THE KLECK (AND GERTZ) STUDY ON FREQUENCY OF DEFENSIVE GUN USES

(and Gun Controller Criticism of It)
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WE HAVE 2.5 MILLION DEFENSIVE USES OF GUNS PER YEAR!

Actually, it depends not only upon how much error there was in the study but also upon whether you use Kleck and Gertz's conservative estimate or the more liberal one. I'll explain the findings, what gun control advocates said about the study when it was published, what an independent criminologist said about it, and some things that are right and wrong about what they said.

WHY CARE ABOUT DEFENSIVE GUN USE FREQUENCY?

People who want to ban guns or types of guns dig out statistics about the fact that guns of certain types are used to kill "x" number of people per year, or are the instruments by which "y" people per year are accidentally killed, or are the instruments by which "z" people per year are injured purposely or accidentally, etc. The gun controllers look at society's costs of gun existence, but they ignore the benefits. Those defending the existence of guns point out defensive gun uses (DGUs) as being one of the benefits that should be considered in deciding whether guns are, on net, good or bad.

THE STUDY

The survey part of the study ("National Self-Defense Survey") was an anonymous survey conducted in Feb. through April, 1993 by a private polling firm. 4977 people were interviewed over the telephone. A number of people in each of the 48 contiguous states were interviewed to ensure results representative of practically the entire country. The people contacted were determined by dialing random residential telephone numbers, then talking to one or more people in the household in those households for which a person rather than a machine answered the telephone and the person would cooperate.

The survey actually oversampled in the south and west to garner additional defensive gun use incidents because part of the objective was to obtain information about the nature of DGU incidents in addition to the information about the numbers of DGU incidents. This was corrected for in the subsequent determination of the DGU frequency.

The survey was designed to eliminate deficiencies of past surveys by

others. Unlike earlier surveys that have dealt with defensive gun uses (DGUs), this one asked specifically whether or not anyone in the household had used a gun during the last year or past 5 years to protect self or property against a person perpetrating a crime. A series of questions followed for anyone who answered that the household had experienced a DGU.

The survey asked the respondent to exclude any DGU experienced in law enforcement, the military, or armed security. Kleck and Gertz (K-G) did this so that the results would be about "civilian" (i.e., non occupational) DGUs. The survey included a number of questions about the nature of the incident and the crime involved. This was done both as a means of ensuring that the incidents were genuine and met certain criteria, and for suggesting characteristics of DGUs. For example, K-G carefully ensured that reported incidents were not about protecting against animals.

Unlike earlier surveys, this one asked how many DGU incidents the respondent or household had experienced in the last year and last 5 years. Earlier surveys had been limited to the unwarranted assumption that each person claiming a DGU had experienced only one.

The survey data were analyzed both on the basis of personal DGU incidents and household DGU incidents, and separately for the last 5 years and for the last year.

PREVIOUS SURVEYS

Kleck's analyses of eleven private surveys imply from .7 to 3.6 million DGUs per year, but all these surveys had various problems. On the other hand, data from the most recent available US Department of Justice National Crime Victimization Survey (NCVS) yield only about 108,000 DGUs per year. Gun control advocates choose to use even lower estimates from earlier year NCVS data even though the NCVS has numerous problems, chief of which are the facts that many crimes are not reported in the NCVS and the survey does not even specifically ask about DGUs.

RESULTS

222 of the 4799 respondents reported having at least one DGU in their household in the past 5 years. After correcting for oversampling in some regions, this figure drops to 66 personal accounts of DGUs in the preceding year, indicating that 1.326 percent of adults nationwide had experienced at least one DGU. When multiplied by 1.478, the average number of DGUs reported per DGU claimant for the preceding year, and by the total adult population, an estimate of 2.55 million DGUs per year was arrived at.

However, Kleck reviewed the record associated with each reported DGU and flagged every report for which: (1)it was not clear if the respondent had actually confronted the perpetrator; (2)the respondent was a police officer, soldier, or security guard; (3)the interviewer had not properly recorded exactly what the respondent had done with the gun, so it was not certain that the respondent had actually used the gun; or, (4)the record did not state a specific crime the respondent thought was being committed.

When all such cases were eliminated, the results were 1.125 percent of adults had used guns defensively an average of 1.472 times each, for a total of 2.16 million DGUs per year. This, then is the K-G conservative estimate of annual DGUs. So, rather than saying that K-G found that there are 2.5

million DGUs per year, we should say that there are up to 2.5 million, or be more conservative and say something like over 2 million.

