

# Information technology can save police lives, according to a new study

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New research has found that the use of information technology by law enforcement agencies can cut the number of police killed or injured in the line of duty by as much as 50%. Credit: University of Houston

Police officers face well-documented risks, with more than 50,000 a year assaulted on the job in the United States.

But new research has found that the use of [information technology](#) by [law enforcement agencies](#) can significantly cut the number of [police](#) killed or injured in the line of duty, reducing violence as much as 50%.

"The use of IT by police increases the occupational safety of police officers in the field and reduces deaths and assaults against [police officers](#)," said Paul A. Pavlou, dean of the C.T. Bauer College of Business at the University of Houston and co-author of the paper, which was published in the journal *Decision Support Systems*.

Pavlou and Min-Seok Pang of Temple University used data from the FBI, the federal Bureau of

Justice Statistics and the U.S. Census to build a dataset correlating IT use and reported violence against law enforcement from 4,325 U.S. police departments over a six-year period.

People haven't previously known much about the impact of IT on police safety, Pavlou said, both because relatively few departments used it until recently and because there hasn't been much research on the topic.

His and Pang's analysis determined extensive use of IT by the police could cut violence against law enforcement between 42% and 50%, amounting to between six and seven fewer assaults or deaths for an average-sized police department.

For large urban departments serving more than 1 million people, relying on information technology could mean up to 199 fewer assaults or deaths.

The dataset focused on the use of information technology in three areas:

- Crime intelligence, or the use of technology for things ranging from gathering information to writing reports from the field, when the information gathered is fresh
- Crime prediction, analyzing digitized data on past crimes and geographically visualizing past crimes to better understand crime patterns
- Crime investigation, identifying suspects, discovering their whereabouts and gathering evidence for conviction

The use of IT to learn more about potential suspects improves the likelihood that police can make an arrest without violence, the researchers said. Discovering that a suspect is likely to be armed, for example, can lead police to don protective gear.

The dataset was collected in the early 2000s, when

only about one-third of police departments had high use of IT in all three areas, Pavlou said. That's likely grown in recent years, he said.

The researchers said the finding is also applicable to other types of workplace safety, including those involving factory workers, chemical plant employees, truck drivers and other high-risk occupations.

**More information:** Min-Seok Pang et al. On information technology and the safety of police officers, *Decision Support Systems* (2019). [DOI: 10.1016/j.dss.2019.113143](https://doi.org/10.1016/j.dss.2019.113143)

Provided by University of Houston

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