Data Visualization, Level 1: The Simplification & Emphasis Approach to Telling a Story with Data

Session Description: Visualizing data through charts, tables, and diagrams helps you deliver bite-sized information that stakeholders will understand at a glance and retain for the long run. In this hands-on session, you'll learn how to transform Microsoft Excel's default graphs into graphs that more clearly articulate the key findings from your project. First, you'll simplify graphs by removing borders, grid lines, tick marks, and clip art. Second, you'll emphasize your desired message with text. Third, you'll emphasize your desired message with color.

Session Leader: Ann Emery

Data Visualization Design Process

1. Who’s my audience?
   - Technical vs non-technical
   - How many points in time do you want to show on your graph?
2. How will I share my charts?
   - Live presentations, ppt, pdf report, etc.
   - Rule of thumb – aim for 1 visual per page
   - A lot of tweaking is involved, usually
   - Dashboards are different from infographics
     - Dashboards are usually updated every month/quarter/year and are for internal audiences
     - Infographics are usually not updated and are for getting the word out to large external audiences
3. Which Chart matches my message?
   - Clustered bar charts are the least visual
   - Rule of thumb: compare only 2 bars at a time
   - Small Multiples Chart is a way to get a detail oriented look and a big picture view at the same time
   - Sketching is one of the most important skills
     - Step away from your computer, draw as many sketches as you can by hand
4. Which software tool should I use?
   - Stay away from the suggested graphs. They will choose the wrong graph for you
   - Excel
   - Tableau
     - Best for maps.
5. Which formatting edits are needed?
   - Simplification and Emphasis
     - Simplification
       - Take your graph
         - Remove anything else but the basic frame of the graph
         - Remove or Lighten unnecessary ink
         - Remove the border
         - Remove the 3D
         - Remove bevels (usually on macs)
         - Remove leader lines
         - You can use icons but not background clipart on your graphs
     - Write a descriptive title
       - Left align your titles-eye tracking studies show people naturally start reading from the left to right
   - Annotate –
   - Use Labels sparingly
   - Make sure your text is not diagonal
   - Color blindness – colblindor website to test if your graphs are legible for all color blind people. You can also print your graph in black and white and

Present as is, or tell a story

1. Some organizations are bipartisan and do not want to specifically highlight any aspect of the data.
   - Some on the other hand want a story
   - You can fade some of the bars, changing colors is good enough to highlight
   - Change the descriptive title and pick out the main message or finding
     - You can add some description sentence to the title

Additional Resources:
http://www.annkemery.com
http://www.color-blindness.com/