Over the last few years, the federal government has begun realizing the promise of Big Data to enhance missioneffectiveness. Now, several prominent initiatives are pressing federal agencies to further invest in Big Data, including:

FEDERAL INFORMATION

DIRECTIVE



**ORDER 13636** 

COMPREHENSIVE NATIONAL CYBERSECURITY INITIATIVE

> MONITORING MANDATES

AFFORDABLE CARE ACT

### **BIG DATA COULD YIELD MAJOR BENEFITS FOR 3 AREAS IN PARTICULAR:**

## Health Enhanced bio-surveillance

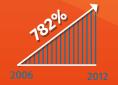


The CDC's BioSense program improves health threat forecasting and readiness by using cloud computing to enhance data sharing and collection across levels of government



BioSense data was used to enhance detection of dengue fever in Florida and Hawaii in 2012

# Homeland Security Improved cyber threat modeling



782% increase in cyber breaches reported by federal agencies from 2006-2012

Using vast amounts of data, agencies can model the progression of a cyber attack to better understand and prevent breaches

# Financial Services Greater tax compliance

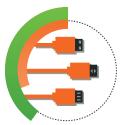


is lost from taxpayer underreporting

Automated information matching programs powered by Big Data return **6x more revenue than audits** and are 20x less expensive

# What is holding federal leaders back from fully leveraging Big Data?

#### Inability to extract value from existing data



40% indicate the lack of standardized data is a challenge

31% indicate the lack of a data analytics support system is a challenge

#### Gaps in personnel capabilities



59% indicate their agencies lack professional capabilities

42% indicate their agencies need domain experts

### Lack of understanding of supporting technologies

Many officials remain reluctant to embrace the cloud because they lack understanding of the value data analytics can bring to their organizations. This is a very serious challenge requiring as much education and demonstration as technology.

Tim Andrews, Vice President Booz Allen Hamilton

### How can agencies overcome these challenges?





Invest in analytics



Train personnel in analytics

No one particular transaction, no one particular piece of data, is sufficient, but by putting them all together, you can begin to spot patterns earlier.

#### **SOURCES**

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Intuit Accountants, "Big Data: How the IRS Uses Information Statement for Compliance"

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