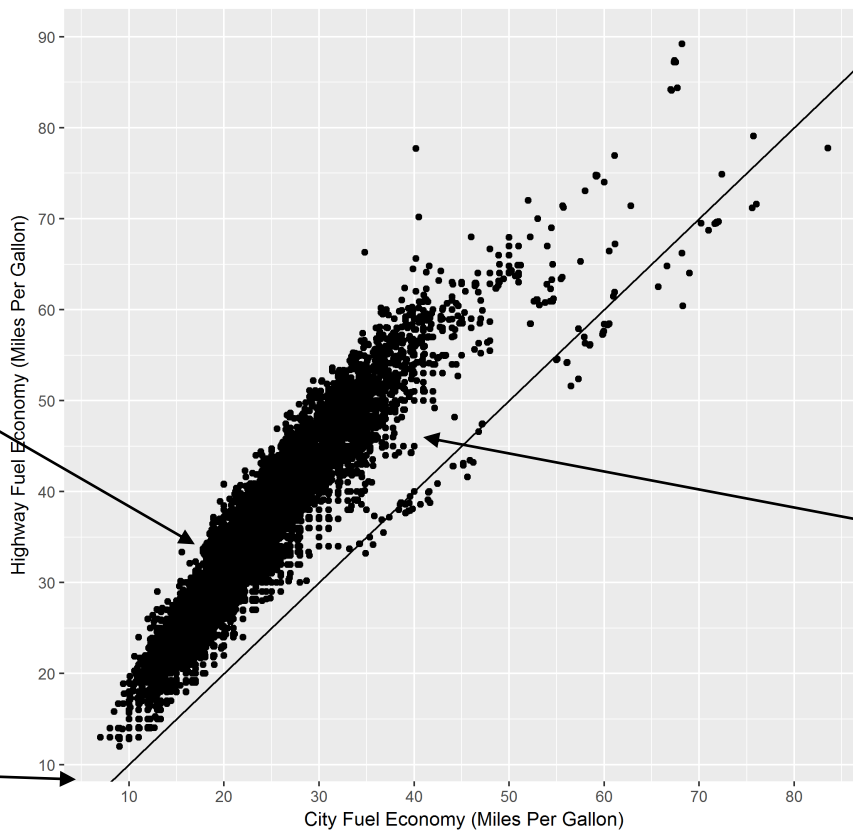


Harris Kittner

ST 537—Assignment 4

How Correlated is City and Highway Fuel Economy in Modern Vehicles?



45 degree reference line.

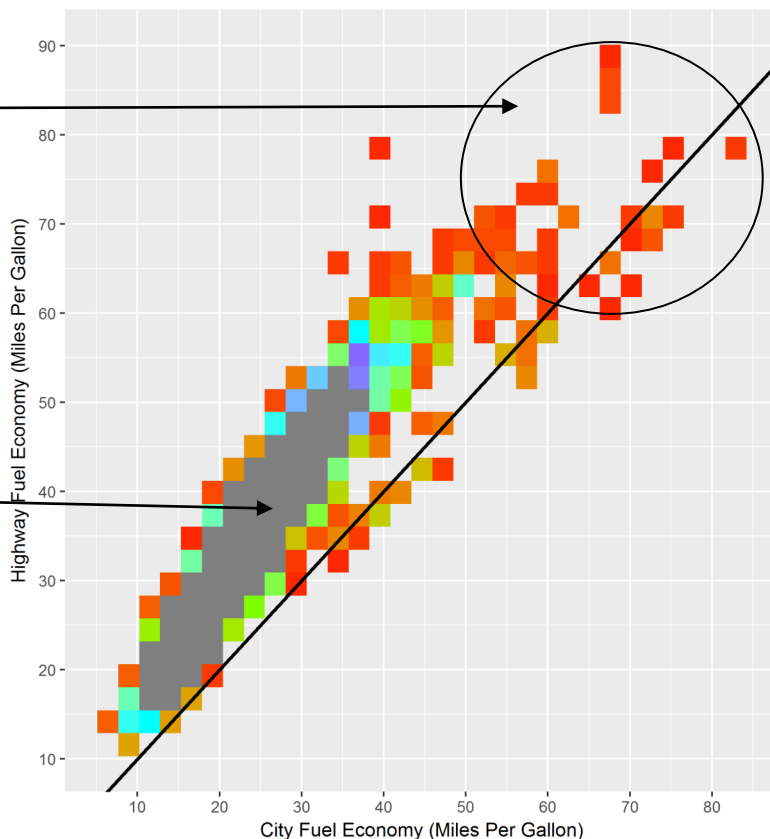
Majority of the data is placed in this big concentration of points.

Since most of the points, which represent an individual cars miles per gallon (MPG) rating (across city and highway), are above the 45 degree line, we see that typically a car will get better highway than city MPG.

The origin of this plot is not (0, 0), which would represent 0 MPG city and highway. There were three points with 0 MPG city and highway, which were removed, because this is infeasible in real world driving.

But can we do better?

How Correlated is City and Highway Fuel Economy in Modern Vehicles?



45 degree reference line.

Very few cars seen in the extreme represented by this circle. This is because very few cars achieve 50+ MPG!

Count represents the number of cars that are seen within each box.

This is where the majority of our cars are concentrated, which makes sense, as a common range for a gasoline powered vehicles fuel economy is roughly 15 MPG - 35 MPG.

Both plots provide us with the same info, but the second plot allows us to decipher how many cars are seen in each box, as compared to the first plot, which provides little info on how many repetitions we may see.