current licensing process. While current law requires that applicants certify that the business would not be prohibited by state or local law, no provision is made for ensuring that dealers comply with such laws as a condition for obtaining and retaining a license.¹⁰¹ No authority is granted for ATF to deny, revoke or suspend a license for reasons of public interest. A modest expansion of ATF authority to deny or revoke licenses for violation of state or local law or for the public interest, with a right of appeal, would address these issues.¹⁰² In light of the significant role that stolen firearms appear to play in the secondary market, minimum requirements for business premises security also deserve consideration.¹⁰³

If fees were raised, oversight increased and minimum security standards enforced, there would be no reason to continue the requirement that a licensee be engaged in the business. This requirement has created substantial complexities in enforcing the law and undercut ATF's legitimacy. If compliance with record keeping and reporting requirements is reasonably assured and the dealer licensing fees cover the cost of that assurance, the requirement cannot be justified on the grounds of utility or equity. Nearly 30 years of experience with the engaging-in-the-business requirement has demonstrated that this criterion is neither workable nor useful.¹⁰⁴

V. Moving Beyond Brady

Jacobs and Potter cite a number of structural weaknesses that undercut the utility of the current Brady background checks of handgun buyers, beginning with the potential for use of false identities by handgun buyers.¹⁰⁵ They characterize the problematic result of false identity solely as the frustration of the background checks of persons purchasing handguns from dealers. In addition to this obvious problem, the use of false identities undercuts the utility of current law by thwarting firearms tracing, aiding traffickers acquiring firearms for sale in the secondary market, and facilitating false records keeping and illegal transactions by dealers. Audits become difficult or impossible when dealers can simply portray themselves as victims of falsified documents. In cases involving dealers who have sold numerous firearms unlawfully, subsequent audits of their records routinely reveal sales to non-existent persons.¹⁰⁶ Although these entries are likely efforts by the dealers to disguise illegal transactions, there is virtually no means of determining this.¹⁰⁷

The best means of addressing the identity problem was anticipated by Jacobs and Potter. Purchasers could be identified and licensed in advance. This approach virtually assures an accurate search for criminal records through the use of fingerprints and precludes obtaining multiple licenses under false identities.¹⁰⁸ Licensing gun owners in advance would facilitate more efficient background checks, eliminate confusion in identification due to similar names and dates of birth, prevent the use of false identities and eliminate the need for repetitive checking of records with successive firearms purchases.¹⁰⁹

Such a system would present serious political and organizational difficulties. Some entity would have to conduct this function, and funds would be required to support the activity. Establishing a new bureaucracy in an era so hostile to

government seems an unlikely feat. There are, however, several structures already in place that could be utilized to implement licensing without beginning from scratch, and license fees could offset any added costs.

Ironically, pro-gun organizations already have succeeded in establishing potential precedent procedures in the form of permissive license-to-carry statutes in a majority of states.¹¹⁰ The procedures for issuing these licenses generally consist of requiring applicants to be fingerprinted and then checking their backgrounds to assure that they are not prohibited from possessing firearms.¹¹¹ A demonstration of some basic competency with firearms and a minimal knowledge of law regarding the carrying and use of firearms is also routine.¹¹²

Even before such permissive license-to-carry laws began to sweep the country, many states required hunter safety training for juveniles and, in some cases, adults, as a prerequisite for obtaining a hunting license.¹¹³ These programs have the backing of the firearms lobby, and the NRA has long supported mandatory hunter safety training since its inception in 1949.¹¹⁴

Drivers licensing provides an equally applicable model which applies to a larger population than gun owners. Motor vehicle departments could incorporate firearms licensing into their operations. They already have widely dispersed offices and routines for testing and licensing.¹¹⁵

Creation of an owner licensing system would not essentially overcome all efforts to acquire firearms using a false identity; theoretically, one could utilize a fraudulent license to defeat the system. This would be far more difficult than defeating the current system, however, because purchaser's identification would be matched to a known, finite population of identified individuals. A requirement for online verification of license status and information at the time of sale would necessitate that a fraudulent license duplicate the number, name and description of a valid license to be useable.¹¹⁶ Requirements that the dealer obtain a thumb print would provide a highly effective means of

identifying and prosecuting a fraudulent purchaser once suspicion was drawn to the sale for any reason.¹¹⁷

Any national licensing system should meet several criteria. It would be best administered by the states, subject to minimum federal standards. The states have the apparatus and the experience to perform this function and the federal government does not.¹¹⁸ Any federal effort to mandate or encourage state systems would have to meet the most recent interpretation of the Tenth Amendment restrictions on federal mandates.¹¹⁹ The most expedient and direct means of doing this would be to require states to establish such procedures as a condition for the continued issuance of firearms dealers licenses in the state.¹²⁰

A less coercive, and likely more politically palatable, option would be to create a federal license but waive the requirement in states that provide essentially equivalent procedures. By requiring minimum standards for licensing, Congress could assure uniformity and establish a basis for reciprocity.¹²¹ These standards should include fingerprinting and records checks to preclude persons prohibited by state or federal law from receiving or possessing firearms, some minimal but reasonable test of proficiency and knowledge, and application of the license to all firearms in any legal class.¹²²

Although the Brady Act's first phase only addressed handguns, as do the majority of advocates for firearms controls, licenses should apply to all firearms and not just handguns.¹²³

States could establish any additional standards for licensing they deem appropriate, although current law would imply that all states would issue licenses for rifles, shotguns and handguns to any applicant meeting the minimum standard, although Washington, D. C., would not issue handgun licenses.¹²⁴

Reciprocity among states could be guaranteed under the interstate commerce authority so long as the non-resident is not engaged in an activity prohibited for residents of that state.¹²⁵ Such a provision would guarantee law abiding gun owners the ability to transport their firearms to other states for lawful

purposes, without fear of encountering burdensome licensing requirements, just as licensed drivers are now assured such reciprocity without the need for a new federal bureaucracy.

