



National Association of State Boards of Accountancy

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Data Analytics Working Group  
International Auditing and Assurance Standards Board  
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**Re: Exploring the Growing Use of Technology in the Audit, with a Focus on Data Analytics**

We are pleased to respond to the request for input from the IAASB's Data Analytics Working Group (DAWG) on its document on *Exploring the Growing Use of Technology in the Audit, with a Focus on Data Analytics* (the Paper). The National Association of State Boards of Accountancy's (NASBA) mission is to enhance the effectiveness of the licensing authorities for public accounting firms and certified public accountants in the United States and its territories. Our comments on the IAASB's publication are made in consideration of the State Boards' charge as state regulators to promote the public interest.

## **OVERALL COMMENTS**

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We appreciate the IAASB's efforts to inform stakeholders about the DAWG's ongoing work to explore effective and appropriate use of technology, with a focus on data analytics, in the audit of financial statements, and to obtain stakeholders' input and perspectives on whether all of the considerations relevant to the use of data analytics in a financial statement audit have been identified. Although auditors have been using some Computer Assisted Audit Techniques (CAAT) and other forms of analytical procedures in the past, recent advances in technology will fundamentally change how the audit is performed.

We agree that the use of data analytics should not be seen as a replacement for the auditors' professional judgment and skepticism in performing their work. An auditor's intuition is not something that can be replaced by use of data analytics or other forms of technology. In addition, the auditor should apply due professional care when designing data analytics procedures used in performing audit procedures.

Additionally, data analytics used in the preliminary assessment of risk of material misstatement in an account balance should be reconsidered throughout the audit as factors may have changed.

### Request for Stakeholder Input

- (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 with the factors identified in the Paper and are providing additional factors that exist in the current business environment:

- The investment in re-training and re-skilling does not just apply to auditors but also to a broader audience including regulators, independent peer/quality control reviewers and members of audit committees.
- Regulators should be involved in the process of developing the standards for data analytics. For effective regulation, there should be a common definition of what constitutes “data analytics,” and a benchmark around the level of reliance that can be placed on it.
- In companies with multiple locations and subsidiaries, data may originate from different sources/systems and, thus, is not uniform. Such data will need to be processed and formatted before the auditors can analyze it.
- There are cases when data provided to the auditors may originate from sources other than the general ledger and related systems and, thus, are not covered by existing audit procedures. Consequently, additional procedures will need to be performed by auditors to validate the accuracy and completeness of such data.
- The data required by the auditors may not originate in the accounting department and, as such, the management and the auditors may not fully understand the process for creating the data and the auditor may not understand the potential audit issues in the process.

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

We agree with the factors you have outlined in the Paper and are providing additional factors to consider:

- Can the audit testing of internal controls and substantive procedures be fully replaced by use of data analytics or should it be viewed as a type of procedure?
  - Are there any areas where data analytics should be required in a financial statement audit (e.g. completeness testing, test of details for large populations, journal entry testing, fraud testing, etc.)?
  - Should data analytics be applied only to specific accounts?
  - Should such procedures be designed differently for some financial statements versus others (e.g. income statement versus balance sheet)?
  - Should data analytics be applied to the financial statement notes?
  - How can data analytics be used to provide comfort over the qualitative disclosures (e.g. fair value measurement disclosures)?
  - Can the auditor rely on a third party vendor solution or will the auditor be required to audit it?
- Group auditors should communicate their intent for component auditors’ use of data analytics in the work being performed at other locations. Additionally, group auditors should understand the data analytics procedures performed by component auditors that may be done separately from the types of procedures performed at the group level to the extent necessary to carry out their responsibilities for the group audit.
- There is an increasing use of other technologies, such as “Blockchain,” “Bitcoin” and “smart contracts,” which could potentially enable continuous auditing in the future. How will this impact audit procedures?

- It is our understanding that large international accounting firms are currently developing new products and advisory services in data analytics and other technologies, such as artificial intelligence. If a non-audit client subsequently becomes an audit client, does this have regulatory implications (e.g. independence issues)?
- How should auditors validate data analytics technology before relying on it? Should standards be differentiated for internally developed tools versus tools developed by third party vendors?

