



February 15, 2017

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The International Auditing and Assurance Standards Board (IAASB)'s Data Analytics Working Group (DAWG)

Reference: *Exploring the Growing Use of Technology in the Audit, with a Focus on Data Analytics*

Ladies and Gentlemen:

The American Institute of Certified Public Accountants ("AICPA") appreciates the opportunity to comment on the IAASB's request for input document entitled, *Exploring the Growing Use of Technology in the Audit, with a Focus on Data Analytics*. The AICPA supports the IAASB's efforts to promote the growing use of data analytics and related technology advancements in the financial statement audit, and is pleased to offer input as requested.

The AICPA is the world's largest member association representing the accounting profession, with more than 418,000 members in 143 countries, and a history of serving the public interest since 1887. AICPA members represent many areas of practice, including business and industry, public practice, government, education and consulting.

With significant advancements in technology and the vast amounts of readily available data, this request for input touches upon many of the issues that auditors face today in implementing data analytics in the audit, and the steps that the profession needs to take in order to progress with the changing times. The use of data analytics in the audit offers many benefits, and also provides auditors an opportunity to enhance the traditional financial statement audit. The AICPA is in support of the key themes found in the request for input, including the following areas.

Data Analytics and the Financial Statement Audit

A joint task force of the Auditing Standards Board and Assurance Services Executive Committee is developing a new audit guide that will demonstrate how data analytics can be used in the audit process at a foundational level and in accordance with the current AICPA auditing standards. The guide is aligned with your document's illustration on how data analytics cuts across all areas of the audit (i.e. risk assessment, analytical procedures, substantive procedures, and tests of controls), and carries this concept throughout.

We agree that the use of data analytics in the financial statement audit has the potential to enhance audit quality. Data analytics provide an opportunity to analyze larger populations of data, allowing auditors to focus their attention on riskier transactions. Techniques like process mining allow auditors to gain a deeper understanding of business processes, and have the potential to provide insight into the operating effectiveness of internal controls. Professional skepticism and professional judgment should always be exercised, but can be improved by the use of data analytics as well.

Data Analytics and the Challenges Posed

We agree that there are some additional challenges with using data analytics in the financial statement audit, and are working on ways to help alleviate some of these issues, specifically in the following areas also set out in your document:

- ***Data Acquisition*** – Dealing with and acquiring large amounts of data can be a challenge. This challenge is more prevalent in large ERP-like systems as compared to other smaller less complex environments. The AICPA is working to address this issue through initiatives like the development of the AICPA Audit Data Standards, which help to standardize ledger and subledger data commonly requested by audit teams. Audit Data Standards are voluntary IT standards that can facilitate the use of data analytics in the financial statement audit.
- ***Audit Teams of the Future*** – When applying some sophisticated data analytics, traditional audit and accounting skills may need to be complemented with new skills such as: programming, data science (including software engineering and machine learning), data modeling, and statistical analysis. As one individual may not possess all of the skills needed, audit teams will need to adapt to include individuals with these expanded skillsets.

While CPAs are not required to be trained as data scientists, they do need basic data analytic skills. The AICPA’s CPA Exam Blueprint is seeking to drive these skills into accounting curriculums.

- ***Application and Implementation*** – New data requests and the use of new techniques will require additional guidance. Accordingly, the AICPA’s audit data analytics guide is being developed to illustrate how data analytics can be integrated into the current audit process.

Data Analytics and Current Standards

The AICPA agrees that while the current standards do not prohibit the use of data analytics, they do not encourage the use of innovative, technology-enabled procedures. To that point, we hope that the development of the audit data analytics guide, and the research being performed under the Rutgers AICPA Data Analytics Research Initiative (“RADAR”) will serve as the basis for future dialogue with standard setters about the role of data analytics in auditing, and any potential implications for auditing standards and

guidance. We also agree that it is important to work together in this area to help the standards evolve and to continue to enhance audit quality.