The keys to winning the acceptance of uniform firearms regulation with the majority of firearms owners are simplicity and uniformity. Local option for regulating firearms possession at the city or county level directly undercuts that principle. While there is no constitutional means for Congress to mandate preemption statutes in the states, advocates of firearms control could drop their historic opposition to such laws in favor of more comprehensive legislation.

Although municipal autonomy provides control advocates with a tactical advantage,¹²⁶ the resulting patchwork of city and county ordinances needlessly burdens law abiding gun owners by imposing widely varied requirements and standards for possession, ownership, and transportation within states and even within metropolitan areas. Such a melange of statutes eliminates all the benefits of a standardized licensing scheme, with little practical value in controlling the commerce in firearms.¹²⁷ One need only imagine the impact of city and county licensing of drivers, without reciprocity, to understand the impractical nature of such laws.¹²⁸

VI. Balancing Interests

A shift by control advocates from the strategy of supporting any gun control measure to a more focused agenda that rejects options which serve primarily to burden gun owners or buyers, without corresponding potential for benefits, would undercut the perception that control advocates seek only to harass gun owners with little concern for utility.¹²⁹ A standardized licensing system would also benefit gun purchasers by eliminating the need for any sort of waiting period and restrictions on most out of state firearms purchases. Current technology would allow instant verification of the current validity of any license, and the use of

thumbprints on records of transfer would provide irrefutable evidence of identity.¹³⁰

Although it would be unreasonable to assume any political support for national licensing from firearms interest groups, every effort should be made to craft proposals to minimize the burden on gun owners and maximize benefits to them for several reasons. First, all public policy in a democracy should seek to minimize the burden on citizens, and gun owners are citizens deserving of respect. Second, public policy that is simple to comprehend and easily complied with will surely be easier to administer and generate more voluntary compliance than policy that is confusing and difficult to comply with. Finally, proposals for unreasonable, arcane, complex or burdensome regulations and procedures serve to enhance opposition to all firearms regulation. Gun owners are not of one mind on firearms regulation, and much of their opposition apparently is rooted in an assumption that all regulation will lead to confiscation.¹³¹

Although constant public debate of some sort of gun regulation may serve to reinforce interest in and support for organizations advocating gun control, such debates also reinforce the opponents of controls and legitimate the argument that all control proposals are elements in an effort to prohibit all private gun ownership. Gun control has hovered at the margins of the public policy agenda in the United States because the system will not pursue policy that impacts such a large portion of the population until acceptance of the need for and utility of the policy is overwhelming.¹³² Gun control policy will undergo meaningful change only if the majority of the American public, including gun owners and those who viscerally dislike guns, accept that not every control proposal is a stalking horse for prohibition.¹³³

A. The Role of Records and Registration

A critical weakness of the Brady Act was the prohibition against retention of sales records. Sales records allow identification of repeat “straw purchasers”¹³⁴ or anyone buying

large numbers of firearms in the primary market for resale in the secondary market. Such records also preclude licensed dealers from being able to destroy evidence of illegal transactions by suddenly losing their records before an audit.¹³⁵ They also facilitate instant tracing of firearms, rather than the currently laborious and often unsuccessful process of tracing through calls and visits to dealers.¹³⁶ An immediate trace often proves more useful to an investigator than information at a later date.¹³⁷

Dealer sales reporting systems provide strong incentives for dealers to comply with the law by creating a permanent record of past transactions and by requiring dealers to either report questionable transactions or risk documenting their knowledge and intent by not reporting the transaction. Failure to report a transaction involving a prohibited person strongly implies knowledge and illegal intent. However, sales records are not registration. Registration requires compliance by not just a limited population of licensed and regulated dealers but by millions of people.

Sales records only record transactions by dealers, leaving all transactions in the secondary market unrecorded. Since the secondary market is the primary source of firearms used in crime, any comprehensive system of market regulation should logically address these transactions. To do so leads almost inevitably to registration, without which secondary transactions disappear into oblivion once completed. Cook et al's recommendation for the extension of the Brady background checks to all private transactions includes no requirement for registration.¹³⁸ California has already experimented with such a requirement and the results have been disappointing.¹³⁹ Inevitably, critics of registration will cite the task of accomplishing registration of the existing inventory of over 200 million firearms as the primary barrier to any such suggestion. Creating incentives to register existing firearms does present more difficulties than accomplishing automobile registration.¹⁴⁰ Efforts to accomplish voluntary registration of assault rifles in California have been less than fully successful.¹⁴¹

Unquestionably, many persons would not initially register their firearms. The perception that registration will lead directly to confiscation is apparently rather widespread among gun owners. This would be a major difficulty for both policy makers and implementers. However, it is not insurmountable. Although it would be impractical and probably counter-productive to prosecute most persons who simply failed to register a firearm, other alternatives for incentives exist. For violators who were not otherwise prohibited from firearms possession or engaged in commercial transactions, seizure and forfeiture of unregistered firearms would provide a strong incentive for compliance, without the need for costly criminal litigation.¹⁴²

Over time, as more people came to understand that registration was not linked to confiscation but that non-registration was, compliance likely would grow. Policy should be predicated on the assumption that gun owners represent a broad cross-section of the population, most of whom are law abiding and rational. If provided with incentives and treated with respect, tolerance and patience, most will presumably comply with the law as they always have.

