Applied Data Visualization with Excel and Tableau

2.5-Day Workshop
February 27-March 1, 2018
Arlington, VA

Translating and analyzing big data using charts, graphics, and images is becoming more and more necessary for decision-making. The art of making compelling visuals is something that all professionals should learn. The purpose of this workshop is to introduce some basic concepts to help guide the selection of the right visualization to represent your data and to make those graphics impactful. You will also learn the mechanics of making the best graphics using two powerful and widely available software tools: Excel and Tableau. Receive hands-on help in learning how to use basic charts and graphs more effectively and learn powerful ways to present data that will forever change how you will present data to your audience.

Training pre-requisites
Skills: Familiarity with creating workbooks, worksheets, basic menus & toolbars
Tools: Laptop, wired mouse, Microsoft Excel 2013, Tableau Desktop (personal or professional)

Day One – DATA VISUALISATION THEORY

8:30 - 8:45 Introduction and Overview of Today's Agenda

SECTION 1:
8:45 – 10:30 Data Visualization: Why It Works and How to Think About Its Techniques
Theory/exercises/discussion
Understand why data viz can help humans understand data clearly and quickly. Then, through an in-depth case study, learn the Power-Up conceptual model to organize and remember the vast variety of data viz techniques with three essential categories: prep, density, and exploration.
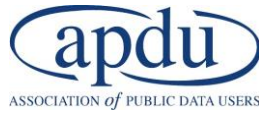
10:30 - 10:45 Break

SECTION 2:
10:15 – 12:15 Applying the Power-Up Model in a Variety of Situations
Theory/discussion
Closely examine a variety of public-interest graphics and dashboards to understand how the Power-Up techniques can be applied in a variety of situations. Explore how the purpose of the viz should drive the choice of what elements to add (or subtract).

12:15-1:45 Lunch

DISCLAIMER: This agenda is subject to change prior to the date of the training.

SECTION 3:

1:30 – 3:45 Communicating Using Advanced Data Viz

Discussion/exercise

After learning how data viz helps *you* better understand data, learn and discuss how to adapt and apply those techniques for an audience with whom you're sharing your findings.

Day Two - TABLEAU AS A DATA VISUALISATION TOOL

8:30 - 8:45 Overview of Today's Agenda

SECTION 4:

8:45 – 10:00 Data visualization with Tableau

Discussion/exercises

Learn more about Tableau, its best uses, how it complements Excel or other graphics tools, and terminology related to dynamic graphics design tools. Begin working with the tool through hands-on exercises.

10:00 - 10:15 Break

10:15 – 12:00 Data visualization with basic charts

Discussion/exercises

Learn how to manage data sources, worksheets and workbooks, sort and filter Tableau data. Explore ways to create stunning visualizations with basic charts such as column and stacked column charts, line and area fill charts, pie charts, scatter plots, histograms, highlight tables, and heat maps.
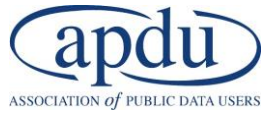
12:00 - 1:30 Lunch

SECTION 5:

1:30 – 4:30 (with 15-minute break) Data visualization with advanced chart types

Discussion/exercises

Learn more advanced chart types such as blended axes charts, side by side bar charts, symbol and filled maps. Analyze data using statistical tools and create complex calculations with string, arithmetic, logical, and conditional statements. Learn how to effectively create and use parameters in calculations.

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Day Three – DASHBOARD APPLICATION

8:30 - 8:45 Overview of Today's Agenda

SECTION 6:
8:45 – 10:00 Creating Interactive Dashboards

Discussion/exercises

Learn more about interactive dashboard design within Tableau. See best practices in visual designs and explore how to produce dashboards of your own through hands-on exercises.

10:00 – 12:00 Formatting Interactive Dashboards

Discussion/exercises

Learn how to create filter and highlight actions and continue exercises on arranging and formatting dashboard elements in data visualization development.

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