



## Intermediate Analytics for Government Officials

*A 2-Day Theoretical or 3-Day Hands on TMS Experience  
Delivered in Live or Live Virtual Classrooms!*

### Course Description:

This workshop builds on your existing understanding of government analytics by providing additional depth in numerous areas, including broader knowledge of commercially available analytical tools, increased fluency in data science terms, and an overview of algorithm science and machine learning. Lessons and case studies will be linked to analysis tools available in Microsoft Excel (the 3-day workshop applies the lessons in hands-on exercises in Excel.)

### Learning Objectives & Topics Covered in this Workshop:

- **What Does Industry Use?**
  - Databases compared: SAS, Tableau, and Oracle
  - Unstructured data and Python
  - Machine learning and algorithms
- **What is Data Science?**
  - Evolution of the profession
  - Ten common mistakes in using data
  - How to use, and do you need a data scientist?
- **Intermediate Data Handling and Statistical Techniques**
  - Developing Pivot Tables
  - Using Pivot Charts to summarize data
  - Explaining charts comparing two vertical scales
  - Using exotic chart types for visually compelling data
  - Creating and testing a hypothesis
  - Common and uncommon statistical errors
  - Chi-Squared testing for randomized data

### **Audience:**

This workshop is designed for all government personnel.

### **Toolkits:**

Receive a **Student Handbook** and **Online Toolkit**, containing tools such as checklist, tips, techniques, and numerous other tools to help you use your new skills immediately.

### **Additional Information**

**CPE Credits:** 16.0 – 24.0

**CEU Credits:** 1.6 – 2.4

### **Suggested Program**

**Prerequisites:** Introduction to Analytics for Government Officials, or recent graduate-level statistics or proficiency in the Excel Analysis Tool Pack Descriptive Statistics.

**Advanced Preparation:**  
None

**NASBA Program Level:**  
Intermediate

**NASBA Field of Study:**  
Personal Development

**Delivery Method:** Group Live  
– Live Virtual Classroom

