



Jonathan D. Breul is Executive Director of the IBM Center for The Business of Government and a Partner, IBM Global Business Services. His e-mail: jonathan.d.breul@us.ibm.com.

Predictive Analytics in Government

Today, it's particularly important that government agency leaders and managers are able to detect patterns in large, complex data sets and make critical connections: connections that link actions to actors, so that potential threats to the public can be minimized or even eliminated. Making these connections requires assessing information of all types, often from disparate sources, to provide a foundation for strategic and tactical decision-making and insight to those who can make decisions and take action.

Here are some of the ways that government agencies successfully use predictive analytics:

Reduce costs while improving resource allocation. Facing an increasing backlog of collections, an agency develops a collection prioritization plan that leverages its limited resources and aligns operations with new strategic goals. By focusing its collections efforts, the agency achieves a higher success rate, resulting in additional annual revenue.

Reduce fraud, waste, and abuse. A Medicaid fraud detection office predicts which claims are likely to be fraudulent, so that auditors can concentrate on the right claims and recoup lost revenue more cost effectively.

Protect public safety and security more efficiently. Analysts at a U.S. metropolitan police department review and analyze crime data, identify trends and patterns, and develop predictive models which are then made available to operational personnel through an intranet. Command staff can evaluate real-time conditions and send police units where they are most likely to be needed.

Better manage risk. Government agencies are alerted to anomalies in the reported number of cases of a particular illness. As a result, medical personnel in the affected area can be notified in a timely fashion.

Streamline operations. Millions of pieces of data from microarray experiments, such as genetic factors underlying malignant brain tumors in children, are analyzed to discover the most effective therapies, thereby extending or saving lives.

Increase job effectiveness. Recruiters are able to improve their efficiency at filling jobs by focusing on the few candidates among hundreds of leads who are most likely to respond favorably.

Predictive analytics technologies combine advanced analytical techniques with decision-support capabilities. They enable various types of government organizations to explore data and gain insights that lead to informed decisions. With predictive analytics, data becomes insight and insight guides action, so that government leaders in a variety of functions can anticipate developments and take the right steps at the right time. ■