

The Defensive Gun Use Lie and the Gun Lobby's Firehose of Falsehood:

How decades of shoddy research, lax academic oversight, marketing, and outright lies fatally warped America's gun culture.

The Defensive Gun Use Lie and the Gun Lobby’s Firehose of Falsehood: *How decades of shoddy research, lax academic oversight, marketing, and outright lies fatally warped America’s gun culture*

On [July 25th, 2020](#), Daniel Perry was working as an Uber driver in Austin, Texas when he ran a red light and drove into a Black Lives Matter protest. After he stopped, a group of protestors approached his car, concerned by how close he had come to the protest. One of the protestors, Garrett Foster, was carrying an AK-47 style rifle. Perry drew his own revolver, and fired on Foster, killing him. Perry’s lawyers argued that he feared for his life, that Foster raised his rifle towards Perry, and that the killing was a case of self-defense.

The prosecution argued that because Perry instigated the altercation by driving at the protestors, and there were multiple witnesses who swore Foster never raised his rifle, the self-defense argument fell flat. The prosecution also noted that before the shooting, Perry put up multiple [racist and inflammatory](#) social media posts and sent text messages about the protests, stating in one that he “might go to Dallas to shoot looters,” and in [others](#) that he could get away with killing a protester if it was seen as self-defense. Finally, Perry himself [stated to investigators](#) in the immediate aftermath of the shooting that: “I believe he was going to aim at me. I didn’t want to give him a chance to aim at me,” revealing that Foster had not yet actually raised his rifle.

In April of this year, the jury reached a guilty verdict that [caused outrage](#) in pro-gun circles, with former Fox News anchor Tucker Carlson and others calling it a miscarriage of justice. Texas Governor Greg Abbott quickly seized on the news, and in an unprecedented move, announced he would pardon Daniel Perry, before the verdict even had a chance to be appealed.

The incident is one of countless tragic examples of how the prevailing and false narrative that guns make us safer leads to death. For decades, the gun lobby has pushed the narrative that defensive gun use is widespread, beneficial for society, and the most effective means of self-defense. As we will explore, none of these claims are true. It is long past time for defensive gun use to be put under the spotlight and rigorously analyzed.

Indeed, looking at each of these claims will reveal the following:

- **Defensive gun use is not widespread.** Pro-gun proponents claim that there are millions of defensive gun [uses](#) (hereinafter “DGUs”) annually; however, Gun Violence Archive data [finds](#) between 1,195 and 2,119 verified DGUs annually.
- **Defensive gun use is not beneficial for society.** Every type of data source finds vastly more offensive than defensive gun uses. Looking closer at the data also reveals that most DGUs are criminal and societally harmful actions in which a gun owner attacks someone, as the case of Daniel Perry demonstrates.

- **Guns are not the most effective means of self-defense.** Finally, despite claims that DGUs [are](#) “by far the most effective way for people to protect themselves,” in reality, research consistently shows no statistically significant difference in injury rates between using a gun or a different means of self-defense.

As it would turn out, Governor Abbott’s announcement on April 8th would be just the first in a string of high-profile cases of dubious defensive gun use claims that month.

On April 13th, 16 year old [Ralph Yarl](#) was headed to pick up his two younger brothers from a friend’s home when he unintentionally walked up to the wrong front door in northern Kansas City, Missouri. The 84-year old who answered the door instantly shot him in the head, and then again in the arm.

On April 15th, [two teenagers](#) were delivering groceries for Instacart in south Florida when they unintentionally arrived at the wrong address. They realized their mistake but were confronted by the homeowner who tried to block them with his truck, and then opened fire as the two teenagers fled.

Again on April 15th, this time in Fort Edward, New York, 20-year old [Kaylin Gillis](#) and a group of her friends were searching for a friend’s house late at night when they pulled into the wrong driveway. While none of them exited the car, the 65-year old homeowner approached and opened fire, killing Kaylin.

On April 16th, a man living in Orlando, Florida [shot his girlfriend](#) in the back, killing her, during an argument after a birthday party for their son. He claimed that his girlfriend kept “coming at” him. He produced a firearm during the altercation, and later, when she was walking away, he shot her. He has claimed self-defense.

On April 18th, [two cheerleaders](#) in Elgin, Texas were shot when they tried to enter the wrong car in a parking lot after practice. They realized their mistake when the car owner produced a firearm. They got into the correct car and tried to drive away, but the car owner pursued and opened fire.

All of these cases highlight the risks of the defensive gun use narrative, but are also merely the tip of the defensive gun use iceberg that we will explore in much greater detail.

Selling the Defensive Gun Use Narrative

The National Rifle Association (NRA) convention held in April of each year, which, in 2023, ironically overlapped with many of the incidents documented above, serves as a shining beacon of the defensive gun use mythos. Rows upon rows of firearms and firearm accessories dominate the convention space, replete with salesmen eager to sell you on the most lethal innovations in ammunition, emphasize the necessity of bra holsters, gush over .50 caliber sniper rifles that can take out small vehicles, and articulate why two shot derringers designed to look like cell-phones are in fact

a great idea. While segments of the floor are still dedicated to hunting and recreation, the overall message is that the world is a dangerous place, and the only way to stay safe is to arm yourself with a gun.

The narrative that firearms are necessary for self-defense and reducing crime more broadly has been around since their invention. American culture is replete with stories of self-defense and “good guys with guns” stopping the “bad guys.” However, the increase in firearm ownership for self-defense and the weakening of firearm laws at the state level as a crime prevention strategy didn’t take off until the 1980s. The NRA itself has not been shy about its strategy. Internal NRA documents [unearthed](#) by *The Trace* highlight the shift in the marketing strategy to a self-defense narrative, with the NRA’s Information Division director bluntly stating: “This is why no matter the policy, our messaging continues to focus on self-defense.”

This shift in the conversation – from hunting to self-defense – is highlighted in a [pair of studies](#) led by Dr. David Yamane. In this work, the authors analyze advertisements in *The American Rifleman*, the NRA’s flagship publication, and the popular magazine, *Guns*. They sampled publications throughout each magazine’s lifetime for advertisements that fell into four broad categories: hunting, sport/recreation, self-defense, and concealed carry, categorizing them as “Gun Culture 1.0” and “Gun Culture 2.0.” Gun Culture 1.0 is about sporting and hunting, whereas Gun Culture 2.0 is about self-defense, both in public and at home.

While the number and size of ads fluctuate substantially from year to year, there is a clear downward trend in Gun Culture 1.0 ads after the 1960s and a substantial increase in Gun Culture 2.0 ads during the late 1980s and 1990s. Although Gun Culture 1.0 ads still maintain more of an absolute presence during the upswing of Gun Culture 2.0 ads in the 80s and 90s, eventually the two trend lines cross in the early 2010s when self-defense and concealed carry ads take a decisive lead.

It is hard to overstate how important the widespread and effective defensive gun use narrative is to the gun lobby. Without this narrative, there is no serious affirmative case to be made in favor of widespread gun ownership and weakening gun laws. The theories that more guns mean less crime, that mass shooters target gun-free zones, and that stricter gun laws actually harm people all collapse if it is disproven that DGUs are widespread and effective. Yet, despite its central and overwhelming importance, relatively little attention has been paid to DGUs outside a handful of scholars pushing back on the myth.

Defining Defensive Gun Use

Before diving into the DGU debate in full, it is important to clarify what precisely a defensive gun use is. A DGU occurs when a citizen either fires, brandishes, or reveals a firearm in an attempt to stop an assailant from committing or completing a crime. This action can be in defense of oneself, others, or even property. Law enforcement shootings are not considered defensive gun uses for the purposes of

this paper. However, even this straightforward definition has substantial gray areas, as it can be unclear what kind of behaviors are sufficient to constitute a genuine defensive gun use. For example, all of the cases in April of 2023 listed above are ones in which the person firing the gun likely felt their actions were completely justified for their own defense, yet from an outside perspective are hard (if not impossible) to justify. At the other end of the spectrum, the guard who [stopped an active shooting](#) in a Texas church on December 29th, 2019 was a textbook case of legal defensive gun use.

The most straightforward version of a DGU is when someone is attacked, fears for their life or safety, and fires a gun at the assailant in self-defense. Unless the person being attacked is already in the act of committing a separate crime, that is a clearly justified DGU. The same holds if someone else is being attacked and that person's life or safety is clearly in danger. Further, the defendant doesn't need to actually fire a gun at the assailant for it to be classified as a DGU; merely drawing and pointing the weapon is sufficient.

Uncovering the Myth of Widespread Defensive Gun Use

The myth of widespread defensive gun use can trace its origin back to a single survey. While there are a number of other surveys that have attempted to measure the prevalence of DGUs, none had the immediate and profound impact of Dr. Gary Kleck and Marc Gertz's "[Armed Resistance to Crime: The Prevalence and Nature of Self-Defense with a Gun.](#)" Published in 1995, the survey was administered in 1993 to 4,977 participants who were asked whether they had used a firearm in self-defense over the past year.

