

LAW and ORDER

Data-Driven Crime Reduction and Traffic Safety

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Data-Driven Approaches to Crime and Traffic Safety (DDACTS) is an emerging law enforcement operational model. It integrates location-based crime and traffic crash data to establish effective, efficient methods for deploying law enforcement and other resources.

In an environment of new and existing demands with limited resources, traffic safety and crime prevention—both keys to a community's quality of life—can become less of a priority. Traffic safety, often relegated to a small segment of the agency, sometimes suffers first from difficult budget decisions. How might an agency's operations identify and implement the most effective strategies and tactics for reducing social harm and improving the overall quality of life in their community?

The DDACTS operational model being implemented by law enforcement agencies across the nation simultaneously addresses crime and traffic safety issues. Using local data to map criminal and crash activity within a community, locations with high incidences of both crime and crashes emerge as hotspots.

These focus areas are then analyzed to identify common prevailing factors. High-visibility traffic enforcement is deployed to these areas, serving as a countermeasure that simultaneously addresses both issues through a common intervention.

Supported by a partnership and collaborative effort between the Department of Transportation, National Highway Traffic Safety Administration (NHTSA) and the Department of Justice, Bureau of Justice Assistance (BJA) and the National Institute of Justice (NIJ), the DDACTS model is designed to aid communities of any size in improving their overall quality of life through the reduction of social harm.

The DDACTS model ensures accountability and provides a dynamic, evidenced-based problem-solving approach to crime and crashes. This approach, grounded in community-oriented law enforcement, suggests that time- and place-based policing, as opposed to [traditional] person-based policing, is more efficient as a focus of law enforcement actions; provides a more stable target for law enforcement activities; has a stronger evidence base; and raises fewer ethical and legal problems.

The application of high-visibility traffic enforcement is a proven and effective countermeasure that addresses both crime and crashes whether they occur simultaneously or independently in time and/or location. Furthermore, its reliance on geo-mapping to identify the nexus of crashes and crime provides a scientifically based method for law enforcement to accurately target efforts.

"If the data analysis reveals that criminal activity and traffic crashes occur at a specific place within a community, then it is at that place that law enforcement activities need to be focused," said Joseph A. McMillan, president of the National Organization of Black Law Enforcement Executives. "A non-biased, data-driven approach to crime and traffic safety delivers law enforcement services at the right place and at the right time."

NHTSA Office of Safety Programs Director Michael Geraci anticipates that data-driven policing strategically targeting crime and traffic crashes will be the preferred method of policing in the future. Seven communities serving as demonstration sites have implemented DDACTS, and preliminary reports show significant progress.

Traffic Safety: Re-emerging Priority

Data from NHTSA show overall traffic fatalities for 2008 dropped to 37,261, a 9.7% decrease from 2007. And a preliminary estimate for the first quarter of 2009 shows a continued decline. "While the number of highway deaths in America has decreased," U.S. Transportation Secretary Ray LaHood said in a recent press release, "we still have a long way to go."

DDACTS positions traffic enforcement as a core policing intervention for deterring or interdicting criminal activity while improving traffic safety and reducing traffic crashes. Drawing on the deterrent value of highly visible traffic enforcement and the knowledge that crimes often involve the use of motor vehicles, high-visibility traffic law enforcement has proven to be an effective countermeasure for disrupting organized criminal enterprises. Research shows these strategies are most effective when used in high-crime areas.

Driven by local issues and managed by local authorities, DDACTS is intelligent, place-based policing with a community focus. The goal is to reduce social harm, defined as the serious social and financial cost caused by crime, crashes and traffic violations. Analyzing local data identifies the prevailing criminal activities and the common contributing factors in crashes that result in injuries or fatalities. Resources can

then be appropriately directed.

Seven Guiding Principles

The DDACTS Operational Guidelines prescribe seven guiding principles for implementation: partnership and stakeholder participation; data collection; data analysis; strategic operations; information sharing and outreach; monitoring and adjusting; and measuring outcomes.

The first essential element, partnership and stakeholder participation, requires buy-in and ownership at every level within an agency, not just among leadership. Additionally, by involving traditional and non-traditional community partners, DDACTS sites will effectively gain public support.

Data collection should include multiple year trend data on injury or fatality crashes and both Part I and Part II crimes. The data analysis element goes beyond "chasing the dots," but studies integrated maps to identify key trends at each problem location, including temporal and environmental factors. Based on this analysis, agencies identify strategic operations, from which detailed action plans are built to deploy targeted traffic enforcement activities.

Building and maintaining DDACTS stakeholder support is only possible with thorough, frequent information sharing and outreach activities. Agencies will sustain high levels of community support by providing regular, transparent data-based updates and by inviting community feedback. While a new DDACTS model site will identify a kick-off date, there is no prescribed conclusion, but rather a continuous and careful monitoring, evaluation and adjusting, so that outcomes can be effectively described.

Implementing DDACTS: Moving Forward

DDACTS is a dynamic operational model. In most cases, agencies can pursue implementation with existing resources. It does not require a significant funding stream or new technology.

As a DDACTS site progresses in its development, the agency will employ meaningful involvement of each of the seven elements. Yet it is not critical for interested agencies to have all seven guiding principles fully developed before implementation. To implement DDACTS effectively, an agency's executive leadership must embrace the model, attain support, and achieve full understanding, acceptance and ownership throughout the agency.

"Data-driven approaches to resource allocation should become a common practice within the law enforcement industry," said Mike Brown, former California Highway Patrol commissioner. "DDACTS is an indication and demonstration of forward-thinking law enforcement agencies and officials."

Watch upcoming issues of LAW and ORDER to learn how demonstration sites have put DDACTS to work. The sites represent a cross-section of jurisdiction sizes and challenges encountered when initiating a data-driven program. A special thanks goes to Shannon Purdy and Earl Hardy of the National Highway Traffic Safety Administration for their contributions to this article. For more information regarding DDACTS, please contact Earl Hardy, NHTSA highway safety specialist and DDACTS national coordinator at earl.hardy@dot.gov.

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