

Risk aversion rises with violent crime

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Fear in the wake of violent conflicts causes people to take fewer risks, which may come at the expense of bettering their lives and the economy.

In the first study of its kind, researchers from the University of Colorado Denver used longitudinal survey data taken before and after the onset of the Mexican war on drugs to find a causal link between the fear of violence and its impact on the risk-taking attitudes of individuals living in affected communities.

Previous research on risk preferences has relied on data gathered only after a violent event, and found insecure environments made residents either more risk tolerant or had no effect at all.

But this new study, "Impact of Violent Crime on Risk Aversion: Evidence from the Mexican Drug War," published in the *Review of Economics and Statistics*, found the opposite is true. By also using data collected before the rise in crime, it found that fear had a profound effect on the residents, leading them to express more cautious attitudes toward risk. This change has the potential to have a widespread and long-lasting impact on the economy, as risk tolerance is associated with opening a business, investing in education and migrating to greater opportunities.

"We wondered if risk attitudes determined the environment in which someone lives, or if the environment determined their risk attitudes," said Ryan Brown, assistant professor of economics in CU Denver's College of Liberal Arts and Sciences. "When you're only looking at



people after an event, some have moved away, others stop answering their door or won't fill out your survey. This was our chance to study people before and after an event that caught everyone unaware. If you don't look across time to see the whole picture, you're going to miss a lot of that."

Brown and his team found the whole picture in the Mexican Family Life Survey, a longitudinal survey of more than 35,000 people living in more than 8,400 households in 16 states across the country. The initial survey, conducted in 2002, explored how people's economic behavior changed over time. To assess risk attitudes, the <u>survey</u> asked respondents to choose between hypothetical gambles with different payoffs, in which options that offered a higher expected payoff also involved greater risk.

The first follow-up was conducted from 2005 to 2006, a time of relatively stable levels of violent crime. The second follow-up was conducted after a major escalation in violence, from 2009 to 2012, shortly after President Felipe Calderón declared a war on drugs in 2006. The policy change splintered cartels, and homicide rates across the country soared. As a result, some communities that were never exposed to drug violence were overwhelmed.

The researchers discovered that an increase of one homicide per 10,000 people increased the likelihood of being in the <u>longitudinal study</u>'s most risk-averse category by 5 percent. Uniquely, the researchers provided evidence that this relationship was predominately caused by an increase in feelings of fear.

"We understood why being in an insecure environment would change your risk preferences, but until now, we didn't know the mechanisms behind it," said Brown. "This study allows us to rule out the policy mechanism; that improving access to health care, the economic environment or mental health will make a difference.



Instead, we're left with a much more difficult question: How do you fix fear?"

More information: Ryan Brown et al, Impact of Violent Crime on Risk Aversion: Evidence from the Mexican Drug War, *The Review of Economics and Statistics* (2018). DOI: 10.1162/rest a 00788

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