Predictive policing crime prevention software successful for APD

PredPol allows officers to focus on the most likely locations for specific crimes at certain times of the day

Atlanta Police Lieutenant LeAnne Browning recalls her days as a patrol officer. "Our lieutenants would say, 'Okay, I want you to look at the beat books so you can know what's out there on your beat.' Well, the beat books are like *this* thick with reports," she says, holding her hands a couple of feet apart. "And you'd sit there and thumb through it all, and there was no time because they were then kicking you out of the precinct to handle calls." She pauses before pointing to her computer screen. "That's the old way of doing things. This—it's right here."

"This" refers to PredPol, or predictive policing crime prevention software, which the city has been using since November 2013 and which Mayor Kasim Reed touted in a *Wall Street Journal* op-ed as the kind of innovation that makes cities "ascendant."

To use the system, officers input basic queries—location, type of crime, and time of day—and, based on crime report data, PredPol's web app returns maps overlaid with 500-square-foot boxes detailing the most likely locations for specific crimes at certain times of day. Want to focus on burglaries or auto theft? You can. Want to include gun crime? You can do that, too—without having to plow through stacks of printouts.

Officers then increase the frequency of patrols in potential trouble spots. "If you have a box on your beat, we want you to be in that box as much as you can [while] not neglecting any other hot spots that you may know of or calls," says Browning.



Illustration by R. Kikuo Johnson

The Atlanta Police Department is ready to call PredPol a success. Before fully integrating the program, the force instituted a 90-day pilot, using it in two of APD's six zones. By the end of the testing, crime had dropped noticeably in those two zones compared with the benchmark of the previous year. Browning cautions against attributing that drop entirely to PredPol, but readily acknowledges that it made a huge difference.

The security software, which melds with the city's Video Integration Center surveillance system, is certainly futuristic—with just a hint of *Minority Report*—but Carlos Campos, APD director of public affairs, stresses the importance of old-school

patrolling. "I doubt we'll ever find a substitute for that, just good old-fashioned shoe leather," he says.

APD is not the first—or only—metro area force to use PredPol. Norcross, which rolled out the software in August 2013, reports similar success: Captain Bill Grogan says Norcross saw a 20 percent decrease in crimes analyzed by PredPol, "most likely" due to predictive policing. Marietta is checking into a PredPol contract, and though Roswell doesn't use real-time crime analytics yet, Master Police Officer Zachary Frommer says the suburb is looking to "expand our capabilities in this area."

PredPol has its share of skeptics, including former Georgia congressman Bob Barr, who now is president of Liberty Guard, which advocates for privacy. PredPol brings a "serious threat to individual liberty," he says. "It is important that local enforcement be transparent in their use of this and similar technology."



Screenshot of an APD PredPol screen. The boxes are areas identified as places where crime is likely to occur next.

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The science behind PredPol

California-based PredPol was founded on the theory that earthquake-predicting analytics could be applied to crime. Earthquakes are related to topography—more likely near fault lines—and also to each other. "It turns out that crime is very much the same thing," says cofounder and chief of research and development Jeff Brantingham, also a professor of anthropology at the University of California, Los Angeles. He uses high schools as an example of a fault-like feature in city crime: "A high school has a standing crop of young men ages fourteen to seventeen, and what do we know about young men ages fourteen to seventeen? They get into trouble. They will generate crime, and therefore, high schools are sort of a built-in feature of the environment that tends to generate crime in and around that area."

As for aftershocks, he points to the law enforcement concept of repeat victimization. If a house is broken into, chances of a next-day burglary go up. Not only that, but neighbors are more at

risk. "The offender can map what was successful for them in your house to your neighbor's house with very little added cost," Brantingham says.

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