Of the nearly 5,000 participants in Kleck's survey, 66 indicated they had used a firearm in self-defense in the past year. These 66 individuals represented 1.33% of Kleck's sample, which, when extrapolated to the entire US population at the time, indicated that 2.5 million DGUs were occurring every single year. While such extrapolation might seem outlandish, it is common practice for such surveys, and Kleck's results were supported by a substantial number of other similar surveys during the 1990s (Kleck listed 16 supporting surveys in a [1998 article](#)). These other relatively small, one-time telephone surveys found results ranging from 760,000 to 3.6 million DGUs, with occasional outlier results even reaching 6 million DGUs. It is worth noting that Gary Kleck had conducted an earlier survey in [1988](#) that found around one million defensive gun uses, but it did not receive the same attention as his 1995 publication.

When Kleck published his results, he did appear to have the weight of scientific evidence behind him, though the academic debate that followed would demonstrate the illusory nature of his scientific support.

Problems with Kleck's survey results almost immediately became apparent. As Dr. David Hemenway of Harvard University [first noted](#) more than two decades ago, Kleck's estimates indicate guns were used defensively in 845,000 burglaries annually. However, National Crime Victimization Survey (NCVS) data reports fewer than 1.3 million burglaries in which someone was at home and of those 1.3 million, NCVS data indicates only one-third (approximately 434,000) had occupants who were awake at the time of

the burglary. Further, approximately only 42% of households contained firearms at the time of the survey. Using these calculations, at most, we could expect 182,000 DGUs in response to burglaries, and that's if the gun owners who were burglarized used their firearms in self-defense every single time they were awake. Moreover, even if burglars only targeted the homes of gun owners -- not a realistic assumption -- only 434,000 DGUs in response to burglaries would be possible. In sum, Kleck's results are deeply flawed.

Kleck's analysis also indicates that more than 200,000 criminals are shot or killed every year. This is problematic as fewer than 100,000 people in the US were shot each year during the time of the survey, and 40,000 were killed at the time of the survey. The [majority](#) of these deaths were suicides, and according to [FBI data](#), the large majority of overall shootings are criminal assaults, not defensive gun uses. There are no medical or law enforcement records to support Kleck's finding. Kleck retorts that the majority of criminals don't seek medical attention.

However, unlike what Hollywood action movies suggest, being shot is not something someone can merely shrug off, unless it is a very fortunate grazing wound. Medical experts rebuff Kleck's claim, and surveys of prison inmates who have been shot before incarceration reveal that more than 90% of them sought medical attention. It is safe to say that the overwhelming evidence refutes this aspect of Kleck's survey.

The survey data purports that 73.4% of DGU incidents were against strangers. This fits with the common pro-gun archetypal story of using one's firearm to ward off unknown assailants. Yet according to the [NCVS](#): "In 2010, strangers committed about 38% of nonfatal violent crimes, including rape/sexual assault, robbery, aggravated assault, and simple assault." For homicides reported to the FBI where "the victim-offender relationship was known, between 21% and 27% of homicides were committed by strangers." Thus, it would require a massive statistical irregularity for most DGUs to be against strangers.

Kleck attempts to counter that the overall DGU number should not be judged by subsets of DGUs due to their size in the survey. He says, "Our estimates of total DGUs are likely to be fairly reliable partly because they are based on a very large sample (n=4977), 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 194 reported DGU incidents, of which about 40 were linked to burglaries." However, it would be highly unlikely for a survey to fail every attempt at external validation ranging from empirical data to other larger criminological surveys, and yet still have its total number be accurate.

Finally, the 16 surveys Kleck marshals as supporting evidence aren't nearly as persuasive as they appear at first glance. All of them are small, private surveys that use similar methodology to Kleck's. If these surveys departed substantially from Kleck's methodology, with substantial safeguards against false positives, and arrived at the same outcome, that might constitute supporting evidence. But repeating the same flawed process will yield repeated flawed results.

The problem with surveys of statistically rare events

Structurally, surveys of statistically rare events suffer from substantial false positives, which are cases in which a survey respondent claims an event happened to them when it did not. While surveys often have these false positives canceled out by false negatives, i.e., when a survey respondent says something didn't happen when it did, in surveys of statistically rare events this balance doesn't exist. In order to explain this fundamental problem, we need to turn to surveys from a variety of fields.

What do defensive gun use, alien abductions, magazine subscriptions, sex, voter fraud, and lizard people ruling the world all have in common? If you answered a really messed up browser history or the contents of your spam email inbox, you get partial credit. The answer is that all of these topics have been surveyed and, more importantly, the surveys in question all suffer from a similar set of problems that can lead to false positives, particularly in surveys of statistically rare events.

Let's start with sex (a sentence I never thought I'd write). The assertion that men have sex with women as much as women have sex with men is true by definition for heterosexual partners. It is logically impossible for that statement to be false, yet according to survey data, it is by a long shot. [Multiple surveys](#) in Britain found that heterosexual women reported an average of 7 partners over the course of their lives, while heterosexual men reported 14. After making a number of statistical adjustments to the survey results, the difference dropped from 7 to 2.6. While substantially more reasonable, the gap still shouldn't exist at all. What accounts for this massive discrepancy?

One of the primary reasons for this impossible gap between men and women is called "social desirability bias." People want to be perceived in the best possible light by their interviewers. In this particular case and culture, for men that meant embellishing their number of partners, and for women downplaying theirs. This doesn't mean that all or even a majority of people lie in order to look good in such interviews. All it takes is a minority of participants to fudge their response and a sizable discrepancy will appear. With social desirability bias, people might not even be aware they are under its sway, and might fully believe their own embellishments during the survey. While sex is not a statistically rare event, social desirability bias becomes even more important in surveys of rare events, and as we will explore in Part 4 is a key part of the debate over the viability of defensive gun use surveys.

We see something similar with magazine subscriptions. However, this time social desirability bias likely isn't the main causal factor. While possible, it is unlikely that respondents feel a need to impress their interviewer by responding yes to the question "Do you have a current subscription to *Sports Illustrated*?" In his [1997 critique](#) "The Myth of Millions of Annual Self-Defense Gun Uses: A Case Study of Survey Overestimates of Rare Events," Dr. David Hemenway of Harvard University references a survey showing that 15% of respondents claimed to be current subscribers to *Sports Illustrated* (this was in the early 1990s). However, the magazine's records showed that fewer than 3% of American households were purchasers - and the magazine has every incentive to keep accurate records.

While other factors certainly play a role in the survey being so inaccurate, a likely culprit is “telescoping,” which is remembering an event accurately, but misremembering when it occurred. When responding to the *Sports Illustrated* survey, people who had a subscription that had since expired probably remembered ordering the subscription, but forgot when it was or that it had expired. In this case, the event occurred before the survey period, and the respondent “telescoped” it forward to the present. Keep in mind that people under this bias aren’t deliberately attempting to be deceptive.

The final source of respondents answering questions incorrectly is those who are lying. Deliberate dishonesty runs the gamut from people answering questions strategically to advance a narrative important to them (such as political goals) to people not taking a survey seriously. There is also the chance that surveys will include respondents who are suffering from delusions in some form and are incapable of answering the survey accurately through no fault of their own. And once again, it doesn’t take many people being dishonest in some form to skew survey results.

A prime example of people lying or being delusional while answering surveys is the belief that lizard people rule the world. In 2013, Public Policy Polling released a [survey](#) of 1,247 American voters that asked questions on a wide variety of conspiracy theories ranging from the “New World Order” to Bigfoot to the moon landing being faked to lizard people being at the highest level of governance. On the question of devious shape-shifting lizard people, 4% of the respondents believed that lizard people were manipulating the highest levels of government (a further 7% marked “not sure”). While this percentage may appear small, when extrapolated to the entire US population, it would indicate a full 12 million Americans believe that lizard people rule the world, which is a scarily high number. Of course, the likelihood that a full 12 million Americans actually believe this is doubtful. More likely, most of the respondents replying in the affirmative were not taking the question seriously, though a few of the respondents could definitely be true believers.

Indeed, Scott Alexander of Slate Star Codex (which is now Astral Codex Ten) wrote of the Lizardmen polling phenomenon [back in 2013](#), and coined the term “Lizardmen Constant” to refer to the percentage of people who say they believe lizardmen rule the world: 4%. Alexander contended that any polls of very unpopular beliefs should be treated with substantial skepticism, especially if that belief polled near or lower than the 4% “Lizardmen Constant.” This skepticism should be applied even outside the context of bizarre beliefs.

Each of these biases can result in what are called false positives and false negatives. However, this entire calculus changes when dealing with surveys of statistically rare events. Here is where alien abductions and voter fraud enter stage right. With a high degree of confidence, we can assert that the true number of alien abductions is zero. Yet in a 1994 [survey](#) by ABC and *The Washington Post*, 0.6% of respondents answered that they had personally been in contact with extraterrestrials, which extrapolates to 1.2 million Americans at the time. A [survey](#) in 2014 saw this figure increase to 2.5% of respondents who claimed to have been abducted by aliens in the past year, or 6 million Americans.

