The passage of the Digital Accountability and Transparency Act (DATA Act) in 2014 established a mandate for our government to make federal spending data more accessible, searchable, and reliable, in part, by standardizing and publishing granular information about federal spending – approximately $3.8 trillion annually or roughly 20% of gross domestic products (GDP). In May of 2017, the federal government will begin aggregating and disseminating information about its spending lifecycle, which will connect appropriations, awards and outlay information for the first time. These new connected data sets will provide the public, the media and oversight bodies with a necessary foundation for understanding how our government allocates and uses taxpayer dollars. Data standardization and transparency policies are important building blocks for agency leaders and public stakeholders to assess performance, but getting the data is just the beginning. Gaining insight into the economic value that is created from federal resource allocations and understanding the benefits and impacts of the programs of our government requires the development and use of analytical frameworks, an understanding of financial performance in the context of mission and strategic outcomes, and people who are equipped to assess performance. As our federal government puts this new information infrastructure in place to enhance transparency about resource allocation and use, now is the time to look holistically at what it will take to leverage that information to effectively assess performance and value creation across our economy.

The Foundation – Data Standardization

Over the past two decades, there have been important initiatives in the private sector and in government to standardize financial information and to make it machine-readable and easier to share. In the private sector (primarily), the development of the eXtensible Business Reporting Language (XBRL) and the creation of the U.S. GAAP XBRL taxonomy established standards for more efficient sharing of information about publicly-held companies. These improvements support consistency and automation enabling investors to more effectively analyze companies and, consequently, to make better capital investment decisions, while also helping regulators to more easily identify bad actors. For government, pursuant to the DATA Act, the U.S. Department of the Treasury (Treasury) has spent much of the past two years establishing data standards to improve the quality of federal spending data and creating a standard data exchange framework to facilitate the sharing and presentation of this data in machine-readable formats via sites such as USASpending.gov. The DATA Act implementation aims to improve the accessibility and utility of federal spending data. In the private sector and in government, data standards were required to ensure quality and comparability and to make more automation possible while achieving the desired levels of transparency. Further, in both instances, making data more portable required standardizing definitions of concepts and developing standard electronic frameworks for sharing the data sets. Sharing of data under standardized reporting frameworks results in higher quality data and provides the opportunity for automation of validation, such as confirming the consistency of spending data coming from financial and procurement lines of business, and analytical tasks, such as comparing funds obligated to budget appropriations without manual workarounds.
The motivations for these data standardization initiatives were different in the private sector than in the government. However, the insights and best practices from each initiative should help us continually enhance how we build our capacity to assess the impact and performance of investments across our economy – and our capacity to demonstrate stewardship. Standardized financial data and data sharing are vital in the private sector to facilitate capital investment decisions, to compare performance relative to peers, and to meet legal requirements. The public sector needs financial data standardization and transparency to meet expectations for accountability from the public and oversight bodies and to communicate the value created and sustained by the government.

Linking Government Financials to Mission Fulfillment

Historically, the use of government spending information to assess return or value creation has been very limited. Federal outlays are seen as critical to the execution of the mission of our government to protect and serve our nation. The spending is also at a scale and complexity that makes it challenging to dig deep into analysis of performance. In recent years, the government has initiated programs to require agency reporting and analysis of their performance relative to their mission and objectives. Performance.gov publishes reports from agencies about how they are doing against key performance goals and objectives tied to their strategic priorities. However, financial information has historically played a comparatively small role in government analysis of performance. When federal agencies assess performance, the primary focus is on process and internal execution – not financial return or value creation of those activities.

Furthermore, the federal spending and performance lifecycle involves more than a single entity. The chart below illustrates the various stages of the federal spending lifecycle from appropriation through payment. The performance lifecycle begins once the federal contract or grant award is made to the prime recipients, who could then make further awards to sub-recipients. Currently, a significant portion of federal spending is awarded to entities outside of the federal government (e.g., state, local, non-profit, foreign entities, and contractors) for the performance of various mission-related activities. As a result, the output (e.g., program delivery and results) is generated outside of the federal government. To tell a comprehensive business story of federal government spending and performance requires effectively linking information from across all of these entities that are part of the lifecycle. With the DATA Act, the federal government is required to make data more reliable, available and accessible so that it can better reflect accountability, outcomes, and use of resources. To this end, Treasury developed a DATA Act Information Model Schema (DAIMS) that links agency financial data with other spending data on federal awards – including grants, loans, and procurement data (as well as other related attributes). This new data model includes over 400 data elements and significantly expands the data available to the public as well as the government. The DAIMS is also extensible and designed using industry best practices. As a result, the DAIMS could be the foundation for broader representations of data used throughout the spending and performance lifecycle.

**Spending and Performance Life Cycle**

![Spending and Performance Life Cycle Diagram](image-url)
Unlike the government sector, private sector spending and performance data are judged differently. Public companies are judged by markets largely on their capacity to generate financial return and to create future value. Companies are transparent about financial performance to attract capital. In the past in the non-profit sector, organizations were judged largely by how little they spend on administrative overhead to fulfill a very specific mission. However, the non-profit sector has also moved toward a more integrated approach to performance reporting as major foundations expectations for measured outcomes increases. In the government today, agencies are assessed primarily on mission fulfillment and not on financial performance. The private and not-for-profit sectors can do more to quantify mission fulfillment and communicate a more holistic view of their impact on society. On the other hand, the federal government can certainly do more to tie its mission impact back to fundamental financial performance measures. With the advent of granular spending data and the reality of constrained budgets, the public is likely to do more of its own analysis of impact with the expectation that government agencies quantify and explain their impact in financial terms and against their mission.

