Introduction to Tableau

Workshop Activities
(borrowed from Angela Zoss and Eric Monson at Duke University, see https://duke.box.com/TableauSpring2016)

Questions? Please contact Amy Trost at atrost1@umd.edu

1. Loading data
   • Open Tableau
   • Connect to "Excel"
   • Select “hurricane tracks.xlsx”

2. Fix variable type errors
   • For “Season”, change variable type to String
   • For “ISO time”, change variable type to “Date & Time”
   • Click “Sheet 1”
3. **Sample Bar Chart**
   - Drag “Season” to Columns
   - Drag “Number of Records” to Rows
   - Use “Sort” icons on the tool bar or axes to order the bars

4. **Rotate the chart:**
   - Use the swap button on the tool bar (circled in red above)

5. **Use a filter to limit to top 10 seasons:**
   - Drag “Season” to Filters
   - Click on “Top” tab
   - Select “By field:”
   - Click OK
6. Count hurricanes using serial numbers:
   • Right-click on “Sheet 1” to duplicate the sheet
   • Drag “Serial number” to Measures
   • Aggregation changes to CNTD(Serial Num) : “Count Distinct”
   • Drag “Serial number” on top of “SUM(Number of Records)”

7. Edit the labels:
   • Right-click to edit the alias for “Distinct count of Serial number”
   • Change to “Number of Hurricanes”
8. Sample Filled Map (chloropleth)

- Add new worksheet
- Ctrl-click “Country” and “Serial Num” (cmd-click on mac)
- Select “filled map” from Show Me
- Click “2 unknown”, fix 1 encoding error
- Click “1 unknown”, filter to remove nulls

9. Create a discrete line chart

- Drag “ISO time” to Columns
- Drag “Serial number” to Rows

10. Create a continuous line chart

- Drag “ISO time” to Columns
- Change from “Year(ISO time)” to the second Year in menu
- Drag “Serial number” to Rows
11. Sample Scatter Plot

- Drag “Pressure in millibars” to Rows
- Drag “Wind in knots” to Columns
- Drag “Pressure” to Filter to exclude nulls
- Change “Measure (Sum)” to “Average” for both
- Drag “Serial number” to Detail
- Use arrow to change back to Dimension
- Edit y axis to uncheck “include zero”
- Optional: drag number of records to Size for bubble chart. Shape to solid circles. Click on Color and change Transparency.
12. Sample Proportional Symbol Map

- Double-click “State”
- Drag “Country” to Filter to select only the U.S.
- Drag ”Wind in Knots” to Color
- Change “Sum” to “Maximum”
- Drag “Serial number” to Size

13. Create a dashboard

- Click the new dashboard button at the bottom
- Drag the symbol map to canvas
- Drag the continuous line chart to the bottom of the canvas
- Click the arrow at the upper right of the line chart to select “Use as Filter”
- Click the arrow at the upper right of the map to select “Use as Filter”
- Click a year or drag a box to change the map

14. Saving in Tableau Public

- Click the “save” icon
- Log into your Tableau Public account (or create one)
- Choose a name for your workbook
- Decide if you want to show visible sheets as tabs
- Click Save
- Click “Open in Browser Window”
- Use Export button at bottom