From these surveys, we can either conclude that aliens are picking up the pace of abductions, or that surveys have a problem when measuring events that don't actually happen.

The same thing happens with voter fraud. Despite claims of widespread fraud in the 2020 election (and previous elections), investigative reports and court proceedings have demonstrated repeatedly that real voter fraud is exceedingly rare. Multiple studies find that cases of fraud represent anywhere from [0.00000017%](#) to [.0025%](#) of ballots cast. In other words, voter fraud is an even more rare occurrence than being struck by lightning. Yet despite the close to zero number of fraudulent votes, the [same](#) 2014 survey as above found that about the same proportion of respondents reported they had committed voter fraud as had been abducted by aliens.

Fortunately there is a far simpler and more plausible explanation for these survey results than aliens abducting people en masse in order to rig elections. Namely, surveys of rare events (or events that don't occur at all) have a false positive problem. In a traditional survey measuring a common occurrence, false positives and false negatives typically come close to canceling each other out. However, surveys of rare or nonexistent events don't provide an opportunity for false negatives to occur, while false positives can abound. For a participant to lie in a survey and say that an event did not happen to them, when it actually did, the event had to occur in the first place.

Let's return to the alien abduction example to clarify this. The survey participants are in two groups: those who were abducted by aliens, and those who weren't. The people in the "not abducted by aliens" group can either be honest in the interview and say they were not abducted, or lie and say they were abducted. The people who lie in this group are false positives. We then turn to the second group, a group that does not exist because nobody has ever been abducted by aliens. There is no opportunity for someone who has been abducted by aliens to lie about it, which would be a false negative, because, once again, nobody has ever been abducted by aliens. Therefore, any positive (has been abducted) tallied in the survey will be a false positive, and any negative (hasn't been abducted) tallied will be a true negative. As such, any survey on alien abductions will always overestimate the true number of such abductions, which is zero, because there will always be some false positives and there will always be zero false negatives.

The false positives problem is endemic in surveys of statistically rare events. It doesn't only apply to surveys of alien abductions and voter fraud, but to our earlier examples of *Sports Illustrated* subscriptions and belief in tyrannical lizard people as well. Even surveys that attempt to [measure membership](#) in organizations such as the NRA suffer from the same problem. There are inherently more opportunities for a participant to be a false positive than a false negative. Even in cases where psychological biases, such as social desirability, would strongly point to a participant denying something occurred, such as voter fraud, the sheer disparity in the base rate of true positives and true negatives will almost inevitably result in false positives outweighing false negatives.

Before moving on, it is important to note that given the size of the US, it is possible for something to occur to millions of people annually, but still be considered statistically rare for the purposes of

surveys. For a general rule of thumb, any survey that is measuring something that will occur to less than 5% of the survey's overall population can safely be considered rare. Or, to put it another way, if surveys indicate that a higher or similar percentage of people believe in lizard people ruling the world than the percentage of whatever you are surveying, then you are measuring a rare event and need to be very vigilant of false positives.

Comparing Defensive Gun Use and Cocaine

When confronted with the multidisciplinary evidence that surveys of statistically rare events produce substantial overestimates, Dr. Gary Kleck rejects these claims and argues that the proper comparison to draw with defensive gun use are surveys of criminal behavior. As we will see though, not only do Kleck's arguments commit the base rate fallacy, his own formulas prove the mathematical impossibility of his own results.

Kleck correctly points out that surveys relying on self-reporting of criminal behavior consistently underestimate that behavior as people don't want to implicate themselves. Kleck argues that this framework applies to his own survey as anywhere from 36-64% of the respondents were either illegally using or carrying the firearm during their DGU. More specifically, Kleck [compares surveys](#) of defensive gun use to surveys of illicit drug use among patients at a walk-in clinic and juvenile arrestees using cocaine. In a [2018 paper](#), Kleck doubles down on this defense, pointing out that in "one of the largest scale tests of drug reporting validity ever conducted" with nearly 22,000 arrestees: "For every drug, false positives were rare, and greatly outnumbered by false negatives. False negatives outnumbered false positives by a factor of 15.4 for cocaine, 3.1 for opiates, 3.3 for amphetamines, and 1.3 for marijuana."

However, comparing raw numbers of false positives and false negatives in this fashion commits the base rate fallacy by ignoring the underlying numbers of true positives and negatives. What is important is the relative *rate* of false positives and negatives. In the surveys Kleck cites, illegal drug use among arrestees is not a rare event, with a majority of participants having some form of illegal substance in their system. This means there will be plenty of true positives (respondents having done drugs) in the survey, which means there are a lot of opportunities for the people who have done drugs to lie about it (a false negative), creating the false negative to positive discrepancy Kleck describes.

Yet even the most aggressive estimates of defensive gun use still have it as a statistically rare event. In Kleck's cited drug surveys, more than 60% of the arrestees actually did drugs. This is compared with 2% or less of the survey population in Kleck's defensive gun use surveys reporting a DGU. The difference between 60% and 2% is massive when it comes to the relative rate of false positives and false negatives.

In fact, assuming for the moment that defensive gun use is as socially undesirable as using cocaine, Kleck's own calculations disprove his claim. Because defensive gun use is a statistically rare event, the rate of false negatives would need to at least be 100 times larger than false positive rate to avoid overestimating DGUs. Kleck's own math in a different paper puts the number at [135 times](#) larger. In

other words, using a gun in self-defense would need to be at least 8 times more socially undesirable than cocaine usage for Kleck's defense of his survey to be valid using his own numbers.

It is worth pausing here to reflect on the fact that Kleck's primary defense of his survey results is comparing the social desirability of defensive gun use to cocaine usage. This is despite the fact that of the DGUs in Kleck's survey, 46.1% of the respondents indicate that their action at least "might have" saved someone's life, with 15.7% saying it "almost certainly would have" saved someone's life. It is not hard to imagine that at least some survey respondents would think saving someone's life would appear heroic and socially desirable, thereby leading to potential false positives. Further, in his initial research Kleck states: "We made no effort to assess either the lawfulness or morality of the respondents' defensive actions."

The debate over the social desirability of defensive gun use represents one of the foundational hypocrisies of the gun debate. In writings meant for public consumption, as well as testimony in court cases, Kleck touts the benefits of defensive gun use for society and bemoans the impact stricter gun laws might have on the ability of people to use guns defensively. The gun lobby and its allies tout the 2.5 million DGU number in every possible venue, and cheer cases of defensive gun use as critical to public safety.

Yet in academic papers, the pro-gun tune changes. Instead, defensive gun use is treated as a socially undesirable scourge that is as shameful as using cocaine regularly. If Kleck's academic defense was realistic, we would see a different public debate in which the gun lobby and its allies vehemently denied millions of DGUs given the illegality and undesirability of that behavior. But his defense isn't realistic, and even if he was correct about the social undesirability of DGUs, it still would not be sufficient to save his surveys' results.

However, while Kleck's defense of his surveys remains fatally flawed and he is extremely off the mark when it comes to social desirability, he is correct to be concerned about illegality of the defensive gun uses being reported.

Most reported defensive gun uses are offensive uses

Mark Bryant, the founder and head of the Gun Violence Archive, was perusing one of the innumerable gun forums that exist when he stumbled across a "you won't believe what just happened to me" post. The poster, an elderly white man from a midwestern town, described how during the previous evening, he and his wife were exiting a movie theater when they saw three black men in hoodies who "looked up to no good." The poster, feeling threatened, brandished his handgun at the three men, causing them to quickly disperse. The poster's take away from the incident was how fortunate he was to be armed and how proud he was of his defensive gun use.

A few days later, Mark was on a call with the Assistant District Attorney of said midwestern town when the Assistant DA related his own "you won't believe what just happened to me" story. A few evenings

prior, he was out with his brother and friend, both of whom were medical students at Vanderbilt, enjoying the evening and on their way to a late showing of a movie. As they approached the theater, suddenly an elderly white man brandished his firearm at them. Panicked by the display of violence, the Assistant DA, his brother, and friend all beat a hasty retreat to get away from the crazed man with a gun.

It was the exact same incident.

The reason this incident and others like it are crucial is because they reveal a central flaw in defensive gun use surveys: they take the word of the person who claimed a defensive gun use at face value and don't investigate any further. The case above and those in Part 1 would be listed as defensive gun uses in private surveys, such as Kleck's, that pro-gun advocates continuously cite. None of the defensive gun use surveys look at the stories themselves and try to determine whether the incidents being described are defensive gun uses or offensive gun crimes... except for one.

