January 15, 2019

Office of Management and Budget
725 17th St., NW
Washington, DC 20503

To Whom It May Concern:

RE: Feedback on the Federal Grants Management Data Standards - General

On behalf of XBRL US and its members, I am writing in response to the Office of Management and Budget's (OMB) request for feedback on the Federal Grants Management Data Standards. In addition to this letter, which provides our recommendation on OMB's approach to building data standards for grants management, we have also submitted feedback on the individual data standards.

We applaud OMB's goal as stated in the President's Management Agenda to: "Maximize the value of grant funding by applying a risk-based, data-driven framework that balances compliance requirements with demonstrating successful results for the American taxpayer."[1]

A well-structured and executed data standards program can help OMB reach this goal. When implemented correctly, standards result in automation, and establish stakeholder consensus on definitions and attributes of reported values. The benefits of well-executed standards programs are greater timeliness and accuracy of reported data, and reduced costs for all stakeholders, from data preparers to intermediaries to consumers.

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 and government 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, and other nonprofits and standards organizations.

XBRL US has extensive experience building successful data standards for U.S. government agencies, as well as industry groups. Under contract to the Securities and Exchange Commission (SEC), we built taxonomies and implemented programs for public companies[2], credit rating

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[1] CAP Goal Action Plan, December 2018, https://www.performance.gov/CAP/action_plans/FY2018_Q4_Results-Oriented_Accountability_for_Grants.pdf

[2] SEC final rule for public companies reporting in XBRL, 2009: https://www.sec.gov/rules/final/2009/33-9002.pdf

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agencies[3], and mutual funds[4]. We have built data standards in the surety industry[5], corporate actions[6], and in the financing of solar plants, the latter through a partnership with the U.S. Department of Energy (Orange Button initiative)[7]. We have many years of experience in building well-executed standards programs that result in the desired outcomes of reducing cost and improving efficiency in data reporting, collection and analysis. Based on our knowledge and experience with developing effective standards implementation, we believe the following recommendation will result in a successful Federal Grants Management Data Standards program.

Adopt a single, widely used, nonproprietary, open data standard that can easily adapt to changes in technology and changes in reporting requirements, with minimal marketplace disruption, and that can appropriately handle the complexities of all data types required to be reported.

In addition, we recommend that OMB add financial data standards for government and non-profit reporting entities to reach the CAP Group's Strategy 3, 'Manage Risks', which identifies financial risk as a potential cause of poor grantee performance.

Review of Federal Grants Management Data Standards

The elements in the Federal Grants Management Draft Data Standards include multiple data types such as text, monetary, boolean, integer, and enumerated lists. The table below provides a rough break-down of the data types that need to be supported by the standard adopted. The majority of the 426 data standards (53%) are string elements, used to identify descriptions, titles, and contact information, such as names, email and postal addresses.

The second most common data type will require a data type that handles enumerated lists - the reported values identified would be selected from a finite set of options. In the example shown on the table below, the preparer would select from "Original" or "Revised". The benefit of using an enumerated list with a finite set of options is that data that is reported will be consistent from one reporting entity to another. Consistency improves the ability to compare reporting entities and to understand reported facts. Boolean standards, those that are reported with a value of either "true" or "false", are the third most common data type. In the example on the table below, a value of "false" would indicate that the grant recipient is **not** permitted to undergo audits biennially.

The fourth most common data element has a data type of monetary (financial). Monetary elements require the consumer of the data to understand certain attributes of the value including time period, scale, currency, label, and definition. Monetary elements may also have dimensional characteristics, for example, a breakdown by business segment, or geography. A few data

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[3] SEC final rule for NRSROs, 2009: https://www.sec.gov/rules/final/2009/34-59342.pdf

[4] SEC final rule for mutual funds, 2009: https://www.sec.gov/rules/final/2009/33-9006.pdf

[5] XBRL US surety program: https://xbrl.us/home/industries/surety/

[6] XBRL US corporate actions: https://xbrl.us/home/industries/corporate-actions/

[7] Department of Energy Orange Button program, 2018: https://www.energy.gov/eere/solar/orange-button-solar-bankability-data-advance-transactions-and-access-sb-data

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standards require integer data types, and there are additional data types such as percentages, and dates in the remaining data standards.