The example of assault weapons in California offers an imperfect experiment with mixed results. Although all the covered firearms were apparently not registered, a substantial number were,¹⁴³ in spite of the fact that the owners of these weapons are very likely drawn from the most ardent opponents of gun control and that the law imposed significant burdens on registrants.¹⁴⁴

Presumably, there would always be some illicit market composed of individuals who could not lawfully possess firearms. The point of a more regulated market would be to impose as many obstacles as possible to the acquisition of firearms by these persons and to increase the risks and costs for the unlawful possession, carrying and trafficking of firearms. The goals would be two-fold: to cause the less determined members of this population to acquire, possess and carry fewer firearms, and to

remove from circulation the maximum number of serious offenders who persist in doing so.

If the standard for success is universal compliance, no system of firearms regulation could ever be justified. Jacobs and Potter cite the failure of numerous individuals to comply with drivers licensing and vehicle registration requirements as precedents for the firearms licensing.¹⁴⁵ They are, no doubt, correct in their analogy. Yet they make no suggestion that drivers licensing be terminated nor that automobile registration cease. The overwhelming compliance with these laws among the majority of the population may be an equally apt analogy for firearms licensing and registration. Likewise, the utility of vehicle and driver regulation in opening investigative doors to more serious crimes parallels the potential for similar benefits from firearms regulation.

B. A Questions of Incentives

Ultimately, the impact of regulation on firearms markets depends upon the linkage between the primary and secondary markets and the ability of policy makers to shape incentives in both markets. Molding incentives for licensed dealers is not difficult. By limiting the population of the licensees through fees, stricter licensing procedures and security requirements, the value of a firearm dealer license would be increased, thus raising the cost of losing a license.¹⁴⁶ By concurrently increasing supervision of dealers, allowing a variety of sanctions for non-compliance and creating a records system that both reveals and documents violations, the potential cost of illegal transactions by dealers could be significantly increased. If effective regulatory action minimized the number of violations, the probability of criminal prosecution would increase for the remaining, more willful violations of law.¹⁴⁷ It is, therefore, likely that a system can be designed to significantly reduce the direct flow of firearms from the primary to the secondary market. Unfortunately, this does not address individual casual sales or traffic in stolen firearms.

The secondary market, however, appears to be the more important source of firearms illegally possessed and used by both juveniles and adult offenders.¹⁴⁸ Low volume, dispersed transactions in the secondary market are particularly difficult to regulate. If the transfer is a private transaction and the recipient is an unwilling witness, no evidence is available to prove the crime. Although repeat traffickers may be deterred through undercover law enforcement operations, those transferring an occasional firearm to an acquaintance or relative face no risk.

Several possible strategies exist to deter these transactions in all but the most criminally prone portions of society. Transfers in violation of law would subject the transferor to potential civil liability in cases of subsequent misuse. Firearms not registered or lawfully transferred could be subject to seizure and forfeiture, thus losing all value in the primary market. Perhaps the greatest potential incentive, for the substantially law abiding citizen, would be to impose a loss of future license eligibility upon conviction for a firearms offense.

Alternatively, many persons living at the edge of the law or engaged in crimes not requiring firearms likely would be deterred from making transfers or even possessing firearms by concern that these actions might bring unwelcome police attention. Any registration system presumably would become progressively more effective as the inventory of unregistered firearms declined and the likelihood of sanctions would likewise increase as the number of violations dropped.

C. Stolen Firearms

The least predictable outcome to an expanded system of regulation would be the impact upon gun thefts and traffic in stolen guns. Presumably, an effective regulatory system would reduce the supply of firearms in the secondary market and increase the value of those remaining. Thus, the value of stolen firearms should increase, at least to the criminally prone. This might increase thefts, although burglars and thieves routinely take guns whenever they encounter them already.¹⁴⁹ Dealers would

likely become even more inviting targets for theft than they are currently, thus the need for security standards as a part of the licensing process.

If the supply of firearms in the secondary market could not be increased through theft, the result would be higher prices and more competition for the limited number of guns available. This should push marginal purchasers, such as young offenders, out of the market. If this pattern developed, the secondary market progressively would be perceived as illicit and demonized. Such demonization is normally associated with increased public condemnation, police attention, and severity of sanctions. Any of these reactions would increase the cost of trafficking in stolen or unregistered firearms and raise the price.

A more costly and scarce market would surely have some impact on individuals who routinely use or carry firearms illegally, although, the level of that impact is an exercise in supposition. The quality of arms used and carried by those excluded from the primary market would likely decline. Although determined offenders would continue to obtain firearms, they would have to invest more time and resources, and many would have to settle for whatever was available. This pattern is observable in states that currently restrict firearms access.¹⁵⁰ The logical reactions for such a situation are to use, carry and transfer of firearms less often. Indiscriminate carrying, which can result in arrest and confiscation of the firearm, would be the activity most likely to be reduced. Although retention of firearms after illegal use would increase the risk of conviction, disposal of a firearm would represent a greater loss of stored value and would often generate the need to locate a scarce replacement.

A registration and licensing system would have one certain result in relation to stolen firearms. Currently, many stolen firearms either are not reported, or the victims fail to provide serial numbers to police.¹⁵¹ Thus, these firearms are not subject to seizure and forfeiture unless found in possession of a prohibited person. A registration system would increase the incentive of legal owners to report thefts accurately and would assure serial

number availability when reports were made. Even in cases where thefts were not reported, guns would be subject to seizure for non-registration or would be traceable to their legitimate owners.