The potential areas for change, noted in the request for information, are consistent with the topics identified by the AICPA's guide task force and the RADAR initiative. Some specific areas to consider are noted below:

- ***AU-C Section 520 Analytical Procedures*** - There are many different views on how to distinguish between analytical procedures, computer assisted audit techniques (CAATs) and data analytics. Current standards contain requirements for application and explanatory material regarding analytical procedures and also contain references to the use of CAATs, but not specifically the use of data analytics.
- ***AU-C Section 520 and AU-C Section 500 as they relate to Data Reliability***– Matters related to data reliability and the nature and extent of work performed over information provided by the entity and also from external sources apply to many audit procedures, not just data analytics. The standards could more clearly articulate the procedures that would need to be performed over both internal and external data.
- ***AU-C Section 500 Audit Evidence*** – Current standards could be expanded upon to further discuss what constitutes audit evidence as it relates to data analytics, and whether or not data analytics can be considered audit evidence.
- ***AU-C Section 530 Audit Sampling*** – With the advance in data processing ability and the use of data analytics, auditors may not be limited to the traditional sampling approach. The standards should consider the higher value obtained from analyzing 100% of a population through the use of data analytics.
- ***AU-C Section 230 Audit Documentation*** – It is important to understand what audit documentation will need to be retained in the audit file when using data analytics. Standards should consider expanding upon the documentation requirements when it comes to using data analytics (e.g. electronic documents vs. original documents, system information, etc.).

In conclusion, the AICPA supports the IAASB's efforts to promote the use of data analytics in the financial statement audit. We agree with the current project that is being undertaken by the IAASB and also with the next steps that have been set forth in the request for input document. We are also developing a detailed document, covering all the areas of the auditing standards that could potentially be revised to further facilitate the use of data analytics, which we would be happy to share with the members of the IAASB Data Analytics Working Group upon request. We appreciate the opportunity to provide input on *Exploring the Growing Use of Technology in the Audit, with a Focus on Data Analytics*. We would be pleased to discuss our comments or answer any questions regarding the comments expressed in this letter. Please find additional input to your specific questions in the attached Appendix.

Sincerely yours,

A handwritten signature in black ink, appearing to read "S Coffey". The signature is written in a cursive style with a large initial "S" and a stylized "Coffey".

Susan S. Coffey, CPA, CGMA
Executive Vice President – Public Practice
Association of International Certified Professional Accountants

Appendix – Request for Stakeholder Input

The AICPA is pleased to respond to the following questions set forth in the IAASB's *Exploring the Growing Use of Technology in the Audit, with a Focus on Data Analytics*.

- (a) Have we considered all circumstances and factors that exist in the current business environment that impact the use of data analytics in a financial statement audit?

We agree that all circumstances and factors have been considered.

- (b) Is our list of standard-setting challenges accurate and complete?

We believe that the list provided is accurate and complete.

- (c) To assist the DAWG in its ongoing work, what are your views on possible solutions to the standard setting challenges?

As stated in the above letter, the AICPA is involved in a number of projects in the area of audit data analytics. We hope that these projects will form the basis for future dialogue with standard setters on the role of data analytics in the financial statement audit, and where the standards could change to address the use of data analytics.

- (d) Is the DAWG's planned involvement in the IAASB projects currently underway appropriate?

We agree with the current projects and the next steps set forth in the document.

- (e) Beyond those initiatives noted in the *Additional Resources* section of this publication, are there other initiative of which we are not currently aware of that could forth inform the DAWG work?

The AICPA is developing a new guide on Audit Data Analytics that will supersede the current AICPA Analytical Procedures guide (please note that much of the content from the extant guide will be carried forward and included within the new guide). This intent of the new guide is to demonstrate how audit data analytics can be used throughout the audit process, in accordance with the current standards.

- (f) In your view, what should the IAASB's and DAWG's next steps be? For example, actions the IAASB and DAWG are currently considering include:

- a. Focusing attention on revisions, where appropriate, to ISAs affected by the IAASB's current projects.
- b. Exploring revisions to ISA 520.
- c. Hosting one or more conferences with interested stakeholders to collectively explore issues and possible solutions to the identified challenges.
- d. Continuing with outreach and exploration of issues associated with the use of data analytics in a financial statement audit, with a view towards a formal Discussion Paper consultation in advance of any formal standard-setting activities.

We agree with the above noted next steps. Along with exploring revisions to ISA 520, we also suggest reviewing:

- **ISA 315** *Identifying and Assessing the Risks of Material Misstatement through Understanding the Entity and Its Environment*
- **ISA 330** *The Auditor's Response to Assessed Risks*