Note that an average of 1.472 DGUs per person implies that some people are involved in DGUs much more frequently than others.

In their report K-G say that the sampling error for 95 percent confidence interval is plus or minus .32 percent for the unpurged 2.55 million estimate for DGU frequency. The corresponding sampling error for the more conservative 2.16 million estimate would be something greater because the purging would have reduced the sample size. However, do not assume that the results are actually this accurate since these sampling errors do not account for any biases in the survey.

The survey had questions that provided information about DGU incidents. However, the accuracy and validity of this information was generally not as good as the information about the frequency of DGUs. The reason for this is that the sample that gave the results about the number of DGUs was 4977, but the information about the DGUs was based on a sample no bigger than 213 (the number left of the 222 after 9 respondents broke off the interviews as soon as they stated that their DGUs were against humans). In other words, the DGU case count was not as big as the overall sample size.

Some of this additional information serves as confirmation of findings from earlier studies. Some of it is new information that answers questions that arose from earlier studies. Examples of the additional results follow.

1. Consistent with past research, most of the DGU cases were relatively undramatic. Only 24 percent of the DGU respondents said they actually fired their guns. Only 8 percent said they thought they wounded the perpetrator. Note that this is inconsistent with any thought that the respondents were "bragging." This compares to 17 percent and 3 percent according to the NCVS data. The higher rates for the K-G study could be an indication that some DGUs are not reported in the government conducted NCVS, probably out of respondents' fears of reporting their own activities of uncertain legality. Kleck believes the 8 percent wounding is probably exageration since the survey acquired no proof of the respondents' beliefs or information as to why the respondent believed the person was shot. He thinks this mainly because the numbers would correspond to the shooter hitting the person about 53 percent of the time, and this is greater than records indicate for police combat shooting and for criminal shooting.

2. 37 percent of the DGUs occured in the respondents' homes. 27 percent of the DGUs did not occur in or near the respondent's home. This proportion would correspond to carrying the gun concealed or in some manner approching concealed carry (such as, in a locked container in the back of a vehicle).

3. For property crime DGUs, property was lost in only 11 percent of the cases. This confirms previous research showing that gun use is effective in the proper circumstances.

4. The perpetrator threatened or attacked before the DGU in 84 percent of the DGU cases. The respondent did not threaten or use force in any of the 11 cases in which the respondent was injured. The respondent used the gun only after being attacked or threatened, and usually after already being injured. These results show that gun control advocate representations of self defenders being "Rambos" are false.

5. 18 percent of the DGU respondents faced criminals who had guns too, although (per NCVS) 14 percent of all violent crime victims are victims of criminals with guns. The DGU respondents said they faced multiple criminals in the 53 percent of the DGU incidents, compared to 24 percent for all violent crime per the NCVS. The DGU respondents faced somewhat more serious crime than the general violent crime victim. These facts are consistent with the idea that more desperate circumstances dictated more desperate defensive measures. Offenders had a weapon in 48 percent of DGU cases, but were armed with guns in only 18 percent of them. The defenders were not generally foolhardy.

6. Only 16 percent of the DGU cases involved the respondent shooting at the offender. In only 4.5 percent of the cases did the offender shoot at the respondent. They both shot at each other in only 3 percent of the DGU cases.

7. About 1/4 of the DGU respondents reported not owning a gun at the time of the interview. This probably indicates distrust of anyone calling up on the telephone and asking about possession. It also casts doubt on past surveys that ask about DGUs only after obtaining an affirmative answer as to whether or not someone in the household owns a gun. It also casts doubt on recent surveys that indicate lower rates of gun ownership than was found in the past.

8. DGU respondents reported having been a victim of burglary or robbery in the past year more than was the case for non-DGU respondents. DGU respondents reported death penalty support and "tough-on-crime courts" support virtually identical to that of the non-DGU respondents.

THE NATIONAL SURVEY ON PRIVATE OWNERSHIP (AND USE) OF FIRARMS

This survey, referred to as the NSPOF even if it should have been NSPOUF, was performed by a private polling company under contract to the anti-gun "Police Foundation" using funds from the DOJ National Institute of Justice (NIJ). The NIJ report on the survey and study, "Guns in America: National Survey on Private Ownership and Use of Firearms," was published in May, 1997.

The study is the one that received some notoriety among NRA members as being the one in which the study principles (and report authors) Philip J. Cook and Jenz Ludwig explained away the high numbers of DGUs reported in their survey by blaming "false positives."

