

# Business Impact

"We are excited to be working with SAS on this risk management system. It's our responsibility to make sure our retirees and current state workers have the pension they expect when they retire. The system will allow us to isolate and measure the various risks across our multi-asset portfolio to protect their savings."

Janet Cowell
North Carolina State Treasurer

### Challenges

- More complex analytical processes.
   The need for more analytical models and functions, and more frequent model refreshes, may overwhelm traditional IT infrastructures and delay modeling results, which will have a negative impact on timely decision making.
- Big data issues. An inability to analyze unstructured data and difficulty accessing the right data from multiple, disparate locations have long been major concerns, and big data is only heightening the problem.
- Lack of scalability. Current IT
   infrastructures may be unable to
   meet growing analytical requirements

   e.g., quickly integrating new data
   sources, performing iterative
   analytical data preparation, retraining
   analytical models, etc. in an
   ever-tightening time window.
- Limited human resources. State and local governments must constantly do more with less, and human resources are no exception to that. With analysts in short supply, decision makers face longer waits for answers and unpredictable response times.



# How can we quickly turn our structured and unstructured big data assets into insights that can help us make better policy decisions?

#### YOUR GOAL: Make faster, better-informed decisions based on all relevant data

A torrent of structured and unstructured data is created every day by and about citizens, and governments and policymakers are beginning to realize the potential that this enormous amount of data has for providing valuable insights that can help them better fulfill some of the basic missions of a citizen-centric government. These basic missions include the responsibility to connect citizens to needed services, to foster an environment for economic growth and to provide for public safety – all while operating within the constraints of accountability standards in a fiscally responsible manner. Unfortunately, most government departments and agencies are, as the saying goes, data rich and information poor, as big data – e.g., census data, health indicators, tax and expenditure information, etc. – pushes the limits of existing applications and systems. And yet, the need for the insights buried within that data is greater than ever.

In order to understand citizen needs and launch innovative programs and services, policymakers need to quickly spot problems, gain timely insights and use the information to make fact-based decisions. The ability to quickly test multiple scenarios, seek associations and make recommendations faster can be a game changer. Timely analytic insights should not be restrained by the limited scalability of existing infrastructures. And policymakers should not have to restrict themselves to asking simple questions, using smaller samples, incorporating fewer variables or using basic modeling techniques.

#### **OUR APPROACH**

SAS can help state and local governments overcome the limitations of analyzing big data from structured data repositories and unstructured text data collections, as well as eliminate the restrictions imposed by existing computing infrastructures. With SAS® High-Performance Analytics Server, you can:

- React more quickly and confidently to changing situations and dynamics by evaluating numerous scenarios simultaneously to get faster, better, more accurate insights to spot opportunities, detect emerging issues and respond accordingly.
- Go beyond traditional analytical approaches to explore priority issues more thoroughly using the best modeling techniques, performing more frequent model iterations and incorporating *all* available structured and unstructured data not just a subset.
- Derive insights at breakthrough speeds for high-value, time-sensitive decision making by dramatically shrinking the time it takes to process analytical models.
- Get the most out of your IT resources infrastructure, people and money with
  an infrastructure that is dedicated to analytics, thus providing superior performance
  and scalability to meet both current and future analytical needs.

With SAS High-Performance Analytics Server, you get more accurate insights – in minutes, not hours – for solving your most challenging problems, identifying new opportunities and making critical, pressing decisions.

### THE SAS® DIFFERENCE: The Power to Know® at breakthrough speeds

SAS High-Performance Analytics Server is an in-memory offering for developing analytical models – statistical and data mining, text mining or optimization – that process big data to derive faster, more accurate insights for making better-informed business decisions. With SAS, you get:

- The only in-memory offering that processes big data analytics to gain timesensitive insights. SAS High-Performance Analytics Server is truly about applying sophisticated analytical techniques to solve complex problems – not just about using query, reporting and descriptive statistics within an in-memory environment.
- A solution that addresses the entire model development and deployment life cycle. Unlike other offerings, SAS High-Performance Analytics Server lets you develop new models and put them into action at breakthrough speeds, so you can extract more value and insights from your structured and unstructured data and stay ahead of the competition.
- More than 36 years of proven technology faster. SAS customers at more than 60,000 sites around the world can now take advantage of running SAS analytic procedures in a distributed, in-memory environment. This enables our customers to quickly extract value from big data that can transform their business, opening up a vast array of possibilities never before imagined.

Only SAS provides a highly scalable and reliable infrastructure that is optimized for large data volumes and complex computations – even as your requirements evolve to tackle bigger problems, larger data sets and more complex scenarios.

#### SAS® HIGH-PERFORMANCE ANALYTICS SERVER IN STATE & LOCAL GOVERNMENT

#### Gain a 360-degree view of citizens

SAS High-Performance Analytics Server lets you glean citizen intelligence from huge volumes of complex structured and unstructured data. With a holistic view of the citizen, you can provide more effective services to individuals in a timely fashion, based on their specific needs. You can also predict future service needs and proactively modify programs and service offerings accordingly. And you can track program performance to determine how well current services are meeting citizen requirements.

# Safeguard pensions

Government pension programs differ from other investment portfolios in that stability is critically important. SAS High-Performance Analytics Server enables you to protect and grow your pension plan investments by looking at the market holistically. As a result, you can strengthen investment processes by allocating investments based on each pension plan's acceptable level of risk, and thoroughly understand the magnitude and sources of risk to ensure that the system is properly compensated.

#### Predict tax revenue and forecast budgets

SAS High-Performance Analytics Server allows legislators to allocate budgets more effectively by providing accurate revenue forecasts that incorporate all relevant structured and unstructured data and a variety of what-if scenarios – changing economic forecasts, pending legislation, etc. – that can be modified and rerun as needed.

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# What if you could ...

# React more quickly to changing situations and dynamics

What if – instead of just knowing that food prices are rising or unemployment is increasing – you could see where and how people were changing their behavior so you could prioritize where you put resources in response?

# Go beyond traditional analytical approaches

What if you could allocate limited investigative resources to the highest-value fraud, waste and abuse cases with the greatest likelihood of recovery, as well as spot new incidents of improper payments far enough in advance to stop them before money goes out the door?

#### Quickly derive valuable insights

What if you could identify precursors or signs of trouble — related to public health, food and drug safety, financial markets, etc. — early enough to take appropriate action to avert or minimize their impacts before minor events evolve into huge crises?

■ You can. SAS gives you The Power to Know® – at breakthrough speeds.

## SAS FACTS

- SAS has more than 36 years of experience working with government entities worldwide.
- All 50 states and the District of Columbia are SAS customers.
- Approximately 85 percent of independent US government agencies and commissions use SAS.

Learn more about SAS software and services for government by visiting us at: sas.com/gov

