Traffic Stop Outcomes Analysis, Montgomery County MD, 2005-2011

DISA

Likelihood of Arrest Predictive Model

Factor Weights

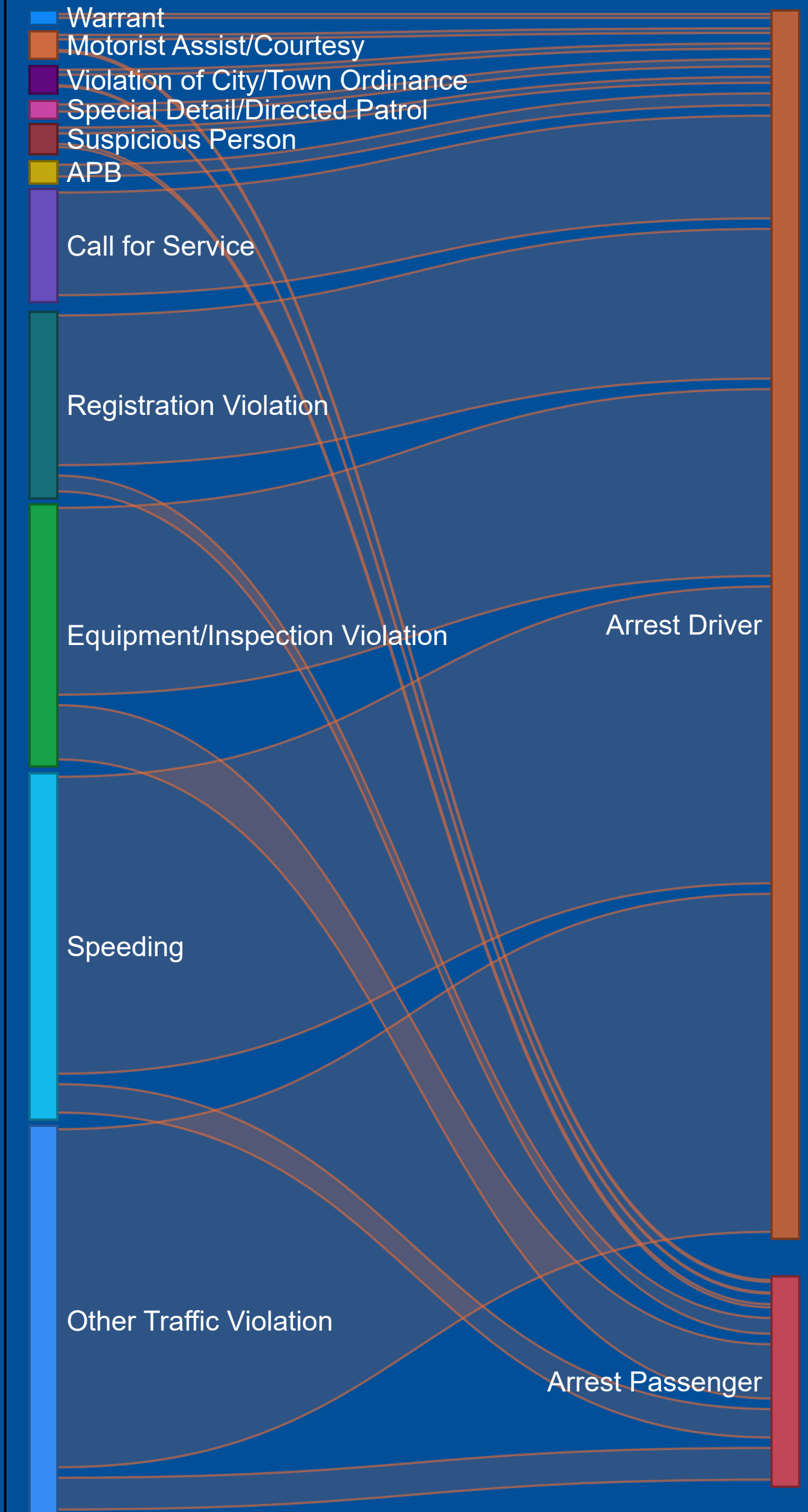| Factor	Weight
Stop Duration - 30+ ...	2.6
Search Conducted - TRUE	2.2
Stop Duration - 16-30 Min	1.9
Race - Black	0.6
Time - Night	0.3
Drugs Related Stop - TRUE	-0.5
Moving Violation	-1.3
