

MYTH: Permitless Carry Laws Reduce Violent Crime

FACT: States with permitless carry suffer from a 22% increase in gun homicides.

Summary:

- Permitless Carry (sometimes referred to as Constitutional Carry) laws allow individuals to carry loaded, concealed handguns in public areas without first going through a background check, obtaining a license, or undergoing any training.¹
- By the end of 2021, 21 states had some form of permitless carry: Alaska (2003), Arizona (2010), Arkansas (2013), Idaho (2016), Iowa (2021), Kansas (2015), Kentucky (2019), Maine (2015), Mississippi (2015), Missouri (2017), Montana (2021), New Hampshire (2017), North Dakota (2017), Oklahoma (2019), South Dakota (2019), Tennessee (2021), Texas (2021), Utah (2021), Vermont (since founding), West Virginia (2016), and Wyoming (2011).²
- Researcher John Lott and Dr. Carl Moody incorrectly claim that states that pass Permitless Carry laws experience a decrease in violent crime, particularly murders.³
- GVPedia's own analysis shows states that pass a Permitless Carry law suffer from a 22% increase in gun homicide for the three years after the law's passage, more than doubling the 10% increase for the country overall in the same time period.⁴
- Overall homicides and gun deaths also increase substantially after states pass Permitless Carry compared to the rest of the country.⁵
- Leading academic researchers have confirmed that Lott and Moody's statistical model is riddled with errors and miscoded variables that render their entire analysis unusable.⁶
- Lott and Moody make a number of false claims about the prevalence and efficacy of defensive gun use that GVPedia has debunked in other entries in our [Facts About Firearms Policy Initiative](#).⁷

Lott's Claim:

In a [2021 article](#)⁸ in the *Orlando Sentinel*, researcher John Lott contends: "Gun-control advocates claimed there would be blood in the streets when then-Gov. Bob Martinez signed Florida's concealed-carry law in 1987. That didn't happen. The fact that several dozen peer-reviewed academic studies show there's [no evidence](#)⁹ of any uptick in gun crimes linked to concealed carry laws, and most show violent crime declines. Research also shows that [murder rates fall even more](#)¹⁰ when states move to constitutional-carry laws." Lott makes very similar claims in a [2022 article](#)¹¹ appearing in the *Omaha World-Herald*.

Lott has also released a [statistical analysis](#)¹² with Dr. Carl Moody (a board member of Lott's Crime Prevention Research Center) that claims rates of murder, police deaths, and firearm homicides decrease after the passage of Permitless Carry laws. A handout of this analysis that Lott passes out to State Legislatures considering such laws can be found [here](#).¹³

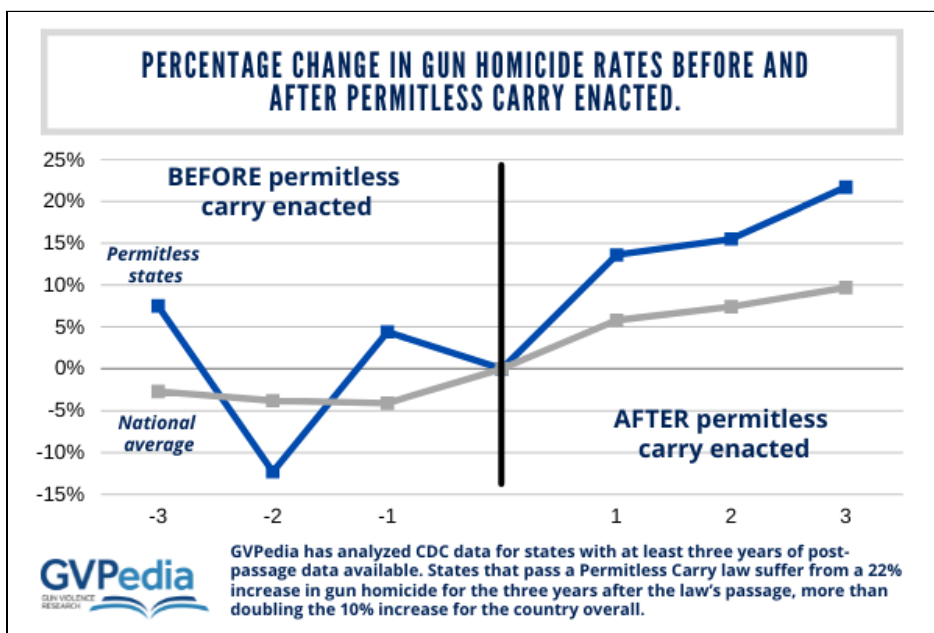
The Facts:

