

Strategies to lower risk for violent crime and gun violence

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With violent crimes and gun violence rising annually and the number of gun deaths in the U.S. surpassing all other nations, researchers at the annual meeting of The Society for Risk Analysis (SRA) present a series of studies during its Study of Violent Crime and Gun Violence symposium which contributes several new frameworks that can be used

toward improving laws, civilian strategies, legislation and police response, as well as the overall study of risk in society. The Symposium will occur on Monday, December 9 at 10:30 at the Crystal Gateway Marriott in Arlington, Virginia.

Using a novel agent-based simulation model, Cameron MacKenzie, Ph.D., Iowa State University, presents a study entitled "Active shooter situations: An agent-based model of civilian response strategy," that seeks to quantify the number of deaths in an active shooter situation and to answer the debate about whether people who are in the building during an active shooter situation should attempt to leave or shelter in place. The study found that the best civilian response strategy was for some civilians to hide and some civilians to evacuate.

When exploring [response](#) time of both police and civilians, MacKenzie's research suggests that reducing [response time](#) by a minute for law enforcement decreases civilian casualties by about 10-15 percent. Civilians responding to the situation more quickly reduces the number of casualties by about 5-7 percent.

"There is a debate about whether people who are in a building during an active shooter situation should attempt to leave the building or hide in the room," states MacKenzie. "Our simulation can quantify the effect of each strategy, which can help guide both law enforcement and civilian training."

In another Iowa State study, "Analysis and forecasting of [mass shootings](#) using change point detection," Xue Lei analyzes historical data to provide insight into how many active and mass shootings may occur in the future.

Related to [gun violence](#) is security, meaning protection from malicious, intentional crimes such as terrorism, hacking and organized crime. Sissel

H. Jore, University of Stavanger, conducted a study titled, "Measuring the effectiveness of counterterrorism measures," that outlines and discusses the challenges associated with the effectiveness of counterterrorism measures. The study concludes that decision-makers need to consider the effectiveness of each measure, weighing the benefits and uncertainties, before implementing countermeasures.

Provided by Society for Risk Analysis

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