The Lawmaker’s Role in Tackling the Data Conundrum

2019 NCSL Legislative Summit
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@NASCIO
About NASCIO

- National association representing state chief information officers and information technology executives from the states, territories and D.C.

- NASCIO's mission is to foster government excellence through quality business practices, information management, and technology policy.

- NASCIO provides members with products and services designed to support the challenging role of the state CIO, stimulate the exchange of information, and promote the adoption of IT best practices and innovations.
<table>
<thead>
<tr>
<th>Topic</th>
<th>Details</th>
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<tbody>
<tr>
<td>More focus on enterprise cybersecurity models; cyber talent and workforce crisis remains</td>
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<td>CIO as broker business model: evolution from owner-operator to more managed services and multi-sourcing initiatives</td>
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<td>Digital government: user centric design, focus on streamlining experiences, citizen IAM</td>
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<td>Interest and use of AI and RPA growing as state roadmaps are created, pilots launched and benefits realized</td>
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<td>State IT organization transition continues: more consolidation, hybrid models and unification initiatives</td>
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<td>22 new governors in 2018. 17 new state CIOs appointed in 2019 to date.</td>
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STATE CIO TOP 10 PRIORITIES
2019 Strategies, Management & Process Solutions

1. Security and Risk Management
2. Cloud Services
3. Consolidation/Optimization
4. Digital Government
5. Broadband/Wireless Connectivity
6. Budget, Cost Control, Fiscal Management
7. Customer Relationship Management
8. Data Management and Analytics
9. Enterprise IT Governance
10. Identity and Access Management

Source: NASCIO State CIO Ballot, November 2018
Please describe the current status of enterprise data management in your state.

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Description</th>
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<tbody>
<tr>
<td>56%</td>
<td>Have established standards for data classification and security</td>
</tr>
<tr>
<td>53%</td>
<td>Have a data governance policy</td>
</tr>
<tr>
<td>38%</td>
<td>Hired a state chief data officer</td>
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<tr>
<td>31%</td>
<td>Have a data stewards network in place</td>
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<tr>
<td>31%</td>
<td>Have integrated data architecture with overall enterprise architecture</td>
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<tr>
<td>20%</td>
<td>Have strategy in place to deal with unstructured (as well as structured) data</td>
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<tr>
<td>18%</td>
<td>Have a strategy in place to deal with large volumes of data</td>
</tr>
<tr>
<td>18%</td>
<td>Have in place a data and information asset portfolio</td>
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What do you think is the biggest opportunity for using data analytics?

- **54%** Data-driven policy making
- **14%** Surfacing insights from the data, or insight enabling capabilities
- **10%** Transparency and accountability to citizens
- **6%** Ability to create dashboards and meaningful reports
- **4%** Ease of combining data from multiple sources
- **4%** Workforce planning and analytics
- **4%** Performance-based budgeting
- **4%** Low code or no code capabilities that can be employed by front line staff to explore data and surface insights that influence decision making

2018 NASCIO SURVEY | STATE CIO AS A COMMUNICATOR
Few states are “highly mature” in data management and analytics

Successful, but tactical data analytics in agencies

Primary focus on fraud, abuse, improper payments

General lack of strategic focus, enterprise orientation, data architecture, privacy impacts
Major Changes in State Data

- Structured
- Semi-structured
- Unstructured

Sources and Formats Changing Dramatically
simply having data isn't enough. workers need to have the business analytics skills to use the data in such a way that it leads to profitable action. business analytics training needs to be mandatory for all personnel in decision-making positions.”

— survey respondent | owner, retail, united states
Inter-related Public Sector Spheres

- Economics
- Public Health
- Public Safety
- Education
Do You Think, OR Do You Know?

Show me the data!

Show me your analysis of the data!

Show me the power of the correlation!

Show me the magnitude of this issue!

Show me why this solution is the best one!

Show me secondary effects if this policy is put in place!
Data quality is inherited throughout the process.
You have to focus on the foundation, which is data standards, data governance, quality, and accessibility of the data. The roof atop the house is the analytics—but you can’t just build a roof and stick it on the ground.”

John Correllus, director of the North Carolina Government Data Analytics Center, in a May 2016 Pew interview

Data Standards!

Data Governance!