GVPedia has analyzed Centers for Disease Control and Prevention (CDC) data from states with Permittless Carry laws that have at least three years of data available. Our analysis found that **states that pass a Permittless Carry law suffer from a 22% increase in gun homicide for the three years after the law's passage, more than doubling the average 10% increase for the country overall in the same time period.**¹⁴

The CDC does not directly provide data for states with fewer than 10 incidents in a year, but when GVPedia included those states in our analysis, gun homicide increased by 36% in states that allow Permittless Carry. Overall homicides and gun deaths also increase substantially relative to the rest of the country.¹⁵

The chart below shows the average percentage change of gun homicides in the years before and after states passed Permittless Carry laws, versus the average national percentage change in gun homicides during the same time periods. The analysis focuses on the three years before and after the law's passage in each state, as all of the states included have CDC data available for every year during those time periods.

In particular, Kansas, Mississippi, Missouri, and West Virginia saw substantial increases in gun homicides after passing Permittless Carry.



You can find our data for our analysis of gun homicides [here](#)¹⁶ which can be replicated using firearm homicide data from the CDC's [Wonder Database](#).¹⁷ Our full Permittless Carry Fact Sheet can be found [here](#).¹⁸

Lott's Counter:

In both a [response](#)¹⁹ to GVPedia's article appearing in the [Orlando Sentinel](#)²⁰ on the dangers of Permitless Carry laws, as well as a [response](#)²¹ to our Permitless Carry [Fact Sheet](#),²² Dr. Carl Moody and John Lott provide their own statistical analysis of Permitless Carry laws. After GVPedia's fact sheet was published, Moody made the data for his model publicly available.²³

Moody and Lott made extensive claims about GVPedia's research, each of which will be addressed in the rebuttal section below. In particular, Moody and Lott take issue with our review of the academic literature on concealed carry laws. Namely, they indicate that they are unable to find which studies we claim were misclassified, should not have been included, had errors, or were missing. Despite their earlier indication that they were unable to find the full list of studies and critiques we reference, they also accuse GVPedia of "merely excluding studies [we] disagree with" and that "these studies are not published, let alone peer reviewed."

Moody and Lott also contest GVPedia's assertions from the GVPedia Permitless Carry Fact Sheet regarding permit holder revocation rates and the prevalence and effectiveness of defensive gun use. Specifically, GVPedia states that a substantial amount of data is missing from permit holder revocation rates; defensive gun use is uncommon; and defensive gun use is not more effective at preventing injury than other means of self-defense.

Rebuttal:

Given the extensive nature of Lott and Moody's claims, we will address each major assertion in its own subsection, leaving our critique of their statistical model until the end of this entry. GVPedia has already addressed most of these claims extensively in the past and will be linking to our previous work.

Reviewing the Academic Literature on Concealed Carry Laws

Moody claims an inability to find our literature review and critique, which we link to in both our *Orlando Sentinel* op-ed and factsheet, and will do so here as well: [Clarifying Misinformation in NYSRPA v Bruen Amicus Briefs](#).²⁴ Our detailed analysis of the literature and the problems with Lott's count of studies can be found in the third section of our report under the heading "Academic Literature." The studies we include in our analysis can be found in "Appendix A," which is at the bottom of the report. Moody's claim that we exclude studies we don't agree with is simply false. In fact, our review actually includes research that finds concealed carry laws decrease crime that Lott's review had not included. Overall, our conclusion still stands: the majority of modern academic literature finds that weakening concealed carry laws increases crime.

It is unclear why Dr. Moody repeatedly takes issue with GVPedia's use of the term "national level" when describing studies, as it is a distinction John Lott himself has [made in the past](#)²⁵ between studies that only look at a handful of states or localities versus studies that look at the

entire country. The use of “national level” studies is also an underlying (but unstated) rule that is used in the Crime Prevention Research Center’s [amicus brief](#)²⁶ for *NYSRPA v Bruen*. Our research is explicitly stating that rule and applying it to our own literature review.

Permit holder Revocation Rates

Lott and Moody continue to use permitholder revocation rates, which are typically low, as evidence that gun owners are law-abiding (while overlooking that permitless carry removes the safeguards built into the permitting system such as a background check and training). As we explain in our [dedicated entry on this myth](#),²⁷ multiple media investigations demonstrate that permit holder revocation data is extremely unreliable because of missing and suppressed data. Such investigations provide the floor, not the ceiling, for how many crimes are missing from official data.

Further, as GVPedia has written previously in a [2019 literature review](#)²⁸ of concealed carry studies, permit holders directly committing crimes with their firearms is not the only way in which weakening concealed carry laws can increase crime. [Significant academic evidence](#)²⁹ shows that people who carry firearms frequently are more likely to have those firearms stolen, which then end up in the vast underground market for illegal firearms.

