7 Tips to Transform Your Data Into Compelling Stories: In Brief
In recent years, data has literally been raining down from the skies, much like the famous scene in “The Matrix” in which numbers and code trickle across the screen. And today, governments are caught up in the storm, as agencies do with data what few organizations would dare attempt at scale. For example:

- Analytics are enabling crews to prevent potholes in the snowy city of Syracuse, New York, and giving residents clarity about their services during blizzards.

- Open data is solving the problem of unfalsifiable results in science, known as the “reproducibility crisis,” by providing a larger community for evaluation.

This In Brief includes seven tips to transform your data into compelling stories and is based on recommendations from the Federal Data Strategy. To learn more about data and analytics in government today, download the full guide here.
What’s New That You Need to Know

Two watershed instructions on federal data hit the market in 2019, tracing future trends of data use in government.

OPEN Government Data Act
The first major advancement was the signing of the OPEN Government Data Act, which mandates that agencies establish chief data officers (CDOs) going forward. It serves as a follow-up to an Obama-era transparency law that led to the creation of popular public-facing data repositories, such as USAspending.gov and Data.gov.

Federal Data Strategy
Next up, the Federal Data Strategy formalized practices and principles for data management in May 2019, coming as a long-promised administration initiative that clarified several key priorities but was delayed by the federal shutdown. The strategy focuses on three main guiding principles, targeted as “motivational guidance,” surrounding ethical governance, conscious design and learning culture.
Tip #1

Use Data to Guide Decision-Making

Federal Data Strategy Practice No. 4: “Effectively, routinely, transparently, and appropriately use data in policy, planning, and operations to guide decision-making; share the data and analyses behind those decisions.”

TIP:
Consider how you can make smarter decisions day to day by analyzing data you have or could get.

25% was the increase in operational efficiency in Chicago after inspectors began using a predictive analytics model to rate food establishments by risk.

CASE STUDY: Data and analytics can directly improve resource and budget allocation. Syracuse proved that by listening to residents and harnessing existing technology to be more efficient and effective in how it fixed its roads in winter, picking the right roads to repave.
Tip #2

Use Data to Increase Accountability

Federal Data Strategy Practice No. 7: “Align operational and regulatory data inputs with performance measures and other outputs to help the public to understand the results of federal investments and to support informed decision-making and rule-making.”

TIP:
See what metrics can gauge the effectiveness of internal programs, initiatives and employees.

Manager’s average use of performance information, ranked on an index of one to five, grouped by the extent to which their programs have been subject to agency data-driven reviews:

- No Extent
- Moderate Extent
- Very Great Extent

Managers more subject to data-driven reviews report greater use of performance information.

CASE STUDY: Minneapolis used data to improve its workforce and evaluate employees. As a result, the city saved money and increased accountability of the organization and individuals.

Source: Government Accountability Office
Tip #3

Connect Data Functions Across Agencies

Federal Data Strategy Practice No. 9: “Establish communities of practice for common agency data functions (e.g. data management, access, analytics, informatics, and user support) to promote efficiency, collaboration, and coordination.”

TIP: Establish common grounds for people practicing data to share advice and collaborate.

500+ members of the grantee community collaborated with the federal government to pilot new ways of standardizing, sharing and collecting data from grantees.

CASE STUDY: For many agencies, the customer might be internal. Using data visualizations, the Treasury Department is allowing other agencies to maximize their time and energy.
Tip #4

Leverage Data Standards

Federal Data Strategy Practice No. 20: “Adopt or adapt, create as needed, and implement data standards within relevant communities of interest to maximize data quality and facilitate use, access, sharing, and interoperability.”

TIP:
Check that data standards are in place and widely adhered to.

CASE STUDY: Create a data and analytics strategy and set up policies for governance. While technology is exciting, the Defense Logistics Agency and other successful agencies are prioritizing data quality and standardization.

90% of data we generate is unstructured.
Tip #5
Share Data Between State, Local and Tribal Governments and the Federal Government

Federal Data Strategy Practice No. 26: “Facilitate data sharing between state, local, and tribal governments and the Federal Government, where relevant and appropriate and with proper protections, particularly for programs that are federally funded and locally administered, to enable richer analyses for more informed decision-making.”

TIP:
Keep an eye out for intergovernmental programs and opportunities.

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“principal statistical agencies” exist in the federal government, as defined by the White House to include the Bureau of Labor Statistics, the Census Bureau and others.

CASE STUDY: For North Carolina, it’s all about delivering value – such as in health care, where a data-sharing portal disseminates patient information securely between many parties to save time and costs. Define the problem that can be solved and then look at who – and what – might be able to help.
Tip #6
Promote Wide Access

Federal Data Strategy Practice No. 33: “Promote equitable and appropriate access to data in open, machine-readable form and through multiple mechanisms, including through both federal and non-federal providers, to meet stakeholder needs while protecting privacy, confidentiality, and proprietary interests.”

TIP:
Open data up to the community whenever possible.

CASE STUDY: Open data is the way forward, as it is the most dependable way to test the successes and failures of models, programs and research. The National Institute of Standards and Technology is working toward the goal of disseminating open data practices across government and industry.

Tip #7

Leverage Partnerships

Federal Data Strategy Practice No. 36: “Create and sustain partnerships that facilitate innovation with commercial, academic, and other partners to advance agency mission and maximize economic opportunities, intellectual value, and the public good.”

TIP: Look for win-wins by reaching out to partners with similar interests.

CASE STUDY: The Veterans Affairs Department found its solution for processing paper disability forms by looking to a cross-agency innovation program in government. Programs to help the public sector exist everywhere, so keep an eye out for a grant or partnership that might suit your interest.

$65 billion is how much state governments spend annually on higher education, the third-highest category.
The Value of Self-Service Analytics

The President's Management Agenda highlights “leveraging data as a strategic asset” as a cross-agency priority goal. Two converging trends support this goal: the increased recognition of the value of data and the evolution of advanced and easier-to-deploy analytic platforms. In this sense, the democratization of data analytics has enabled employees to produce more value without having to know how to code or rely on the capabilities of classically trained data scientists.

Alteryx provides organizations with the ability to catalog, consume, prep and blend data, and leverage predictive models that can be templatized, created, shared and governed. The Alteryx platform is built to support the collaboration and consumption of insight within a code-free or code-friendly environment, and its flexibility welcomes a variety of data sources.

“The advent of self-service analytics is an important part of the conversation as well, because as you start thinking about self-service analytics, what it did was put more data or more capabilities in the hands of the average everyday user.”
- Sean Brophy, Vice President of Public Sector, Alteryx
Conclusion

Math might not have been your class, OK. But data isn’t just math; it’s far more.

Data can be an objective measure of success. Data can predict and foreshadow trends imperceptible to human senses. Data can power the inventions of tomorrow.

Data does all of this. And increasingly, it’s a central component to daily life and weekday work, because numbers are telling stories. And those who are listening are excelling in the public sector and beyond.
Thank you to Alteryx for their support of this valuable resource for public sector professionals.