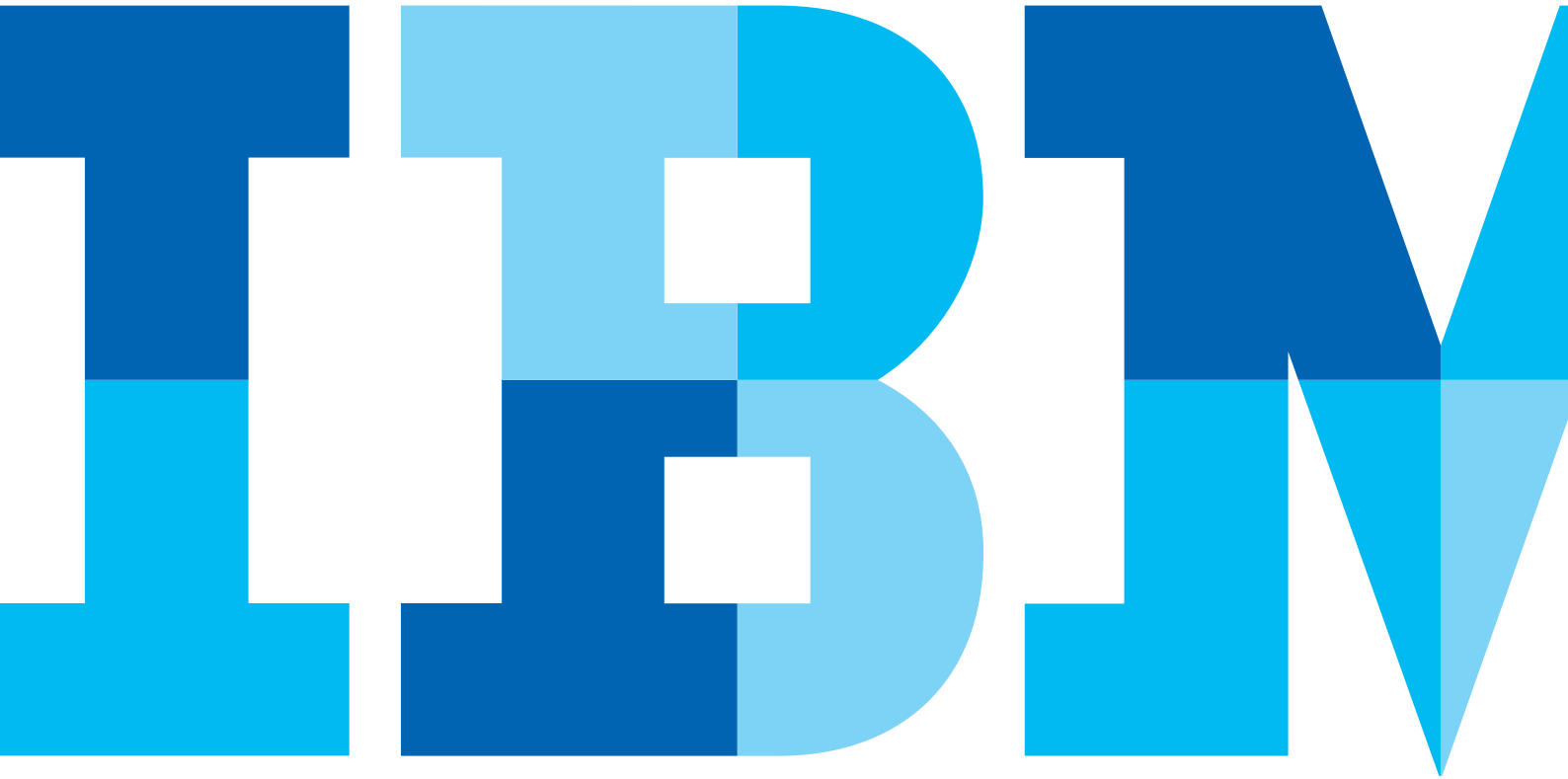


Government analytics

Set goals, drive accountability and improve outcomes



Abstract

Government agencies are more pressed than ever to find new ways to improve—and report on—their performance and outcomes. Analytics solutions can help, letting staff understand the results of spending, track progress against goals and share information with citizens. This white paper provides an overview of the many applications of analytics for public organizations.

Overview

Results are now the coin of the realm for the public sector. Both citizens and legislators are holding government leaders accountable for the results of public spending and programs. Scrutiny is even more pronounced in times of economic uncertainty, large deficits and budget pressures. Are government efforts enhancing citizen service, economic activity and quality of life? Citizens want to know, and are increasingly empowered to find out.

