



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 - 8:40 Introduction and Overview of Today's Agenda

SECTION 1:

8:40 – 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:

10:45 – 12:15 Power-Up Model (Part 3) and Applying the Power-Up Model in a Variety of Situations

Theory/discussion

Closely examine several 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).

12:15-1:15 Lunch



SECTION 3:

1:15 – 2:45 Communicating Using Advanced Data Viz: Data Doesn't Speak for Itself

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.

2:45-3:00 Break

3:00 – 4:30 Communicating Using Advanced Data Viz (Continued) and Wrap-Up

Discussion/Exercise

Day Two - TABLEAU AS A DATA VISUALISATION TOOL

8:30 - 8:40 Overview of Today's Agenda

SECTION 4:

8:40 – 9:10 Key Excel Skills Overview

Discussion/exercises

Learn how to prepare, organize, and manage datasets in Excel more efficiently, using the naming table or cell range concept, IF function, and VLOOKUP function.

9:10 – 10:00 Data visualization with Tableau

Discussion/exercises

Learn more about Tableau, 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.

10:00 - 10:15 Break

10:15 – 12:00 Data visualization with Advanced Chart Types

Discussion/exercises

Learn more advanced chart types such as Individual axes chart, blended axes chart, side by side bar chart, dual axes chart, combination chart, scatter plot, Box & whisker plot, and maps.

12:00 - 1:30 Lunch

SECTION 5:

1:30 – 4:30 (with 15-minute break) Creating Calculated Fields,

Discussion/exercises

Learn how to create complex calculations with string, arithmetic, logical, conditional statements, “table calculations”, and parameters. See best practices of preparing data in Tableau, including merging, splitting, and renaming variables through data interpreter panel.



Day Three – DASHBOARD APPLICATION

8:30 - 8:40 Overview of Today's Agenda

SECTION 6:

8:40 – 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.