In the late 1990s, David Hemenway sought to investigate this gap in the defensive gun use literature. A [pair of private surveys](#) conducted by Hemenway in 1996 and 1999 asked respondents to describe DGUs in their own words. These responses were then submitted to a panel of 5 judges to determine whether the actions were more likely legal or illegal, while still taking the respondents' descriptions at face value. The panel concluded in a majority of cases that the defensive gun uses were illegal, casting severe doubt on their social benefit. Across these two large national samples of randomly selected telephone numbers, the conclusion was overwhelming: "Guns are used to threaten and intimidate far more often than they are used in self-defense. Most self-reported self-defense gun uses may well be illegal and against the interests of society."

The surveys also found that when someone uses a gun in self defense, it is often part of an escalating hostile interaction — one in which both participants are likely to be responsible for the event that initially prompted the DGU. One male respondent who reported a defensive gun use described an incident as follows: "I was watching a movie and he interrupted me. I yelled at him that I was going to shoot him and he ran to his car." Another respondent pulled out a gun to resolve a conflict with his neighbor: "I was on my porch and this man threw a beer in my face so I got my gun." Given that the judges were instructed to take the word of the survey respondents on what happened, even Hemenway's study likely underestimates the relative number of criminal versus justifiable defensive gun uses.

An alternative to Kleck's numbers: The National Crime Victimization Survey

Until 2014, The National Crime Victimization Survey ([NCVS](#)) was the only real alternative to private surveys that measure DGUs on a national scale. The NCVS is conducted semi-annually by the Bureau of Justice Statistics and surveys a nationally representative sample of 135,000 households "on the frequency, characteristics, and consequences of criminal victimization in the United States." During the period of Kleck's study, there were "only" 50,000 households in the sample. The survey is primarily

focused on crime, not defensive gun use, and has been carefully refined over its decades long history to be as accurate as possible. Unlike regular law enforcement data, it is able to collect data on incidents that are not reported to the police, providing a fuller picture of crime in the US.

From 2007-2011 NCVS [extrapolated](#) 235,700 DGUs in the United State in response to violent nonfatal crimes, which translates to slightly more than 47,000 annually. During the same period, NCVS estimated 103,000 victims of property crime used a firearm in self-defense, or approximately 20,000 annually, for a total of 67,000 total DGUs annually. These figures represent approximately 1% of all violent nonfatal crimes and 0.1% of property crimes (86% of property crime victims were not there during the incident, which indicates 0.7% of victims who were present during the property crime used a firearm defensively). For [2014-2018](#), NCVS extrapolated roughly 70,000 DGUs annually. Right before the time of Kleck's survey (1993), NCVS [estimated](#) 83,000 DGUs annually.

The primary advantages of the NCVS are its size, frequency, and sophistication. With 135,000 households surveyed, the NCVS dwarfs one-time surveys like Kleck's with a sample size of merely 5,000. This decreases the chances that outlier responses will significantly shift results. Unlike one time surveys, the NCVS has been conducted since 1973, usually semi-annually, which allows researchers to follow-up with participants and correct for telescoping, a key factor in false positives. The semi-annual nature of the NCVS also provides researchers a significant opportunity to analyze and revise methodology to enhance the survey's accuracy.

The primary disadvantage of the NCVS survey is that the survey does not explicitly ask about DGUs, instead asking participants about attempted or completed crimes against them more generally. Unlike Kleck's survey which directly asks participants whether they used a firearm in self-defense, the NCVS [asks](#) the open ended questions "What did you do?" and "Anything else?" to determine whether the participants took any defensive action. Without a direct prompt, participants might fail to specifically disclose that a firearm was used. Participants also would not have the opportunity to disclose a DGU if they used their firearm to stop a crime happening to someone else, leaving these types of incidents uncounted.

Kleck and others whose research fuels the widespread defensive gun use myth also argue that the ordering of NCVS questions is problematic. Respondents must first indicate they were the victim of a crime before they disclose a DGU. Hence if a participant doesn't think they were the victim of a crime (i.e. they stopped the perpetrator before a crime was committed), they won't have an opportunity to report their firearm usage.

This concern, however, is not actually a problem. The NCVS is careful to ask about attempted crimes and threats as well as completed crimes. If a respondent wasn't at least on the receiving end of a threat, justifying the resulting firearm use as "defensive" is difficult, if not impossible. Therefore, any DGUs that the NCVS might be excluding are much more likely to be criminal assaults rather than self defense. Further, it provides an excellent bulwark against false positives, as some people who might

have falsely claimed a DGU if they had the opportunity are filtered out when they answer “no” to the question of whether they were the victim of an attempted or completed crime.

Comparing the NCVS’s estimate of 60,000-80,000 DGUs annually with Kleck’s estimate of 2.5 million DGUs annually leads to three potential conclusions concerning the veracity of Kleck’s claims:

- 1) Asking respondents whether they were the victim of an attempted or completed crime causes at least 97% of them to forget their DGUs, a rate of induced forgetfulness unprecedented in survey history.
- 2) At least 97% of DGUs reported in Kleck’s surveys are criminal behavior given that they weren’t the victim of an attempted or completed crime.
- 3) The difference between NCVS and Kleck is the result of the elimination of false positives.

Given the available evidence, option three is by far the most likely.

The NCVS’ semi-annual schedule and the ordering of its questions are both important mechanisms to prevent false positives resulting from telescoping, social desirability bias, and lying. However, the NCVS still faces the same structural problems that plague Kleck’s and other’s one-time surveys. Assuming a true DGU incidence of roughly 50,000 (in line with NCVS estimates), the false negative rate would have to be nearly 5,000 times larger than the false positive rate to not produce an overestimate. The order of the questions (and not asking a direct priming question on firearm use) and measures to prevent telescoping are unlikely sufficient to combat such a differential, especially in light of strong social incentives to embellish, fabricate, or mis-remember defensive gun use details.

While NCVS defensive gun use estimate totals are within the realm of plausibility, the foundational problem of false positives in surveys of rare events indicates that the NCVS also produces an overestimate.

The National Academy of Sciences 2013 Report

After the fierce academic debate surrounding the frequency of defensive gun use in the late 1990s and early 2000s, the controversy settled into a stalemate for nearly a decade. While Dr. David Hemenway clearly had the superior argument, Gary Kleck stood his ground, and [academic writing](#) afterwards assumed that the true number of defensive gun uses must be between the NCVS estimate of 80,000 and Kleck’s 2.5 million figure.

However, a deeply flawed 2013 report by the National Academy of Sciences would upend this status quo by repeating the false narrative that there are more defensive gun uses than gun crimes. This is the story of how the “more DGUs than gun crime” narrative is fabricated, and why it ended up in an official government report.

The horrific tragedy in Newtown, Connecticut on December 14th, 2012 dramatically reignited not only the public debate around gun violence, but also the academic discourse. As part of a suite of executive

actions on firearms, President Obama [ordered](#) “the Centers for Disease Control and Prevention (CDC), along with other relevant federal agencies, to immediately begin identifying the most pressing research problems in firearm-related violence with the greatest potential for broad public health impact.” In turn, the CDC, under the direction of Linda Degutis, approached the Institute of Medicine and National Academy of Sciences to fast-track a consensus report on the matter. Although the resulting report would become known in pro-gun circles as “the CDC study,” outside of funding the project, the CDC had no influence over the content or drafting of the report.

The resulting [report](#), titled “Priorities for Research to Reduce the Threat of Firearm-Related Violence,” was a standard consensus-based review of the academic literature, designed as a roadmap for where future research was most needed. It was released with little fanfare, and most of its 100+ pages of content generated little discussion or controversy with one notable exception: the brief one page long section concerning defensive gun use. This small section has been [extensively quoted by](#) pro-gun commentators, which would at first glance appear strange given that this was a public health report commissioned by the Obama administration. However, the first two sentences reveal why:

“Defensive use of guns by crime victims is a common occurrence, although the exact number remains disputed (Cook and Ludwig, 1996; Kleck, 2001a). Almost all national survey estimates indicate that defensive gun uses by victims are at least as common as offensive uses by criminals, with estimates of annual uses ranging from about 500,000 to more than 3 million (Kleck, 2001a), in the context of about 300,000 violent crimes involving firearms in 2008 (BJS, 2010).”

However, the next two sentences are often completely overlooked:

“On the other hand, some scholars point to a radically lower estimate of only 108,000 annual defensive uses based on the National Crime Victimization Survey (Cook et al., 1997). The variation in these numbers remains a controversy in the field.”

While the section is attempting to provide context for the defensive gun use debate, it is worth returning to the opening sentences, and particularly the claim that: “Almost all national survey estimates indicate that defensive gun uses by victims are at least as common as offensive uses by criminals.”

This statement is a brazen lie – a lie that is frequently deployed by gun advocates ranging from [John Lott](#) to [holster companies](#).