These demands hit governments in two ways. First, they must spend efficiently and achieve positive outcomes against the mission of the agency and the government as a whole. And second, they must communicate these outcomes to stakeholders—something that many countries have now legislated. Without access to reliable, cross-department mission, financial and operational performance information, these two challenges remain largely insurmountable.

Analytics help government agencies and departments unite data silos and provide broad-based access to consistent information. On the basis of this trusted data foundation, decision-makers can

- Understand past, current and future performance
- Analyze the results of spending
- Model the outcome of future spending and programs
- Find efficiencies and reduce costs
- Define key priorities from top to bottom
- Measure progress towards goals
- Communicate results to legislators, oversight bodies and citizens.

Transparency and accountability now constitute a government's pledge to its citizens. Analytics lets them deliver both.

Barriers to the big picture

Despite the potential of analytics, very few public sector organizations are benefiting from its power. Measuring and managing performance—through metrics, plans, forecasts, budgets and detailed actual results—has traditionally been a challenge for a number of reasons.

Disparate tools among departments, paper-based processes and spreadsheet shadow systems have resulted in limited visibility into operations and activities. Besides the time-consuming, manual processes, the resulting disjointed data does not provide a big picture view. Nor does it automatically reflect system changes in real time, allow analysis by different dimensions or permit drilling down into details.

The good news is that government leaders are recognizing the power of analytics to drive better outcomes. The recent IBM Global CFO Survey shows that CFOs in general and government CFOs in particular view analytics as critical in attaining the best possible outcomes.¹

New York Police Department

The real-time Crime Information Warehouse based on IBM Cognos solutions helps the NYPD be more proactive and has resulted in substantially lower crime rates.

Good police work relies on good information. While police departments are extremely adept at capturing this information, they are not as good at sharing it. With information residing in pockets throughout large departments, officers can spend too much time on the phone or on their feet trying to track it down.

With its Crime Information Warehouse, the NYPD is proving that integrated crime data delivered in real time can change law enforcement and produce dramatic reductions in crime rates. Officers can see trends as they form—instead of in the rear view mirror. They can see connections and break cases faster. They can make life-saving decisions and provide more public safety per tax dollar by seeing the big picture.

“The NYPD’s innovative policing strategies depend on our ability to gather, share and act on information,” says James Onalfo, Chief Architect and CIO, NYPD. “IBM—its people, partners and technology—have helped us redefine how information can be used to fight crime.”

The foundation for effective government

In a climate of increasing needs of citizens, shrinking budgets and intense public scrutiny, insight into performance can help the public sector find ways to improve and communicate outcomes. Applying performance and predictive analytics to data across departments can provide the intelligence needed to make the right decisions: where to allocate funding, where to pull it; where best to deploy patrol cars, or park monitors, or repair crews; where to redirect unspent budget.

Analytics and performance management software and processes help government set ambitious but achievable goals across multiple functions, and to reach or even exceed these goals. Progress against strategy—at both a high level and down to the detailed results of individual functions—is accessible at a click. Integrated business intelligence, financial performance, strategy management and advanced analytics tools provide the trusted, accurate and timely information needed to:

Unite siloes and engage citizens

Consolidating data across multiple programs and departments lets public sector organizations see the big picture—the connections, the direction and how their decisions can impact other parts of their organization or multiple agencies. With information silos eliminated, decision-makers at any level can access information and share it as appropriate with other agencies, with business users and with citizens over the web.

Align activity with goals

When organizations can tie the goals of political leadership to strategy and translate these goals into the specific objectives of an agency, ministry or department, all employees are able to understand their role in advancing strategy. Agencies are better able to staff appropriately to execute against goals and ensure the resources in place have the necessary skills.

Manage budget and connect with results

In the private sector, budgets are a guideline. In the public sector, budget limits are much more rigorous, and the demand for results against diminishing budgets stronger. Closer tracking of spending against budget helps officials plan programming based on projected budget, identify critical uncostered amounts, and deliver against budget goals. And to demonstrate results, program successes must be clearly linked to budget allocation, spending, revenues and resources.

City of Albuquerque

In Albuquerque, New Mexico, IBM Cognos solutions provide critical information such as public safety data to 750,000 residents through a BI extranet.

With an annual budget of more than \$1 billion, the City of Albuquerque provides a wide range of critical municipal services to residents. Because the resulting data was spread across a great many systems, conveying key data—especially about public safety—to residents was next to impossible.

