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Group Final Project Visualization Proposal

Part 1: Introduction of Data

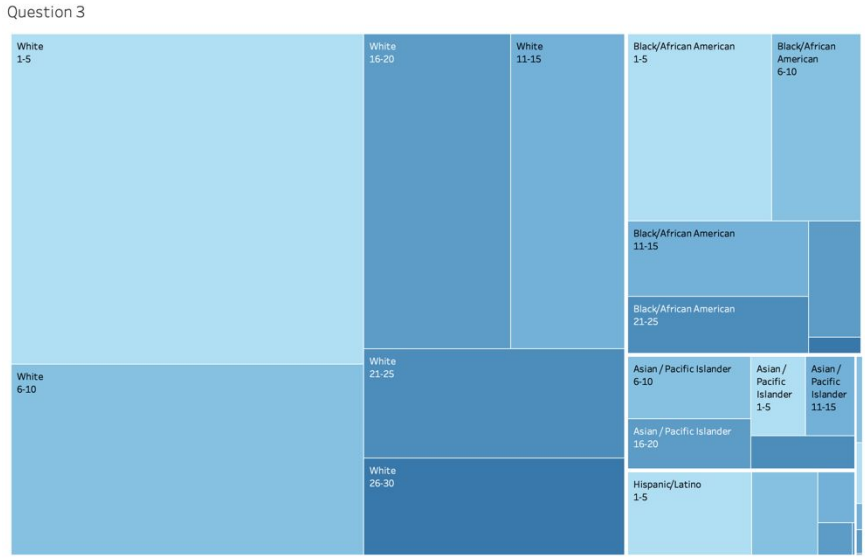
The dataset used for the project is "Officer_Traffic_stops" which is an open data source available under Charlotte - Mecklenburg Police Department (City of Charlotte). The dataset contains information on the traffic stops in Charlotte city and it includes columns about the reason for stop, action taken, details of the officer conducting the stop, details of the driver, and the division in which the stop happened. This is a real world data that is made by the police department of Charlotte to optimally deploy traffic officers to areas where they experience high crime and victimization. Another reason for working with this data is that many community members have reported several traffic issues in their geographical areas. It's not only about reacting to the problems but also taking proactive measures to reduce the number of cases in the future by strategically placing officers in the right demographic location. Our primary goal is to create visualizations by analyzing and playing with the data to provide valuable insights and explorations which is understandable even by a naive audience.

Parts 2 and 3: Mockups and links for references

1.)
http://www.storytellingwithdata.com/blog/2018/6/5/an-alternative-to-treemaps

Although we already know what tree-maps are, this link gave us a little insight as to why they are used. For example, the link states that you may want to visualize a part to whole relationship between many variables and options. It also mentions that this type of data visualization is usually used when we want just an estimate and not accurate numbers. These descriptions fit our needs to answer one of our questions. The mock up below shows the relationship between officers' race and officers number of years in service. This will help us visualize which races stay in the service longer than others. We do not need exact numbers but we do need a visual representation to picture approximately which races do stay in the field longer.

Mock up:

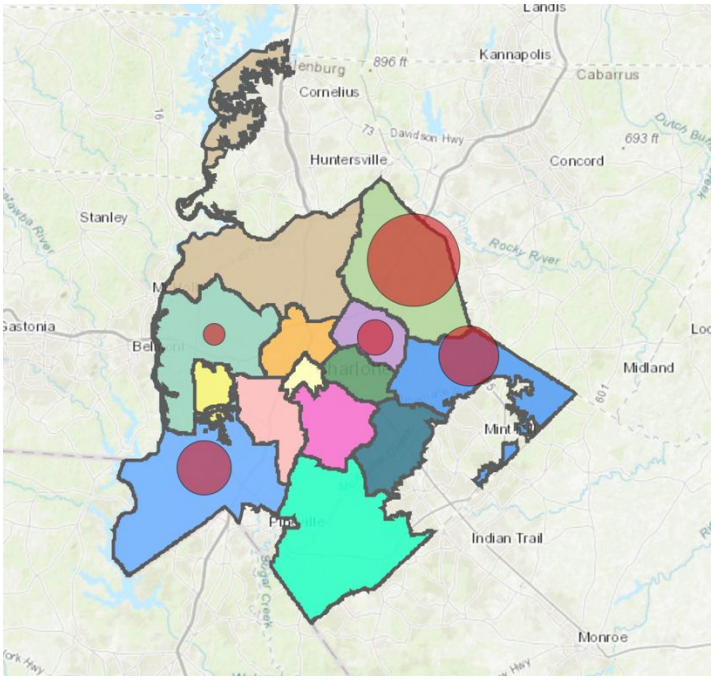


2.)

https://cdoovision.com/us-map-of-welfare-recipients/us-map-of-welfare-recipients-myimage/

This link opens up a heatmap of the United States. Similar heatmaps to this in the United States have been used to project voting as well as give us insight into unemployment rates by state and sometimes even county. This inspired us to use it for a similar application where we can determine what Police Divisions in our data set may need more attention versus ones that already get enough attention. This data can potentially be used for Police Departments to determine how to reallocate officers accordingly to better suit the safety needs of Charlotte and reduce crime.

Our mock up: (Circles will change size and color depending on how many incidents occur in the area.



3.)
http://borxu.com/interactive/projects/stacked-bargraph.html

This link has graphs that makes use of multiple variables very well. It makes use of locations, minutes listened, and radio stations. This inspired us to make an interactive visualization that can present and compare three variables aesthetically and can make it easier to understand the data we are trying to portray. The interactive chart we would like to create has number of arrests by division and breaks out both officers and drivers race depending upon what the user has selected.

Our mock up:

Works Cited

Patrasc, Ioana. "Stacked Stacked Bar Graph." *Stacked Stacked Bar Graph*, borxu.com/interactive/projects/stacked-bargraph.html.

Ricks, Elizabeth. "An Alternative to Treemaps." *Storytelling with Data*, 7 June 2018, www.storytellingwithdata.com/blog/2018/6/5/an-alternative-to-treemaps.

"Us Map Of Welfare Recipients Myimage." *Us Map Of Welfare Recipients Myimage*, Cdoovision.com, cdoovision.com/us-map-of-welfare-recipients/us-map-of-welfare-recipients-myimage/.