Data Quality!

Data Access!
Timeline for Georgia’s 2025 IT Vision

Near-Term
- Establish cyber awareness among agencies
- Complete Cyber Innovation and Training Center

Mid-Term
- Establish cyber preparedness among agencies
- Develop Cyber Center programs
- Establish data analytics and reporting dashboards
- Establish security and data management frameworks

Long-Term
- Establish cyber resilience among agencies
- Establish enterprise framework for data management
- Increase citizen trust in government services
- Increase customer satisfaction with technology services
- Establish partnerships that allow for remote sharing of state services
- Stabilize, enhance, and leverage state IT staff

By 2025, Georgia agencies will leverage data to provide digital services for a broad range of citizens' needs and work closely with the private sector under a mature security strategy.
GOAL 2: Improve the use of state data for decision-making and information sharing (Data as an Asset)

The new digital economy is data and the ability to make sense of it. Keeping pace with citizens’ expectations for faster, more convenient interactions with state government requires greater coordination and sharing of data to enable more personalized transactions.

GTA will help agencies understand the value of their data and establish the means to share it as needed. In addition, as the Internet of Things (IoT) presents the potential to add significant value through the use of inexpensive sensor data, GTA will provide an enterprise view of IoT standardization and security.

NEAR-TERM
- Create a data inventory and capture key data elements supporting three well-defined problems.
- Establish a data-driven approach to fraud and abuse detection and mitigation (GTA is guiding a Georgia Department of Early Care and Learning [DECAL] effort to significantly reduce fraud, waste and abuse).
- Establish data standards that span agencies; GeorgiaGov Interactive will seek to increase agency awareness of the need for content strategy.
- Identify IoT opportunities that span agencies.

MID-TERM
- Create data analytics capabilities and reporting dashboards using cross-agency data.
- GeorgiaGov Interactive will provide guidance on agency content strategy through an enterprise view.
- Coordinate IoT standardization for data elements that span agencies.

LONG-TERM
- Create a unified, data-driven decision support capability to allow state leaders a “real-time” view of pre-defined analytics needed for fact-based decisions.
An independent state agency dedicated to creating a data-driven culture across all other partner agencies.

Data is housed securely, de-identified, and published in a manner that promotes analysis, collaboration, and innovation.
Intergenerational Welfare Reform Commission

Areas of Child Well-Being Leading to Success in Adulthood

Education
- 5-Year Goal: Align systems supporting educational outcomes to ensure efforts are focused in schools disproportionately impacted by intergenerational poverty. These systems include all levels of government, local schools, communities, businesses, and non-profits.
- 10-Year Goal: Children at risk of remaining in poverty as they become adults graduate from high school at a rate equal to the statewide rate.

Family Economic Stability
- 5-Year Goal: Children at risk of remaining in poverty are living in stable families, able to meet their basic needs.
- 10-Year Goal: Children at risk of remaining in poverty are living in families that are self-sufficient/relatively.

Health
- 5-Year Goal: Children experiencing intergenerational poverty have access to quality physical health, mental health, and dental care, regardless of where their family resides in Utah.
- 10-Year Goal: Children experiencing intergenerational poverty are receiving physical, mental, and dental care at the same rates as the statewide rates in each of those areas, regardless of where their family resides in Utah.

Early Childhood Development
- 5-Year Goal: Align all systems involved in early childhood development to ensure Utah has the capacity to prepare children at risk of remaining in poverty for kindergarten.
- 10-Year Goal: Children at risk of remaining in poverty, as they become adults are emotionally, cognitively, and developmentally prepared for kindergarten.
Intergenerational Poverty (IGP) County Data

This dashboard summarizes data related to the well-being of individuals experiencing IGP in Utah's 29 counties.

For the purpose of this data, individuals experiencing IGP are those using public assistance for at least 12 months as an adult and as a child. Public assistance includes the receipt of one or more services including food stamps, child care subsidies, cash assistance or Medicaid/CHIP. A child at risk of remaining in poverty is a child that has received 12 months or more of public assistance. Using these definitions, individuals are matched across several state and local databases to provide county level profiles.

Directions: To change the county highlighted by the report, select a county in the drop-down box on the top left side of the dashboard. Various data points are available through the tab navigation at the top.