Data Type	Example	Percent
String/text	Data Element Number 400: A description of the activities and actions imposed on the grant recipient due to lack of response to a request for additional information pertaining to their single audit.	53%
Enumerated lists	Data Element Number 426: A code denoting the version of the grant recipient audit package that is being submitted. For example, Original or Revised.	26%
Boolean	Data Element Number 414: An indicator denoting that the grant recipient is permitted to undergo audits biennially.	8%
Monetary	Data Element Number 243: An estimated allowable amount of the liabilities incurred but not reported or collected by the award recipient as of the reporting date.	5%
Identifier	Data Element Number 194: An unique ID within the Federal agency for each (non-aggregate) Federal financial assistance award (FAIN).	3%
Integer	Data Element Number 361: A value indicating the number of months for the grant recipient audit period.	2%
Other (schedule, date, percent, GPS)	Data Element Number 155: A percent applied to the base value to determine the portion of the total grant project costs that are paid by Federal funds.	3%

Three of the data standards would be best handled as tables, comprised of a combination of monetary, string and integer data types:

- Data Element Number 132: A list of all current and pending support for the Project Director/Principal Investigator for ongoing projects and pending applications for an award, including the total award amount for the entire award period (including indirect costs), as well as the number of person-months per year to be devoted to the project by the senior/key person, regardless of source of support.
- Data Element Number 173: A schedule of award advance payments, including a schedule of interest charged on advance payments.
- Data Element Number 303: A set of results from the financial review of the Federal program.

Reporting these data fields as blocks of text would minimize the value of the information reported. Identifying the amounts, dates and figures within each of these tables would be vastly preferable as it would result in more granular, actionable data that can be automatically consumed and used, eliminating the need for manual data entry and vetting.

Our recommendations will give OMB the tools to attain the goals/opportunity of the President's Management Agenda as described in the CAP Goal Action Plan:

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"Standardize the grants management business process and identify, open, standardize, and link data. Use standard business process and data to identify opportunities to build shared solutions that reduce burden and improve the user experience. Leverage data, including data produced by annual audits, to assess and manage recipient risk. Hold recipients accountable for good performance practices that supports achievement of program goals and objectives and streamline burdensome compliance requirements for those that demonstrate results."[8]

Below is the rationale behind our recommendations:

Recommendation 1: select a single data standard that is appropriate for all the data (and data types).

The Federal Grants Management Draft Data Standards include multiple data types. The data standard chosen must effectively and unambiguously convey all of these data types, and must render them into machine-readable format.

The XBRL standard is appropriate for the reporting needs of the Federal Grants Management Data Standards. An effective XBRL implementation will allow OMB to its objectives for the following reasons:

XBRL unambiguously handles all the required data types.

XBRL is used for many successful programs around the world that require the reporting of multiple data types. For example, public companies report data to the Securities and Exchange Commission (SEC) every quarter in their periodic filings. A single 10-K or 10-Q typically contains data that is monetary, text (footnotes), integer, boolean, date, and identifier. All of these data types are seamlessly handled by the XBRL standard.
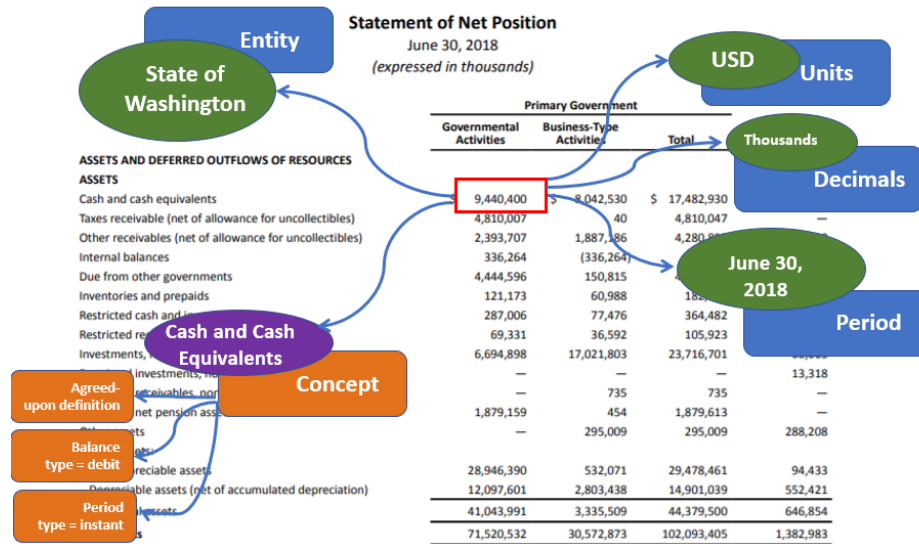
XBRL is the only standard that can manage financial data.

