



July 8, 2019

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White House Office of Management and Budget
Federal Data Strategy Development Team

RE: Federal Data Strategy Year-1 Action Plan

We appreciate the opportunity to provide input to the Federal Data Strategy (Strategy) Year-1 Action Plan. We strongly support the goals of the Strategy to *“Leverage data as a strategic asset to grow the economy, increase the effectiveness of the Federal Government, facilitate oversight, and promote transparency.”*

XBRL US is a nonprofit standards organization, with a mission to improve the efficiency and quality of reporting in the U.S. by promoting the adoption of business reporting standards. XBRL US is a jurisdiction of XBRL International, the nonprofit consortium responsible for developing and maintaining the technical specification for XBRL (a free and open data standard widely used around the world for reporting by public and private companies, as well as government agencies). XBRL US members include accounting firms, public companies, software, data and service providers, as well as other nonprofits and standards organizations.

The Data.gov website, which is hosted and maintained by the U.S. General Services Administration, today contains over 200,000 datasets, from over 10 million sources. Successfully harnessing this vast amount of data is a big and important task, and requires significant upfront planning and investment, not just from federal agencies but from the numerous reporting entities, including public or private companies, financial institutions, and state and local governments. That’s why the Year-1 Action Plan is so critical.

Standards as the Infrastructure for the Federal Data Strategy

To attain the long-term vision of the Federal Data Strategy to better govern and leverage government data, requires developing and implementing a single cross-agency data standard that can accommodate financial data.

A single data standard for financial information, used across one or many data repositories to house the data, will align government reporting, so that entities submit data to government agencies using the same standardized approach to data preparation. Facts reported in the appropriate data standard, can be rendered machine-readable, consistent, clearly defined, and agreed upon, by all members of the supply chain. As a result, reported data can be automatically consumed and used, and is unambiguous to the preparer, regulators, and other users of the data.

The use of a single data standard (not a software application!) encourages market collaboration, because a data standard can be incorporated into **numerous** software tools for data preparation, collection, and analysis. Greater market collaboration, in turn, spurs increased competition, which lowers the cost to create, collect, and analyze data.

Leveraging a single data standard allows the government to respond rapidly to changes in technology, as the standard can adapt to new technologies (while a software tool will not); adopting a standards approach also makes it easier for agencies to make periodic changes in reporting requirements.

Proof that Investing in Standards Pays Off

Establishing a good quality data standards program requires an initial investment in funding and resources, and in helping agencies and preparers move up the learning curve. But the investment is rapidly paid off with recurring, long-term savings from reductions in processing costs, and in better quality, more granular and timely data. Any other approach may be less intrusive and cheaper in the short-term, but will **not** result in long-term efficiency and savings.

Government-wide data standards have been successfully implemented in Australia¹, and the Netherlands², where it has reduced unnecessary spending by government and business on data collection, processing and analysis; and has reduced duplicative reporting. Australia's latest annual report for 2017-2018³, estimated \$1.45 billion in annual (recurring) savings in a program that implements XBRL standards called Standard Business Reporting (SBR). This program can be similarly effective in the United States, and result in substantial benefits for the American economy, including greater transparency, timeliness, and higher quality, more actionable data, for investment decisions, public policy setting, and identifying fraud and waste.

This letter responds to the questions raised in this Input Request, with a focus towards building the data standards infrastructure that will pave the way towards reaching the stated goals of the Federal Data Strategy.

1. Identify additional actions needed to implement the Federal Data Strategy that are not included in this draft Action Plan and explain why.

The stated priority of the Year-1 Action Plan is to “establish a firm basis of tools, processes, and capacities to leverage data as a strategic asset and align existing efforts.” We believe the following additional actions are necessary to meet this priority in Year-1:

Proposed Action 1: Develop a roadmap describing 1) the sources and uses of data by each government agency, including detailed information surrounding data type, frequency, data labels and definitions, authoritative sources, reporting entities, submission mechanism, receiving

¹ Australia SBR: <https://www.sbr.gov.au/>

² Dutch SBR: <https://www.sbr-nl.nl/sbr-international>

³ Australian Taxation Authority Annual Report 2017-2018:

https://www.ato.gov.au/uploadedFiles/Content/CR/Downloads/Annual_Report_2017-18/annual%20report%202017-18.PDF

agency, end users of the data, and how the data is put to use; 2) an evaluation of what data standards are already being used by public agencies, how widely the standards are used, why they are used, and what they are designed to do; and 3) what identifiers may be needed across agencies, for example, identifiers for products, industries, reporting entities, securities. Every agency needs ways to identify items. Consistent, comparable identifiers, implemented across all agency datasets, would vastly improve the ability to track and compare information, and would improve reporting and collection efficiencies.

The information gathered in building the roadmap will be used to ensure that resulting datasets are interoperable, and can be efficiently extracted and consumed. The roadmap will serve as the basis for the creation of a comprehensive core taxonomy (digital dictionary of terms) that can be used by all agencies. Agencies will be able to layer on top of the core taxonomy, additional elements needed for reporting situations that are unique to the organizations reporting to an individual agency.

