The Advocate

Baton Rouge 'ahead of the curve' in use of software to predict where

crimes most likely to occur

- BY LEA SKENE | LSKENE@THEADVOCATE.COM
- MAY 25, 2019 4:15 PM



With crime risk analysis data on the computer monitors, left, Brandon Jumonville, a GIS analyst for the city, talks about his findings Friday May 24, 2019, in Baton Rouge, La. Jumonville, is presenting at an upcoming conference in Spain on "crime risk analysis," which is using geographical data (like blighted properties, convenience stores, past crime scene locations) to predict where crimes are most likely to occur and distribute BRPD officers accordingly. Apparently Baton Rouge is ahead of the curve on this trend, which experts say helps improve community relations by focusing on where crimes occur, instead of who's committing them. Also increases department efficiency, which of course is a big deal now given serious manpower issues and ongoing efficiency study. Conference is June 6 and 7.



Data displayed in the PSCOP system showing trends in types of crimes reported across Baton Rouge over an unspecified time period.

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Local officials and law enforcement leaders are embracing emerging technology that allows them to map where crimes are most likely to occur within Baton Rouge neighborhoods based on geographical factors like dollar stores, apartment complexes and blighted properties.

The software identifies high-risk locations where law enforcement patrols are most needed, which means the Baton Rouge Police Department can deploy their officers more effectively in hopes of preventing crime before it occurs.

That proactive model becomes especially important in light of the department's long-standing manpower shortage.

It's also central to Murphy Paul's ongoing efforts to improve efficiency, which he has emphasized since taking over as chief in January 2018.

Consultants who are completing an efficiency study of the agency — part of Paul's push to "do more with less" — recently complimented the department's approach to technology, which they said is ahead of the curve.

The city also received <u>a national award last year</u> for its use of the software, which is called Public Safety Common Operational Platform or PSCOP, pronounced "peace cop."

The city's efforts are getting noticed.

Senior Geographic Information System Analyst Brandon Jumonville will travel to Spain in a few weeks to present at a conference specifically focused on the use of "risk terrain modeling" to analyze the likelihood of crime. The conference includes speakers from around the world, including a few other U.S. cities.

Jumonville has worked extensively with the PSCOP platform since joining the city's GIS department in 2016 — just months after his cousin, Matthew Gerald, became one of three officers killed during an ambush on law enforcement in July 2016 that rocked Baton Rouge during an already tumultuous summer.

"This is kind of a tribute to Matt's life for me," Jumonville said. "He needlessly died serving his community, and this gives me the opportunity to play at least a small role in keeping our officers and citizens safe."

Jumonville approached the job with skills he acquired doing geospatial analysis during his six years in the U.S. Marines. He works alongside other analysts within the GIS department, which handles a range of data sets including addresses, infrastructure and the 311 system for citizen complaints. The police department also has their own analysts who process crime data.

"The PSCOP system is basically taking counterinsurgency military tactics and adapting them to an urban terrain," he said. "It's looking at how criminals are interacting with their landscape — what makes a potential criminal feel safe enough in their environment to commit that crime?"

Part of the goal is getting officers to use the software and patrol accordingly, he said. That's happening more and more all the time.

Jumonville has distributed a survey among uniform patrol officers, asking them to rank various geographical features according to how often crimes seem to occur near those places, such as bars, convenience stores and check-cashing businesses.

He's collected the results and used them in developing new models, which also take into account past calls for service and crimes occurring at specific locations.

The next step is circulating <u>another study among the general public</u>, which asks similar questions about where people feel unsafe. Once enough people have responded, those results will also be integrated into the risk terrain modeling system.

"From an analytical viewpoint, this is a completely unbiased, data-driven approach to crime," Jumonville said. "It's not focusing on demographics or individuals, it's looking at the environment where crimes occur. ... This marks a paradigm shift. We're asking officers to view crime differently."

The PSCOP platform will also be integrated into the department's <u>Real Time Crime Center</u>, which is set to open in coming months and will boost data analysis and information gathering for officers.

A recent study conducted by researchers from LSU and the East Baton Rouge District Attorney's Office used the same technology to show that the concentration of blighted properties and the presence of convenience stores could be used to predict where Baton Rouge homicides are most likely to occur. The risk of homicide becomes about 13 times higher within a few blocks of blighted properties, according to the results.

Researchers: Battling blight in Baton Rouge can play a key role in fighting crime

Research has long shown that crime is not distributed evenly across communities. It's highly concentrated in certain neighborhoods — or blocks or street corners — and almost nonexistent in others.

Experts argue that focusing on where crimes are happening in addition to who's committing them can improve efficiency and boost community relations. That shifting focus has taken hold in recent decades among law enforcement agencies nationwide.

"Are you trying to apprehend someone who's committed a crime or are you trying to prevent crime before it happens? If you're trying to prevent crime, it's much more effective and cheaper and easier to focus on places than people," said Jim Bueermann, a policing consultant and former president of the nonprofit National Police Foundation. "Controlling crime is not always about putting more cops on the problem."