VII. Conclusions

Although all outcomes of a well-crafted registration and licensing system are surely unknowable, a few conclusions can be drawn. Any such system would cost money to operate and impose some burden on gun owners. Tying licensing and transfer fees directly to the cost of system operation would protect gun owners by limiting fees and preventing the utilization of exorbitant fees as a de facto system of prohibition and would remove the cost of operation from other taxpayers. The regulatory burden need be no more than that imposed on drivers and vehicle owners, and gun advocacy groups already have supported similar licensing requirements for hunters and persons licensed to carry concealed weapons. Concurrently, all waiting periods for gun purchases could be eliminated, and issues of identity and unresolved status could be resolved once and not revisited.¹⁵² The public would be assured that firearms licensees met some minimum level of competency and that licenses could be revoked upon a change in status.

Adjusting fees and moderately modifying laws governing dealers could reduce the number of licensed firearms dealers and increase the risks associated with diverting firearms from the primary market to the secondary market increased, all without arbitrary and intrusive action by regulators. Thus, the supply of firearms in the secondary market would be reduced, and costs would increase. The semi-legitimate secondary market of gun shows and private sales through newspapers would cease or be greatly altered. The more casual secondary market would be affected in ways not easily predicted but would become more like

other illegal markets. The human reactions to these changes are the most difficult to predict.

For police, the proposed changes would provide enhanced mechanisms for using firearms statutes to arrest and convict career offenders. Police also would have more information on stolen firearms, more justification for firearms confiscation and more information in investigations where firearms were involved. Like all regulatory schemes, firearms registration and licensing would shift some power to the state. Thus, for libertarians of either the right or left, it is not appealing. Yet, in a society that requires licensing and registration for activities bordering on necessity, such as vehicle ownership and driving, these intrusions seem rather modest. Universal licensing and registration would not constitute the introduction of gun control but the replacement of the current patchwork of regulation with fewer, more uniform controls.

Many opponents of firearms control will oppose any initiative.¹⁵³ Minimalist strategies have not succeeded in winning them over and may have enhanced their opposition by following an incrementalist model that they interpret as leading to prohibition. The model offered here is neither minimalist nor incrementalist. It is offered neither as a symbolic nor real step toward some future agenda, but as an end in itself, with the understanding that it will not eliminate firearms violence in the United States. A system of firearms regulation places some burden on gun owners. This proposal accepts that reality but attempts to balance those burdens with a system that is simpler, more understandable, more uniform and more effective than the current system.

ENDNOTES

1 William J Vizzard, *Evolution of Gun Control Policy in the United States* 281 (1993).

2 *Id.* Franklin E. Zimring, *Reflections on Firearms and the Criminal Law*, 86 J. Crim. L. & Criminol. 7-9 (1995).

3 William J. Vizzard, *The Impact of Agenda Conflict on Policy Formulation and Implementation The Case of Gun Control*, 55 Pub. Admin. Rev. 346 (1995).

4 *Id.*

5 *Printz and Mack v. United States*, --U.S.--, 138 L. Ed 914 (1997).

6 Interview with Steven Helsley, currently California legislative representative for the National Rifle Association. Helsley served as the primary technology adviser to the California Department of Justice and legislative staffs during adoption of the assault weapon bill in California. At that time he was Assistant Director of Law Enforcement for the California Department of Justice. Helsley advised that virtually every affected firearm, with the exception of those produced by Calico, has been modified and is now available in its new form. My own observations confirm this.

7 Zimring, *supra* note 2.

8 This is based on numerous interviews of Congressional and California legislative staff members by the author in 1993, as well as on twenty-seven years experience in the Bureau of Alcohol, Tobacco and Firearms, although that agency is currently engaged in joint efforts with the National Institute of Justice to develop a data base on illegal markets. *See also* Philip J. Cook, Stephanie Molliconi and Thomas B. Cole, *Regulating Gun Markets*, 86 J. Crim. L. & Criminol. 59 (1995).

9 Examples of the critical views can be found in David Hardy, *The BATF's War on Civil Liberties* (1979) and David B. Kopel & Paul H. Blackman, *No More Wacos: What's Wrong with Federal Law Enforcement* (1997). These works do not engage in detailed analyses of the mechanics of the laws as much as they advocate the position, based on a limited number of alleged incidents, that federal firearms regulation inevitably leads to violation of individual gun owner's rights. An alternative view and analysis of the difficulties in enforcing existing law is available in William J. Vizzard, *In the Crossfire: A Political History of the Bureau of Alcohol, Tobacco and Firearms*, 45-74 (1997).

10 Mark Moore characterized the firearms market as being divided into two segments, one regulated and the other not, with the unregulated market serving as the primary source of supply for criminal activity. *See Keeping Handguns from Criminal Offenders*, 455 *Annals of the Amer. Acad. of Pol. & Soc. Sci.* 102 (1991). Gary Kleck has argued that more effective long guns will be substituted for handguns if only the latter are regulated. *See Handgun Only Gun Control: A Policy Disaster in the Making*, in *Firearms and Violence: Issues of Public Policy* (Don B. Kates, ed., 1984).

Daniel D. Polsby has presented an economic model that assumes perverse results from restricting firearms markets predicated on the assumed higher marginal value of firearms to criminals. *See The False Promise of Gun Control*, *Atlantic Monthly* (Mar. 1994), at 60-62 and *Firearms Costs, Firearms Benefits and the Limits of Knowledge*, 86 *J. Crim. L. & Criminol.* 207, 220 (1995). Philip J. Cook has offered economic model of firearms markets that supports an opposite conclusion: that regulation will impact acquisition of firearms by felons and juveniles. *See Perversity, Futility and Jeopardy: An Economic Analysis of the Attack on Gun Control*, 59 *Law and Contemporary Problems* 91 (1996). David M. Kennedy et al have also argued that raising costs can disrupt illicit gun markets, particularly those supplying youthful offenders. *See Youth Violence in Boston: Gun Markets, Serious Youth Offenders, and A Use Reduction Strategy*, 59 *Law and Contemporary Problems* 178 (1996).