Financial data is complex. To understand the meaning of a reported value, consider the number below.

<div align="center">

9440000

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On its own, that number has no meaning. But when it is considered in the context of a report like the Statement of Net Position depicted below, a reader can visually interpret the meaning of the data by reading the columns and rows - that meaning is visually depicted in the purple and green bubbles on the diagram: the name of the reported value (Cash and Cash Equivalents) with associated definition, balance type and period type, name of the reporting entity, units (US dollars), the level of precision, and time period.

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[8] CAP Goal Action Plan, December 2018, https://www.performance.gov/CAP/action_plans/FY2018_Q4_Results-Oriented_Accountability_for_Grants.pdf

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State of Washington — Statement of Net Position, June 30, 2018 (expressed in thousands) — annotated with XBRL concepts (Entity: State of Washington; Units: USD, Thousands, Decimals; Period: June 30, 2018; Concept: Cash and Cash Equivalents; Agreed-upon definition; Balance type = debit; Period type = instant).

The XBRL standard was developed to convey these characteristics of financial information efficiently and consistently. With XBRL, the value 9,440,000 can stand alone - all the metadata associated with it is embedded in the fact itself so that when a computer receives that value, it has a thorough understanding of all the characteristics that define the value. There is no other standard that can manage the features of financial data.

The use of a custom XML schema is often considered as an alternative to XBRL. XML, like XBRL, enables the tagging of data. But building a custom XML schema will require adding structure to accommodate the characteristics of reported data such as time periods, units, precision, data type, etc. *XBRL already has these characteristics built in.* Creating a custom XML schema to handle the kind of data included in this program would require creating a new version of XBRL. In addition, there are other drawbacks to custom schemas that are explained more fully later in this letter.

XBRL is a free, open, and nonproprietary standard.

Taxonomies built to support a standards implementation in XBRL are freely available. There are no licensing fees associated with the use of the XBRL technical standard. Some standards are not freely available. For example, DUNS numbers are standard methods of identifying entities, but there is a fee associated with the use and distribution of the DUNS number. Google sheets is a standard that is freely available but it, too, is a proprietary tool. Because it is built and maintained by a commercial entity, its ongoing development and use is subject to the inclinations and interests of the owner. The XBRL standard is maintained by a nonprofit standards organization that supports its ongoing use as a free and open standard, and works to develop and expand upon the standard based on the needs of the marketplace. XBRL US and XBRL International do not have commercial interests in the use of the standard.

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XBRL implementations are proven to successfully improve efficiencies (and reduce the cost) of government and business reporting.

XBRL today is widely used around the world for different types of implementations and in different regions as noted in the two tables below (data courtesy of XBRL International).

Number of XBRL Programs by Type of Implementation				
Financial Regulators	Business Registrars	Capital Markets (public companies)	Tax Regulator	Other
59	15	25	9	13

The European Securities Markets Authority (ESMA) has mandated the use of Inline XBRL for public companies in the U.K. and in every EU country. These companies are required to begin reporting their financials in Inline XBRL format, using the IFRS Taxonomy, starting in 2020. At that time, an additional 28 EU markets will come online so that the figure of 25 for Capital Markets programs will increase to 53.

