

TRAFFIC VIOLATIONS

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OVERVIEW:

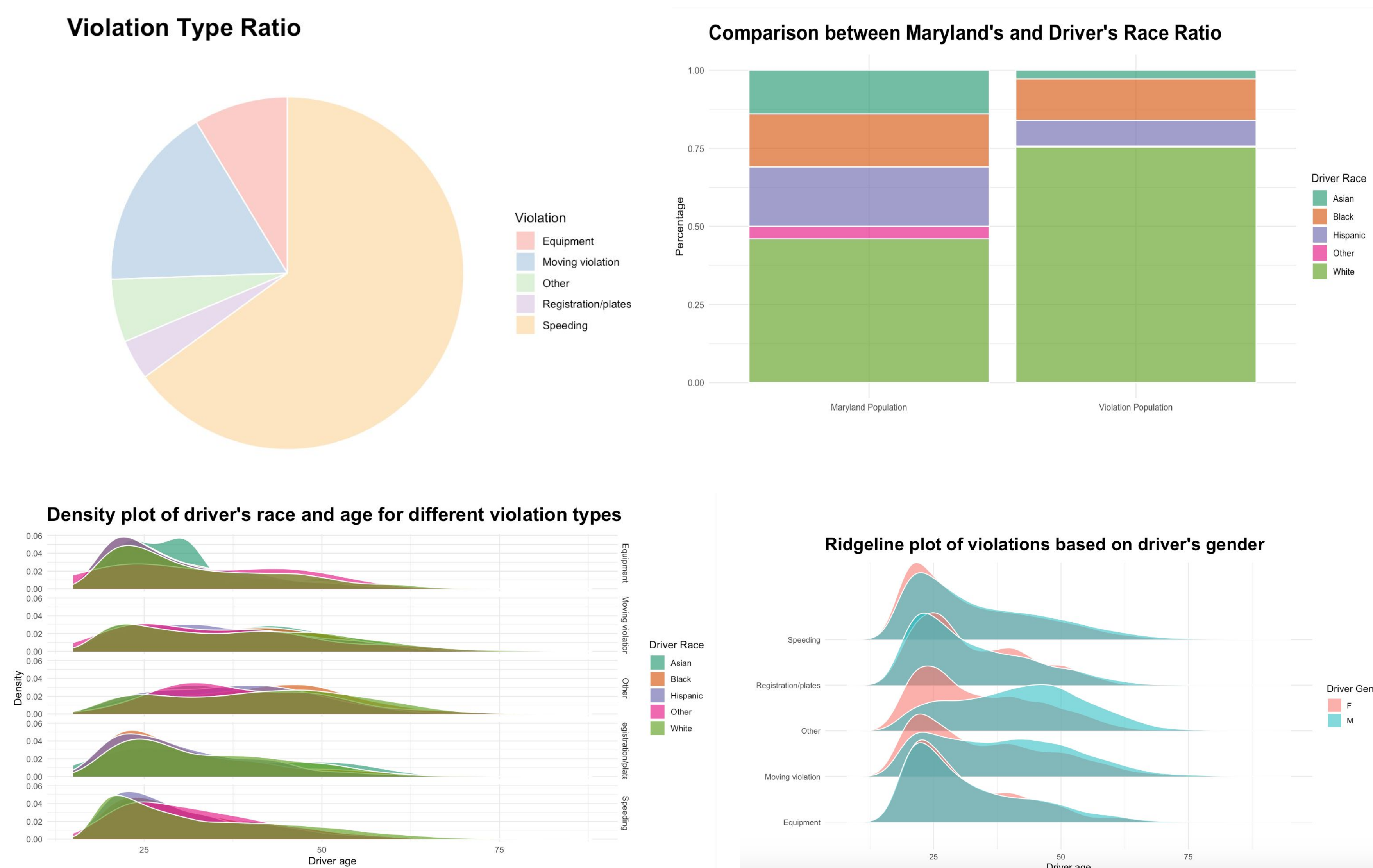
- Driving is the most popular mode of transportation
- Minimizing traffic violations → prevention of severe accidents and safer communities
- Purpose: investigate any patterns in traffic violations based on population demographics of:
 - Racial Groups
 - Age Groups
 - Gender
- Dataset: traffic violations from Maryland County (65,000 traffic records)

	stop_date	stop_time	driver_gender	driver_age	driver_race	violation
1	2005-01-02	1:55	M	20	White	Speeding
2	2005-01-18	8:15	M	40	White	Speeding
3	2005-01-23	23:15	M	33	White	Speeding
4	2005-02-20	17:15	M	19	White	Other
5	2005-03-14	10:00	F	21	White	Speeding
6	2005-03-23	9:45	M	23	Black	Equipment
7	2005-04-01	17:30	M	36	White	Speeding

