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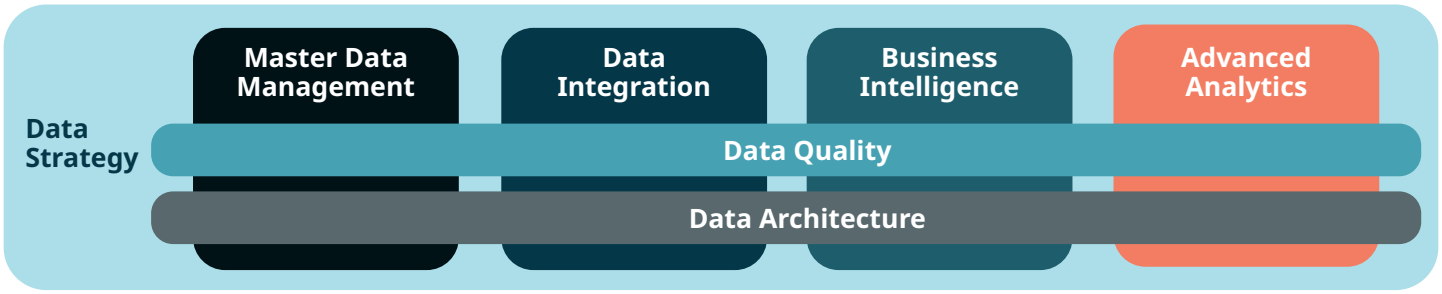
Data-Driven Decision Making in Law Enforcement

In the ongoing nationwide discussion about police reform, one aspect isfrequently cited - how to access and understand information about the use of force? What if cities could build a data-driven solution to help predict and avoid use-of-force incidents? The discussion demands a methodical process for identifying the outliers and developing transparent policies to bring change in the most effective way possible. Building a robust strategy that not only supports the organization, analysis, and delivery of data but also ties together key components is fundamental to building successful data-driven agency. This strategy will assist in defining the people, processes, and technologies needed to advance your data maturity.



While advanced analytics is a component of your overall data strategy, it is frequently the most discussed element and is where law enforcement leaders can gather actionable insights from their data. Although there are varying levels of analytics maturity, carefully chosen techniques to assist in operational decision making is the key to successful adoption. Descriptive analytics can tell us "What happened?", predictive analytics can tell us "What will happen?", and prescriptive analytics can tell us "How can we make it happen?". Each is tailored for a specific type of problem, and one is not necessarily better than the other.

TYPE OF ADVANCED ANALYTICS	DESCRIPTION	EXAMPLES
Descriptive	Use existing data to describe what occurred, like a rear-view mirror. Visualizing recent events might allow the department to take precautionary action or simply better understand the decisions officers have made.	Through enhanced reporting and geographical analysis of incidents at crime control strategy meetings, command staff are alerted to incidents and can immediately reassign officers and/or evaluate additional training needs.
Predictive	Leverage historical datasets to present potential future outcomes based on policy and environmental changes. Inform new types of training and outline impacts. Requires data scientists and statisticians.	Robust machine learning models (e.g., decision trees and neural networks) are created from the department's own data and complementary data, allowing identification of any emerging trends that may warrant intervention.
Prescriptive	Manage enormous quantities of data to speed up analysis and reduce data error and support decision making that is typically done by department leadership. Often requires investment in sophisticated software.	Produce an "optimized" schedule that evaluates all available data but is flexible enough to cater to unforeseen changes in staffing. Demonstrate that officer well-being is a priority even when ensuring staffing demands are met.

It is essential that public safety leaders identify data-driven strategies and tools to guide their agency. More importantly, leaders need to adopt a mindset change with respect to data. Data is not the enemy of good policing, but a way to tell a fuller story to the public on all the ways police keep their communities safe.

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