EDUCATIONAL INDICATORS IN

Salt Lake County

Enrollment and IGP Absence by School

<table>
<thead>
<tr>
<th>School Name</th>
<th>% IGP Enrollment</th>
<th>IGP Rate of Chronic Absence</th>
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<tbody>
<tr>
<td>GRANGER HIGH</td>
<td>4.7%</td>
<td>23.1%</td>
</tr>
<tr>
<td>GRANGER SCHOOL</td>
<td>8.3%</td>
<td>40.4%</td>
</tr>
<tr>
<td>GRANITE CONNECTION HIGH</td>
<td>15.5%</td>
<td>19.4%</td>
</tr>
<tr>
<td>GRANITE PARK JR HIGH</td>
<td>9.6%</td>
<td>47.8%</td>
</tr>
<tr>
<td>GRANITE TECHNICAL INSTITUTE</td>
<td>37.2%</td>
<td>≤5%</td>
</tr>
<tr>
<td>HARRY S. TRUMAN SCHOOL</td>
<td>7.3%</td>
<td>35%</td>
</tr>
</tbody>
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https://jobs.utah.gov/edo/intergenerational/data/county.html
Data Analytics and States: Looking Ahead...

Need enterprise imperative, roadmap and governance

Focus: start small with confined target and scale - enterprise

Understand security and privacy implications

Power of visualization and dashboards for transparency

Dealing with dark data: compliance and risk

Challenges with state skill sets, competencies, recruiting

Expect surprises and unintended consequences!
State CIO Challenge - Balancing Needs and Resources
Recommendations for a Fact-Based Ecosystem

Put in place appropriate enterprise data governance
Review all data sharing agreements with supporting disciplines
Manage data sharing agreements within a portfolio
Ensure data sharing agreements are periodically reviewed & updated

Establish an enterprise expertise center - a Business Intelligence Competency Center (BICC) - to sustain and evolve the practice of business analytics.
Thank You

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DATA RETENTION AND BREACH NOTIFICATION

STATE OF THE LAW AND EMERGING TRENDS.
David N. Sonnenreich
Deputy Utah Attorney General

The views expressed during this presentation are those of the speaker, and do not necessarily represent the official positions of the Office of the Utah Attorney General. Nothing in this presentation is intended to be legal advice.
TYPICAL DATA RETENTION AND BREACH NOTIFICATION LAWS
TYPICAL STATE DATA RETENTION AND BREACH NOTIFICATION LAWS

• All states have data breach notification statutes

• Statutes typically only apply to electronic “PII” data

• Statutes typically define PII as: Name + sensitive information (SSN, credit card, bank account)

• Health care information is often included in PII, but not always

• Most states require “reasonable” safeguards to prevent data breaches
TYPICAL STATE DATA RETENTION AND NOTIFICATION BREACH LAWS

- Most states require notice to consumers of data breaches based on a “likely harm standard”

- Most states have an “encryption safe harbor”

- Most states require notice to the Attorney General and/or consumer credit reporting agency

- Most statutes are similar enough to allow states to coordinate enforcement
GAME CHANGERS: GDPR & CCPA
THE EU’S GENERAL DATA PROTECTION REGULATION (“GDPR”)

- Effective 5/25/2018

- Data Subject Rights (Partial List):
  - **Privacy By Design**: Companies must have affirmative anti-breach plans with Data Protection Officers
  - **Right To Know**: What data a company keeps, where, why, and whether it has been breached
    - Sharp contrast to American “Privacy Policy” type consent
  - **Right To Be Forgotten**: Right to force a company to delete your data

- Stiff Penalties: Greater of 4% of annual global turnover or €20 Million

- Extraterritorial Scope: Covers data on EU citizens held by American companies in the USA
HOW GDPR AFFECTS AMERICAN COMPANIES

• Extraterritoriality: Affects all American companies that save data about Europeans

• Serves as a laboratory for the data privacy debate in the USA
  – Establishes what is technically feasible
  – Establishes what is economically practical

• Sets *de facto* world standards for reasonable procedures to maintain data security
  – The need to destroy outdated or unnecessary data
  – Will public companies need to do annual data privacy and security audits?