Through IBM, Albuquerque found a flexible, easy-to-use and scalable solution that could reach its 7,000 employees and 750,000 residents. According to Nucleus Research, the city achieved nearly 2,000 percent ROI on the IBM Cognos deployment in the early years by reducing administrative overhead and identifying cost savings. Since then, the savings have continued to grow.

Today, the system is a strategic element of daily business, deployed to all departments including fire, police, human resources and finance. “It is now possible for us to use relatively few resources to provide information to a large and diverse audience,” says Brian Osterloh, Applications Development Manager for CRM & BI at the City of Albuquerque.

Measure and improve service levels

By improving visibility into and across agencies, lining up resources against goals, and measuring success against spend, public sector organizations can become more responsive and effective. They can monitor a program's progress against goals, measure service levels and find inefficiencies to be fixed for better outcomes. They can help analyze risks, quickly identify critical issues, and rapidly correct them to avoid waste and embarrassing disclosures.

Improve predictive ability

Many public sector organizations are benefiting from dynamic predictive capabilities that help them better plan future activities in such areas as crime prevention, social service requirements, economic development and tax revenue forecasting. Such advanced analytics can provide powerful forecasting based on the statistical modeling of large amounts of data.

Demonstrate good governance

Both compliance requirements and public scrutiny hold governments accountable for results, and rightly so. Predictive analytics lets governments eliminate "best-guess" project milestones and set expectations by communicating plans with citizens, staff, leadership and regulators. When employees at any level in many departments can access centralized data on program outcomes and budgets, organizations can improve efficiency and manage risk.

Create a culture of analysis

Analytics goes beyond building data marts and data warehouses. As the tools become more available and confidence in data grows, a culture of analysis forms, encouraging staff to think critically about operations and processes, about incentive structure, about responsibility and accountability, and the many other factors that contribute to better performance.

Deutsche Bahn AG

Europe's largest provider of passenger and freight transport benefits from flexible, enterprise-wide budgeting and planning based on IBM Cognos solutions.

With revenues of 25 billion euros and 215,000 employees, Deutsche Bahn AG could see the benefit of replacing time-consuming and resource-intensive reporting with corporate-wide budgeting in real time. This government-owned German transport provider now uses IBM Cognos planning enterprise-wide, supporting more than 28,000 accounts, 70,000 railway sites and almost 2,500 cost-center executives and controllers.

The IBM Cognos planning solution allows a large number of users to budget and plan based on a centralized foundation of finance, cost-center, HR and many other kinds of data from numerous corporate systems. It permits the real-time analysis of changes in line items on profit and loss (P&L) statements. It allows scenario planning through changing parameters and parallel planning for both GAAP and IFRS requirements.

Low total cost of ownership and self-serve access to ready-to-use data has made IBM Cognos planning indispensable to this major transport supplier.

Analytics for the public sector

The public expects informed decisions. To make good decisions, public sector organizations can no longer rely on paper-based processes and siloed data in disparate systems. A broad view of information is needed to make government truly effective.

IBM Business Analytics

With IBM Business Analytics software, public sector organizations can begin transforming their data into insight. Organizations can integrate data from core financial, operational and transactional systems and provide broad, real-time access to a single, consistent, authoritative version of spending and performance. Centralized, integrated, best-practices-based planning, business intelligence and predictive capabilities cut the hundreds of person-hours involved in manually compiling reports and delivering intelligence to staff.

Business intelligence

Through Cognos business intelligence capabilities such as reporting, analysis, dashboards and scorecards, public sector decision-makers can leverage critical data to understand, optimize and communicate organizational performance. Ubiquitous intelligence empowers all staff to manage and optimize results.

Financial Performance and Strategy Management

IBM Business Analytics includes enterprise planning, budgeting and consolidation capabilities that let the entire organization contribute to the planning process and connects strategy to plans, targets and operational objectives. Flexible planning allows realignment as external conditions change. Predictable planning eliminates “best-guess” project milestones, accelerates cycles and improves communication.

Advanced Analytics

IBM Business Analytics provides advanced analytics capabilities such as predictive modeling capabilities from SPSS, “what-if” scenario planning capabilities from Cognos and Cognos Content Analytics to help public sector organizations plan and execute over the long term.

Analytic Applications

IBM Business Analytics offers a suite of Analytic Applications—applications that package business analytics capabilities, data models, process workflows and reports to address a particular domain or business problem such as customer, workforce, supply chain and financial performance management.

IBM Cognos Performance Blueprints

IBM is also the only vendor to offer a suite of Performance Blueprints. Blueprints are free quick-start models that speed implementation, reduce ROI and apply industry best practices in planning, scorecarding, reporting and more, maximizing the effectiveness of your implementation. For government, these include blueprints for municipal performance management, defense budgeting, workforce, supply chain, financial performance management and much more.