Number of XBRL Programs by Regional Breakdown			
Asia/Oceania	Europe	Africa	Americas
37	67	3	12

Specific countries where XBRL programs reside include:
- public company reporting: South Korea, Mexico, Peru, Colombia, Chile, Israel, China, Japan, Taiwan, Canada, United Arab Emirates, Singapore
- private company reporting: the UK, India, Denmark, South Korea, Italy, Belgium, Germany
- banks: Peru, Panama, Chile, Belgium, France, Spain
- government reporting: the Netherlands, Australia

Programs for government reporting in the Netherlands and Australia, called Standard Business Reporting (SBR) have resulted in significant savings for both government and business. The Australian Tax Office claims $1 billion in savings per year[9] as a result of the greater efficiencies of their SBR program which was initiated in 2011.

XBRL standards can be easily modified to accommodate changes in reporting requirements.

Every year, 6,000 U.S. public companies and dozens of software providers (for tools that create, extract and analyze data) easily transition to a new release of the US GAAP Financial Reporting Taxonomy which may contain modifications due to changes in accounting standards, SEC

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[9] https://www.itnews.com.au/news/tax-office-claims-1-billion-in-savings-from-sbr-432460

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requirements, or industry changes. Banks, reporting to the FDIC, easily adapt to revised taxonomies on an even more frequent basis. The ability of the XBRL standard to adapt to modifications means that:

- The regulator (OMB), as the owner of the taxonomy, can generate a new taxonomy with revised reporting requirements easily, without the need for system changes or internal IT involvement.
- Software that prepares grantee reports, and the grantees themselves, can switch to the new taxonomy to obtain the latest reporting requirements, with minimal change to their software or existing reporting process.
- Database providers can easily add new reporting elements to their database structure and associate them with existing elements and reported data. Because each value "stands alone" and carries metadata with it, it is not necessary to change the structure of the underlying database.
- Data consumers experience no change in their extraction and analysis process with modifications to reporting requirements.

XBRL adapts to changing technologies.

The XBRL specification[10] is managed and supported by a global standards organization (XBRL International[11]) which has active technical working groups. These working groups revise and adapt the standard to meet changing technology needs in the marketplace, and to take advantage of new opportunities where they can improve on the standard. For example, the Inline XBRL technical standard, combines an HTML and XBRL document. It has the added benefit of being both human-readable and computer-readable. Inline XBRL was developed in 2011 and is now being used worldwide. Most recently it was accepted for use by U.S. public companies, and mutual funds. In Europe, the European Securities Markets Authority (ESMA)[12] has adopted Inline XBRL for all companies reporting in the EU and the UK. Compliance will be required in 2020.

XBRL International also initiated a program called the Open Information Model[13] to expand XBRL to accommodate new format technologies. JSON is an open standard file format introduced in the early 2000s that is commonly used. It is more lightweight and compact than XML. Today, XBRL documents can be defined in an XML, JSON, HTML (Inline XBRL), or CSV format, so that more software applications can easily work with XBRL content. As technologies change, the XBRL standard is well positioned to continuously adapt as new technologies become available going forward.

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[10] XBRL International specifications: https://specifications.xbrl.org/specifications.html

[11] XBRL International: https://xbrl.org

[12] ESMA adopts Inline XBRL: https://www.esma.europa.eu/press-news/esma-news/esma-proposes-new-digital-format-issuers%E2%80%99-financial-reporting

[13] XBRL-CSV and XBRL-JSON: https://www.xbrl.org/news/xbrl-csv-and-xbrl-json/

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<u>Because XBRL is a mature, widely used, global standard, standards implementation and maintenance costs are minimized.</u>

As noted above, the XBRL standard is widely used. This has the added benefit of building a competitive marketplace of applications to create, extract and analyze XBRL-formatted data. An application that is used to prepare XBRL data for US GAAP reporting, can also be used to prepare XBRL data for grants reporting, or bank call reporting, or reporting of tax information in the United Kingdom. The consistent structure of the XBRL standard makes this possible.