11 Cook, *supra* note 8.

12 James B. Jacobs and Kimberly A. Potter, *Keeping Guns Out of the "Wrong" Hands: The Brady Law and the Limits of Regulation*, 86 *J. Crim. L. & Criminol* 93 (1995).

13 Cook and others have differentiated between the primary market, consisting of sales by licensed dealers, and all other sales, legal or illegal. *See* Cook, *supra* note 8.

14 Cook, *supra* note 8, 63-64.

15 *Id.* 68-71.

16 *Id.*

17 *Id.* at 73.

18 *Id.* at 78-87.

19 *Id.* at 87.

20 Jacobs & Potter, *supra* note 12, at 99.

21 *Id.* at 100-101.

22 *Id.* at 104-5.

23 *Id.* at 105-7.

24 *Id.* at 110-12.

25 *Id.* at 112.

26 *Id.* at 115-18.

27 *Id.* at 116.

28 *Id.* at 118.

29 Jacobs & Potter, *supra* note 12, at 119.

30 As examples, lowered infant mortality generates population pressures and improved health care demands for services for the elderly. This article assumes that no system will eliminate crime with firearms.

31 Although the conclusions here are the author's, a similar conclusion was expressed by Gary Kleck at the October 1997 meeting in San Diego of the American Society for Criminology in response to a question from David Kopel as to why Kleck supports controls on firearms transfers.

32 Vizzard, *supra* note 1.

33 Vizzard, *supra* note 3, at 347.

34 The author spent 27 years as a special agent, supervisor and manager in ATF. Twenty-four years of that time involved enforcement of the firearms laws or oversight of such enforcement by others. During that time, the author conducted thousands of interviews with firearms dealers and enthusiasts, illegal firearms traffickers and possessors, police and other ATF employees regarding firearms markets and the operation and impact of existing laws.

35 Cook et al *supra* note 8, at 81. Jacobs and Potter *supra* note 12, at 118. James D Wright *Ten Essential Observations on Guns in America*, Society (Mar-Apr. 1995), at 63. Gary Kleck, *Point Blank: Guns and Violence in America* 17 (1991).

36 Vizzard, *supra* note 1, at 73-74. Recent survey results also supports this trend. Although seven percent fewer households reported the presence of any firearm in 1994 than in 1973, the proportion of total households in which a handgun was reported present increased by five percent. See Robert J. Blendon, John T. Young and David Hemenway, *The American Public and the Gun Control Debate*, 275 *Journal of the American Medical Association* 1719 (1996).

37 Cook et al, *supra* note 7, at 63.

38 See James D. Wright & Peter H. Rossi, *Armed and Considered Dangerous: A Survey of Felons and Their Firearms* 183-185 (1986); and Joseph F. Sheley & James D. Wright, *Gun Acquisition and Possession in Selected Juvenile Samples* (National Institute of Justice, U.S. Department of Justice 1993).

39 Sheley & Wright, *supra* note 38, at 70.

40 Kennedy et al, *supra* note 10, at 178.

41 The NRA's Crimestrike Homepage lists the organization's agenda, which includes preventing the parole of violent offenders, truth in sentencing and three strikes and you're out; available from on the Internet at www.nra.org/crimestrike/cshome.html.

42 This pattern is not surprising. Many gun control advocates are not comfortable with the post facto incarceration strategies and are seeking alternatives. Opponents of gun control spend little time or effort seeking out its utility. Police also have been slow to recognize or capitalize on the utility of these laws.

43 18 USC § 924(e).

44 Cal. Penal Code § 1170.12(c)(2).

45 Waiting for serious offenders to commit such crimes presents moral and practical dilemmas. Surveillance of offenders until they commit a serious offense is very difficult to conduct successfully, and allowing suspects to carry out a potentially dangerous crime raises moral and liability questions. Additionally, arrest at or immediately after a crime is the most dangerous and difficult of tactical operations.

46 Wright & Rossi, *supra* note 36, at 13, 75.

47 *Id.*, at 100-01.

48 See National Institute of Justice, Research in Brief, *Arrestees and Guns* (1995); and *Illegal Firearms: Access by Arrestees* (1997).

49 Many police officers have been slow to recognize the potential utility of gun laws in this new environment. They also have not fully comprehended the need for more thorough investigation and trial preparation. Traditionally, firearms charges were incidental to other charges and seldom well investigated. The cultural bias against status offenses and in favor of working “real” crimes has lingered. An examination of proactive strategies, however, reveals that firearms violations play a key role. See Lawrence W. Sherman, James W. Shaw and Dennis P. Rogan, *Kansas City Gun Experiment*, Research in Brief (National Institute of Justice 1995). Gun violations played a critical role in New York Police Department’s Comstat strategy. See James Lander, *The C.E.O. Cop*, *The New Yorker* (Feb. 6, 1995), at 51 and *One Good Apple*, *Time* (Jan 15, 1996), at 56.

50 *United States v. Leon* 468 U. S. 897 (1984).

51 *Terry v. Ohio*, 392 U. S. 1 (1968).

52 Based on my observations and experiences during over 25 years of conducting, supervising and reviewing investigations and prosecutions of firearms violations.

53 This strategy is almost never encountered in parallel drug cases, presumably because the claimant would be subject to potential prosecution.

54 Interestingly, in my experience these claims never arise at the time of arrest, when witnesses fear that a firearm may be reported as stolen. They arise after the defendant has obtained counsel and devised a strategy for defense.

