Officer Safety Column:
Enhanced Data, Enhanced Officer Safety

According to the IACP's Center for Officer Safety and Wellness, in 2011, the 72 officers feloniously killed in the line of duty marked a 17-year high and a 27 percent increase over 2010. Putting this into context, an officer was feloniously killed every 120 hours. At the time of authoring this article, preliminary statistics show that 36 law enforcement officers have been killed thus far in 2012;[1] sadly, this number will likely increase by the time you read this piece.

Officer safety is the priority for law enforcement, yet we continue to lose far too many officers in the line of duty. While many advances have been made to enhance officer safety, there is still much to do, and technology can help—but how? Is it in the form of better information available to the line officer? Is it in the form of better awareness of those with a propensity toward violence? Is it in the form of increasing situational awareness through our existing data sources? The answer to each of these questions is a resounding "yes."

First, we must recognize a few givens:

- Law enforcement staffing is reduced.
- Agency budgets have decreased considerably.
- Technologies evolve quickly and are expensive.
- Threats abound, from grassroots anarchists to international cyberterrorists.
- Challenges posed by guns, gangs, and drugs remain a constant.

Consequently, police are doing more with less and are adapting to this new normal. This is a reality for today's state and local law enforcement; however, because law enforcement agencies will not likely see a great influx of personnel or discretionary funding anytime soon, new opportunities to innovate and advance policing will emerge from sheer necessity. Officer safety is a necessity and can be bolstered by improving situational awareness via improved data usage and employing analytics.

Maximizing Available Data

Law enforcement information is collected through a variety of disparate systems, including but not limited to computer-aided dispatch, records management systems, criminal informants, and warrant databases. Each individually housed piece of data provides a single snapshot of an offender, a victim, a place, or a time. While necessary to maintain, these independent snapshots of data provide limited insight as to how they relate to the other pieces of data or an overall context. However, while individual pieces of data may appear to be inconsequential, once combined with other pieces of information, they could help address a larger critical operational orpolicy issue.

Useful information and operational insight are built by marrying the disparate sources to create a linked, informed picture so that law enforcement officers can better understand a given public safety issue and build an effective response. Officers can have a better frame of reference and improved context regarding particular situations, offenders, and incidents. Officer safety is improved by quickly obtained critical information and enhanced situational awareness and by fostering informed decision making based on a fuller complement of information.

Employing Analytics

Predictive analytics uses historical and current data from multiple sources to identify trends, discover interrelationships, and create models to help anticipate crime, crashes, and disorder. This allows law enforcement to look toward the future by examining existing agency data through innovative ways in order to more proactively address public and officer safety. The possibilities range from the practical application of deploying officers to areas where crimes are likely to occur, to the complex assessment of patrol patterns and their impact on crime and calls for service, and to the prioritization of outstanding warrants based on past criminal acts and present charge.

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While data integration sharpens focus on when and where crime, crashes, and disorder occur, predictive analytics allows law enforcement to dig even deeper to discover where incidents occur and, importantly, when and where they may occur in the future. With this analysis, law enforcement can tactically target short-term issues and strategically address the long-term causes of crime and victimization. Further, line-of- duty injuries or death can be mitigated by having a better understanding of where problems will likely arise and where additional resources should be deployed.

For example, a traffic unit or organization can use crash analytics methods to gain operational insight on where to place limited resources while maintaining the core mission of preventing fatalities and injuries on the roadways. Crash analytics uses predictive models to determine where crashes are most likely to occur under different scenarios and conditions. Such a patrol model allows for the strategic positioning and deployment of resources based on operational insight created by the agency's own data. Maximizing the agency's data allows for better situational awareness to prevent crashes from occurring and also provides heightened awareness regarding prospective dangers to the respective officer.

Policing has profoundly changed over the past several decades, and its evolution will continue as long as there are challenges to the public's safety and there are communities to serve. The very nature of policing is dynamic; it always has been and always will be. Those dynamics are driven by many things—social change; technological advances; spikes in violence; catastrophic events; or, as evidenced currently, an economic downturn of historic proportions. However, regardless of the impetus to change, law enforcement's collective wisdom continues to assess, respond to, and build new and innovative approaches to today's realities, to tomorrow's challenges, and to keeping our officers safe.

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1"Honoring Officers Killed in 2012," Officer Down Memorial Page, http://www.odmp.org/search/year (accessed May 11, 2012).