

# Increase in Firearm Ownership and Carrying

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## Key Takeaways

- + Background checks for firearm purchases in the United States increased dramatically in 2020-2021 before leveling off at pre-pandemic levels between 2023 and 2026. The share of the adult population owning a firearm rose from 25% pre-pandemic to 30% in 2024.
- + Numerous policy changes deregulating concealed gun carrying have likely led to significant increases in concealed gun carrying since 2022.
- + Prior studies indicate that higher levels of civilian gun ownership and gun carrying are associated with higher rates of gun crime, including homicide.
- + Available evidence suggests that the sharp reductions in firearm homicides since 2022 occurred despite increased civilian gun ownership and carrying and not because of increased firearm ownership and carrying.

## Theoretical Mechanisms

Increased availability of firearms can greatly increase the lethality of acts of violence and thereby increase homicides. Widespread firearm availability may also prompt those who are armed to initiate violence with a firearm, as they do not want to be the second person to fire in a hostile encounter with another armed individual. Increased gun ownership and carrying by a general population could potentially deter or interrupt acts of violence, but also could increase the availability of guns to those prone to violence through an increase in thefts.

# Established Evidence on the Effects of Gun Ownership and Carrying on Homicide Risks

## Firearms Availability Increases the Lethality of Violence

About 26% of gunshot wounds from assaults are fatal,<sup>1</sup> compared with 1%-8% percent of stab wounds.<sup>2</sup> Semi-automatic firearms with large capacity ammunition feeding devices allow assailants to kill and injure dozens of people in seconds. No other personal weapon has the lethal capacity of firearms. Thus, changes in firearm access could influence the lethality of assaults.

## Deterrence or Protection Against Crimes Against Persons

It has long been claimed, based partly on a 1994 study of felons,<sup>3</sup> that civilian gun ownership and carrying deters criminal violence. About 1 in 3 adults in the U.S. own a firearm, and 72% report personal protection as the primary reason.<sup>4</sup> The frequency of gun use in justifiable self-defense has been a matter of scientific debate. Estimates are based on self-reports of the individuals who believe their gun use was justified. Social desirability bias, misunderstanding the criteria for legal use of a firearm, and failure to consider whether other self-protection measures would have sufficed can inflate measures of defensive gun use and their effects on violence.<sup>5</sup>

There is some evidence that victims' gun use may reduce their risk of injury and death, but at a cost of increased criminal use of firearms. A study in Mecklenburg County, NC, found that acquiring a concealed handgun permit did not affect permit holders' risk of injury or death, but did increase their risk of having a firearm stolen (+268%)—and increase neighborhood gun violence (+8%).<sup>6</sup> A study of defensive gun use incidents captured in the Gun Violence Archive found evidence that once a crime occurs, defensive gun use decreases victims' risk of injury or death while increasing risk of gunshot wounds to assailants. The study also found that the indirect effects of defensive gun use increasing criminal use of firearms outweigh the smaller protective effects to crime victims.<sup>7</sup>

## More Gun Ownership and Carrying Can Increase the Availability of Firearms to High-risk Individuals

Most firearm owners are at very low risk of involvement in a homicide; yet subgroups of legal firearm owners are at elevated risk of lethal violence. In some states, firearm ownership and concealed carrying are legal for youth ages 18 to 20, an age range during which homicide offending peaks.<sup>8</sup> Firearm ownership is also legal for individuals who have been arrested for crimes involving violence,<sup>9</sup> guns,<sup>10</sup> or drunk driving,<sup>11</sup> and for those with prior restraining orders for domestic violence<sup>12</sup> if they haven't been convicted

of a felony or domestic battery. As a result, legal gun possessors account for a significant share of violent gun offenders.<sup>13,14</sup>

Increased gun ownership and carrying could also increase the availability of firearms to criminals and underage youth via theft. Both individual-level<sup>6,15</sup> and city-level<sup>16</sup> studies find that more legal civilian gun carrying leads to significant increases in thefts of firearms. Firearm thefts increased by 14.4% from 2019 to 2020, when firearm purchasing and ownership increased, and then leveled off between 2020 and 2022.<sup>17</sup> The ubiquity and lethality of firearms can also have a powerful influence on behavior by prompting more firearm acquisition and carrying, and by making people feel justified in using lethal force if they perceive others to be armed.<sup>7</sup>

### Net Effects of Gun Ownership and Carrying Tend to be More Gun Violence

Case-control and cohort studies find that household firearm ownership elevates risk of homicides in the home, principally by increasing the risk of domestic homicides.<sup>18,19,20</sup> These studies may, however, overstate this relationship due to the presence of unobserved risky conditions that prompt gun acquisition. A case-control study of women who were in abusive intimate relationships found that firearm ownership by abusers increased homicide risks 5-fold after controlling for a comprehensive set of risks for lethal violence.<sup>21</sup> State-level cross-sectional studies find higher gun ownership associated with higher homicide rates, after controlling for other factors.<sup>22,23</sup>

In addition to the studies cited above on the effects of concealed gun carrying and of defensive gun use by victims of crime,<sup>6,7</sup> the most rigorous studies of right-to-carry laws find that these laws increase gun violence, including homicides.<sup>24</sup> Thus, any deterrent effects produced by more civilians carrying firearms appear to be outweighed by violence-promoting mechanisms.