Establishing the roadmap upfront will provide an in-depth understanding of federal data needs and uses, which can be used throughout the Federal Data Strategy going forward.

Proposed Action 2: Adopt the XBRL standard for financial data. While XBRL is not the most appropriate standard for certain types of data, for example, geospatial data, it is the only standard able to handle the complexities of financial data; and it can also manage many other data types, for example, other numeric data, percent, per share, text (string), date, boolean, area, energy, power, etc. The XBRL standard can be combined with other data standards that may already be in use by federal agencies. For example, XBRL is used today with standards including US GAAP, the FDIC (Federal Deposit Insurance Corporation) call report financial standards, IFRS (International Financial Reporting Standards), IECRE (IEC Certification for Renewable Energy), GLIEF (Global LEI Foundation) for Legal Entity Identifiers, and many other standards around the world.

XBRL is an open, freely available, widely and internationally used standard that is designed to evolve with changing reporting needs and advances in technology. XBRL is supported by an international standards body (XBRL International) which maintains technical working groups to continuously build on the spec and support implementation. It is used in 60 countries and has been adopted by over 100 regulators, including US regulators such as the Federal Deposit Insurance Corporation, the Securities Exchange Commission, the Department of Energy, and the Federal Energy Regulatory Commission.

Proposed Action for Year 2

Separately, we would like to propose an Action to be taken in Year 2 of the Federal Data Strategy, which builds on our Year-1 Proposed Actions 1 and 2. We believe that it will take 12 months to complete the thorough investigation required to build the roadmap. This is a critical step that will provide the core of a successful long-term data framework. Once that step is completed, we propose the following:

Proposed Action 3: Build the first release of the core taxonomy that contains elements used across the board by all agencies, for example, common identifiers, financial content such as revenues and costs. Provide agencies with the infrastructure to build on the core taxonomy to add extension taxonomies to represent elements that may be unique to each agency. Provide agencies with a framework to create their own repositories to house the data that is reported to them. With all financial data in a single standard, extracting information from each of the agency repositories can be performed in the same way, relying on the same tools. This ensures that the cost of data collection is low.

2. Identify additional actions that would align with or complement ongoing Federal data initiatives or the implementation of new legislation, such as the Foundations for Evidencebased Policy Making Act of 2018 and explain why.

Leverage XBRL data standards in support of the Grants Reporting Efficiency and Transparency (GREAT) Act. Grantees are required to provide financial statements as part of their Single Audit reporting packages. The XBRL standard was specifically designed for financial statements. Thousands of state and local government grantees also produce Comprehensive Annual Financial Reports (CAFR) which include the same financial statements found in the Single Audit reporting package. Standards created could accommodate both CAFR and Single Audit requirements, streamlining reporting work on the part of grantees. Federal oversight agencies will benefit by having standardized grantee financial statistics enabling them to more readily perform risk analysis on these entities.

The State of Florida has already mandated the use of XBRL for state and local financial reporting (House Bill 1073⁴). The State of California has pending legislation (Senate Bill 598⁵) that looks to the adoption of XBRL data standards. Incorporating these standards into the GREAT Act requirements would substantially ease the path for the state governments that are moving in this direction.

4. For each action, provide any edits and additional detail to ensure that they accurately and effectively describe needed activities, responsible entities, metrics for assessing progress, and timelines for completion.

Action 1: Create an OMB Data Council. To support the OMB Data Council, we suggest establishing a commission representing private sector data users, reporting entities, data standards experts, and software providers. This commission would be tasked with providing input to the development process. Government data is critically important not just to government, but to the private sector as well, to aid in decisions about business plans, investing, and for citizens to understand how and why their tax dollars are spent. Input from a private sector commission would help the council incorporate the latest technologies, identify potential problems with data use, and test out changes early in the process. This commission would provide these audiences

⁴ Florida Open Financial Statements System: <http://www.flsenate.gov/Session/Bill/2018/1073/BillText/er/PDF>

⁵ Open Financial Statements Act: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201920200SB598

a seat at the table, and ensure that the appropriate stakeholders are engaged, in building and implementing the best possible standards.

Action 2: Develop a Curated Data Science Training and Credentialing Catalog. The Action plan should include training on data standards, what they are, how they work, why they are used, and how to implement them successfully to obtain the desired results. All training, for general data science and for standards development, must be consistent so that all staff take the same approach, and adopt the same practices in their work.

Action 11: Improve Geospatial Data Standards. Ensure that only a single data standard be used for all geospatial data.

5. For each action, provide information about the implementation resources necessary to ensure success of these action steps.

Action 5: Develop a Repository of Federal Data Strategy Resources and Tools. Include the use of APIs. XBRL US has developed freely available APIs that can extract and query any kind of XBRL-formatted data (<https://xbrl.us/xbrl-api/>), which could be used to support the program.

Include in the repository: 1) guidance about how to comply with the standards, for example, what tools are available to create, extract, and analyze data (both open source and commercial), and 2) automated validation rules that can be used when preparing and/or when consuming the data to identify and help resolve errors, to ensure data quality and consistency. Individual agencies can incorporate their own validation (business) rules.