On the other hand, a standards implementation that relies on a custom XML schema requires providers of reporting software, database providers, and analytical tool providers, **to build completely new applications.** The diagram below illustrates this concept as it pertains to data collection. A regulator or database provider that is collecting data from programs that rely on custom XML schemas, as shown on the left side of the diagram (XML Program 1, 2, 3, 4) must build a custom data collection system for each one. But that same regulator or database provider that is collecting information from multiple XBRL programs, as shown on the right side of the diagram, can build a single data collection system, and extract data from all four programs (XBRL Programs 1, 2, 3, 4). **Collecting data from four custom XML programs will cost four times as much as collecting data from four XBRL programs.**
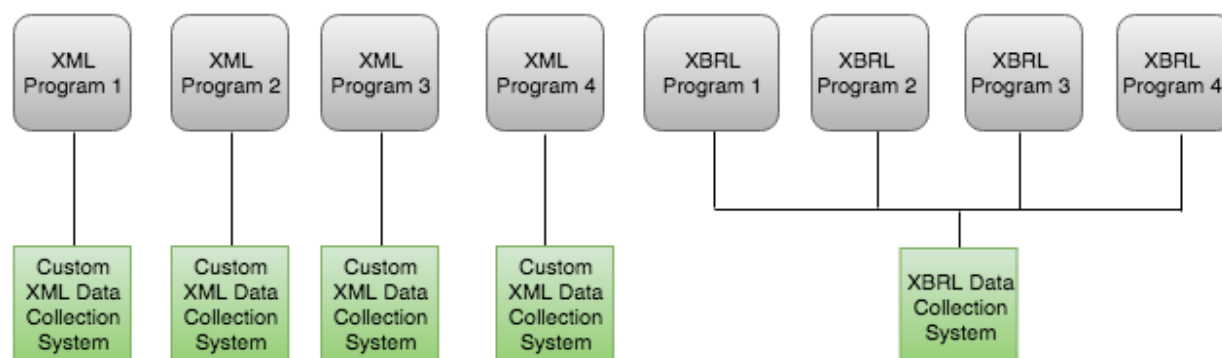
The same issue arises for preparers who rely on software providers for applications to create the data in standardized format. It is more costly for software providers who must build four separate applications for each custom XML program. A software provider that builds a single XBRL application can leverage that same application across all four XBRL programs.

The added cost of developing and maintaining tools and systems for separate custom XML programs is then typically passed on to the reporting entities (grantees) and to the users of the data (investors, analysts, regulators, public).

The commercial marketplace has expanded significantly since XBRL was first mandated by the SEC in 2009. In the U.S., there are dozens of tool and/or service providers offering XBRL creation products, as well as database and analytics offerings from new businesses. The availability of free, easily accessible XBRL data has spurred the development of startup companies, increasing

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the availability of good quality structured data to all investors, both institutions and individuals, and to other users.

Free, open source tools that work with XBRL content have also proliferated, such as Arelle, a widely used open source processor. XBRL US has developed the freely available XBRL API[14] standard which can be used to create, extract and analyze any XBRL-formatted data; XBRL US also has tools to build validation rules, and has established a comprehensive process for taxonomy building.

Recommendation 2: Proper evaluation of grantees and grants programs requires standardization of additional financial data.

Approximately 5% of the data standards included in the Federal Grants Management data standards are monetary, although values reported in the tables represented by Data Elements 132, 170, and 303 are also monetary and should be reported in an unambiguous, consistent manner. Reporting these tables as blocks of text would force data consumers to manually review the values reported in the table, eliminating the reduced cost and increased processing efficiency that standardizing individual reported values can bring.

Separately, to meet the OMB goals of establishing a risk-based, data-driven approach to managing Federal grants, will require creating data standards for more financial terms. The CAP Group's Strategy 3, 'Manage Risks', identifies financial risk as a potential cause of poor grantee performance.

Academic research finds that financial ratios derived from statistics in audited financial statements can help predict financial distress events such as bankruptcy and bond defaults. In addition to academic studies, state oversight agencies and practitioner groups have identified a variety of metrics that can be used to monitor local government financial performance and provide warning signals of a fiscal crisis that might necessitate state intervention.

