**The Path of Least Violations**

**Team Members**

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**Description/Outline**

“The Path of Least Violations” will include various types of data analysis performed on a large dataset provided by <https://opendatadc.gov>. The data will include moving violations compiled on both a monthly and yearly basis. The hypotheses are that the visualizations will demonstrate correlations based on age of the violators, the possibility of a policing/ticket “quota”, density of traffic stops by area (x,y coordinates), and detection of seasonality trends in traffic stops such as during tourism peaks in the District of Columbia.

**Research Questions**

1. Which issuing agencies issues the most violations?
2. Are more violations issued in a particular quadrant of the city?
3. Is there a correlation between the number of violations issued and:
   1. The month of the year
   2. The day of the week
4. Violations count broken down by age group
5. Total number of violations issued
   1. Per month
   2. For the year
6. Total number of each violation issued
   1. Per month
   2. For the year
7. Total amount generated from issuing violations (not paid, just issued)for DC, MD, VA
   1. Per month
   2. For the year
8. The total number of violations issued to
   1. DC licensed drivers
   2. MD licensed drivers
   3. VA licensed drivers
9. The breakdown of violation type among
   1. DC licensed drivers
   2. MD licensed drivers
   3. VA licensed drivers

**Datasets**

The data we will be using is found at <https://opendatadc.gov>. The datasets are titled as follows:

1. Moving Violations Issued in January 2019
2. Moving Violations Issued in March 2019
3. Moving Violations Issued in April 2019
4. Moving Violations Issued in May 2019
5. Moving Violations Issued in June 2019
6. Moving Violations Issued in July 2019
7. Moving Violations Issued in August 2019
8. Moving Violations Issued in September 2019
9. Moving Violations Issued in October 2019
10. Moving Violations Issued in November 2019
11. Moving Violations Issued in December 2019

The Path of Least Violations” Analysis

On this project, our team analyzed the moving violation for the year 2019 in

DC, MD, VA. On overall, we want to make a comparison which state out of

three has the highest moving violation or generates the highest amount of

money from issuing tickets as well as what was demographics of this

violations in terms of age groups. The Team also conducted analysis on

which agencies Issues the most ticket and which time of the year has the

highest peak. Our analysis generated the following conclusion supported

with some visuals:

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We were able to find out that Special Operation Division and Traffic

Division issued the most Violation, among many agencies in our data.

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Our findings also supported our theory that the weekends have the

most violation, Saturday being the highest issued, while Monday and

Tuesday have the least.

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In general, out of the three states we did analysis on, we gathered DC

to be the highest to issue violation tickets, which accounted 84% of the

violation. Within the violation issued, the most common violation was

11-15 MPH over the speed limit

**Breakdown of Tasks**

Sandra Hall: Project Manager/Coder/Presenter

Renier Mendez: Presenter/Coder

Rebekah Hulsey: Data Visualization/Coder/ Data Cleansing

Fraol Abebe: Data Visualization /Coder

Gene Strange: Coder

Sree Kodali: Coder