It is also the study in which the authors concluded that "slightly more than half of the privately owned firearms were stored unlocked; 16 percent of firearms were stored unlocked and loaded" even though the questions actually asked the respondents were about the state of each owned gun at the time of the telephone survey (when, by definition, the respondent was at home and using the gun for home defense). The DGU rate their survey found was very close to that found by K-G. (Note that Cook has done several studies aimed at supporting the gun control agenda.)

Bookmark the pubs index of the National Institute of Justice, part of the U.S. Department of Justice. You can get a copy of the report at their web site.

THE GUN CONTROLLER RESPONSE

1. False positives. The claim is that, because the conclusions of the survey are based on only a small number of people saying they have had a DGU experience, some unspecified part of the DGU estimate could be a result of a small number of reported DGU incidents not being real.

David Hemenway, the gun controller who criticized the K-G study in the same journal in which the study was reported, suggested that false positives would be mostly because of gun owners wanting to brag about nonexistent macho events, but did suggest that maybe some of the false positives would be lies by people wanting to make the study show what they wanted it to show. In other words, gun owners are beer-swilling red-necks but there might be a few gun owners smart enough to give false reports to affect the debate about beneficial impacts of private gun ownership. He also implied that the employees of the polling company falsified reports because they knew what Kleck wanted the study to find.

Kleck's response in the same journal was that those involved in the study went to great lengths to ensure the validity of the DGU reports and that a respondent reporting a DGU had to answer in the following few minutes 19 questions about the incident asked by highly trained surveyors.

Kleck also pointed out that Hemenway dwelt on "false positives" while ignoring possible sources of "false negatives." As he had said in the original report, numerous of the people surveyed had displayed obvious hesitency to answer questions about gun ownership and use. He believes that false negatives must be more numerous than the false positives.

2. "Inconsistent with what we know." Hemenway also argued that the Kleck survey must have been flawed because some of the information derived from the survey about the nature of DGUs conflicts with "what we already know" mostly based on the DOJ National Crime Victimization Survey (NCVS). For example, the numbers of DGUs the survey found in connection with burglaries exceeded the number of burglaries of occupied residences estimated from NCVS data. This and the other similar "deficiencies" ignored two different facts that K-G had already explained in their original report, as follows.

First, it is already well established that many crimes are not reported to the NCVS surveyors. There are several common sense reasons for this, including the facts that the survey doesn't ask about certain types of crime, many of the crimes are so minor that they tend to be forgotten, some respondents are embarrassed to report some crimes or fear saying things that might incriminate themselves to a government agent.

Secondly, estimates about the characteristics of the K-G DGU cases cannot be accurate because the sample sizes for such estimates are small. That is, the number of cases yielding the DGU incidents is large, yielding small sampling error, but using these DGU cases or some subset of them as the sample means a small sample size and a large sampling error. Another example of this fallacious reasoning was Hemenway's assertion that the K-G survey must be flawed because K-G "report that 207,000 times per year the gun defender thought he wounded or killed the offender" although "we know" this number is too big in relation to data obtained from an emergency room reporting system. This was a misrepresentation by Hemenway. The fact was that K-G did not report this, cautioned against drawing such conclusions about subsets of the DGU cases, suggested that the injury claims by the

respondents were too high and cautioned that no questions were asked from which the validity of the statements could be verified.

The important thing is that, in addition to the fallacy of drawing conclusions from subsets of the data, the logic of the statement is wrong simply because the emergency room data Hemenway referenced does not include information about all people suffering gunshot wounds, especially wounds suffered by criminals! Only the most gravely injured (or stupid) criminal will go to a regular medical facility for treatment of the wound.

INPUT BY A "NEUTRAL" RESEARCHER

Tom Smith of the National Opinion Research Center had an article in the same journal as the one in which the K-G and Hemenway papers were published. In his article he tried to evaluate the other authors' positions and concluded with a call for further research to resolve identified issues. Smith agreed that NCVS based estimates are too low because some crimes are not covered by the NCVS and because not specifically asking about DGUs guarantees that DGU estimates will be lower than the truth. He did not believe the K-G contention that respondents would naturally mistrust a survey by a government activity, and cites the great cooperation obtained by the census surveyors. He apparently did not understand that what K-G actually claim is that respondents will naturally be hesitant to report possibly illegal activities to a government agent.