In addition to the unreliability of revocation rates, a [pair of private surveys](#)³⁰ conducted by Dr. David 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 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](#)³¹ 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.”

Lott and Moody’s claims about defensive gun use and the law-abiding nature of permit holders are inherently self-contradictory. If millions of DGUs occur every year as Lott and Moody claim, that necessarily means that more than a million of those alleged DGUs are actually criminal actions, which in turn undercuts the assertion that permit holders are extremely law-abiding. If Moody and Lott are correct about permitholders being extremely law-abiding, then that completely undermines the claim of millions of DGUs. Lott and Moody can either assert widespread defensive gun use, or that permit holders are very law-abiding. They cannot honestly do both.

By rejecting DGU data provided by the Gun Violence Archive while advancing survey-based data indicating millions of DGUs, Lott and Moody are implicitly arguing that police and media miss more than 99.9% of DGU cases. Yet they are unwilling to accept that substantial data are missing regarding permit holder crime rates, despite evidence from media investigations and state laws blocking access to such data.

Defensive Gun Use Frequency

Lott and Moody's continued claim that there are 4-5 times more defensive gun uses (DGUs) than crimes with firearms is simply false. No studies exist that look at **BOTH** DGUs and gun crimes that reach this conclusion, as we explain in our entry [dedicated to this particular myth](#)³² Lott and Moody manufacture the claim that there are more DGUs than gun crimes by comparing surveys that use very different methodologies, and then cherry-picking the one comparison between DGU and gun crime that supports Lott and Moody's own conclusion.

Here's a helpful chart from Harvard University scholars to [illustrate](#)³³ Lott and Moody's deceptive practice (which they have been doing for decades):

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. David Hemenway of Harvard University, who authored this chart, and his colleague Mary Vriniotis expound:

“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.*”

Comparing DGU results from private surveys to NCVS numbers reveal that the DGU numbers are mathematically impossible. As we explain in our entry dedicated to the [widespread DGU myth](#)³⁴, the claim that there are millions of DGUs does not rest on any substantive evidence.

Defensive Gun Use Effectiveness

Lott and Moody's claim that defensive gun use is the most effective response to prevent injury during a crime is based on out-dated data. As we [detail in our entry](#)³⁵ addressing this specific myth, more recent studies reject the notion that DGUs are especially effective at stopping injury.

Defensive Gun Use Brandishing

Lott and Moody claim that 95% of DGUs merely involve brandishing a firearm (not firing it). This number is an extreme outlier from Lott's own book *The Bias Against Guns* when compared to other surveys of defensive gun use, which find that 60-80% of DGUs involve only brandishing. Further, as we explain in our [entry](#)³⁶ detailing Lott's convoluted history of fabricating a survey on defensive gun use, Lott's aforementioned 95% figure is highly suspect as well.

Defensive Gun Use and the Gun Violence Archive

GVPedia's founder, Devin Hughes, communicated directly with Mark Bryant, the head of Gun Violence Archive (GVA) about how GVA collects its data. Mr. Bryant provided the following statement:³⁷

"GVA relies on both police reports and media reports [often both] to provide a full reflection of the terms of a gun violence incident. GVA required proof that an incident occurred, not relying on anecdotal stories, survey extrapolations, or information that lacks any paper trail.

Regarding Defensive Gun Use, Lott is relying on survey extrapolations. Lott states: 'survey data indicate that in 95% of cases, when people use guns defensively, they merely show the gun...' The problem with his 95% number is that simple high school algebra teaches us that you cannot glean x% of 100% unless you have a foundation denominator from which to calculate. More to the point, neither Lott nor the NRA have any idea what 100% is, which means 95% is, as Donald Rumsfeld would say, 'an unknown unknown.'

GVA welcomes Lott to submit other incidents of defensive gun use that can be proven. Our goal is to provide as clear of a picture of gun use as is possible whether defensive or offensive. We will not ever include a 'waved a gun' story that is not backed by a police report."

Moody and Lott's Statistical Analysis

Moody and Lott frequently point out that GVPedia's founder Devin Hughes "has never published anything in an academic journal."³⁸ That is true. As such, we reached out to Dr. Daniel Webster and Dr. Cassandra Crifasi of Johns Hopkins, as well as Dr. John Donohue of Stanford, all of whom have published extensively in academic journals on gun violence, to examine Moody and Lott's statistical model for Permittless Carry. Webster, Crifasi, and Donohue's analysis uncovered

several serious flaws in Moody and Lott's model³⁹ that render it inert, which we have summarized below:

- 1) According to Dr. Donohue's team, Moody and Lott severely miscode their models' dummy variables. Dr. Donohue's team has provided the following explanation:

