*PAR 1*

Initially, this analysis was an attempt to find an answer to the question “Are male police officers more likely than female police officers to give women warnings as opposed to citations during traffic stops?”

The availability of Louisville Metro Police Department’s traffic stop data for 2015 presented an opportunity to quantitatively examine whether male police officers are, on balance, more forgiving of female drivers than male drivers. Or, put another way, are female traffic offenders better at getting out of citations and receiving only a warning than male drivers.

Looking at this question, however, a much more interesting trend emerged from the data:

[GRAPH]

*PAR 2*

A startling disparity exists between the frequency at which male officers issue citations vs warnings and that of female officers.

[TABLES]

*PAR 3*

Regarding the initial question, it does not appear that, in 2015 at least, female drivers received any particular deference from male officers. If anything, this data suggests that there is a tendency for the inverse.

However, the starting question is less interesting than the question posed by this unexpected trend. We should now ask ourselves the question, “Why are female police officers so much more generous with citations than their male counterparts?”

The LMPD traffic stops data set records several variables that could point to some possible causes, or at least, correlations in the data. That being said, this is a dense question with confounding variables and causes that defy reliable measurement. It is important to keep these limitations in mind.

Diving into the other parts of the data set, the age range and race of drivers stopped does not seem to show a marked difference. Neither does the number of passengers in the vehicle at the time of the stop appear to show much disparity.

[GRAPHS]

*PAR 4*

Looking at the dates and time of the stops does seem to show some differences.

[GRAPHS]

*PAR 5*

Most interestingly is female officers execute more traffic stops between the hours of 8pm and 4am than male officers. This could be part of the answer to the question, since vehicles with missing headlights and taillights are stopped at night. Such low-level offenses are likely to produce more warnings.

The starkest difference between male and female officers that could help explain the difference in warning issuance comes from the geographic area where the traffic stops occur:

[GRAPH]

*PAR 6*

While it is difficult to say exactly why the 8th and 2nd divisions would result in more warnings than citations, it is possible that the areas where female officers execute traffic stops could have some explanatory value.

[CAN I DO A REGRESSION???]

*PAR 7*

Further areas of exploration include

* Determine if female officers perform traffic stops at a significantly higher rate than male officers
* Examine the characteristics of the different divisions and see if there are any correlations that can be drawn

\*\* CITE DATA: LMPD Stops Data (https://data.louisvilleky.gov/dataset/lmpd-stops-data)