As Dr. Hemenway demonstrated, most of the defensive gun uses reported in surveys are actually offensive criminal uses, so it is already impossible to claim that there are more defensive than criminal uses. This is even before examining other types of criminal gun uses. However, even assuming every reported defensive gun use in surveys is legal, every single survey that looks at both criminal and defensive uses finds far more criminal activity:

- Looking at private surveys, a 2023 Kaiser foundation poll found that [21%](#) of respondents had been threatened with a gun during their lifetimes, compared to a finding in William English’s 2021 survey of gun owners that found that only [10%](#) of Americans claimed involvement in a DGU.
- [Comparing](#) NCVS gun crime numbers to NCVS defensive gun use numbers [yields](#) a very different picture than what is mentioned in the NAS report — that more than 9 times as many people are victimized by guns than protected by them.
- Respondents in two Harvard [surveys](#) experienced more than 3 times as many offensive gun uses against them as defensive gun uses.
- Another [study](#) focusing on adolescents found 13 times as many offensive gun uses.
- Yet another [study](#) focusing on gun use in the home found that a gun was more than 6 times more likely to be used to intimidate a family member than in a defensive capacity.

The evidence is unanimous, as long as you compare data from within the same type of data source: there are vastly more offensive gun uses than defensive uses.

So where does the lie that there are more defensive than offensive gun uses come from? Dr. Hemenway and a colleague [explain](#) that there are two general survey approaches when it comes to comparing defensive gun use with criminal gun use. Approach 1 involves asking everyone directly about gun use, which is the approach of small private surveys such as Kleck’s. These surveys typically find around 10 million gun crimes and around 2.5 million defensive gun uses. Approach 2 first asks whether someone was the target of an attempted or completed crime before asking what they did to stop said crime, which is the NCVS approach. The NCVS finds approximately 800,000 criminal gun uses versus 80,000 defensive gun uses. However, what Kleck, Lott, and other pro-gun advocates do is compare the NCVS gun crime number with the private survey DGU number, mixing Approach 1 and Approach 2 numbers. This mixing is statistical malpractice, and can be seen with Hemenway’s helpful chart:

Table 1: Estimates of Annual Criminal and Self-Defense Gun Use (1990s)

	Criminal Gun Use	Self-defense Gun Use
Approach 1: ask everyone directly about gun use	10 million (Box A)	2.5 million (Box B)
Approach 2: ask only those who report an attempted crime against them (Used by NCVS)	800,000 (Box C)	80,000 (Box D)

As Dr. Hemenway elaborates:

“For both types of surveys, the number of estimated criminal gun uses are far higher than the number of self-defense gun uses. Indeed, no survey that has used the same methodology for estimating both

criminal and self-defense (i.e., comparing Box A with Box B or Box C with Box D) has found anywhere near the number of self-defense gun uses compared to criminal gun uses.”

“So how can anyone claim that there are more self-defense gun uses than criminal gun uses? They do so by comparing different types of surveys. They compare the results of Box B with Box C! However, it is completely inappropriate to compare estimates which come from two radically different survey methodologies. An appropriate assessment of the data is that the *overwhelming evidence from both types of surveys is that guns in the United States are used far more in crime than in self-defense.*”

Given the obviousness of the falsehood, how did it find its way into the 2013 NAS Report that is supposed to accurately review the existing academic literature? To answer that question, I interviewed 10 academics associated with the NAS report.

While several members couldn’t remember details of the decade old report, those who did remember the process described it as “lamentable,” “unfortunate,” “disappointing,” and “one of the worst things NAS ever produced,” all thanks to the defensive gun use section. As it turns out, Gary Kleck himself was a member of the committee tasked with compiling the report. Kleck had been recommended by a reviewer of the report (who is typically demeaned by the pro-gun community), as the committee was having problems finding a credible researcher who could represent the pro-gun side and provide ideological balance.

The report was constructed by committee members sending material to the agency’s staff, who then pieced that information together into a central document. The compiled document was then looked over by the committee, as well as sent out to academic reviewers for feedback and potential edits. For a typical report of this type, the process would take months, if not more than a year. As Dr. Stephen Hargarten described in an interview, this process was accelerated down to a matter of days, opening the door for overlooked errors.

Kleck’s presence, combined with the necessity of maintaining consensus within the committee and the rushed nature of the process, proved decisive in shaping the DGU section. Multiple reviewers, including Dr. John Donohue and Dr. Charles Branas, issued substantial criticisms of the DGU section and urged changes. While their recommendations were largely incorporated into other sections of the report, the DGU section remained steadfastly unchanged, despite the severity of its flaws.

No members of the committee, including Alan Leschner, the committee chair, remembered any discussion of the DGU section. Hargarten stated that the DGU section “flew under the radar” and he deeply regrets not catching the errors. While the DGU section comprises one page out of more than a hundred, it is a surprising lack of oversight that the DGU section did not spark lively discussion given the false material, and multiple reviewers calling out said falsehoods.

The end result of this failure of academic oversight was the unbalanced laundering of Kleck’s work into an otherwise reputable literature review. Rather than merely citing Kleck, pro-gun advocates could point to an official government document that uncritically repeated his claims, adding an air of

legitimacy previously lacking for his estimates. The DGU section would go on to be cited in the 2022 Supreme Court case *NYSRPA v. Bruen*, as well as by the CDC's own Fast Facts about firearms webpage. This single page undid years of careful debunking work by Harvard University, Johns Hopkins University, and other academic institutions - and granted new life to a myth that should have been dead and buried.

The Gun Violence Archive and national empirical data

To their credit, both sides of the defensive gun use debate in the late 1990s and early 2000s enthusiastically called for more and better national empirical data on DGUs. Empirical data allows us to directly test the DGU results from Kleck and the NCVS, unlike external validation that relies on comparisons with other crime numbers. The reason NCVS data is considered the gold standard of crime surveys is that its findings on other types of crime generally align with the data collected by the law enforcement agencies themselves (recognizing that there will always be some incidents not reported to law enforcement agencies).

If such data revealed a number of DGUs that is close to private surveys' prediction of reported DGUs, that would be strong evidence that those surveys are fairly accurate. Even if the empirical data showed a higher number of DGUs than what NCVS shows, without reaching the millions predicted, that could still provide credence to Kleck's hypothesis. However, empirical data showing a low number of reported DGUs combined with the external validity tests and false positive problems mentioned previously would be fatal to the claim of widespread defensive gun use. Further, figuring out the percentage of DGUs reported to police or media sources is a challenging but important exercise to assess the validity of survey results.

The first attempt to systematically track hard data on DGUs came in a small [2004 study](#). It examined DGU incidents in the Phoenix metropolitan area over the course of three and a half months using newspaper reports, supplemented by police and court records. The results: "Two DGUs involving killing assailants and one involving firing at an assailant were found. The three DGUs stemmed from cases of 'mutual combat' or exposed bystanders to gunfire." As the authors concluded: "These findings cast doubt on rates of DGUs reported in an influential study by Kleck and Gertz, which predict that the police should have known about 98 DGU killings or woundings and 236 DGU firings at adversaries during the time the newspaper was surveyed. The findings reported here were closer to predictions based on the National Crime Victimization Survey, which suggest that the police should have known about eight DGU killings or woundings and 19 DGU firings at adversaries."

While an important first step, this small study alone is not sufficient to debunk the claim of widespread defensive gun use. It is quite possible that the media reports didn't capture all of the DGU incidents reported to police. It's also possible that the three and a half months over which the study was conducted was a very quiet period for DGUs, and had the survey gone on longer it would have revealed substantially more cases. Also, it's possible (though very unlikely) that the Phoenix area is an

extreme outlier when it comes to people unwilling to protect themselves with firearms. National, year round data was still needed.

Into this void stepped the Gun Violence Archive ([GVA](#)) which was founded in 2012 to comprehensively track gun violence incidents. Utilizing more than 7,500 media and police sources across the country, GVA tracks in near real-time all forms of gun violence, except suicides. Suicide is tallied after the CDC publishes its data and has a lag of more than a year. GVA classifies defensive gun uses as: “The reported use of force with a firearm to protect and/or defend one's self or family. Only verified incidents are reported.” Since GVA's founding, they have found between 1,195 and 2,119 DGUs annually.

These numbers are devastating for the claim of widespread DGUs. They are 1,000 times smaller than what Kleck's results would predict for reported DGUs, and 10-20 times smaller than NCVS results would indicate. When combined with the false positive problem inherent in surveys of rare events and Kleck's results uniformly failing external validity tests, there is no longer a leg to stand on for those still supporting the widespread defensive gun use myth.

It is important to point out that these verified defensive gun use totals are potentially an undercount of the actual prevalence of overall DGUs. As GVA itself notes under its methodology: “There are sometimes questions about Defensive Gun Uses which are not reported to police. GVA can ONLY list incidents which can be verified. Our policies do not take into account stories not reported, ‘I can't believe this happened to me’ scenarios, or extrapolations from surveys. Our position is that if an incident is significant enough that a responsible gun owner fears for their life and determines a need to threaten lethal force, it is significant enough to report to police so law enforcement can stop that perpetrator from harming someone else.”

