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**5.2 Exercises: Charts**

**Dataset used:**

costcos-geocoded.csv

ppg2008.csv

**Summary**

I think the heat maps were the least challenging to create out of this series of charts. The Power BI method did take a little bit longer but resulted in better contrast in the values in each of the columns. The Python and R methods don’t offer much distinction between the values. Perhaps using less would offer greater variation and more functionality.

The Funnel Chart in Power BI did provide me some interpretation challenges. It was until after hovering over the categories that I saw the bar at the top indicating the top bar represented 100% and the bars below were all a % of California’s value count of stores. In the future I would try to setup as absolute values instead of a % for quicker interpretation.

I spent the most time on the initial spatial chart. I had many troubles getting a package to load / work and once I did, I had to figure out how to frame up the map on the USA to appropriately show the datapoints. Once I had it figured out in Python it was a bit easier to perform in R.

**The following pages contain:**

Power BI:

Heat Map

Spatial Chart

Funnel Chart

Python:

Heat Map

Spatial Chart

Contour Chart

R:

Heat Map

Spatial Chart

Contour Chart

**Appendix**

Code support for both Python and R notebooks

Table

Description automatically generated Map

Description automatically generated Chart

Description automatically generated

Chart

Description automatically generated Map

Description automatically generated A picture containing chart

Description automatically generated

A picture containing graphical user interface

Description automatically generated Chart

Description automatically generated Diagram

Description automatically generated

APPENDIX