The benefits of analytics

By uniting data and making trusted information available across departments, public sector organizations can:

- **Make timely decisions:** Immediate and easy access to consistent information lets staff overcome complexity, conduct comparative analysis, perform ad-hoc queries and better gauge overall performance. Performance analytics tools let the public sector improve accountability and strengthen financial performance.
- **Remove the emotion from decision-making:** When information is consistent, accurate, trusted and available to all, decisions can be based on facts rather than myths, assumptions, politics and persuasion. While instinct and experience provide important input to decisions, there is no arguing with usage numbers, expense tallies, incidence trends and actuals.
- **Take the right action at the right time:** Agencies can be large, decentralized, complex organizations—like a business with many small subsidiaries. A \$3 billion entity might not immediately notice that one small department is burning through budget. But keeping abreast of financial performance in all areas is critical to success.
- **Ensure insight is pervasive:** Many organizations believe that the more staff is engaged in budgeting and monitoring performance metrics, the better. While more pervasive access to performance management systems can lead to tougher questions, this is how problems are resolved and performance improved.

Best practices in government analytics

Public sector organizations that have implemented analytics solutions have discovered a number of factors that lead to success. They include:

- **Start small and grow:** Select a single, critical issue, such as budgeting, and focus on this project initially. Once up and running, expand to other areas, carrying the experience and knowledge earned with the first project.
- **Have a leader:** When executive sponsors lead, a certain amount of adoption is ensured. Once employees understand the benefits of the technology, use will spread rapidly.
- **Promote information self-service:** Besides removing the reporting burden from IT, self-service puts strategic information in the hands of decision-makers at all levels. Self-reliance contributes to the culture of analysis that in turn supports performance improvements. Users can answer 10 questions on their own, and then have enough detail to ask deeper, more serious questions among colleagues.
- **Set up a committee or competency center:** Having the technology is one thing; quite another is knowing what kinds of reports are needed, evaluating how the current ones can be improved, and knowing how best to deliver them to various users. A group of cross-disciplinary, cross-departmental staff focused on these questions is invaluable.

Alameda County Social Services

This California county needed better insight into individual cases and outcomes to minimize potential for waste and fraud and improve program effectiveness.

In an effort to reduce the cost and improve the performance of state social programs, the state of California asked its counties to achieve a welfare recipient work participation rate (WPR) of 50 percent. Lower WPR is an indicator of potential fraud and waste. At the time, Alameda County's WPR was only 12 percent—last among California's 58 counties and well below the state average of 22 percent.

“It was clear we had some issues hampering our efforts,” says Don Edwards, assistant agency director at Alameda County Social Services. “We needed to give our caseworkers direct access to information about their own cases. We needed faster, better reporting.”

Alameda also needed daily performance metrics proving program effectiveness to respond to state flexible funding provisions and private donors. The agency teamed with IBM to deploy an information management system based on InfoSphere and Cognos that combines entity analytics with business intelligence to give workers an agency-wide, comprehensive view of individual cases.

Estimates on short-term opportunities for waste and fraud reduction in welfare-to-work and childcare programs have come in at \$11 million.

Conclusion

Timely and effective management oversight is helping governments meet the public's demand for higher levels of service and best value. Especially in climates of shrinking budgets and resources, public sector organizations need to see the big picture—the relationships, the connections, the direction—as well as the details to make informed decisions and improve outcomes. Access to accurate, current, actionable information provides both the bird's-eye and the worm's-eye view.

Many public sector organizations rely on IBM Cognos solutions to ensure efficient spending and excellent results. Analytics software and processes help employees plan, understand and manage budget, program and service performance. Staff can answer critical questions and see how their activity contributes to high-level strategy.

Responding quickly with better decisions lets government organizations have an impact when and where it matters most. Better information helps grow a culture of analysis, the cornerstone of an accountable, cost-effective, and productive public sector. This is the public sector that citizens keenly desire, and that public employees want to deliver.

For more information on IBM Cognos solutions for government, please visit ibm.com/cognos/government.

About IBM Business Analytics

IBM Business Analytics software delivers complete, consistent and accurate information that decision-makers trust to improve business performance. A comprehensive portfolio of business intelligence, advanced analytics, financial performance and strategy management and analytic applications gives you clear, immediate and actionable insights into current performance and the ability to predict future outcomes.

Combined with rich industry solutions, proven practices and professional services, organizations of every size can drive the highest IT productivity and deliver better results.

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