

Growing volume of gun policy research creates basis for policy decisions

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Research evaluating the effectiveness of gun policies has surged over the past two years, providing information policymakers and the public need to make sound decisions on policies designed to reduce homicides and

injuries while protecting individuals' rights, according to a new RAND Corporation study.

Scientific evidence now supports the conclusion that child-access prevention laws reduce self-inflicted fatal and nonfatal firearm injuries among young people, including accidental injuries and intentional self-injury.

Researchers also conclude there is supportive evidence that stand-your-ground laws are associated with increases in firearm homicides and moderate evidence that they increase the total number of homicides.

"The [evidence base](#) for laws involving firearms has increased enough that there is now supportive evidence about the influence of these types of laws on at least some outcomes, including injuries and deaths," said Rosanna Smart, lead author of the new analysis and an economist at RAND, a nonprofit, nonpartisan research organization. "However, there are many factors that policymakers may need to consider when adopting or modifying policy.

"There is far less robust evidence about effects of gun policies on other outcomes that may be important, such as defensive or recreational gun use and [gun ownership](#)."

The findings are from the second edition of a RAND project that evaluated thousands of studies to assess the available evidence about 18 commonly discussed gun policies on a range of outcomes, including injuries and deaths, mass shootings, defensive gun use, and participation in hunting and sport shooting.

The updated version of the project adds five gun policies to the extensive evaluation and includes a first-of-its-kind database of household gun ownership rates across America from 1980 to 2016.

The RAND analysis identified 123 studies that investigated the causal effects of gun policies on any of the targeted outcomes. The previous edition of the project released in 2018 had found 63 studies that met high-quality standards for causal research.

"With few exceptions, there remains a surprisingly limited base of rigorous [scientific evidence](#) concerning the effects of many commonly discussed gun policies," said Andrew Morral, leader of the RAND Gun Policy in America project and a senior behavioral scientist. "By highlighting where scientific evidence is accumulating, we hope to build consensus around a shared set of facts through transparent and impartial review."

In the new version of the RAND gun policy project, researchers determined there now is moderate evidence that [state laws](#) that impose firearms prohibitions for individuals subject to domestic violence restraining orders decrease firearm-related homicides against intimate partners and total overall homicides.

While federal law establishes such prohibitions, states also should consider adopting the strategy as a way to reduce homicides against intimate partners, according to the analysis. These laws may be most effective when they can be applied to a wide range of [domestic violence](#) cases and where the law ensures that information about the cases are included in databases used to conduct background checks.

Researchers also concluded that there is moderate evidence that waiting periods reduce firearm suicides and total homicides. Waiting-period laws may be an effective policy lever for states to consider to reduce gun deaths.

There is limited evidence that laws prohibiting the purchase or possession of guns by individuals with histories of adjudicated mental

health or incapacity reduce violence crime. Researchers recommend that states consider requiring a background check investigating all types of adjudicated mental health histories that lead to federal prohibitions on firearm purchase or possession for private gun sales.

The analysis also found limited evidence that licensing and permitting requirements for purchasing a firearm reduce total suicides and firearm suicides among adults, as well as limited evidence that shall-issue or right-to-carry laws increase violent crime rates.

Limited evidence was found that before adoption of a ban on the sale of assault weapons and high-capacity magazines, there is an increase in the sales and prices of the products that the ban will prohibit. Additionally, there is limited evidence that a minimum age of 21 to purchase firearms may reduce suicides among youth.

Only inconclusive evidence was found for the effects of minimum age of possession laws, firearm-surrender laws, extreme risk protection orders or "red-flag" laws, firearm safety training requirements, firearm sales reporting, recording and registration requirements, bans on low-quality handguns, and permit-less carry laws. No studies meeting the RAND standard were found for gun-free zones, allowing armed staff in K-12 schools and requiring the reporting of lost or stolen firearms.

The vast majority of research has evaluated the effects of laws on gun violence outcomes, such as suicide and homicide, with far less evidence to inform effects on defensive or recreational gun use. In part, the absence of research on these outcomes reflects an absence of reliable and systematic data collection.

The RAND study urges the federal government to make a sustained commitment to fund gun research on an ongoing basis. Sustained large-scale investments are necessary to develop a data infrastructure to

measure outcomes such as gun crimes, nonfatal gun injury and gun ownership.

But researchers warn that until that happens, advances in knowledge about gun policies will need to be supported by private foundations.

"While there are promising signs that more high-quality studies are being performed about gun policies, there still needs to be sustained federal support for this work at levels similar to what is spent on comparable public safety threats such as highway safety and the opioid crisis," Morral said.

To make progress toward providing improved data to support gun policy research, the new RAND gun ownership database combines information from a wide range of survey and administrative data sources. It provides estimates of the proportion of individuals living in households with a firearm for every state in each year from 1980 to 2016. The database generally shows that household gun ownership has declined over the period.

The tool should allow other researchers to use the annual state-level measures of household firearm ownership to test theories about firearm ownership and usage, including their relation to crime or public [policy](#).

The United States has the highest gun ownership rate in the world, with estimates suggesting that Americans own as many as 300 million guns. Between 10 million and 20 million Americans actively participate in hunting or sport shooting annually, and the gun industry generates \$16 billion in revenue and employs hundreds of thousands in gun manufacturing, distribution, sales and recreation.

At the same time, more than 39,000 people die each year from deliberate and unintentional gun injuries, with two-thirds of these deaths

being suicides. Despite wide acknowledgement that gun violence levels are too high, states have pursued diverse approaches to regulating firearms that reflect little consensus on how best to prevent [firearm](#) violence while preserving the right to own firearms.

More information: The report, "The Science of Gun Policy: A Critical Synthesis of Research Evidence on the Effects of Gun Policies in the United States," [Second Edition] is available at <http://www.rand.org>.

Provided by RAND Corporation

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