

Stricter US state gun laws linked to safer high schools

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Adopting stricter state gun laws is linked to a safer school experience for students, finds research published in the *Journal of Epidemiology & Community Health*.

Strengthening gun laws at state level was associated with teens being less likely to report being threatened or injured with a [weapon](#) at [school](#), miss at least one day of school due to feeling unsafe, or to carry a weapon at any location.

Among 1.3 million discipline incidents reported in US [public schools](#) during the 2013-2014 [school year](#), 1 in 20 were related to weapon possession, write the authors. And a particularly dangerous part of school crime is [gun violence](#), they add.

Previous studies have explored the effect of youth-orientated gun laws on non-fatal injuries, [suicide rates](#), deaths from unintentional shootings and firearm homicides among teens.

But no conclusive evidence was found and little is known on the link between state-level gun laws and school safety.

So to shed some light on this, researchers looked at the associations of stricter gun laws with students' weapon carrying and their perception of school safety.

They used data from the Youth Risk Behaviors Surveys (YRBS)

conducted between 1999-2015, which included information on 926,639 teens across 45 states, who were all in 9th to 12th grade.

Students reported on weapon carrying at school, the number of times they experienced weapon threats or injuries at school, the number of school days missed due to feeling unsafe, and weapon carrying at any location.

For each state and year, 133 gun laws were combined into an index of gun control strength, with higher scores corresponding to a stricter gun law environment.

The researchers controlled for individual and state characteristics, as well as year and state fixed events. This included age, sex and race, as well as sociodemographic characteristics such as the [unemployment rate](#), crime rates and state anti-bullying policy.

During the study period, many states strengthened their prohibitions of high-risk guns, and introduced laws preventing individuals with a history of domestic violence from owning or buying guns.

But 20 states allowed the use of a gun for self-defense without duty to retreat.

Stronger gun control (i.e. a 15-point increase in the score) was associated with a 0.8-percentage point decrease in the probability of being threatened or injured with a weapon at school (overall prevalence 7%), a 1.9-percentage point decrease in the probability of carrying a weapon at any location (overall prevalence 16%), and a 1.1-percentage point decrease in the probability of missing school due to feeling unsafe (overall prevalence 6.1%).

Overall, weapon carrying was more common among white students,

compared with black and Hispanic students, while perceived threats were less common among white students compared with all other racial groups.

And stricter gun laws were more strongly associated with lower rates of weapon carrying among male students compared with female students.

Black students were more likely to carry weapons at school specifically in response to a strengthening in [gun laws](#), but this may indicate a replacement for a firearm, say the authors.

This is an observational study, and may not be representative of all states. What's more, the information from students was volunteered, and the authors write that teens "might misreport certain behaviors due to social desirability."

But the research highlights that over the last two decades, 17 states experienced a weakening of gun control laws, which may facilitate teens' access to guns and increase levels of violence in schools, write the authors.

"With the prevalence of weapon threats and fights at school decreasing only slightly, and the percentage of students who miss school on the rise, school safety represents a policy priority across the fields of health and education," they conclude.

More information: Gun laws and school safety , [DOI: 10.1136/jech-2018-211246](#)

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