

Serve the Public More Efficiently and Effectively



With IBM SPSS predictive analytics solutions, discover how your agency can better:

- Leverage data — including textual data — from many different sources
 - Identify patterns and trends rapidly and reliably
 - Present information graphically, making it easier to understand and act upon
 - Share information across geographic and jurisdictional boundaries
 - Ensure that the right people receive results they can use
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While government organizations touch people's lives in many different ways, a common concern is: how do you maximize financial and human resources?

Predictive analytics solutions from SPSS, an IBM Company can help

Predictive analytics is using data to align your organization's current actions with its future objectives. Using predictive analytics helps you optimize your resources and meet your responsibilities by helping identify trends in people's activity, behavior or attitudes — and then plan effective, efficient responses.

SPSS, an IBM Company, offers an array predictive analytics solutions — ranging from statistical, data mining, text mining and survey research software, as well as specialized predictive applications. Our solutions enable government organizations to understand citizens' needs and attitudes more clearly, anticipate events more reliably and maximize funding and staff resources.

SPSS, an IBM Company, is a global leader in providing predictive analytics solutions. Predictive analytics enables agencies to see patterns and make connections even in large, complex datasets. IBM SPSS products also help agencies deliver insight to field personnel in support of daily decision making. We have more than 40 years of experience in providing solutions to government organizations worldwide and serve agencies responsible for public health, law enforcement, defense, intelligence, revenue and tax collection, and a wide range of other functions.



Helping government agencies serve the people

SPSS, an IBM Company, serves the needs of many types of government agencies. Our solutions are used by:

- Hundreds of borough, city, county, state, and provincial government entities, and dozens of federal or national agencies and ministries worldwide
 - Every branch of the U.S. military, as well as intelligence and public safety agencies in North America, Latin America, Europe, Asia and Australia
 - Every U.S. cabinet-level department and numerous agencies, such as NASA, the IRS, and the VA; independent agencies such as INIST and INSERM in Europe; and customs and taxation offices in Latin America, Asia and Australia
 - Hundreds of hospitals, public health and research agencies such as the CDC and the NIH and major medical research institutions worldwide
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There are many potential applications for IBM SPSS solutions. These include gauging public opinion on specific projects, administering lotteries, analyzing e-government Web sites and helping agencies recruit and manage staff cost-effectively. Of special interest to agencies today are:

- Fraud detection and prevention, including the detection of improper payments
- Tax and revenue collection
- Public safety, including law enforcement and national security
- Public health and community welfare

Detect improper payments and minimize fraud, waste, and abuse

By using IBM SPSS solutions, agencies can identify patterns of unusual behavior and minimize or prevent improper payments and other activities that drain public funds. This capability benefits not only public health and welfare agencies, but also any agency that disburses funds to vendors, contractors, agency employees, or citizens.

For example, an agency that oversees the delivery of a variety of healthcare services to several million people every year uses an IBM SPSS predictive analytics solution in conjunction with a new, enterprise-wide data warehouse. In the solution's first 18 months of operation, the agency saved more than \$85 million of state funds – and an even greater amount of federal funds. The agency expects to save additional millions of dollars in years to come.

Increase the effectiveness of tax and revenue collections

Predictive models built with IBM SPSS solutions improve the process of selecting taxpayers for audit, enabling agencies to recover additional revenue without increasing staff.

A state revenue agency traditionally selected businesses for tax audits based on the size of the company, prior successful audits or violation of one or more tax compliance rules. Now the agency uses an IBM SPSS predictive analytics solution to generate a list of companies to audit, using additional criteria such as the ratio of revenues to employees, compared to industry norms. This increased both the average and median tax adjustment obtained by more than 50 percent, with no increase in staff size or costs.

Support public safety and security efforts

Public safety agencies use IBM SPSS solutions to uncover patterns in massive amounts of data. And not only in huge tables of crime statistics, but also in the vast amounts of textual data – including e-mail, chat

room interactions, field reports, phone records, transcripts, Web page content – all in multiple languages. Analysts can now detect patterns that suggest likely security threats or criminal activity and relay this information to the field. The agency can then deploy the appropriate staff – keeping them informed of current conditions.

For example, an agency with responsibility for monitoring “cyber threats,” such as computer worms, viruses and denial-of-service attacks, uses IBM SPSS solutions to create predictive models. These models analyze the tens of thousands of alerts that the agency receives each day. By differentiating between false and legitimate alarms, the software enables analysts to focus attention on activity that is more likely to pose a real threat to computer and communications systems.

At a major U.S. metropolitan police department, analysts use IBM SPSS solutions to review and analyze crime data, identify trends and patterns and develop predictive models. Models are then made available to operational personnel through an intranet, enabling command staff to evaluate real-time conditions and send units where and when they are most likely to be needed.

A countywide police department in the United Kingdom uses IBM SPSS software to create and maintain a database holding information on drug offenders. This database helps the department monitor the current drug situation. Another British police department uses predictive analytics to help solve “cold cases” – crimes that have gone unsolved for years.

Promote public health and welfare

IBM SPSS solutions are used to monitor disease outbreaks, so that public health officials can coordinate their response with those of other emergency responses. Public health agencies also use IBM SPSS software to analyze medical records from a city or region’s hospitals and clinics (cleansed of personal identification information) to analyze citizens’ routine healthcare needs and then recommend the best mix of facilities and programs to meet these needs.

A hospital in the Netherlands uses IBM SPSS software to monitor patient satisfaction with the quality of its services. Within a short time, the hospital was able to identify problems in several areas and make appropriate improvements.

One of the most populous counties in the UK initiated a multi-year study with the goal of improving the quality, availability and affordability of childcare. Literally hundreds of variables were identified and analyzed, leading to a new understanding of the people and agencies that provide child care and the people who need it. Tangible benefits include a reduction in county unemployment, leading to increased tax revenues, as well as job training programs that are more focused and effective – and less costly.

About SPSS, an IBM Company

SPSS, an IBM Company, is a leading global provider of predictive analytics software and solutions. The company's complete portfolio of products - data collection, statistics, modeling and deployment - captures people's attitudes and opinions, predicts outcomes of future customer interactions, and then acts on these insights by embedding analytics into business processes. IBM SPSS solutions address interconnected business objectives across an entire organization by focusing on the convergence of analytics, IT architecture and business process. Commercial, government and academic customers worldwide rely on IBM SPSS technology as a competitive advantage in attracting, retaining and growing customers, while reducing fraud and mitigating risk. SPSS was acquired by IBM in October 2009. For further information, or to reach a representative, visit www.spss.com.



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