SARC 5400 – Data Viz

Prototype Creation

The data I am using for this project is from my 2017 Capstone (Data Science Institute) dealing with fatal car crash prediction in Virginia. My primary question is “Where are fatal crashes occurring in Virginia and what factors are influencing them over time?”. Attached you will find my prototype as a png. However it has been loaded into an html page with svg objects embedded. Also included are hand drawn images (drawing1 is the old idea, drawing2 is the current plan). Right now, the visualization is static. It displays a single instance of the dynamic capabilities. Currently it shows the location of fatal crashes in the state of Virginia that have the following characteristics: fatal crashes influenced by both alcohol and speed. The area plot will allow the user to hover over a “slice” and that will light up the crashes on the Virginia map. Each dot is one crash, sized by the number of reported vehicles in the crash. Another feature that I will build into this is a sliding time bar, allowing the user to see the crashes by quarter of each year. If time permits I will also include a few additional variables to select from a drop down box.

I came to this idea after playing around with another idea that also plotted fatal crashes, but binned them by longitude or latitude. After some reflection, and chatting with the TAs, we realized that plotting the exact crash location was actually doing what I wanted. I think I tried to avoid making a dot plot because of how elementary they are. This idea of using one visualization to interact with another really intrigued me, so I was all in.

The biggest challenges will be constructing the proper procedures in D3 to connect all of the pieces that I need. Additionally, I could use some honest recommendations about where to place the legends, how to format them, and how to label the plots. I have taken a lot on, and I hope that I will be able to learn from playing with the class demos and watching the in-class workshops again. I plan to attend all of the workshop sessions in the future to get assistance from professors/TAs.