# Schenectady: Data-Driven Approaches to Crime and Traffic Safety

**Practitioner:**
Schenectady Police Department
Matthew Douglas, Law Enforcement Analytical Director
(518) 382– 5200
Matthew.Douglas@Schenectadycounty.com

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**Summary:**
Schenectady's Data-Driven Approaches to Crime and Traffic Safety Program combines location-based data on crime and traffic crashes to establish effective and efficient methods for deploying resources.

## Problem

Schenectady Police Department aims to reduce violence stemming from gun-related crime, including shootings, assaults, robberies, and drug dealing, as well as traffic crashes, which tie up resources and disrupt the flow of transportation. The Department collects data on these incidents, and sought a way to leverage that information to reduce these crime problems.

## Program Description

Schenectady's Data-Driven Approaches to Crime and Traffic Safety Program, based on the national model, combines location-based data on crime, traffic violations, crashes and calls for service to establish effective and efficient methods for deploying law enforcement resources. Collecting accurate and timely data is fundamental to the model. The Department uses computer-aided dispatch and its record management systems to collect data on shooting incidents, assaults, robberies, drug arrests and traffic crashes: location, date and time of those incidents, for example.

The department then uses geographic information system (GIS) mapping software to analyze the data and identify "hot-spots," locations in the city where a disproportionate share of crime and

crashes occur. Patrol officers saturate the identified locations, increasing visibility and contact through traffic stops and field interviews. Increasing contact helps police identify individuals and groups who frequent high crime areas and can provide leads on cases, reveal sources of intelligence, uncover contraband, and resolve outstanding warrants.

A key component of the Data-Driven Approaches to Crime and Traffic Safety Program is developing partnerships in the community and combining resources to support enforcement efforts. The Schenectady County Probation Department conducts targeted home visits within the targeted locations. The State Police provide additional units to boost visibility. The Schenectady County District Attorney's Office identifies offenders who commit crimes within the target areas and uses that information in court proceedings. The city's Engineering and Planning departments help identify traffic crash locations and assist with the identification of other environmental problems – lack of cross walks, poor lighting and vacant buildings – that may be contributing to crime and crashes in the hot-spots.

The department compiles quarterly reports, detailing these hot spots and

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crime and crash statistics using maps and temporal analysis, within the department and with partner agencies. These reports inform enforcement strategies and guide the deployment of resources. They also are shared with the community through neighborhood meetings. The quarterly reports serve as a way to review analyses, make adjustments to targeted locations and/or resource allocations, and measure outcomes.

## Funding

The program is supported in part by funding provided through the state's Gun Involved Violence Elimination (GIVE) initiative, which is administered by the state Division of Criminal Justice Services.

## Program Reviews or Evaluations

The Schenectady Police Department most recently reviewed the Data-Driven Approaches to Crime and Traffic Safety Program in 2018. The Department collected nine years of data (2009-2017) on shootings, robberies, burglaries, and motor vehicle thefts, within the two hot-spot locations. The Department used those data to compare the number of incidents that occurred before the program was established to the number of incidents that occurred after it was implemented. The analysis showed a 52 percent reduction in targeted crimes within the two locations in 2017 compared to the three-year average of incidents between 2009 and 2011, before program implementation.

## Supportive Research

Data-Driven Approaches to Crime and Traffic Safety is a law enforcement operational model developed by a partnership among the Department of Transportation's National Highway Traffic Safety Administration (NHTSA), the Bureau of Justice Assistance (BJA) and the National Institute of Justice (NIJ).

The model uses a "hot-spots" policing strategy to establish effective methods for deploying law enforcement resources through crime data analysis. Hot spots policing focuses on small geographic areas or places, usually in urban settings, where crime is concentrated. Through this strategy, law enforcement agencies can focus limited resources in areas where crime is most likely to occur.

## Critical Success Factors

Buy-in from the Chief of Police and Command Staff is essential to implementing the program. Patrol officers must be committed to establishing contact with individuals in the targeted locations through traffic stops and field interviews.

It is also important to establish robust data collection practices and a trained staff to effectively analyze the data. It is key to use the data to identify locations and then place additional resources within these areas from all partners. The quarterly reports are an effective way to continually monitor, evaluate and adjust the program based on outcomes.

## Lessons Learned

The Schenectady Police Department's initial approach identified four locations for targeted enforcement. After 11 months of implementation, however, the department determined it had stretched resources to the point of limiting impact. Going forward, the department determined that two to three targeted locations was an ideal number for the agency.