Speeding	-2.1
Special Detail/Directed Patrol	-3.6
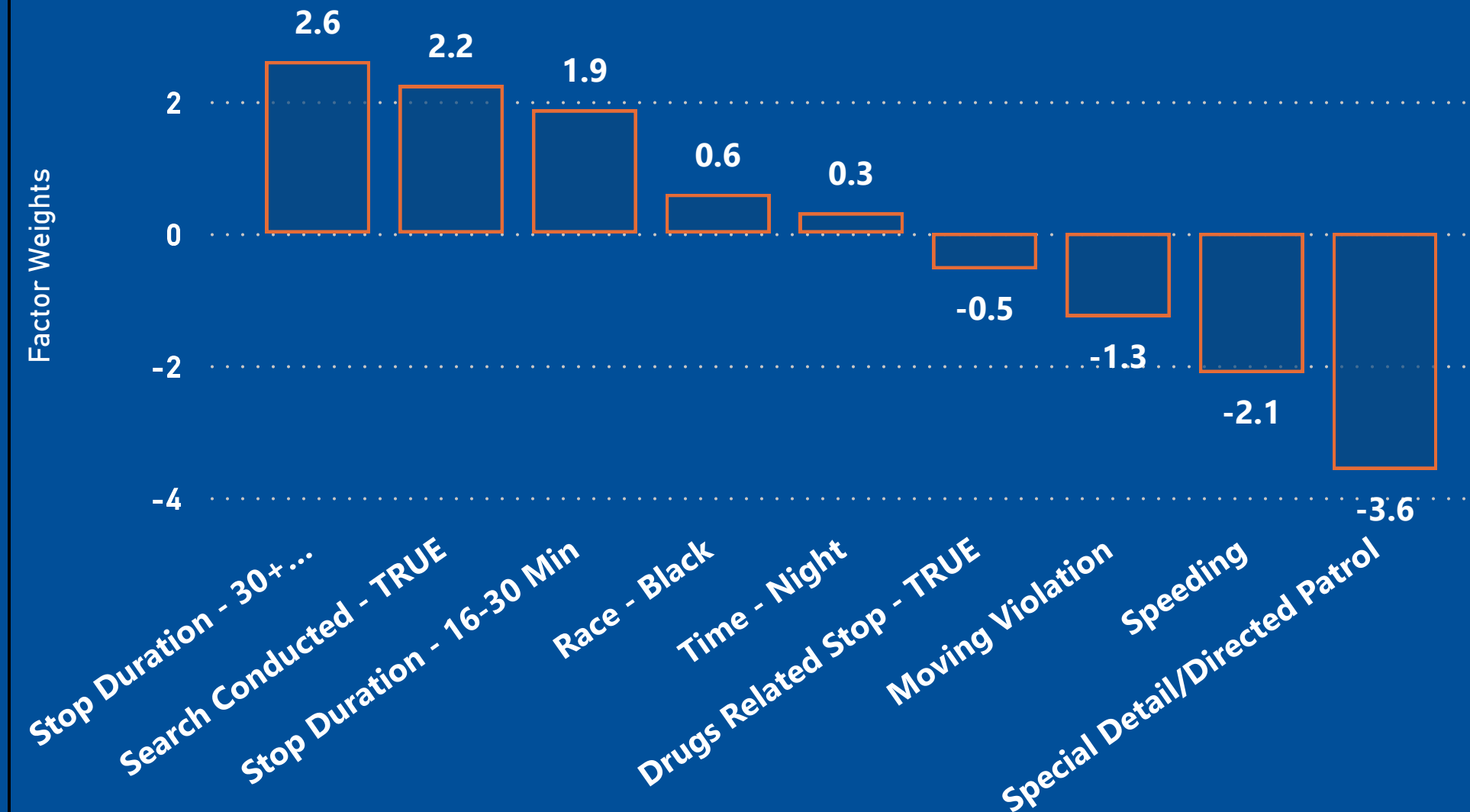
Arrest likelihood was modeled using a logistic regression and shows that a long stop duration, a search being conducted, driver race being Black, and a stop occurring at night are the strongest predictors of a traffic stop resulting in arrest.