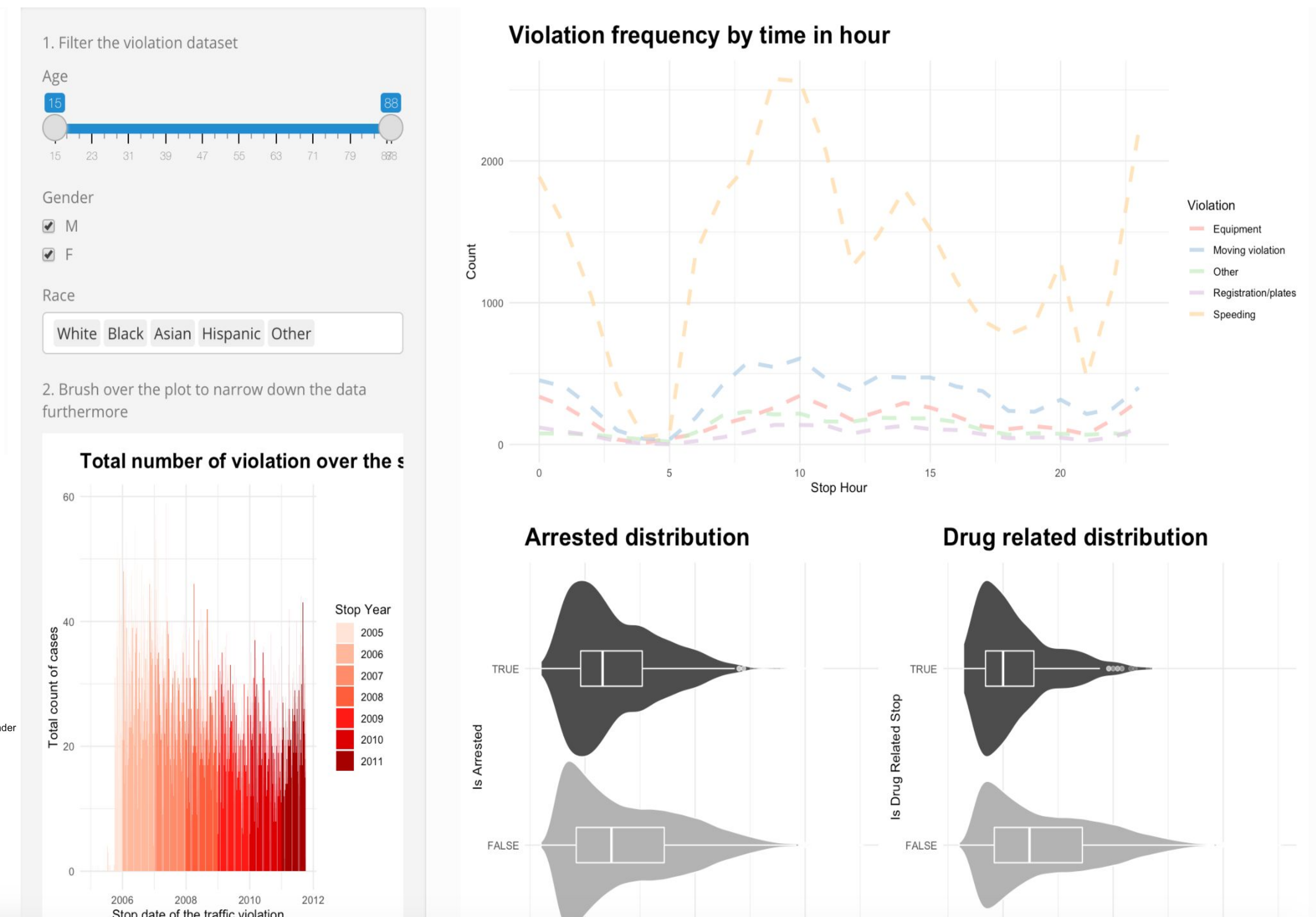
Speeding
Black
Hispanic
Moving violation
White
Equipment
Registration/plates
Arrest Driver

DESIGN:

STATIC PLOTS FOR OVERVIEW:



INTERACTIVE PLOTS FOR EXPLORATION:



INTERESTING FINDINGS:

- Age distribution for each violation type differs based on drivers' gender
- Speeding: distribution of age for females more concentrated at age 23 than males
- Age distribution for speeding and registration violations skewed right for all races
 - Drivers of younger age committed more of these violations

- All kinds of violation types decrease from midnight to 5:00 AM
- Violations jump
 - 5:00 AM - 10:00 AM (morning traffic rush)
 - Around noon
 - After 8:00 PM
- Median age of drivers who were arrested is around 30s for males and females
- Median age of drivers in drug related stops is around 25-30 years old for males and females