

Lab 2 - CE888 Data Science and Decision Making

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In order to compare the performance of the new vehicles compared to the current vehicles, the MPG for each fleet was compared. As an exploratory analysis, the histogram from each fleet was plotted in order to have a general overview of the distribution of each fleet. Furthermore, in order to compare the efficiency of each fleet, the scatterplot was reviewed. Overall, most of the new vehicles has a larger MPG than the current vehicles.

Nevertheless, in term of standard deviation the fleets do not differ significantly. The std of the current and new vehicles is 6.401805 and 6.068931, respectively, and using bootstrapping, the confidence interval of the new fleet is within the confidence interval of the current fleet. As consequence, there is no evidence of further improvement in the efficiency (measured by MPG) from using new cars instead of the current cars.