• Many large companies are already transitioning GDPR rights to American consumers
THE CALIFORNIA CONSUMER PRIVACY ACT (“CCPA”)

• Becomes effective January 1, 2020 – Rulemaking is not yet final

• Inspired by the EU’s GDPR – Most comprehensive law in the United States

• Broad definition of PII

• Right to know what PII is being collected and to whom it is being sold/disclosed

• Right to opt out from any sale of PII by a business

• Right to request deletion of PII collected by a business – with defined exceptions
TOWARD UNIFORM STATE LAWS AND SAFE HARBORS
THE UNIFORM LAW COMMISSION

• June 18, 2019: “The Study Committee unanimously recommends that the Uniform Law Commission undertake the drafting of a Uniform On-Line Data Privacy Act. Such a project should include provisions governing the collection, sharing, storage, security, control, and use of the on-line personal data of others.”

• July 24, 2019: Uniform Law Commission accepts recommendation, forms drafting committee

• Likely to incorporate key concepts of GDPR / CCPA

• The 800 Pound Gorilla: Will Congress adopt a federal law?

• A uniform law could prevent total federal preemption of state laws
DATA RETENTION SAFE HARBORS

• A Safe Harbor for data retention:
  – Provides liability protection to businesses (affirmative defense)
  – Incentivizes businesses to use best practices to protect consumers

• August 3, 2018: Ohio SB 220 establishes the first statutory safe harbor
  – “Reasonably conforms to an industry recognized cybersecurity framework” (e.g. NIST)
  – Scale and scope of program depends upon the size and nature of the business

• December 2018: Conference of Western Attorneys General White Paper supports safe harbor
  – No consensus as to precisely what the safe harbor should require; NIST+ may be a “starting point”
  – Could be statutory, regulatory, or a policy of prosecutorial discretion
  – Business size does not matter; the consumer harm is the same – data protection should be too
BRIEF HISTORY

2011 – Secretarial Committee on Data Sharing: HHR & Technology develop an enterprise data-sharing agreement

2013 – Commonwealth EIA Strategy: Establish measurable goals and objectives for data asset management

2014 – Data Stewards Group: support agency engagement and implementation of the EIA Strategy

2015 – Executive Directive 6: expand cyber-related risk management activities, inventory and classify state data

2016 – Executive Directive 7: promote greater utility and accessibility of data assets, open data, and sharing

2017 – Commonwealth Open Data Portal: partnership between VITA and the Library of Virginia

2018 – Senate Bill 580: Facilitate data sharing among state agencies and between the Commonwealth and political subdivisions; establishes the role of the Chief Data Officer; establishes the Data Sharing and Analytics Advisory Committee
Actionable Decisions

Collect Data

Interpret Information

Assimilate Knowledge

Integrate Intelligence
QUESTIONS?

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COMMONWEALTH DATA COMMISSION

- Executive Branch (Advisory)
- 24 members (8 legislative, 7 citizen, 9 state officials)
- Study, report, advise, and make recommendations to the Governor and the General Assembly on all areas of data governance, quality, sharing, analytics, and performance management
- Cooperate with the Legislative Branch of State Government, the Attorney General’s Office, and the judiciary
- Study the operations, management, jurisdiction, powers, and interrelationship of any such department, board, bureau, commission, authority, or other agency that has any direct data operation including collection, storage, management, quality, transfer, and analysis
COMMONWEALTH DATA COMMISSION

• Coordinate agency programs and activities, to prevent duplication of functions, and to combine all agency data governance plans into a comprehensive interagency state plan

• Review and comment on annual state budget requests

• Define responsibilities among state agencies for various data governance programs and to encourage data sharing among agencies

• Monitor the data governance, sharing, and analytics development efforts of other states and nations

• Develop recommendations that will assist in making Virginia a national leader in data-driven policy and evidenced-based decision making

• Staff assistance shall be provided to the Commission by ...
DATA OPERATIONS

Recommended organizational structure to support data governance, sharing, and analytics within operational units including Executive, Legislative, and Judicial branches of state government

– Executive Data Board
– Data Governance Council
– Data Stewards Group
– Data Analytics, Innovation, and Performance Management
EXECUTIVE DATA BOARD

- Set strategic performance objectives
- Advocate for and allocate program and project resources
- Coordinate, prioritize, and oversee multi-agency data sharing and analytics projects
- Remove barriers to implementation
DATA GOVERNANCE COUNCIL