## Recent Evidence and Relevance to Current Trends

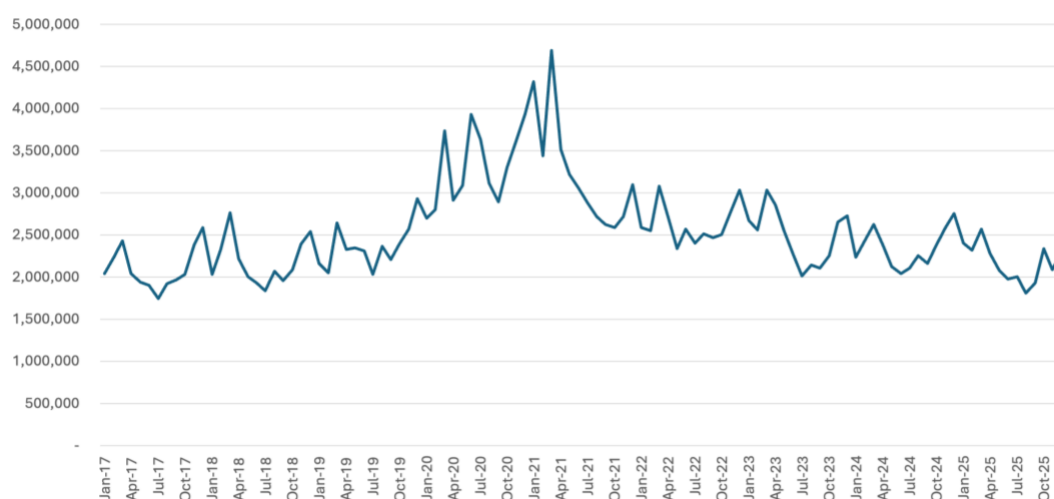
### Changes in Firearm Homicides are Driving Recent Homicide Trends

Homicide trends during 2019-2025 are driven by firearm homicides, which accounted for 80% of the 2019-2021 rise in homicides and 86% of the 2021-2025 decline. Compared with non-firearm homicides, the increase in firearm homicides between 2019 and 2021 was six times higher (+43% vs. +7%), and the 2021-2025 decline in such homicides was twice as large (-40% vs. -20%).<sup>25</sup> From 2022 to 2025, the share of homicides and aggravated assaults committed with firearms dropped (80% to 76% and 39% to 30%, respectively), suggesting reduced supply and/or lower demand for firearms among high-risk individuals.<sup>26</sup>

## How Gun Acquisition, Ownership, Carrying, and Defensive Gun Use in the U.S. has Changed in Recent Years

Background checks for firearm sales<sup>27</sup> surged at the onset of the COVID-19 pandemic, peaked in April 2021, dropped sharply later in 2021, and settled back to pre-pandemic norms by late 2023.<sup>28</sup> Surveys estimated that about 2% of the adult population in the U.S. (6.45 million people) became new gun owners in the initial months of the pandemic in 2020,<sup>29</sup> and 11 million more became gun owners from 2021 to 2024. This pushed adult ownership of firearms from 25% of the adult population in 2019 to 30% by 2024.<sup>30</sup>

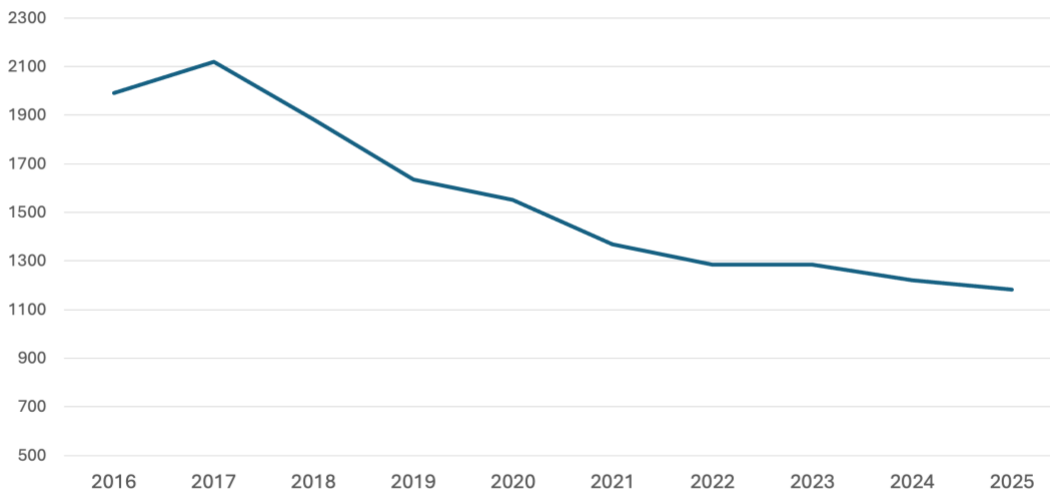
Figure 1. Background checks for firearms purchases, United States, 2017-2025