55 Such a resource could benefit either the prosecution or defense, but would more likely aid the prosecution, which has the higher burden of proof and limited opportunity for discovery of information known to the defendant.

56 Based on prior convictions for murder and manslaughter.

57 *Cleverness and Luck*, *Newsweek* (May 1, 1995), at 30-35.

58 Cook et al, *supra* note 8, at 73; Jacobs & Potter, *supra* note 12, at 112.

59 Cook et al, *supra* note 8, at 87; Jacobs & Potter, *supra* note 12, at 119

60 Vizzard, *supra* note 9, at 67-68.

61 Vizzard, *supra* note 3, at 343. At the time of Brady's passage, I was still employed by ATF. I discussed the potential impact with numerous experienced agents, and few were hopeful of a significant impact on acquisition of firearms by prohibited persons or control of illicit markets.

62 The number of dealers has fallen from a high of almost 300,000 to an August 1997 figure of about 100,000 according to the ATF public information officer Dennis Anderson. The reduction appears to be a direct result of higher licensing fees instituted by the Brady amendment and stricter scrutiny of applicants instituted by ATF.

63 Cook, *supra* note 8, at 75-76. Jacobs & Potter, *supra* note 12, at 110.

64 See 18 U.S.C. § 923(d)(1) (1994); 27 C.F.R. 178.32, 178.41-42 (1995). In addition to felons, persons under felony indictment, fugitives from justice, unlawful users of narcotics, persons adjudicated mentally defective or previously committed to mental institutions, aliens unlawfully in the U.S., persons dishonorably discharged from the armed forces, persons who have renounced their citizenship, some persons under restraining orders, and persons convicted of domestic violence are also prohibited from receiving licenses.

65 See 18 U.S.C. § 922(g)(1)(A) and 27 C.F.R. § 178.125(e) for records-keeping and 18 U.S.C. § 922(a)(3) (1994) for pre-sale clearance.

66 18 U.S.C. § 922(s).

67 18 U.S.C. § 922(s)(6)(B)(i).

68 Some states, such as California, do maintain records of handgun sales reports mandated under state law.

69 18 U.S.C. § 923(g)(1)(B).

70 Interview with Dennis Anderson.

71 Author's personal experience and observation.

72 Although my experience was with the law enforcement and not the regulatory component of ATF, the two functions shared office space in most locations and many cases required cooperative effort, thus providing ample opportunity to observe the regulatory function.

73 Personal experience with numerous firearms dealer investigations.

74 18 U.S.C. § 923(a).

75 Such a background would verify references, determine community reputation and verify past and present addresses. A background investigation of this nature is not conducted because of limited resources and limited authority to act on most derogatory information. ATF does conduct such investigations on applicants for licenses to manufacture and wholesale alcoholic beverages, where they possess broader authority to deny licenses.

76 See 18 U.S.C. §§ 922(a)(5), (d) and (x)(1).

77 See Cook, *supra* note 8 and Jacobs & Potter, *supra* note 12. Jacobs and Potter did address hypothetical problems in obtaining evidence for a criminal prosecution, at 113-14.

78 I am personally aware of several cases in which dealers distributed over 1,000 handguns without any records before being detected. Also see Francis Hopkins & Steve Riley, *Agents Smash Gun Ring*, Raleigh News & Observer (July 10, 1993), at A1 and Kathryn Kahler & Stephen Cain *Dealers Dodge Gun Laws*, Ann Arbor News (Sept 14, 1992), at A1.

79 Vizzard, *supra* note 3, at 92.

80 18 U.S.C. § 924(a)(3).

81 As an example, a dealer who has received several hundred firearms that have not been entered into the record has few defenses against a charge of failure to maintain a required record, but the disposition of such firearms can be impossible to prove. United States Attorneys are disinclined to file misdemeanor charges in most jurisdictions.

82 18 U.S.C. § 921(a)(21)(C).

83 Vizzard, *supra* note 3, at 92. Both investigations and prosecutions for dealing in firearms without a license virtually ceased after the passage of McClure-Volkmer.

84 Vizzard, *supra* note 9, at 92.

85 For the purpose of this discussion, the vocabulary of investigators and prosecutors has been adopted. Agent refers to an investigator, employed by the government. Informant describes a paid operative acting under the direction of an agent.

86 Because of the political sensitivity of such investigations directed at licensed dealers, ATF has required explicit management approval of all such investigation since the early 1980s. *See Vizzard, supra* note 3, at 91.

87 It has been my experience that informants increase the risk of entrapment, are more likely to give false testimony and often are not dependable to stay out of trouble and available until trial time.

88 *United States v Plyman*, 551 Fed. 2d 965 (5th Cir. 1977).

89 In most cases the preference is for using felons. Juveniles are normally not an option; illegal aliens are breaking the law by their mere presence; mental incompetents present obvious credibility problems and other classes are too uncommon to locate. Thus, felons are the choice by default. They present, however, credibility problems of their own and often do not remain available and out of trouble long enough to testify.

90 Federal sentencing guidelines prescribe a base level 12 for firearms violations. Unlawful dealing can extend no higher than a level 18 offense, regardless of volume, if the transactions involve otherwise legal firearms. Thus, the sale of 1,000 firearms to prohibited persons is subject to the same sentence, 27 to 33 months for those with no prior convictions, as possession of 20 grams of heroin or 1 gram of cocaine base. *See U. S. Sentencing Commission, Sentencing Guidelines Manual* 85, 87, 272 (1995).

