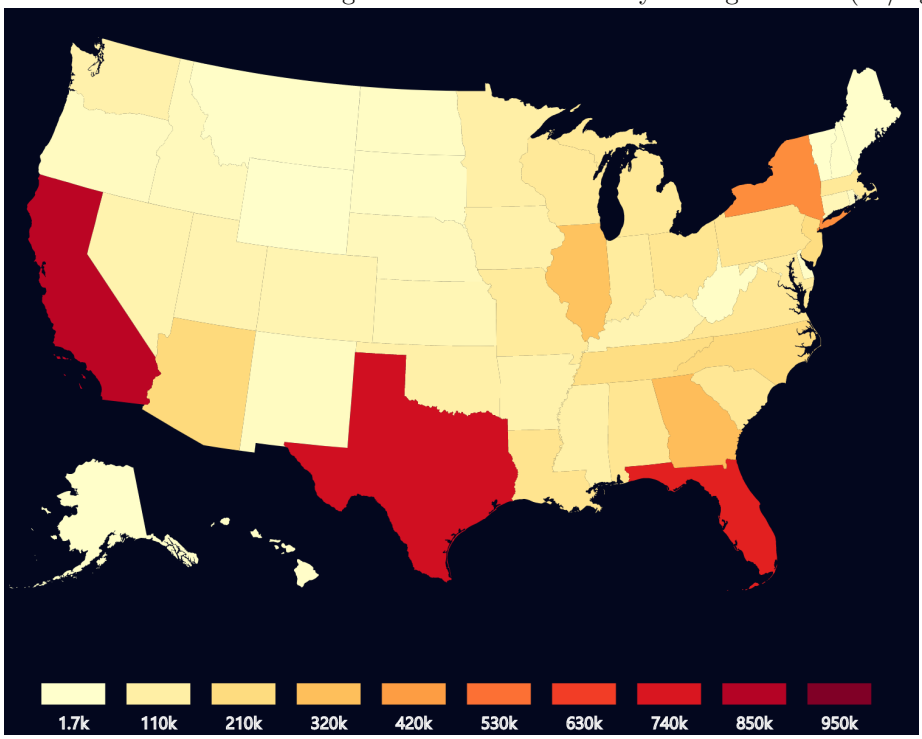
# CS171-HW6

Zane Wolf

## Design Critique

In my map visualization, I implemented a discrete color scheme with equal bin intervals. The bins represent a tenth of the data range and were determined by the legend code (d3/legend, Susie Lu).




To be completely honest, the major part of the reason I settled on this was because I was able to get this code to work the way I wanted to. However, discrete (binned) data as opposed to continuous affords the reader the ability to directly calculate the value of an area of the map. A continuous color scheme, as noted by the first article, portrays more information as each area gets the color closest to its own value. However, that makes differentiating between one color hue and another more difficult. With discrete steps, that value identification process is simple. Regarding the equal bins, my explanation is also quite boring - that is the default of the legend code and I did not think too much about trying to alter it (which goes against the policyviz's advice "don't let your visualization tool choose your map bins for you" -I'll be more purposeful in the future). But it does mean that the difference between each color represents the same amount (unless you round the values, as I did because humans really only need 3 significant values of anything, and therefore they don't appear equal). With uneven breaks, that difference between levels doesn't have to remain consistent, and places more of a mental load on the reader to interpret. Lastly, in my map, the colors in the scheme are not ranges (n to n+1), but a single value representing a n/10 break-point. This is yet another choice, and this one does have the consequence of hiding some information in that the reader doesn't *exactly* know where one color begins and the other ends, only that the value displayed is in the middle. They could calculate it easily if they wished, but again with the mental load. However, will I change my legend to display the range? No, I think it would simply add clutter to the dashboard and one value is more than sufficient.

This issue with displaying absolute values in a choropleth map is that the data can simply be correlated with population density. Normalizing the data to population means you're looking at the true spatial effect of whatever variable you're visualizing, rather than the effect of population density. My solution would be to simply not offer absolute values as an option and only show the normalized data.