In an interview, Mark Bryant, President of GVA, fully acknowledged that GVA would miss some defensive gun uses, though he rejected assertions that media sources would deliberately avoid reporting on such cases. Rather than being seen as a socially undesirable scourge that Kleck's writing would indicate, people with DGUs are often treated as local heroes. If the media hears about a DGU story, they often will report it. Further, unlike what gun advocates such as John Lott and Tomislav Kovandzic [falsely indicate](#), GVA relies on both police and media sources, not just the media.

It is a completely legitimate line of inquiry to speculate how big an undercount GVA data presents; however, it is one that will never be fully satisfied. When survey estimates of defensive gun use rates are applied to GVA's data, we obtain the following results:

- If the Kleck and NCVS surveys are correct about more than half of DGUs reported to law enforcement, there are likely somewhere in the vicinity of 3,000 to 4,000 total DGUs.
- If Kleck's finding that only around a quarter of cases involve shots being fired is correct, and those are the only DGUs that are reported, then that would indicate around 8,000 total DGUs.

- If Lott’s survey indicating that only 5% of DGUs involve shots being fired (an extreme outlier result) is accurate, that would indicate around 40,000 total DGUs, which is beginning to approach NCVS defensive gun use territory.

Bryant confirmed that DGU cases involving only brandishing rather than shots fired would be less likely to be picked up by police and media sources, but stressed that such missed cases are very unlikely to approach the territory necessary to support Kleck’s DGU estimates or even those by the NCVS.

Proponents of the widespread DGU theory contend that police and media reports won’t capture the overwhelming majority of DGUs. As Kovandzic has stated: “Nobody who has done their homework on defensive gun use could possibly believe reading news articles accurately captures anything but an infinitesimal share of defensive gun uses...The only way to measure defensive gun uses is with surveys. While there is no such thing as a perfect measure of anything, the fact that they consistently show large numbers of defensive gun uses can’t be ignored.”

The Heritage Foundation makes a similar claim on its own defensive gun use tracking project (which, ironically, finds fewer DGUs than GVA): “According to the Centers for Disease Control and Prevention, almost every major study on defensive gun use has found that Americans use their firearms defensively between [500,000 and 3 million times each year](#). There’s good reason to believe that most defensive gun uses are never reported to law enforcement, much less picked up by local or national media outlets.”

These explanations, however, directly contradict the results contained within Kleck’s survey and the NCVS, both of which find that more than 60% of respondents claim that police found out about their DGU. Unless police reports miss more than 99.9% (which is necessary for Kleck’s estimate to be accurate) or 96% (for the NCVS estimate to be accurate) of DGUs, the widespread DGU theory lacks any empirical support. Under reasonable assumptions about the ratio of unreported to reported DGUs, GVA data will provide a better benchmark than surveys. Further, Kovandzic and Lott’s claims are an example of shifting goal-posts. Before empirical data on DGUs existed, both sides of the debate recognized the importance of such data. Now that such data is available, it is rejected by pro-gun commentators.

The undercounting speculation runs into the further problem that if the Kleck and NCVS surveys are completely off on the total number of DGUs, they are likely completely off on all their related DGU findings as well. As such, speculation on how much GVA is undercounting DGUs becomes a question of how socially undesirable most DGUs are. It is important to note that even GVA’s tally is not a total of socially desirable gun uses. Many of the cases involve shootouts where neither side can reasonably claim the mantle of “good guy,” or cases where one drug dealer may break into another drug dealer’s home and is fought off with a gun.

When survey data and empirical data fundamentally contradict each other, the best course is to rely on the hard data, particularly when there is significant evidence that the surveys in question suffer from

foundational flaws. While GVA's verified DGU count of approximately 2,000 annually is an undercount of overall DGUs, the best available evidence and logic dictates that it is closer to the true number than small private surveys and the NCVS.

Ironically, the more DGUs one believes GVA is missing, the more socially undesirable or illegal gun uses one is required to admit. After all, failure to report incidents to the police suggest one of two scenarios: either the DGU was probably illegal or the DGU was justified but the defendant was irresponsible by not reporting a dangerous criminal to police. Therefore, arguing that a massive number of DGUs aren't reported is synonymous with an admission that defensive gun use, in the aggregate, is likely not beneficial for society.

Attempts to resurrect the widespread DGU myth

When President Trump came to office in 2017, pro-gun researcher/commentator John Lott was quoted saying it was an opportunity to [conduct](#) "new research to advance the Trump agenda and pull indefensible studies done during the Obama administration," particularly on the topic of defensive gun use. As The Trace and New Yorker [reported](#):

"A month after Trump took office, Lott began corresponding with a top official at the Department of Justice named Ryan Newman, who now serves as Florida Governor Ron DeSantis's general counsel. In an email in February, 2017, Lott wrote, 'There were a number of ideas that I hope can be dealt with by the D.O.J.' He brought up the DOJ's National Crime Victimization Survey, which, he said, 'gun control advocates use' to 'claim that guns are rarely used for self defense.' He asserted that 'it needs to be fixed by changing a couple survey questions,' like the poll's screener about being a crime victim, which, by reducing subjectivity, weeds out potentially millions of unreliable responses."

In the summer of 2020, Lott received a job offer from Trump's Department of Justice at the direction of the White House. On October 20th, 2020, Lott began working as a senior advisor and immediately began seeking to discredit the FBI's active shooter reports, which had found very few defensive gun uses. While the FBI managed to successfully rebuff Lott's attempts during his three months at the DOJ, Lott continued to prop up the DGU myth by publishing error-strewn [reports](#) claiming that the FBI had missed dozens of cases of defensive gun use during active shootings.

The FBI's active shooter research found that armed civilians halted 4.4% of active shooter cases since 2000. Lott's study erroneously claims that at least 34.4% – and closer to 50% in recent years – have been stopped in such a fashion.

Lott's findings, however, result from covertly expanding the FBI's definition of an "active shooter event," despite Lott's false public protestations that he was following the FBI's definition. While the FBI uses the term "active shooting" to refer to attempted mass shootings, regardless of how many people that attempt kills or injures, Lott [defines](#) an "active shooting" as any shooting that occurs in public and is not part of another ongoing crime.

Lott's study then only applies that new definition to cases in which there was a defensive gun use, while deliberately excluding thousands of cases in which a defensive gun use did not occur. This deceptive tactic allows Lott to claim that the percentage of active shooter cases stopped by a defensive gun use is vastly higher than it is in reality. *The end result is blatant statistical malpractice.*

Lott's distorted findings were then amplified by the NRA, which called Lott's work a "[bombshell](#)," as well [Fox News](#), the [Washington Examiner](#), [Real Clear Politics](#), the [Epoch Times](#), and even Republican Congressmen [Thomas Massie](#) and [Jim Jordan](#). The widespread coverage of Lott's study in conservative media circles as well as among prominent politicians indicates its effectiveness as a tool to undermine the FBI's credibility and prop-up the widespread DGU myth.

In 2021, a [new survey](#) authored by Dr. William English was released just in time to be used in the Supreme Court case [New York State Rifle & Pistol Association v. Bruen](#). The case sought to overturn New York's long-standing firearm permitting system, particularly its "good cause" requirement, which as the name suggests requires people who wish to carry a firearm in public to have a good reason to do so (in New York City and a few other areas, this "good cause" is almost never granted). To bolster their case, the plaintiffs argued that firearms were crucial for personal safety, and that New York was crippling the right to self-defense. In order to make this argument, the plaintiffs submitted evidence that such defensive gun use was widespread, but rather than relying on Kleck's work, they cited this new survey by English.

English's work finds that 31.9% of adult Americans own firearms, and of those, 31.1% had used a gun defensively over the course of their entire lives, with a total of 9.9% of adult Americans having experienced a DGU. English then extrapolates this lifetime figure of DGUs to 1.67 million DGUs a year. Unlike Kleck's surveys which had 5,000 respondents at most, English's paper had a large sample of 54,000 respondents. However, just like Kleck's earlier work, English did not include any protections against the false positive problem that plagues surveys of statistically rare events. Indeed, by asking about DGUs over a person's entire life, rather than a year, English makes the problem worse as memories become less accurate as time passes, and is therefore more likely to capture illegal and socially undesirable incidents as DGUs.

In short, there is no reason to believe that English's new survey provides additional evidence to the DGU debate. Dr. Hemenway told us that English's "survey seems to have the exact same problems as Kleck's and other's surveys." As such, it is merely the newest iteration of highly flawed survey data that provides nonsensical results.

The CDC and DGUs: Pushing back on the widespread DGU myth

In the summer of 2021, I reached out to the CDC to correct the following statement on their [Fast Facts](#) page about firearms:

"Although definitions of defensive gun use vary, it is generally defined as the use of a firearm to protect and defend one's self, family, others, and/or property against crime or victimization.