Smith thought that the K-G and other surveys yield numbers that are too big because of "telescoping"--the mistaken remembering of some events as occuring more recently than they actually did. As explained below, this should result in only a 4% overstatement

Smith thought that "false positives" is a legitimate concern and that we cannot yet know the frequencies of the false positives or the false negatives, and that more research is needed to account for or eliminate the possibility of false responses of both polarities. He thought there is insufficient proof that those involved in DGU incidents are usually involved in illegal activity as K-G claim. There would definitely be a large part of DGUs, nationwide, that are illegal either because the gun was carried illegally or because it was possessed illegally (as in New York City). There would also be a lot of DGU incidents for which the person involved was uncertain about the legality of some aspect of the DGU. Finally, Smith thought that the implications about characteristics of DGU incidents included too many that seem inconsistent with what we think we know.

STUDY ERRORS AND NEEDED CORRECTIONS

Certain probable error sources (for which corrections are needed) have been identified via the criticism of the study. These errors are discussed below, with errors that would reduce the DGU frequency addressed first.

Reductions:

1. False positives. These errors would most likely be caused by the respondent purposely reporting an incident that never actually occured, such as a woman claiming one while thinking that the surveyor on the other end of the telephone might be preparing to victimize women they "size up" by telephone. Or, such as NRA members purposely making up an incident to affect the debate about gun control. Eliminating such possibilities or

measuring them would be very difficult if even possible.

2. Telescoping. This is the inclusion of incident counts for a period when the incidents actually occured before the start of the period. This error results from unreliable memory. Fortunately, there is some information regarding the possible size of this error.

In their initial report, K-G refer to a U.S. Census Bureau study of telescoping regarding peoples' recollection of crimes committed against them. The events being remembered in this study were very much the same as those that would apply for a DGU survey such as the K-G survey. The Census Bureau selected a sample of crimes documented by police reports as having occured in months 13 and 14 (preceding), then contacted the victims and asked them about any crimes committed against them in the preceding 12 months. The result was that 21 percent of the month 13 and 14 crimes were incorrectly reported as having occured within the past year. This would produce a 3.5 percent increase in the number computed for a one year recall period.

It appears that there has been no study regarding telescoping of events from even earlier preceding months. However, it is essentially certain that most of the incorrectly recalled month 13 and month 14 events in the mentioned study actually occured in month 13, and that an even smaller portion would be "telescoped" into the preceding year from month 15. Assuming 5 percent for month 15 and zero from all preceding months past 15 would result in the DGU estimate being artificially increased by 3.9 percent. Thus, the DGU estimates can be well corrected for telescoping by reducing them by 4 percent.

Additions:

1. DGU statistics should include incidents in which the respondent uses a gun to protect someone other than him/her self. The K-G survey asked only about "self" and property protection.

2. DGU statistics should include DGUs by minors. Existing surveys have only asked adults about their own defensive uses, and have only used the adult population to estimate total DGU rate.

3. DGU statistics should include DGUs by people who would otherwise falsely report none because of things such as fear of reporting incidents the respondents think might be illegal or immoral, and such as fear of someone showing up to confiscate weapons. Eliminating or accounting for these false negatives would also be nearly impossible.

Uncertain impact:

DGU surveys should include people who have no telephones, such as the poor and rural. K-G had a very low portion of DGUs by low income households. It's probable that this would be the case if all poor were included in the survey, but it should be checked. Although the poor are disproportionately the victims of crime that could lead to DGUs, gun ownership is low for poor households. Reasons are not all known but include the fact that the poor can't afford guns as well as others, and the fact that the poor are disproportionately ineligible for legal gun ownership.

The probable impact of including some rural residents in the survey pool is

uncertain. The number who don't have telephones is uncertain. On the one hand, rural residents tend more to own guns. On the other hand, they tend to be less victimized by criminals.

ADVANTAGES OF KLECK-GERTZ STUDY

1. Over all other studies

   1. Asked the actually involved person questions rather than only asking "household" questions.
   2. Determined the number of DGUs per DGU claimant.
   3. Asked about DGUs of everyone, even those who didn't claim to own a gun.
   4. Excluded uses against animals or any person other than a criminal.
   5. Established sequence of DGU and injury in each case of DGU w/ injury.

2. Over the NCVS

   1. K-G was anonymous, although some respondents might not believe that this was so.
   2. K-G was not by or for a government agency, although some respondents might not believe that this was so.
   3. K-G actually asked about DGUs. NCVS doesn't even specifically ask about self defense until victimization is already established.
   4. K-G excluded DGUs that were performed as part of the respondents' jobs (e.g., police and security guard).

3. Over all other than NCVS

   a. Used shorter recall period, so that forgetting is less significant.

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