

Data Analytics: Enhancing the Impact of Performance Audits (8 hours)

Course Overview

The field of data analytics has developed rapidly in response to the explosion of the amount of data available as well as the development of more sophisticated tools to use in the analysis. However, existing courses and training in the field are not directly applicable to federal auditors since they are oriented toward the use of analytics in the business environment. This course provides an introduction to data analytics tools and techniques and how they can be applied in the auditing environment to better analyze programs, target the most important risks, and achieve the greatest impact from the limited resources available to auditors. It is designed to increase participants' awareness of and comfort with a broad array of such tools rather than focus on specialized software or programming. This course is offered over 2 half days.

CPEs: 8

Who Should Attend

Both new as well as seasoned auditors in team leader or team member roles will gain knowledge and new perspectives on focusing data analytics to achieve the highest return on investment and applying techniques to improve analytical skills.

Course Objectives

Participant will be better able to

- Appreciate the role that data analytics can play in successfully planning, conducting, and reporting on high-impact audits
- Understand and apply a framework for using data analytics in performance auditing
- Identify questions about data sets to determine their usefulness in answering audit objectives
- Understand key steps for testing and analyzing data

Course Topics

Overview of Data Analytics

- Benefits of using data analytics in audits
- Challenges of using data analytics in audits
- Lessons from GAO forums

Design Considerations

- How to integrate data analytics into the audit design

- Advantages and concerns with using computer-processed data
- Options for descriptive and advanced analyses
- Four-step process for conducting data analytics

Data Reliability and Sufficiency

- Overview of data reliability assessment process
- Key elements of data reliability and testing
- Documenting data reliability assessments

Implementation, Documentation, and Reporting

- Importance of a data analysis plan
- Types of analyses
- Common analysis issues and problems
- Interpreting data to report results
- Importance and types of visuals/graphics to gain greater understanding of results

Case Studies

- Examples of how audit agencies are using data analytics in audits