Estimates of defensive gun use vary depending on the questions asked, populations studied, timeframe, and other factors related to the design of studies. The report [Priorities for Research to Reduce the Threat of Firearm-Related Violence](#) indicates a range of 60,000 to 2.5 million defensive gun uses each year."

This is the same National Academy of Sciences report discussed earlier that contains inaccuracies about defensive gun use taken from Gary Kleck's work. The CDC's reference was unique on its page, not only because of the flawed and inaccurate work it was citing, but also because this was the only data external to the CDC that the Fast Facts page cited. Every other number on the page dealt with empirical data, not survey or study results, and came directly from the CDC. Further, while the 2013 NAS report had only survey data to rely on, in 2021 the CDC had more than seven years of GVA data on defensive gun use that it could cite. This meant that the CDC's reference was outdated as well as inaccurate. A more accurate range would have been 2,000 to 2.5 million.

Given some of the backlash and misinformation in conservative media channels around this work, I am going to detail the timeline of events and conversations with the CDC below.

My initial email to the CDC went unanswered, so I turned to Po Murray, the head of Newtown Action Alliance and a board member of GVPedia, to see if she had direct contact information. After she contacted Senator Dick Durbin's office, she was able to obtain email addresses for members of the research team and my initial email was resent.

This time, a reply was forthcoming, which stated that the CDC would stand by the material on its Fast Facts page. In the response email (all the emails have been made publicly available [here](#)), the CDC made the following claim:

"The methodology used to capture defensive gun violence by the Gun Violence Archive represents a very small subset of people who have used guns defensively, and does not include individuals who might have used guns defensively, but not reported this use to law enforcement. e.g. a person who comes to the front porch with a gun to deter a stranger from trespassing on his/her property and then doesn't think anything of it when the stranger leaves the property."

In a follow-up, I explained why this statement was inaccurate:

"This claim of "a very small subset" is factually inaccurate according to the very surveys cited to produce the range of defense gun uses on your fact sheet. The results produced by both the National Crime Victimization Survey (NCVS) and Dr. Gary Kleck's surveys indicate that police were informed about the alleged DGU in more than 60% of cases. Specifically, respondents to Kleck's survey, which

found 2.5 million DGUs annually, indicate that police were informed of or found out about 64.2% of the respondents' alleged DGUs. This indicates empirical evidence of 1,605,000 DGUs should exist annually. Yet police and media reports collected by the Gun Violence Archive find fewer than 2,000 verified DGUs. Even assuming that only the 23.9% of cases where shots were fired (according to Kleck's survey) are recorded, that would still mean 597,500 cases, yet empirical evidence for only 0.3% of those actually exists.

Given that both the NCVS and small private surveys such as Kleck's explicitly reject the conclusion that "a very small subset" of people report DGUs to the police, this means one of two things:

1. The data from NCVS and Kleck's surveys is entirely wrong about people reporting incidents to the police, and it is in reality a small subset. This would inherently mean that if the surveys are wrong about such a large percentage of their respondents, there is no reason to treat the rest of the surveys' claims as accurate; or
2. The data from NCVS and Kleck's surveys is correct that more than 60% of people with a DGU report the incident to the police. If that reporting percentage is correct, then GVA should be capturing the majority of overall DGUs, which in turn means that the overall DGU numbers produced by NCVS and Kleck are vast overestimates.

Unless one suggests that GVA misses more than 90% of DGUs that are reported to the police -- even though no other researcher or organization has found more verified DGUs than GVA -- it is clear that the CDC Factsheet is citing inaccurate information."

This response quickly secured a meeting with CDC staff to go over the data. At the last minute, Po and I invited Mark Bryant, the head of the Gun Violence Archive, to the meeting so he could answer any questions about GVA's methodology directly. During the meeting, we reiterated our concerns about the DGU data that was cited, and recommended that either additional context be added to the numbers, or that the misleading information be removed with a note that further research was needed.

After a thorough internal review, the CDC decided on the latter approach, and in the spring of 2022, they updated the language on their website with more general language indicating that estimates of defensive gun use vary from study to study rather than relying on data from decades-old surveys. This important change went largely unnoticed, with [The Trace](#) reporting on the removal months later, though even this mention was buried deep into a broader report of defensive gun use statistics.

However, The Trace's reporting caught the eye of Konstadinos Moros, a pro-gun lawyer representing the California Rifle & Pistol Association, who submitted a FOIA request to uncover what he felt could be "[corrupt as hell](#)" lobbying. Six months later, Moros received the emails and forwarded them to Stephen Gutowski, a pro-gun commentator at The Reload. While Moros admitted that he was [skeptical](#) that there was much of a story there, Gutowski made the most of the situation to [spark outrage](#) by

quoting a distraught Gary Kleck and selectively quoting from the emails to insinuate a months-long campaign of covert political lobbying.

The outrage came fast and furious. Moros quickly pivoted from skeptical to horrified, [calling](#) for his political allies to pressure the CDC and launch an investigation. Amy Swearer of the Heritage Institute, in charge of their own DGU collection effort, [denounced](#) the change, accusing the CDC of having “no backbone or integrity” while further commenting that “It's disgraceful that any government agency would be willing to play ball with such a group of intellectually dishonest scoundrels, much less become an active participant in the skullduggery.”

Dozens of pro-gun blogs, outlets, and YouTube channels jumped on the bandwagon, including Fox, Newsmax, Post Millennial, Breitbart, the Epoch Times, Real Clear Politics, and The Truth About Guns. All ran stories about the change, claiming politicization of the CDC. Pro-gun organizations from the NRA to Gun Owners of America were mere steps behind in their denunciations. This pressure campaign led to comments from top [Republican party leaders](#) in both the House and Senate as well as a letter to the CDC requesting that the CDC reinstate the inaccurate information.

The Epoch Times even went several steps further, [alleging](#) that the change was part of an underlying conspiracy to repeal the 2nd Amendment with “gun control science” and for the Gun Violence Archive to get millions of dollars in grants from the CDC. Of course none of this was true, but the gun lobby’s [Firehose of Falsehood](#) campaign was already in full swing, elevating isolated claims from three individuals (Gutowski, Moros, and Kleck) into a weeks-long, right-wing media feeding-frenzy. Ironically, pro-gun activists organized the very thing they accused Po, Mark, and I of doing: a political pressure campaign. The entire episode highlighted just how crucial false defensive gun use information is to the gun lobby and the steps they will take to maintain and spread that disinformation.

Defensive gun use is not more effective

Gun ownership is often seen as a form of insurance, like having a fire extinguisher readily available: even if you probably won’t need it, if you do, you’ll be glad you had it. From this analogy comes the idea that engaging in a DGU is like putting out a fire and extinguishing fires is obviously beneficial for society. The distinction is that people don’t start fires with fire extinguishers and when one is used, it will never make the situation worse. Indeed, even the phrase “defensive gun use” itself implies a positive outcome. After all, defending oneself or loved ones from a threat is seen as justified in American culture.

However, while effective and beneficial defensive gun use is largely an unstated assumption in the broader gun debate, in the academic debate, the benefits and effectiveness of DGUs is an important and separate question from the overall number of DGUs. And for the pro-gun side of the debate, the uniform answer is that defensive gun use is common, effective, and beneficial for society.

In a 2017 [Declaration of Support](#) for a California court case, Kleck wrote: “Victim DGU is generally effective (Tark and Kleck 2004). That is, it makes it less likely the victim will be injured or lose property. Consequently, a law that obstructs DGU by crime victims impairs their capacity for effective self-protection and increases the likelihood of the victims suffering injury or property loss.”

On multiple occasions, pro-gun advocate John Lott has championed the supposed benefits of DGUs, writing in a 2020 Newsweek [article](#): “Having a gun is by far the safest course of action when one is confronted by a criminal.” And, in his 2016 book *The War on Guns*, he wrote “Having a gun is by far the most effective way for people to protect themselves. That is particularly true for the most vulnerable, people who are relatively weaker physically (women and the elderly) and those who are the most likely victims of violent crime (poor blacks who live in high-crime urban areas).”

When talking about “vulnerable” populations, and particularly women, pro-gun advocates go a step further, arguing that such individuals are “[defenseless](#)” if they don’t have a gun. As Jennifer Carlton wrote in *From Gun Politics to Self-Defense Politics: A Feminist Critique of the Great Gun Debate*: “The image of female frailty colors pro-gun discourse. The pro-gun lobby supports women’s armed self-defense on the premise that women are incomplete and utterly vulnerable without guns.”

I turned to Dr. George Schorn, a professor at the University of Texas and founding member of the Empowerment Self Defense Alliance, to discuss self-defense for women.

As Dr. Schorn expounded:

“It is in fact common for people with no training at all to successfully defend themselves against a larger/stronger aggressor. You don’t have to be very big or strong to damage an attacker’s eyeball, or cause sufficient soft tissue damage to the groin to render them unable to walk. Some basic training in vulnerable points on the body, and simple attacks, can further increase efficacy. However, Empowerment Self Defense (ESD) models have demonstrated that a significant obstacle to teaching women to protect themselves is social conditioning, which tells us women cannot, or should not, fight back. This conditioning extends to other marginalized groups, including the LGBTQ community, and especially the disability community. Effective self-defense models will work with students to overcome the socially enforced assumption that their identity means they are weak and defenseless.”