91 *Cook et al, supra* note 8, at 75; Violence Policy Center, *More Gun Dealers Than Gas Stations* (1992). The primary difficulties with such a large number of casual dealers is assuring compliance by persons who have little commercial stake in compliance and the amount of cover provided to the few seriously deviant dealers by such numbers. Hobbyists, operating from their homes, are very difficult to distinguish from persons intent on purchasing large numbers of firearms at wholesale and reselling them with no records because the number and type of guns obtained by a dealer are not reported.

92 Between 1994 and 1997, the number of dealers has been reduced from nearly 300,000 to just over 100,000, according to ATF public affairs officer Dennis Anderson.

93 This assumes that two GS 11 inspectors would devote about a half day each to such an inspection and follow-up paper work. A large gun shop would require considerably more effort.

94 18 U.S.C. § 923(a)(3)(B).

95 Although legislation would be needed to direct license fees directly to ATF's compliance budget, the same end could be accomplished through providing equivalent resources from the general fund. Although the potential exists for using exorbitant fees to discourage even legitimate business, the firearms lobby has long demonstrated its ability to be heard in Congress and would provide a powerful counter-weight to any such effort.

96 The number of licensees grew to almost 300,000 and began to shrink only with higher fees.

97 How does the government make a showing that one does not intend to act in the future?

98 Vizzard, *supra* note 3, at 67.

99 The small number of sales by licensees constituted all their transactions, often to themselves, relatives and friends, while the limited number of sales by the unlicensed dealers were the sales documented by government undercover investigators and only a portion of the entire sales made. *See Vizzard, supra* note 3, at 67.

100 Based on personal experience and numerous interviews with ATF agents and inspectors.

101 18 U.S.C. § 923(d)(1)(F).

102 Given the long history of mistrust between the firearms interest groups and ATF, any extension of authority would be highly controversial. Proposals for expansion would have to provide safeguards assuring reasonableness and due process for applicants and licensees.

103 For an analysis of the impact of stolen firearms on illicit markets, *see Wright & Rossi, supra* note 36, at 207. Although the authors found that thefts from homes and vehicles were the primary source of stolen firearms, thefts from dealers and shippers were found to be significant.

104 Cook et al, *supra* note 8, at 75-76; Jacobs & Potter, *supra* note 12, at 105-06; Vizzard, *supra* note 9, at 67-68.

105 Jacobs and Potter, *supra* note 12, at 106.

106 This is based on the author's many years of experience directly conducting or overseeing firearms investigations.

107 *Id.*

108 Although some types of records would remain difficult to locate due to lack of any central index, criminal records almost always would be detected. Even such records as dishonorable discharges and mental commitments are often located through checking criminal records, as they are often preceded by an arrest.

109 A minimal check to verify the currency of the license would be required and states would have to suspend or revoke licenses immediately upon a notification by court of law enforcement agency of a disqualifying change in the licensee's status.

110 Richard Dahl, *The Sign of the Future May Be Please Check Your Gun at the Door*, 82 Am. Bar Assoc. J. 72 (Aug. 1996).

111 Jeffrey R. Snyder, *Fighting Back: Crime, Self-Defense and the Right to Carry a Handgun*, Cato Institute Policy Analysis no. 284 (1997), at 16.

112 *Id.*

113 James B. Trefethen, *Americans and their Guns: The N.R.A. Story Through Nearly a Century of Service* 311 (1967).

114 *Id.*

115 Some changes in National Crime Information Center (NCIC) regulations would be required to allow DMVs access to criminal history information, and additional resources would be required to handle the added duties.

116 By simply entering a license number, the dealer could receive a verification of currency of the license and a physical description and address in return.

117 Current technology allows single print searches of criminal databases. Investigators or auditors could check in minutes a print against the legitimate license holder's records and in most cases could positively identify any fraudulent purchaser with a criminal record.

118 The federal government has substantial experience in both collecting and distributing money but very little in large-scale licensing. States, on the other

hand, license drivers, members of many professions and occupations, hunters, and numerous types of businesses.

119 *Supra* note 4.

120 Congress would be within its jurisdiction to regulate interstate commerce. The state legislatures would be placed in the position of complying with the mandate or shutting down the primary firearms market in the state. This option is offered as a constitutionally permissible option. Its political acceptability might be another matter.

121 Substantial uniformity and reciprocity between states would be a key to acceptance of any law.

122 The requirement to obtain a license for each transaction or firearm is both burdensome for the citizen and costly for the system, yet serves little or no useful purpose. On the other hand, some states place additional restrictions on certain classes of firearms, such as machine guns, handguns or assault rifles. These states would have to create different classes of licenses for the firearms with additional licensing qualifications.

123 Although the National Crime Victim Survey data indicates that over 85 percent of the crimes committed with firearms involve handguns, there are a number of arguments for including long guns in any control system, see Kleck, *supra* note 33, at 432; Wright & Rossi, *supra* note 36, at 220. The first is the potential for substitution of long guns and sawed off firearms if a control effort impacts the availability of handguns. A survey of juvenile inmates conducted in 1991 revealed that 51% had owned sawed-off shotguns and 38% had owned semi-automatic assault style rifles. Joseph F. Sheley and James D. Wright, *Gun Acquisition and Possession in Selected Juvenile Samples*, Research in Brief (National Institute of Justice, U. S. Department of Justice, 1993). Much of the long gun market has moved away from sporting arms. See Vizzard *supra* note 3, at 174-75. Efforts to regulate as assault weapons long guns not designed for sporting use have resulted in the restriction of a few unpopular firearms, while mechanically identical firearms remain unaffected. Permissive licensing recognizes the futility of defining the “bad” long guns and eliminates the need for pursuing the hopeless task of reaching a workable definition of such firearms. See William J. Vizzard, *Practical Implications of Crafting for Compromise: The Case of Assault Weapons*, Paper presented at the

annual meeting of the Academy of Criminal Justice Sciences, Phoenix (Mar. 10, 1995).

