Project: Police Traffic Stops Visualization

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Dataset Overview

Month	Reason for	Officer			Driver				Was Search	Resut of	СМРД
of Stop	Stop	Race	Gender	Yrs Service	Race	Ethnicity	Gender	Age	Conducted?	Stop	Division
Jan - Dec	CheckPoint	2 or More	Female	(1-3): 22348	Asian	Hispanic	Female	(10 -15): 51	Yes	Arrest	Central Division
	Driving While Impaired	American Indian/Alaska Native	Male	(4-6): 13480	Black	Non-hispanic	Male	(16-21): 8864	No	Citation Issued	Eastway Division
2016-2017	Investigation	Hispanic/Latino		(7-10): 15830	Native American			(22-30): 30756		No Action Taken	Freedom Division
	Other	Native Hawaiian/Oth Pac Island		(11-15): 10926	Other/Unknown			(31-40): 21969		Verbal Warning	Hickory Grove Division
	Safe Movement	Not Specified		(16+): 25472	White			(41-50): 14616		Written Warning	Independence Division
	SeatBelt	White						(51-60): 8053			Metro Division
	Speeding	Asian / Pacific Islander						(61-80): 3591			North Division
	Stop Light/Sign	Black/African American						(81-100): 155			North Tryon Division
	Vehicle Equipment							(101+): 1			Providence Division
	Vehicle Regulatory										South Division
											Steele Creek Division University City Division
											Westover Division

Problem Statement:

- Increase Officer's stops
- Increase on arrests

- ★ What is driving the increase in officers stops from 2016 to 2017 in Charlotte?
- ★ Action: What are next steps to improve statistics?

Tasks

★ Conduct Exploratory Visual Analysis through Visualizations and Interactions.

Load real dataset; What can we learn from the visualization?

Tools Used

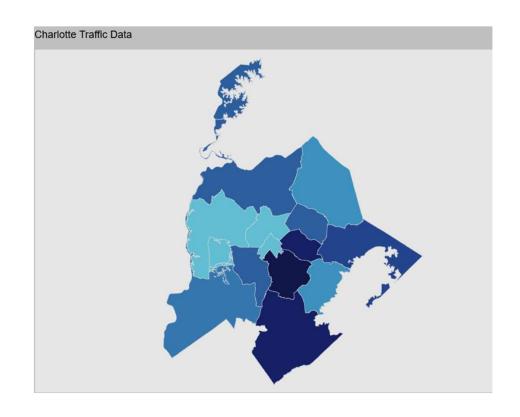
★ HTML, CSS, SVG, JavaScrip, D3, D3Plus, CanvasJS

Questions

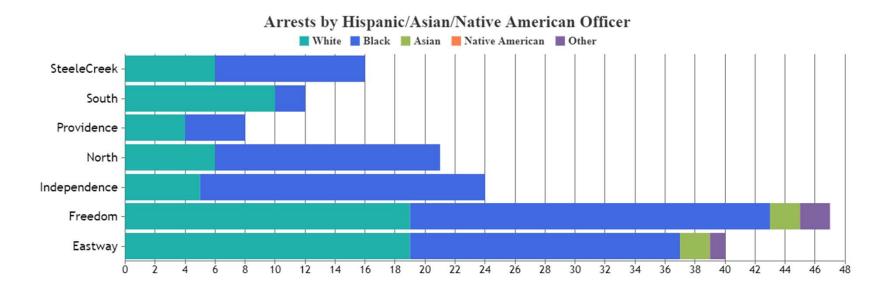
- ★ Which division have the more stops? Are the number of <u>officers</u> <u>efficiently deployed</u>?
- ★ Which division has a high level of severity on the results of stops (arrests)? Should more resources be deployed for these areas?
- ★ Is race (Driver & Officer) a factor of the number of arrests?
- ★ Can creating community awareness regarding officer's stop statistics help on improving those statistics?

A Map

- ★ Our dataset included Divisions within the Charlotte Area - A Map is a must
- ★ Clear representation of the Dataset and helps to be the data in perspective
- ★ Interactivity provides more details for comparison and insights



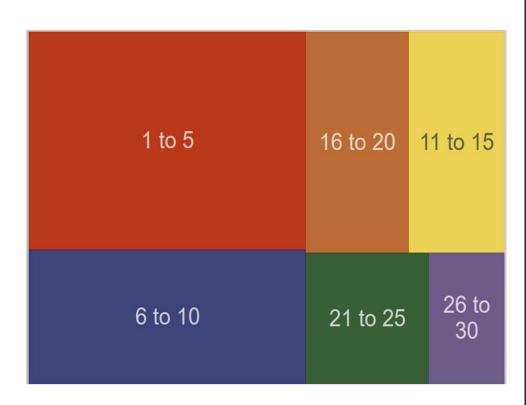
Horizontal Bar Graphs



- ★ Stacked shows **totals** across different categories
- ★ Great for Categorical Data; Legible to Audience: Easy to read
- ★ Process information (starting at top left and making z)

Plot 3: Tree Map

- ★ Use for representing hierarchical data using nested rectangles
- ★ Data is organized as branches and sub-branches
- ★ Each rectangle represents 2 numerical values
- ★ Easy to distinguish between categories and data values



Demonstration