Application 1: Prevalence Maps & Stories

1. Open Tableau
2. Click connect to data
3. Browse to the folder where stored the three exercise datasets
4. Click on BRFSS.Dataset1.csv
5. Notice the layout of the data, its structure, and the order
6. Click on sheet 1
7. Drag State to the workspace and zoom out
8. Notice that there are four states\territories that are not part of the continental US. Let’s filter those four states out.
9. Drop State on filters and uncheck Alaska, Guam, Hawaii, and Puerto Rico, click apply and ok
10. Let’s also add year to the filter and drop 2018.
11. Drag Bingedrinker to the color marks and then hover over a state to show that the data look funny. Its proportion, so it should be a value between 0 and 1.
12. Note that by default, Tableau sums the data. Let’s go back to the dataframe and look at the data. Notice that we have five measurements per year. We want the average, and not the sum. Click the dropdown arrow on SUM(bingedrinker) on the color mark and change the measure from sum to average.
13. Edit colors and talk about corporate branding, positive scales, positive-negative scales, etc. Start with Orange Gold and then show them red-blue diverging to show how color variation can help detect outliers and patterns.
14. Give the worksheet a title “Binge drinking, 2013-2017”
15. Edit the tooltip to read “The proportion of the population in <State> that reported binge drinking in the last 30 days was <AVE(Bingedrinker)>.”
16. Now let’s do that again, but lets look at daily smoking.
17. State to workspace
18. State to filter and remove Alaska, Guam, Hawaii, and Puerto Rico. Year to filter and drop 2018.
19. Dailysmoking to color and set color to orange gold. Change the measure to Average.
20. Give it a title of Daily Smoking, 2013-2017.
21. Now lets create set. This is where we leverage the comparative strength of the BRFSS data. Right click on state under dimensions, and select create a new set.
22. Name it Regional Peers and select Illinois, Iowa, Minnesota, Missouri, Nebraska, South Dakota, and Wisconsin. Then move regional peers to filters.
23. Lets create one more set just for Iowa.
24. Open a new worksheet and place year on the columns and bingedrinker on the rows.
25. Editing Legends: click on In on the legend and then click on the legend pulldown and select edit alias. Rename In to Iowa. Repeat these steps and rename Out to US.
26. Lets change the colors too. Click on the pull down and select edit colors. Set Iowa to Orange and US to Blue.
27. Title the chart “Iowa and US Binge Drinking Trends, 2013-2017”
28. Edit the Y axis scale: right click on the Y axis and click edit Axis. Change the title to “Binge drinkers (Proportion)”. Check the box for Fixed and set the upper bounds to 1.
29. Let’s create another worksheet and replicate all of these steps but lets do this for Regional Peers using daily smoking.
30. Now let’s create a dashboard. Drop Sheets 1 and 3 into the Dashboard, putting sheet 1 on top and sheet 3 on bottom.
31. Let’s resize the dashboard. Click on Custom Size and select Laptop Browser.
32. Right click on the legend and select floating. Move the legend onto the graph. Click on the legend pulldown and uncheck show title.
33. Give the dashboard a title. Click on the Dashboard title and check show title. Give it a title.
34. Save your work. Since this is a small dataset, lets save it as a packaged workbook.