• Advise the Executive Data Board and the Commonwealth Data Commission on technology, policy, and governance strategies to meet Chapter 679 requirements

• Provide a governance, policy, and technology framework for information sharing, promoting greater utility and accessibility of data assets

• Recommend policies, standards, and guidelines for the formation, operations, and maintenance of the Data Governance Council

• Recommend policies, standards, and guidelines for defining, managing, approving, and implementing ‘Open Data’ maintained by state agencies

• Report progress, compliance, and performance to the Executive Data Board
DATA STEWARDS GROUP

- Promote and facilitate the secure and appropriate sharing and use of data assets in support of data-driven policymaking, research, analysis, study, and economic development
- Maximize the value and utility of Commonwealth data-related investments and assets
- Promote increased sharing of data between state agencies and localities to provide tangible operational improvements to assist state agencies and localities in fulfilling their respective missions in a coordinated, cost-effective manner
- Provide public access to data assets, where lawful and appropriate, to enhance research, innovation, and insight
“THE LAWMAKER’S ROLE IN TACKLING THE DATA CONUNDRUM”

Georgia State Representative Katie Dempsey
GEORGIA’S WORK IN THE DATA-INFORMED POLICY SPACE

How did we get here?

Senate Resolution 130

House Bill 197
Senate Resolution 130 was passed during the 2017 legislative session of the Georgia General Assembly creating this joint study committee.

- Studied the implementation of a statewide, centralized integrated data system
- System would share data between state agencies
- Shared data would allow for enhanced cross-agency analysis
STUDY COMMITTEE’S LEGISLATIVE RECOMMENDATIONS

- An integrated data system should be stored in a manner that **protects the data** in a responsible and secure manner.
- Each entity that receives the data should **not be responsible for de-identifying** that data.
- Necessary laws, funding and structure should be established to begin the **implementation of the system and create a framework** to leverage shared data.
- Legislation should **determine the system’s governance** and governing board.
- **Identify policy concerns** that can be studied in an integrated form to identify evidence-based solutions.
The Result: House Bill 197

*Breaking Down the Silos*

HB 197 established an operational analytic center capable of securely receiving, maintaining, transmitting and analyzing data.

GDAC serves as a single access point for advanced quantitative analysis and provides a platform for business use case development as well as analytic interpretation of distinct policy concerns.
An Effective Analytics System Is More Than A Reporting Tool

- Deploy a technological infrastructure that integrates data sources throughout the state.
- Utilize business use cases to understand business and quality performance objectives of State Agencies.
- Solicit input from both internal and external stakeholders.
- Evaluate business processes to identify the most valuable data.
- Align analytic tools, methods, and capabilities with goals and Key Performance Indicators (KPIs).
- Attract and retain the best analytical talent.
Eliminate Data Silos With Innovative Technical And Business Processes

✓ Utilized Data Sharing Agreements to establish a collaborative culture throughout the State.

✓ Combine data from disparate sources into meaningful and valuable information.

✓ Transfer large data sets between platforms seamlessly.

✓ Identity and inventory data assets across State Agencies.

✓ Develop Data Catalogs to enable a common business language across information systems.

✓ Employ data exploration to draw substantive insights.
Looking Ahead – Data Dissemination

Utilize Visual Analytics To Present The Story The Data Is Telling

✓ Provide interactive data visualizations that encourages users to explore and manipulate data.

✓ Allow State Agencies to find correlations between operations and performance.

✓ Provide an intra-agency reporting platform that supplements the features of traditional reporting tools available to non-technical end users.

✓ Make data available to the widest range of users for the widest range of purposes.
Looking Ahead – Use Of Data

Grow GDAC’s Analytic Capacity Organically By Planting A Seed Of Innovation

✔ Utilize data for evidence-based policy making and performance budgeting.

✔ Increase the State of Georgia’s ability to align funding with tangible outcomes and provide measurable objectives.

✔ Analyze data across silos to inform decision making and track key performance measures.

✔ Empower organizations and constituents by providing data to solve problems, formulate public policy priorities and generate economic development.

✔ Work collaboratively with researchers and academic institutions to build confidence in public policy initiatives.
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