Fundamentals of Data Visualization in Tableau (APDU Training)

This virtual, 12-hour course introduces economic development researchers and public data users to the fundamental concepts of data visualization using Tableau Desktop. Over the course of four sessions, you will gain familiarity with the Tableau Desktop interface and practice applying the powerful tools Tableau provides. Completing this course will equip you to import data into Tableau, perform basic analytic functions to identify patterns and answer questions, and create and share dashboards. In exploring Tableau's range of tools, we will initially use the sample "Superstore" data that ships with Tableau. In week two, public datasets will be introduced for lessons, data challenges, and assignments. This course is designed for beginners—those who have never used Tableau before or who want to refresh their skills. No prior technical or analytical background is required.

Live, instructor-led sessions will take place from 2-5ET October 19, 22, 26, and 29. The instructor will also offer one-on-one office hours appointments upon request.

Course Agenda

Session 1: Tuesday, October 19, 2-5pm ET

- Introductions
- Essential course information: An overview of course communications, how/where to access files, and how to get instructor help.
- Review of pre-assigned course activities
- Connecting to your data
    - A tour of the Start Page, Data Source Page, and Worksheets
    - What does it mean to "clean" your data?
- Creating charts
    - Navigating formatting options and "Marks Card" controls.
    - Using the "Show Me" pane to build common chart types
    - Applying filters, working with dates, and sorting data
- Introduction to Tableau dashboards
- Saving and publishing your work
- Assignment 1: Explanation, tips, and how to get help

Session 2: Friday, October 22, 2-5pm ET

- Assignment 1 review
- Introduction to data cleaning: Ensuring your data is correct, consistent, and usable
- Applying analytic tools to charts: Trend lines and reference lines
- Introduction to calculated fields: Syntax and basic arithmetic functions
- Data analysis challenge
- Assignment 2: Explanation and instructions

Session 3: Tuesday, October 26, 2-5pm ET

- Assignment 2 review
- Introduction to geographical features and maps
- Knowing when to use discrete vs. continuous fields
- Group discrete data using "bins" to discover patterns.
- Create groups to organize data.
- Use sets and parameters to define custom groupings according to multiple dimensions/conditions.
- Data analysis challenge
- Assignment 3: Explanation and instructions

Session 4: Friday, October 29, 2-5pm ET

- Assignment 3 review
- Working with files (using joins, blends, unions, and relationships)
- Applying advanced dashboard techniques
- Data analysis challenge