Advancing Along the Standardization Spectrum – Analytics

Our financial markets have mature standardized ratios and metrics that are used to assess the financial performance of investment-grade companies. Terms like “total shareholder value,” “discounted cash flows,” “return on investment,” and “return on equity” are frequently used by shareholders and other stakeholders of public companies. In other parts of our economy that are not focused on returning cash to shareholders, we have less established norms around metrics for assessing performance. It's not that we lack any measures of financial health. Economists look at GDP growth statistics and ratios like debt-to-GDP, but they provide a very macro perspective and do not provide perspective on the specific impacts of federal agencies and programs. According to Treasury's Fiscal Year 2016 Financial Report of the United States Government, “the debt-to-GDP ratio was 77 percent at the end of FY 2016.” This enables us to compare the U.S.’s leverage to that of other nations, but it does not allow us to assess individual agency or program health. Further, federal agencies produce financial reports and performance information annually, which impacts the timeliness of information as the year goes on. There are opportunities to improve the connections between resource allocation and outcomes in those reports and to address the timeframe in which financial and performance information is made available to the public.

We would expect to see different methods for assessing performance across different economic sectors, given the very different expectations for return. However, there are best practices from each sector that should be applied to promote more effective stewardship of resources. The standardization of government data sets and increased availability of more meaningful information about the strategic objectives of federal agencies is creating new opportunities to take a more analytical look at the performance of government capital allocation. Taking advantage of those opportunities will enable the government sector to leverage some of the analytical best practices used frequently in the private sector.

Building Organizations to Use Data in Decision-Making

In addition to standardized measures for analytics, it is important to have organizational structures and processes that tie together operations and decision-making so that agency leaders are using data to drive the strategic decisions they are making. In parallel to the DATA Act implementation, Treasury has developed a Financial Maturity Model (see below) that can be applied to help federal agencies assess their connections between budget and accounting processes and leadership decision-making. This framework outlines what is required to connect organizational planning and mission execution with financial operations, controls, analytics and communications. Adopting this framework will enable agencies to understand the gaps and opportunities in their current organization that are preventing them from understanding and communicating their impact for both mission execution and financial performance.
Decision-making still requires the judgement and perspective of people. Inside and outside of government, executives need to be able to trust the financial and performance analysis that they receive and the underlying data. In the private sector, certified public accountants (CPAs) and chartered global management accountants (CGMA) handle accounting, auditing and financial reporting functions. There are also certifications for financial analysts (CFA) and financial planners (CFP). There are communities of people who are trained and certified in skills that exhibit their understanding of the data and the rationale for the measures that our capital markets use to assess value and financial performance as well as the math behind the measures. Finance and accounting professionals, particularly in government, have the opportunity to enhance their value moving from financial and regulatory controls functions into data management and analytics roles driving integrated thinking as “Strategic Advisors.” Analysts and planners are essential in making sense of data for leadership decision-making and to communicate the impact of the enterprise on its mission. Similarly, with the increased availability of more sophisticated data, the government will need strong expertise, such as financial analysts and planners, to reach beyond the traditional budgeting, accounting, and internal controls functions and leverage these new resources to support more effective decision-making and management infrastructure.

Summary

In the public and private sectors, we have the talent and standard practices to provide consistent accounting and auditing functions. New policies, like those implemented pursuant to the DATA Act, and the development of “performance.gov” and “usaspending.gov” are increasing the availability and accessibility of information about government performance. The demand for more immediate sharing of financial data is increasing across economic sectors and there are maturing data standards, such as the DAIMS, that will enable us to share financial data more effectively. Our capital markets have matured approaches for analyzing financial performance and assessing value. Our government agencies have not been focused on tying financial data to outcomes, but that is changing. As the expectations for our budget-constrained government evolve, there will be more demand for standard financial analytics requiring both metrics and people who are trained in financial analysis and planning. Government performance cannot be assessed solely based on financials without also reviewing mission execution. Understanding the financial picture alone is no longer sufficient to communicate how an entity creates value. It requires an understanding of mission, data standards, policies for sharing, norms for analysis, and people. Such a holistic approach will yield sustainable benefits for all consumers of information, both inside and outside the organization.
Authors Bios

Christina Ho is the Deputy Assistant Secretary (DAS) for Accounting Policy and Financial Transparency at the US Treasury Department (Treasury). Her office is responsible for leading the development, implementation, and enforcement of accounting policies governing federal financial activities and promoting innovation in federal financial management. She is responsible for implementing the DATA Act of 2014 with the goal to track $3.8 trillion dollars in annual spending and link data from budget, accounting, procurement and financial assistance into one common format that allows for comparability across government. She also represents Treasury on the Federal Accounting Standards Advisory Board (FASAB). Prior to her appointment as DAS, Christina held other leadership positions at Treasury and was a senior manager at Deloitte & Touche, LLP.

Bryce Pippert is a Vice President at Booz Allen Hamilton. He works with clients to create value and gain efficiency through better use of data, analytics, and automation. Bryce has led teams supporting commercial and government clients in the analysis, strategy, planning and implementation of major organizational, process and systems modernizations. Bryce is on the Board of Directors of the Data Coalition and the Data Foundation. He is also an Advisor to the Center for Open Data Enterprise. Prior to Booz Allen, Bryce served in various leadership capacities for UBmatrix, Inc. (now part of Donnelley Financial Solutions (NYSE: DFIN)) and as CEO of XBRL Solutions, Inc. Bryce has a B.A. in Philosophy and Political Science from Wheaton College and an M.B.A. from Columbia Business School.