"How they indicated years before/after constitutional carry: Lott created a variable that indicates whether a constitutional carry law will be passed in 1 year to create the "-1" variable (and so on for 2 years, 3 years), but this variable is not correct. Take Alaska, which passed its permitless carry law in 2003. We would expect the variable signifying 3 years before the constitutional carry law to be equal to 1 for the year 2000 in Alaska and 0 for every other year. However, in Lott's data, he marks the variable signifying 3 years before the constitutional carry law as 1 in Alaska **for every year after 2000**. Because he makes this same mistake for the 3 years before variable, 2 years before, etc. all the way up 3 years after the constitutional carry law, the variables are all very similar to each other and are meaningless when combined in a regression."

- 2) Lott and Moody substantially miscode several laws. For example, Moody and Lott do not accurately code for states that have permit to purchase laws, missing Massachusetts, New York, Hawaii, Illinois, Iowa and North Carolina, according to Dr. Webster.
- 3) Their models suffer severely from multicollinearity and overfitting. Moody and Lott have nearly 200 variables for two regression analyses of 2,448 and 850 observations each (the first for murder rate, the second for firearm homicide rate). This is statistically unjustifiable, especially when one considers that only 12 states have passed Permitless Carry that have sufficient data to analyze (which means the number of Permitless Carry observations are even fewer than the top line number of observations suggests). Lott has been rightly criticized in the past for models with a ton of collinear covariates that produce bizarre results. Moody and Lott's model doubles down on that erroneous approach. As Dr. Webster points out, this is especially visible in their demographic variables for black men in age groups ranging from 15-19 to 30-34, where the coefficient swings wildly from producing a massive decrease in murder to a massive increase, with the coefficients themselves being far larger in magnitude than those of any other variables. Such large fluctuations are clear signs of a flawed methodology.
- 4) In addition to having an extreme number of variables, Dr. Donohue's team also found other dubious choices regarding crime variables and time trends. Dr. Donohue's team provided the following statement:

"Crime variables:

- a) Lott included the robbery and burglary rate as control variables. This may be problematic because if we expect constitutional carry laws to affect robbery and burglary rates, we are "controlling for our treatment". If control variables are affected by the treatment variable (constitutional carry laws in our case), then this will affect the coefficient on the treatment variable.

- b) Lott also included a variable for the 1 year and 2 year lagged firearm murder rate. This technique (called "dynamic modeling") of including lagged outcome variables is not used very commonly. The intended purpose of it is to control for the fact that last year's firearm murder rate may affect this year's firearm murder *independent of any of the other control or treatment variables in the regression.* This is a very specific use case, and there is a much greater risk that including these variables, like including the crime variables, simply suppresses the true effect of constitutional carry laws on firearm murder rates.

State specific linear time trends: Lott includes "fixed effects" variables for each state and year. The purpose of this is to control for any permanent characteristics of a state that may affect its firearm murder rate (and to control for any national effects in a given year that may affect firearm murder rates across the whole country that year). This is a very standard practice. What is much less common (though not unheard of) is Lott's additional use of state specific linear time trends. The purpose of these is control for trends over time that are different within each state. This adds a lot of variables to the regression and might lead to "over-controlling" the regression: absorbing part of the treatment effect of constitutional carry laws and creating biased results due to over adjustment."

- 5) Moody and Lott do not note how they accounted for non-reporting in the FBI murder data. Unlike CDC data for deaths, which is based on coroner reports, FBI Uniform Crime Reports (UCR) rely on voluntary reporting from law enforcement agencies. This leads to substantial holes in the FBI UCR murder data. To account for this, the FBI also provides estimates, though even here Mississippi and Kansas are noted for having a large discrepancy with CDC numbers (justifiable homicides are not sufficient to explain the difference). Both of these states have Permitless Carry, therefore leading to a potential bias in the results.

In addition to the expert analysis of Lott and Moody's model, we note that including such a massive number of control variables in a regression is a well-known red flag even outside of academic circles. Indeed, as [one note](#)⁴⁰ for a management class at Northwestern University states:

"You will undoubtedly come across "kitchen sink" regressions that include dozens of variables. This is often an indication that the researcher was brain dead, throwing in every available predictor variable, rather than thinking about what actually belongs. You can imagine that if completely different predictors had been available, the researcher would have used those instead. And who knows what the researcher would have done if there were thousands of predictors in the data set? (Not to mention the possibilities for exponents and interactions!)"

It is important to emphasize that the flaws listed above undermine any predictive power in Moody and Lott's model. The first flaw of severe miscoding alone makes their model unusable, but even if that flaw were corrected, the host of other dubious decisions and mistakes still render their analyses unusable for any practical application.

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