Source: FBI, NICS Firearm Checks. [https://www.fbi.gov/file-repository/cjis/nics\\_firearm\\_checks\\_-\\_month\\_year\\_by\\_state.pdf/view](https://www.fbi.gov/file-repository/cjis/nics_firearm_checks_-_month_year_by_state.pdf/view)

Longitudinal data are lacking, but civilian gun carrying is likely to have increased during 2020-2021 with the sharp rise in gun acquisition for protection. Since 2019, 17 states removed all concealed carry licensing requirements for legal gun owners. Seven states no longer deny a permit in the absence of a special need following the U.S. Supreme Court's *Bruen* decision in 2022. As a result, there are millions more legal concealed gun carriers in recent years,<sup>31</sup> during both the rise in homicides in 2020-2021 and during the decline in homicides after 2022. As right-to-carry laws expanded from 1987 to 2021, the incidence of defensive gun use by respondents to the National Crime Victimization Survey has been relatively stable, accounting for less than 1% of all crimes against persons.<sup>32</sup> Defensive gun use recorded by the Gun Violence Archive declined by 44% between 2017 and 2025.

Figure 2. Defensive gun use incidents recorded by the Gun Violence Archive, 2016-2025.



There are no studies directly examining whether recent trends in gun ownership and carrying have impacted homicide rates. But the data below on changes in firearm acquisition, firearm ownership, and policies that have greatly increased legal civilian concealed gun carrying show inconsistent relationships with changes in homicide rates. Gun ownership and carrying rose sharply when homicide rates also rose sharply, but continued to rise when homicides decreased. For increased gun ownership and carrying to have led to decreased homicide rates since 2022, the relationship would have to be the reverse of what decades of research demonstrated prior to 2022.

## Emerging Questions and Future Directions

Two key questions emerge from the available evidence. First, while higher levels of civilian gun ownership and carrying appear to elevate firearm violence via mechanisms described above, what other sources or mechanisms of supplying firearms to high-risk individuals have changed during the period of great change in firearm homicide rates? Gun tracing data reveal a relationship between the share of recently purchased guns (those purchased in the last 12 months) used in crimes and homicide trends between 2019 and 2024, with the share rising sharply from 19.7% in 2019 to 32.3% in 2021, then dropping to 17.8% in 2024.<sup>33</sup> Because granular gun trace data are not released by the Bureau of Alcohol, Tobacco, Firearms and Explosives, we don't know whether this is driven by secondary transfers suggestive of straw purchases or legal gun purchasers committing crime. Researcher access to granular gun trace data would also allow for the sorting of guns used in violent crimes versus illegal possession, as was done with the California Department of Justice's Automated Firearms System.<sup>14</sup> Trends in the criminal

use of untraceable, privately-made firearms in California and in Baltimore also mimic 2018-2025 trends in firearm homicides increasing exponentially from 2018 through 2021, and then declining after the DOJ and some states began regulating buy-build-shoot gun kits like other firearms in 2022.<sup>34</sup>

The second question raised by existing evidence is, how has the demand for firearms and carrying practices among those at highest risk for violence changed during the 2019-2025 period? Higher civilian gun ownership and carrying appears to increase the supply of and, perhaps, the demand for firearms among high-risk individuals. But this relationship may be moderated by other forces, such as risk of victimization, arrest, and incarceration for committing firearms crime and violence.

### Prepared for CCJ Homicide Decline Research Summit

The United States has experienced a sharp decline in homicide since the middle of 2022. This dramatic and largely unexpected shift has sparked a high-stakes debate about what is driving it. To examine the plausibility of dozens of potential factors, CCJ convened a two-day summit in September 2026 with about 50 researchers from criminology, economics, public health, psychology, sociology, and related disciplines. This brief was prepared to inform discussions during the convening.

## Endnotes

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