Instead of firearms, she recommends:

“Empowerment Self Defense is the best-studied, the most accessible, and the most effective (based on peer-reviewed research). ESD is a skills-based intervention that empowers students to avoid, interrupt, and defend against many forms of harassment, violation, and assault. ESD is distinct from other forms of self-defense, many of which are unsupported by efficacy research and may reproduce victim-blaming and/or violence-promoting gender norms.”

Obtaining a firearm for self-defense comes with substantial risks. As Dr. Schorn explains, there are four main risks:

- “1. The risk of suicide. Women who are battered or suffering from emotional abuse are already more likely to feel useless, helpless, and depressed. Ready access to a firearm increases their risk of suicide dramatically.
2. The risk that her children, or other innocent people around her, will gain access to the weapon and cause an accidental injury or death.
3. The risk that the weapon will be used against her, especially by her abuser. This may be less of a risk in a stalking situation than with an intimate partner; however, unless you have trained in hand-to-hand combat, it is difficult to comprehend how chaotic gun use at close quarters can be. In my experience, fights involving a weapon almost inevitably turn into fights for the weapon—and extremely quickly. A gun is most likely to be useful if you identify an attacker as a threat while they are still quite [a] distance from you, remember that you have the weapon (I have worked with assault survivors who were armed at the time of the attack, and completely forgot about their weapon in the stress of the moment), draw the weapon, disengage the safety, aim successfully, and fire, all before the person reaches you. In domestic violence situations, an attacker is much more likely to be quite close to their victim before initiating an attack. People think it’s going to happen the way it does in the movies. It won’t.
4. The risk that she will use the weapon in self-defense, and be prosecuted, jailed, and/or sued for doing so. This risk is especially high for women of color, who are much more likely to be criminally charged for protecting themselves physically (with or without a gun) than white women.”

One example of these risks is the case of [Christy Salters Martin](#), a professional boxer and the owner of a concealed carry permit. When she attempted to leave her husband, he shot her with her own gun. Since then, Christy cautions other women against making the same mistake, saying: “Just putting a weapon in the woman’s hand is not going to reduce the number of fatalities or gunshot victims that we have. Too many times, their male counterpart or spouse will be able to overpower them and take that gun away.”

Indeed, one of the unstated assumptions of defensive gun use effectiveness is that the defender will have sufficient time and space to use the firearm, as Dr. Schorn details in point three. However, that is rarely the case. As the [Tueller drill](#) taught in police academies demonstrates, it typically takes roughly two seconds for a well-trained individual to successfully deploy a firearm and fire two shots. In that time, as a memorable [Mythbusters](#) experiment demonstrated, an athletically average man can cross 20 feet. Yet in the overwhelming majority of situations, a threat is going to be within 20 feet, particularly in a domestic violence situation. So instead of being useful for self-defense, the gun becomes a lethal weapon that both the attacker and the otherwise “defenseless” victim will be fighting over in a physical contest.

The academic evidence highlights these problems with self-defense with a firearm, particularly for women. In a 2004 [study](#), published in the American Journal of Public Health, researchers interviewed 417 women across 67 battered women’s shelters. Nearly a third of these women had lived in a household with a firearm. In two-thirds of the homes, their intimate partners had used the gun against them, with 71.4% threatening to kill them. Only 7% of these women had used a gun successfully in self-defense, and primarily just to scare the attacking male partner away. Indeed, gun threats in the home against women by their intimate partners [appear to be more common](#) across the United States than self-defense uses of guns by women.

For the overall population, the early evidence on the effectiveness of DGUs actually appeared promising for the pro-gun camp. A 2000 [study](#) by Lawrence Southwick in the Journal of Criminal Justice found that arming more victims “would reduce both losses and injuries from crime as well as both the criminals’ incentives to commit violent crimes and to be armed.” A 2006 [study](#) by Gary Kleck and Jongyeon Tark argued that “A variety of mostly forceful tactics, including resistance with a gun, appeared to have the strongest effects in reducing the risk of injury..”

Yet more recent analyses have cast doubt on these findings. As Phillip Cook and Kristin Goss point out in their book *The Gun Debate: What Everyone Needs to Know*, Kleck and Tark’s study actually finds that using any weapon other than a firearm is more likely to reduce injury than a defensive gun use (see the chart below). Further, none of the results are dramatically different from each other (the difference in injury rates in Southwick’s study were also not statistically significant between using or not using a firearm in self-defense). Both Southwick’s as well as Kleck and Tark’s surveys rely on NCVS data, which is the only source that provides detailed enough data to answer questions about injury rates.

Self-protective action	Likelihood of subsequent injury
Used gun	2.4%
Used other weapon	1.7%
Attack or threaten without weapon	3.6%
Any self-protection action	2.8%

[A 2015 study](#) by David Hemenway and Sara Solnick published in *The Journal of Preventive Medicine* provides a more updated look at the question. Using NCVS data, the study found that in incidents where a victim used a gun in self-defense, the likelihood of suffering an injury was 10.9 percent. Had the victim taken no action at all, the risk of injury was virtually identical: 11 percent. Having a gun also didn’t reduce the likelihood of losing property: 38.5 percent of those who used a gun in self-defense had property taken from them, compared to 34.9 percent of victims who used another type of weapon such as a knife or baseball bat.

What’s more, the study found that while the likelihood of injury *after* brandishing a firearm was reduced to 4.1 percent, the injury rate after those defensive gun uses was similar to using any other weapon (5.3 percent), and was still greater than if the person had run away or hid (2.4 percent) or

called the police (2.2 percent). Overall, the evidence demonstrates that on average, there is no major benefit from using a gun in self-defense.

Why the Defensive Gun Use Myth Matters

The myth that defensive gun uses (DGU) are common, effective, and prevent crime is the bedrock of the gun lobby's "guns make you safer" [Firehose of Falsehood](#) campaign. The false claim has permeated gun culture - most Americans who buy guns cite self-defense as their [primary reason](#) for doing so.

As gun sales increased over the past decade - and then soared to record heights during the pandemic - [profits](#) for the gun industry also increased. The National Rifle Association (NRA) itself has not been shy about its marketing strategy that helped fuel the increase in gun ownership. Internal NRA documents [unearthed](#) by *The Trace* reveal the NRA's Information Division director bluntly stating: "This is why no matter the policy, our messaging continues to focus on self-defense."

As this investigation has revealed, the major pro-gun talking points surrounding defensive gun use are false:

- **Defensive gun use is not widespread.** Pro-gun proponents claim that there are millions of defensive gun [uses](#) annually; however, Gun Violence Archive data [finds](#) between 1,195 and 2,119 verified DGUs annually.
- **Defensive gun use is not beneficial for society.** Every type of data source finds vastly more offensive than defensive gun uses. Looking closer at the data also reveals that most DGUs are criminal and societally harmful actions in which a gun owner attacks someone.
- **Guns are not the most effective means of self-defense.** Despite claims that DGUs [are](#) "by far the most effective way for people to protect themselves," research consistently shows no statistically significant difference in injury rates between using a gun or a different means of self-defense.

While the touted benefits of gun ownership are based in myth and falsehood, the reality is that having a firearm in the home increases the likelihood of death or injury to the home's inhabitants.

First, studies show that having a [firearm in the home](#) doubles the risk of homicide and triples the risk of suicide for all the inhabitants. The act of attempting suicide is [frequently impulsive](#), and the [increased lethality](#) of a firearm over other methods does not provide a second chance.

Second, firearms in the home, especially when improperly stored, combined with a household of curious children, is a recipe for tragedy. US children under the age of 15 are already [9 times](#) more likely to die in an unintentional shooting than their peers in the developed world, and states with higher rates of gun ownership experience a higher rate of [unintentional](#) child shootings.

Third, domestic violence is [5 times](#) more lethal with a firearm in the home. A [2004 study](#) comparing cases in which a woman was killed by an intimate partner to cases in which women were abused by an intimate partner but survived found that half the female homicide victims lived in a home with a firearm while only 16% of women who were abused but survived lived in a home with a firearm.

Finally, a [2002 study](#) found that increased levels of gun ownership were associated with higher rates of burglary, implying that guns were an attractive target for criminals rather than a deterrent. These firearm thefts in turn fuel the vast unregulated market of private sales that allow [easy access](#) to firearms for criminals.

Accurate information is critically important in fighting America's epidemic of gun violence. Just as important, however, is countering inaccurate information. Until the defensive gun use myth is defeated, Americans will continue buying firearms in the mistaken belief that those guns will make them safer, and gun violence will continue unabated. Countering disinformation is an effort all of us can and must engage in to end gun violence.