124 This assumption is predicated on the fact that no state currently has a discretionary licensing system for long guns or handguns. States which issue concealed carry permits to all qualified applicants could incorporate that permit into the license to possess. This would not be popular with firearms control advocates. However, the law in these states is a reality.

125 For example, a licensed handgun owner from New Jersey could not take a handgun to New York but could take a long gun, as long as it were carried in compliance with New York law.

126 The residential composition of core cities is heavily weighted in favor of groups that support gun control. See Gary Kleck, *Crime, Culture Conflict and the Sources of Support for Gun Control: A Multilevel Application of the General Social Surveys*, 39 Am. Behav. Scientist 395 (1996).

127 Cities and counties lack the authority to impose significant penalties as a deterrent. Regulations are thwarted easily and compliance is virtually impossible in an environment where municipal boundaries are almost invisible.

128 The preemption controversy places both gun control advocates and opponents in unusual postures. Conservatives, who generally advocate local control, argue for state preemption of such control, and liberals, who have a long history of advocating intervention in areas such as welfare and civil rights, become the defenders of local prerogatives.

129 After many years of observing and dealing with the gun lobby, I have no illusions that the NRA or Gun Owners of America will endorse any control measure. This does not mean, however, that individual gun owners and even dealers might not come to accept certain control options as reasonable if they are not perceived as incremental steps toward prohibition.

130 Developing technology may allow instant verification by using a fingerprint scanner and eliminate the need for a license form.

131 Blendon et al, *supra* note 34, at 4. The assumption that all advocates of regulation seek to pursue prohibition is a constant and overriding theme among those opposed to firearms regulation.

132 Vizzard, *supra* note 1, at 346.

133 For an extensive critique of the role of gun control initiatives in sustaining organized opposition to all gun control measures, see Don B. Kates, *Bigotry, Symbolism, and Ideology in the Battle over Gun Control*, Public Interest L Rev. (1992).

134 Straw purchasers are eligible buyers who act as purchasers of record (“straw men”) for prohibited persons or traffickers.

135 Under the current federal law, the dealer is the custodian of the inventory log and the sales records. Investigators must depend on the dealer’s log and ATF Form 4473 to reconstruct transactions. The only alternative is to attempt to recreate the acquisitions by surveying wholesalers. However, only the dealer knows for sure which wholesalers have supplied him. If the dealer destroys or loses the log book and 4473 forms, no record of purchasers exists.

136 The ATF National Tracing Center reports that as of August 1997, it is tracing approximately 200,000 firearms per year, with an average tracing time of eight days. By contrast, in California, where handgun sales are reported and computerized, an investigator can determine the purchaser of any handgun in a few minutes or less.

137 Having worked and supervised numerous investigations in California, which has an automated handgun purchaser database, I have had numerous opportunities to observe the impact of instant records. They allow the investigator to conduct a follow-up investigation before alibis and explanations can be concocted. Instant records can also be very useful in interviews and interrogations by providing key background information.

138 Cook et al, *supra* note 8, at 90.

139 California Penal Code, § 12072(d), requires firearms transfer between individuals to be conducted through licensed dealers or law enforcement agencies and reported to the California Department of Justice. In 1991, only 1.3% of all reported firearms sales in the state were private party sales. By 1996 that percentage had increased to 5.2%, according to California Department of Justice, Bureau of Criminal Information and Analysis. Cook et al estimate that approximately half of all handgun transactions are private transfers, *supra* note 8, at 59. Although California records the handgun, but not long gun transactions, it does not have a registration requirement and has made no effort at public education or enforcement of the law.

140 Jacobs & Potter, *supra* note 12, at 117.

141 *Id.* at 118.

142 Such a policy would render unregistered firearms valueless in the legitimate market. This is currently the case with unregistered machine guns.

143 As of June 30, 1997, the California Department of Justice, Bureau of Criminal Information and Analysis reported that 37,842 persons had registered 62,345 assault weapons.

144 Under California law, the firearm cannot be bequeathed, sold or otherwise transferred within the state, and use of registered firearms is greatly restricted. Cal. Penal Code, § 12285 (b) and (c).

145 Jacobs and Potter, *supra* note 12, at 116.

146 Scarcity should improve profitability, and higher fees should reduce the population of those marginally involved in the business, thus increasing the number of dealers economically dependent upon the license for their livelihood.

147 Because prosecutive resources are limited, the standard for prosecution inevitably is raised as the number of violations increases. An excellent example can be seen in the immigration laws.

148 Cook et al, *supra* note 8, at 70; Wright & Rossi, *supra* note 36, at 183. Sheley & Wright, *supra* note 36, at 185; Kennedy, *supra* note 10, at 170.

149 *See* Wright & Rossi, *supra* note 36, at 207. It has also been my experience that firearms are virtually always stolen when present during a burglary or theft.

150 *See* Table 8 in Kennedy, *supra* note 10, at 195.

151 Although there are no available statistics on either of these behaviors, experience in tracing seized firearms over many years has confirmed what is accepted wisdom among police officers.

152 Under the current Brady requirements, unclear dispositions after arrests, possible mental commitments or other potentially disabling information will reappear at every check and require further clarification. This is particularly problematic for such classes as persons convicted of domestic violence and persons under restraining orders. Licensing allows a single, in-depth inquiry,

establishment of a record and the flagging of the record if there is a status change.

153. The history of opposition by organized firearms interest groups is well documented. *See Vizzard, supra* note 1, at 133-43. Given the steady decline in gun ownership and hunting and the increase in urbanization, however, this strategy eventually may prove untenable and counterproductive.