Following is a sample of academic and practitioner literature on fiscal monitoring which was recommended by Marc Joffe of the Reason Foundation and is included in a separate comment letter submitted to OMB:

Name	Author / Journal (if applicable)	Year
Evaluating Financial Condition: A Handbook for Local Government	Karl Nollenberger, et. al. for the International City/County Management Association (ICMA)	2003
Fiscal Stress Monitoring System Manual - New York State	New York State Comptroller	2017

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[14] XBRL API standard: https://xbrl.us/home/use/xbrl-api/

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Local Governments and Fiscal Distress - Ohio	Ohio State Auditor	2018
Local Government Fiscal Distress Monitoring - Virginia	Virginia Auditor of Public Accounts	2018
Local Fiscal Distress - Measurement and Prediction	Evgenia Gorina, et. al., *Public Budgeting and Finance*	2017
State Fiscal Rankings	Eileen Norcoss, et. al, Mercatus Center,	2018
A Methodology for Measuring the Financial Vulnerability of Charitable Nonprofit Organizations	Howard Tuckman and Cyril Chang, *Nonprofit and Voluntary Sector Quarterly*	1991
Determinants of the recovery of financially distressed nonprofits	Elizabeth Searing, *Nonprofit Management and Leadership*	2018

Fiscal metrics identified in this literature can be used by federal oversight agencies for grantee risk analysis. To make such monitoring possible, these financial statistics will have to be provided in the form of fielded data elements rather than as text embedded in a PDF single audit package.

We thus recommend that the following data elements be added to the Grants Management Data Standards:

For Government Grantees

Governmentwide Cash and Cash Equivalents	General Fund Non-Spendable Fund Balance
Governmentwide Unrestricted Net Position	General Fund Restricted Fund Balance
Governmentwide Net Position	General Fund Committed Fund Balance
Governmentwide Long-Term Obligations	General Fund Assigned Fund Balance
Governmentwide Net Pension Liability	General Fund Unassigned Fund Balance
Discount Rate Used to Compute Net Pension Liability	General Fund Balance
Governmentwide Net OPEB Liability	Intergovernmental Revenue
Discount Rate Used to Compute Net OPEB Liability	Total Governmental Fund Revenues
Governmentwide Charges for Services	Total Governmental Fund Expenditures
Governmentwide Operating Grants and Contributions	Total Governmental Fund Non-Spendable Fund Balance
Governmentwide Capital Grants and Contributions	Total Governmental Fund Restricted Fund Balance
Governmentwide General Revenues	Total Governmental Fund Committed Fund Balance
Governmentwide Total Revenues	Total Governmental Fund Assigned Fund Balance
Governmentwide Total Expenses	Total Governmental Fund Unassigned Fund Balance
General Fund Revenues	Total Governmental Fund Balance
General Fund Expenditures	

For Non-Profit Grantees

Statement of Financial Position	Statement of Activities
Total Assets	Contribution Revenue
Total Liabilities	Grant Revenue
Unrestricted Net Assets	Program Service Revenue
Net Assets	Investment Income

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	Other Revenues Total Revenues Program Services Expenses Supporting Services Expenses Total Expenses Change in Net Assets

Including these additional data standards will require the use of a standard that can appropriately accommodate financial content.
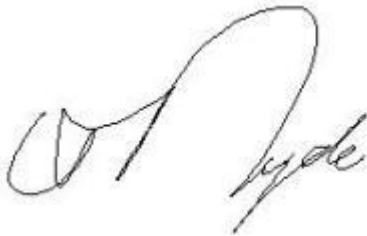
Conclusion

We appreciate the importance of the goals set out in the President's Management Agenda as it relates to grants programs and support OMB's efforts at establishing effective data standards. We know that building a successful program requires significant upfront planning, input from numerous stakeholders, patience and dedication. But the long-term results are significant in terms of dramatic cost reduction for grantees, improved timeliness, accuracy, and the ability to better evaluate individual grants programs.

The greater consistency brought about by using a single data standard, that appropriately accommodates the complexities of financial data, text, boolean elements, identifiers and other types of data, is critical to reaching these goals. We appreciate the opportunity to provide input to OMB's data standards development process.

Please feel free to contact me if you have any follow up questions or would like to discuss. I can be reached at (917) 582 - 6159 or campbell.pryde@xbrl.us.

Sincerely,

Campbell Pryde,
President and CEO, XBRL US, Inc.

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