Vehicles driven by Hispanic or Black drivers are more than twice as likely to be searched.

Passenger arrest is more likely during an equipment/inspection violation.

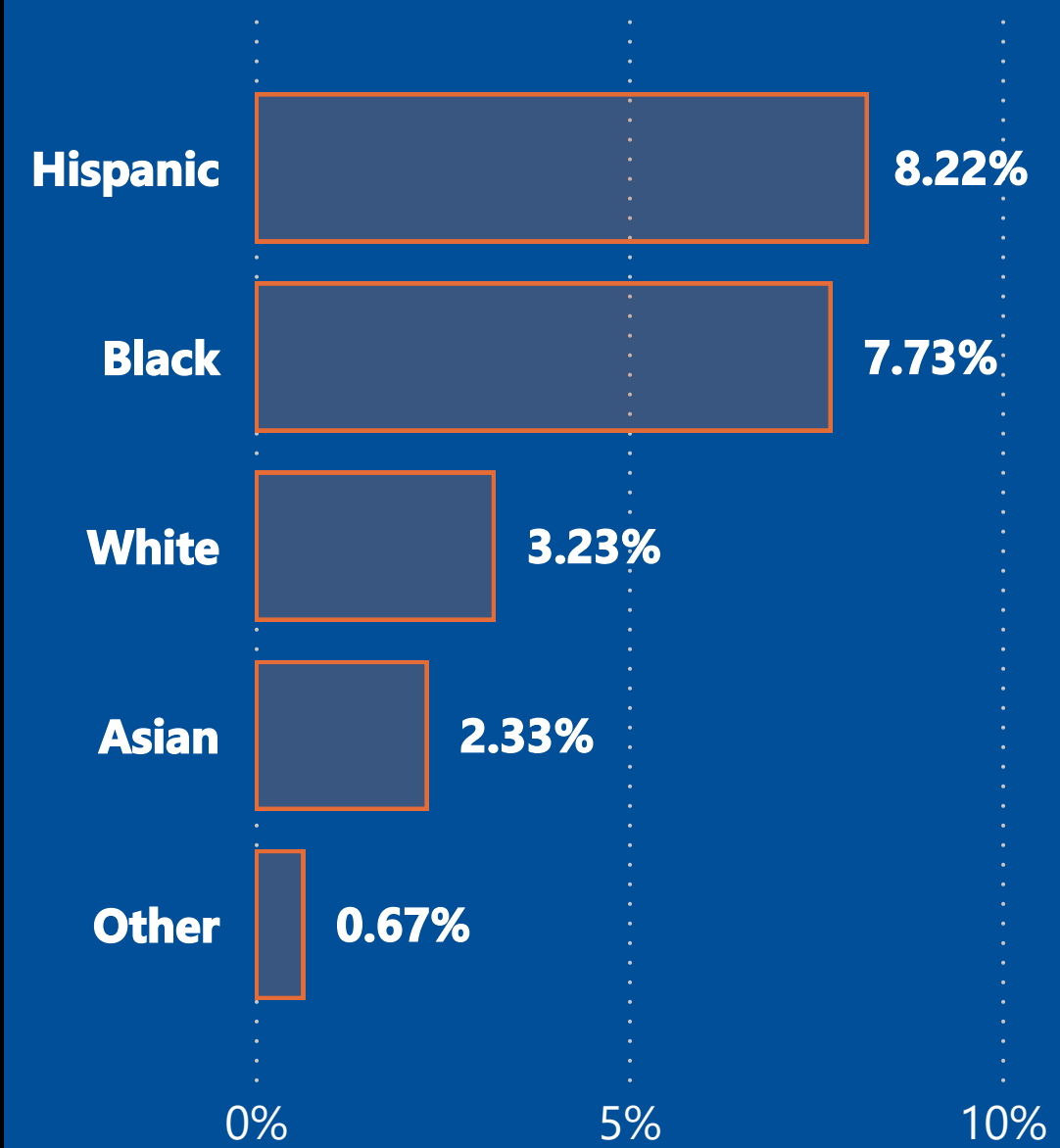Driver Arrest is more likely in an 'other' traffic violation, speeding, and equipment/inspection violation.
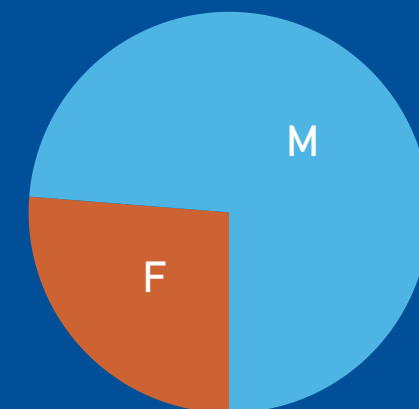
Total Arrests

1869

Total Searches Conducted

52.97K

% Stops Resulting in Search / Race

Race	%
Hispanic	8.22%
Black	7.73%
White	3.23%
Asian	2.33%
Other	0.67%

Traffic Stops by Gender

M
F

Traffic Stops by Race

White 37.36K
Hispanic 4.1K
Black 6.59K
Asian 1.38K
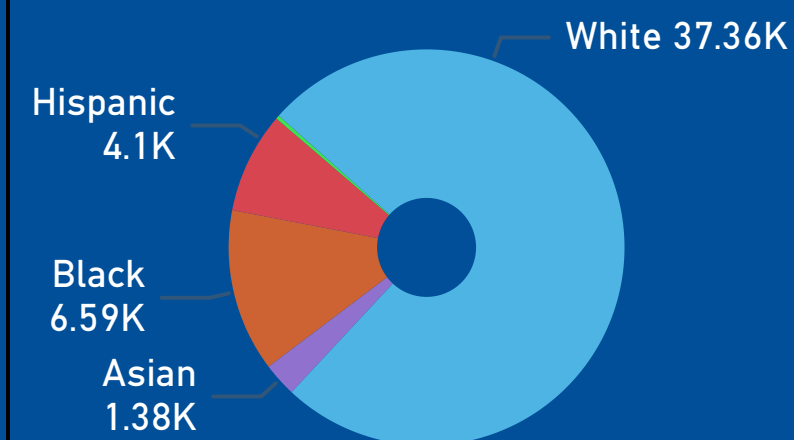
% Drug Related Traffic Stops by Age

Age	%
15-18	1.41%
19-24	1.20%
25-29	1.09%
30-34	0.87%
35-39	0.57%
40+	0.31%

Arrest Breakdown by Violation Type

- Warrant
- Motorist Assist/Courtesy
- Violation of City/Town Ordinance
- Special Detail/Directed Patrol
- Suspicious Person
- APB
- Call for Service
- Registration Violation
- Equipment/Inspection Violation
- Speeding
- Other Traffic Violation

Arrest Driver
Arrest Passenger