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

- It is our understanding that many technological advancements are currently driven by large international accounting firms and academic institutions. Most of this information is proprietary and not available to the regulators and, as such, there is limited publicly available knowledge regarding what procedures constitute data analytics, how data analytics are to be applied in practice and how the standards should be changed. DAWG should encourage an open dialogue among the firms actively involved in innovations and the regulators to develop a framework for the use of data analytics.
- Changes in standards that may be suggested by the DAWG should consider the following:
  - The use of data analytics may not be applicable to all audits.
  - When data analytics procedures are used there should be a sufficient audit trail for a knowledgeable third party to understand the methodology used to support the conclusion reached.
  - A robust review of how existing audit standards can be impacted by data analytics procedures and artificial intelligence should be performed prior to issuance of a final standard. We are aware of current situations where firms are using data analytics procedures on 100 percent of a population versus using sampling. In this situation, the auditors believe they have to revisit and “backfill” procedures in order to comply with existing standards that have not been changed to incorporate these new types of procedures. This is a simple example of documenting why a current sampling standard is not used, but there could be other less obvious situations where a current standard may not be complied with using data analytics.
  - If an auditor elects to not use data analytics, will the audit be deemed to be ineffective or not compliant?

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

- We believe DAWG’s involvement in IAASB’s ongoing projects and initiatives is appropriate.
- We also suggest that IAASB and IESBA should work together to assess and address potential issues related to independence, professional skepticism and quality control. For example, how should professional skepticism be applied in a highly automated environment where some functions are replaced by algorithms?

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

- It is our understanding that large international accounting firms are currently developing new data analytics technologies, however, this information is not yet available to regulators.
- (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:**
- (i) Focusing attention on revisions, where appropriate, to ISAs affected by the IAASB's current projects.**
  - (ii) Exploring revisions to ISA 520.**
  - (iii) Hosting one or more conferences with interested stakeholders to collectively explore issues and possible solutions to the identified challenges.**
  - (iv) 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 actions IAASB and DAWG are considering as stated above.
  - As discussed above, it is our understanding that many technological advancements are currently driven by large international accounting firms, and academic institutions. Most of this information is proprietary and not available to the regulators and, as such, there is limited publicly available knowledge regarding what procedures constitute data analytics, how data analytics is to be applied in practice and how the standards should be changed. DAWG and IAASB should host roundtables encouraging sharing the information among the firms and regulators.
  - The growing use of complex technologies may require using specialists and experts during the audit. Thus, DAWG should consider the impact of new technologies on ISA 620 (Using the Work of Auditor's Experts).
  - DAWG should host a series of podcasts and webcasts to educate all stakeholders on developments in data analytics.
  - While large international accounting firms have access to the latest technology and have resources to hire experts in data analytics, medium and small size accounting firms may not have adequate resources. Currently, it is not clear whether third party providers will be developing tools that can be used by medium and small size firms. DAWG should consider developing additional guidance and host a series of podcasts and webcasts tailored to the medium and small size accounting firms.
  - At this point in time, we believe that the IAASB should closely monitor the developments in data analytics and gather further information through roundtables and discussions to develop a common framework for data analytics. Once more information is available to the regulators, we suggest that the IAASB ask for the stakeholders' input on whether the standards will need to be modified.
  - Additional resources for DAWG to consider: Several of the large international accounting firms have webcasts and other resources available to the public on their websites related to the use of data analytics by auditors and their clients.
  - We suggest that the IAASB and IESBA work together to assess and address potential issues with the use of data analytics.

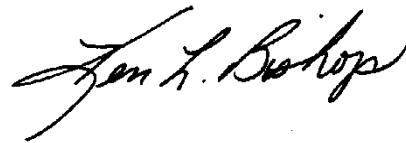
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We appreciate the working relationship shared by the IAASB, NASBA and State Boards of Accountancy and look forward to our continued efforts to improve audit quality. Thank you for the opportunity to provide our perspectives on *Exploring the Growing Use of Technology in the Audit, with a Focus on Data Analytics*. Our comments are intended to assist the IAASB in analyzing the relevant issues and potential impacts. Please let us know if we can be of any further assistance to this project. We encourage the IAASB to engage in active and transparent dialogue with commenters as proposed changes are considered.

Very truly yours,



Telford A. Lodden, CPA  
NASBA Chair



Ken L. Bishop  
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