Action 7: Pilot an Automated Inventory Tool for Data.gov, and Action 8: Pilot Standard Data Catalogs for Data.gov. We support the goal of establishing a single consistent method to catalog, and inventory, data collected by government. To do so accurately and efficiently however, requires making the initial investment in developing the roadmap (Proposed Action 1) noted earlier in this letter. Developing the roadmap will require some level of manual investigation and review to accurately identify and record the metadata associated with existing reported data. Once that information is determined however, data collection, extraction, and use can be completely automated, as all members of the supply chain can be confident that there is consensus on the meaning of the data. XBRL data can be reported in multiple formats (XML, JSON, CSV, HTML), therefore most software applications used today by regulators, investors and other consumers, can automatically consume and work with the data reported, with complete confidence that they fully understand the meaning of the data received.

The core taxonomy and the agency-built extension taxonomies will have the structure to consistently identify the metadata associated with a reported value - metadata that must be known in order to accurately understand the meaning of the fact. The taxonomy also serves as a “single source”, informing government and business what data is required to be reported. The core taxonomy and the agency taxonomies combined, becomes the data catalog.

When reporting requirements change, government agencies revise the taxonomy; businesses identify changes in reporting requirements when they access the taxonomy to prepare their disclosures.

With this data standard framework in place, *cataloging what type of data is reported*, and *maintaining an inventory of the amount of data reported*, will be efficient, accurate, and cost-effective.

Action 13: Assess Data and Related Infrastructure Maturity. This action should be expanded upon in support of our Proposed Action 1: Developing a roadmap of all government data collected, described earlier in this letter. The assessment will serve as the basis for developing a good quality taxonomy. In addition, while conducting an assessment of the technology infrastructure in place at various agencies, software providers must be engaged to begin adapting their applications to work with the taxonomy, per Proposed Action 3 (Year 2). This will ensure that agencies can continue to work with existing providers and their software applications, if they so choose, after the standards program is in place, thus minimizing the burden on agencies, data users, and reporting entities.

Action 9: Improve Data Resources for AI Research and Development. Artificial Intelligence, specifically machine learning, can be a useful tool to detect patterns in large volumes of data. AI can be used to detect fraudulent activities by checking for anomalies; and to identify trends that could aid in setting policy. But machine learning demands the availability of high volume, consistent, clearly defined data. This can only be accomplished by using standardized data.

We recommend coordinating Action 9 with our Proposed Action 1 (create a roadmap of data reported) and Proposed Action 3 (build a taxonomy). As the data standards are defined, potential AI programs can be identified that require the support of large volumes of data. Gauging these needs (use cases) upfront will be important in the design of the core taxonomy.

For Action 10: Improve Financial Management Data Standards. We support the goals of this action, to reduce cash lost through incorrect payments when using federal funds, improve efficiencies in the use of grants money, and streamline the budgeting, disbursement, monitoring and benchmarking of government spending.

These goals cannot be met, however, without establishing consistent data standards and implementing them throughout business and government reporting. Our Proposed Action 1, to create a roadmap to identify business to government data reported, and Proposed Actions 2 and 3 (Year 2), building a core XBRL taxonomy to reflect the reported data, will provide a framework for creating good working data standards, and are necessary to accomplish the Strategy's Action 10.

We also recommend expanding the requirements related to grants reporting to include the basic financial statements (CAFR), as noted earlier under question 2 in this letter.

Action 15: Identify Data Needs to Answer Key Agency Questions, and Action 16: Identify Priority Datasets for Agency Open Data Plans. As data needs are assessed, both to respond to key agency questions and to identify priority datasets, these data requirements should be included in the roadmap and the taxonomy as discussed in our Proposed Actions.

Conclusion

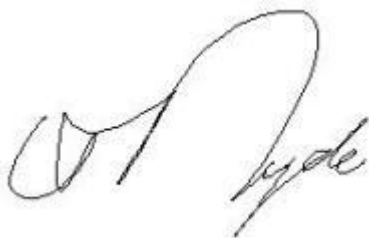
We appreciate the opportunity to provide input to the Federal Data Strategy. We believe that standards are the most appropriate and effective means to achieve the goals of the Strategy. The use of consistent, free, open data standards provides a framework to improve efficiencies, reduce costs, and increase the ability of data users to make better decisions. Data standards leverage the competitive marketplace so that the cost of implementation, and the ultimate savings and benefits, are shared across both business and government.

Just as importantly, a data standards approach is a long-term solution. It allows the flexibility to adapt to new technologies and changes in reporting requirements with minimal disruption to regulators, preparers and data users. Adopting data standards does not lock the government into a single application, technology, or set of reporting requirements.

Please contact me to discuss our recommendations or if I can respond to any questions you may have.

We would be happy to discuss our comment, or respond to any questions you may have. I can be reached at (917) 582-6159 or email Campbell.Pryde@xbrl.us.

Sincerely,

A handwritten signature in black ink, appearing to read 'Campbell Pryde', is positioned above the typed name and title.

Campbell Pryde
President and CEO