

The spike in gun sales after Sandy Hook meant more people died accidentally from guns

Gun sales and accidental deaths from guns spiked in the months following the mass murder at the Sandy Hook Elementary School in Newtown, Connecticut, new research says. The study suggests that the more people are exposed to firearms, the more likely it is that someone will die.

Using Google trends data, researchers at Wellesley College spotted an increase in searches for phrases including “buy gun” and “clean gun” in the five months after a shooter at an elementary school murdered 20 children and six adults. Based on a spike in background checks, the researchers estimate that 3 million more guns than average were sold during this five-month period. That corresponded with an increase of 60 accidental gun deaths – including 20 children, the authors report today in the journal *Science*.

“It’s almost the iron law of guns.”

“They find a pretty dramatic increase in accidental gun deaths in the five months following Sandy Hook,” says Christopher Poliquin, a graduate student at Harvard Business School who studies the patterns underlying gun violence. “They really go to impressive lengths to demonstrate that increase is likely caused by an increase in exposure to guns.”

“It’s almost the iron law of guns,” agrees Stanford Law School professor John Donahue, who wrote a commentary arguing for evidence-based gun policies also published today in *Science*. “You can’t believe how many times some unbelievably terrible thing happens just because a person is carrying a gun, whether it’s a two-year-old kid shooting his mother, or a father demonstrating his gun to his son and killing his daughter.”

Guns killed 36,000 people in the US in 2015. But it's difficult to study gun violence because funding for gun research was yanked from the Centers for Disease Control and Prevention in 1996, and key data can be hard to access. But these hurdles haven't stopped every scientist – and lately there's been a revival in gun research, according to the commentary published today in *Science*.

Today's study by economists Phillip Levine and Robin McKnight at Wellesley College is part of this growing body of work. After seeing a *New York Times* graphic showing a massive increase in gun sales after the Sandy Hook shooting, Levine says, "We thought to ourselves, gee I wonder what impact that had?"

So they repeated the *New York Times*' analysis, going through background check records to find out roughly how many guns were sold before and after the Sandy Hook shooting. "It's not a perfect proxy," Levine says. "It's correlated with pretty much every other measure of gun sales that we're aware of, but it's not actually gun sales." Not every sale requires a background check, for example; and a background check doesn't tell you how many guns the person who got it ultimately bought, Poliquin says. But because there's no formal database of gun sales in the US, it's the best data that the researchers had. From it, they estimate that 3 million additional guns were sold in the months following the shooting.

3 million additional guns were sold in the months following the shooting

That corresponded with an increase in Google searches for "buy gun" and "clean gun" during the same five-month window. The researchers interpreted this rise in gun-related Googling as an increased interest in guns. Although it's also possible that it could have been people who were just curious. But it's a thorough analysis, Poliquin says. "They're quite careful to establish that the patterns they're seeing are showing up in

multiple data sets.”

The researchers also dug through the Vital Statistics system, a record of every death in the US. They found that this estimated increase in gun exposure corresponded to an increase of 60 accidental firearm deaths during this period, including 20 children. That’s “the same number who died in the Sandy Hook school shooting itself,” Levine says. And it’s probably an underestimate; these death records don’t include gun-related injuries, for example.

The findings run contrary to a recent decrease in accidental gun deaths, despite an overall increase in gun sales – but it’s hard to draw conclusions from that trend, Poliquin says. There might be other changes in gun education, or state-level gun laws that could make clear connections hard to find. That’s why this new study is particularly informative, he says: the authors use the increase in gun sales following Sandy Hook as a kind of natural experiment, Poliquin says. “That is really what allows them to make causal claims about firearm exposure and accidental gun deaths.”

Levine thinks his findings support developing more stringent gun storage laws nationwide, Levine says. “What the results of our paper really show is that guns aren’t always stored properly,” he says. “If guns were stored all the time properly all the time, even if there were more guns, there would be no more accidents.”