

# MA615\_sep\_13

*KC*

*9/18/2019*

## Class assignment:

Using the MPG dataset, which is available with the ggplot2 library, produce a document that includes the following elements: headers, text, tables, and plots.

Tables should include a comparison of city and highway mileage by the class of car and the best three car models for city and highway mileage for all the years in which data is available.

Plot the data displaying as much of the data as you can. Put continuous variables on the axes and include a locally smoothed regression line to show the relationship with mileage. Also make a box plot comparing city and highway MPG by class of car.

## Table One

Table 1: Average City and Highway MPG by Car Class

Class	City MPG	Highway MPG
subcompact	20.37	28.14
compact	20.13	28.30
midsize	18.76	27.29
minivan	15.82	22.36
2seater	15.40	24.80
suv	13.50	18.13
pickup	13.00	16.88

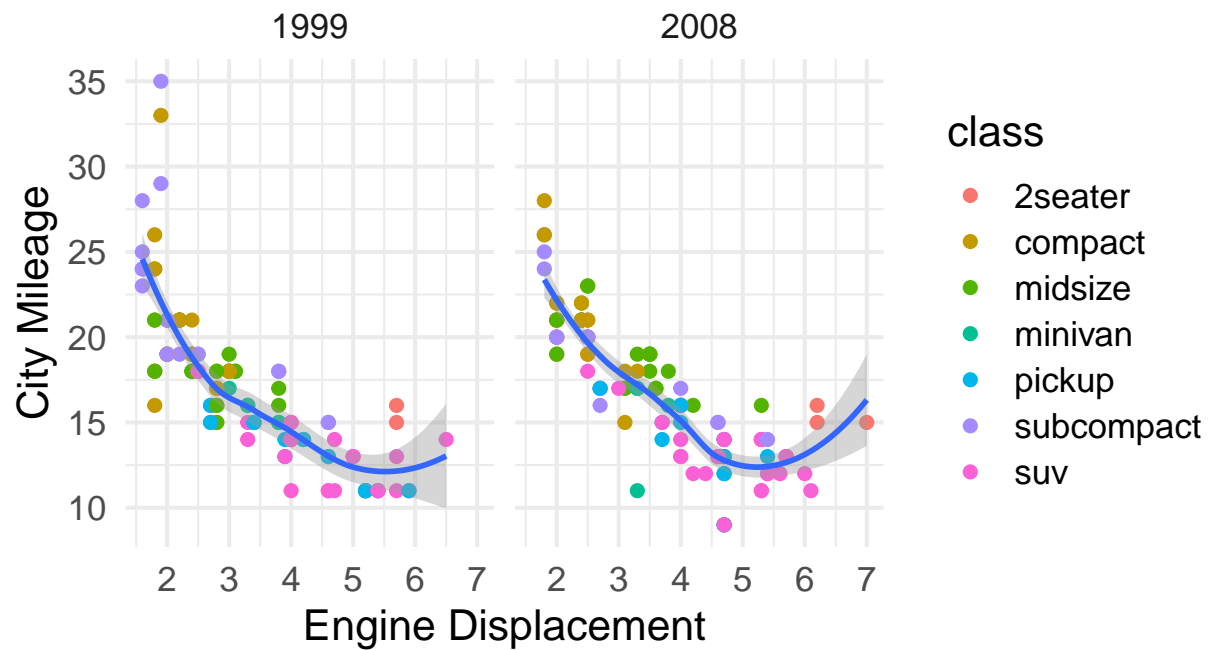
## Table Two

Table 2: Top 3 MPG Performing Cars: 1999, 2008

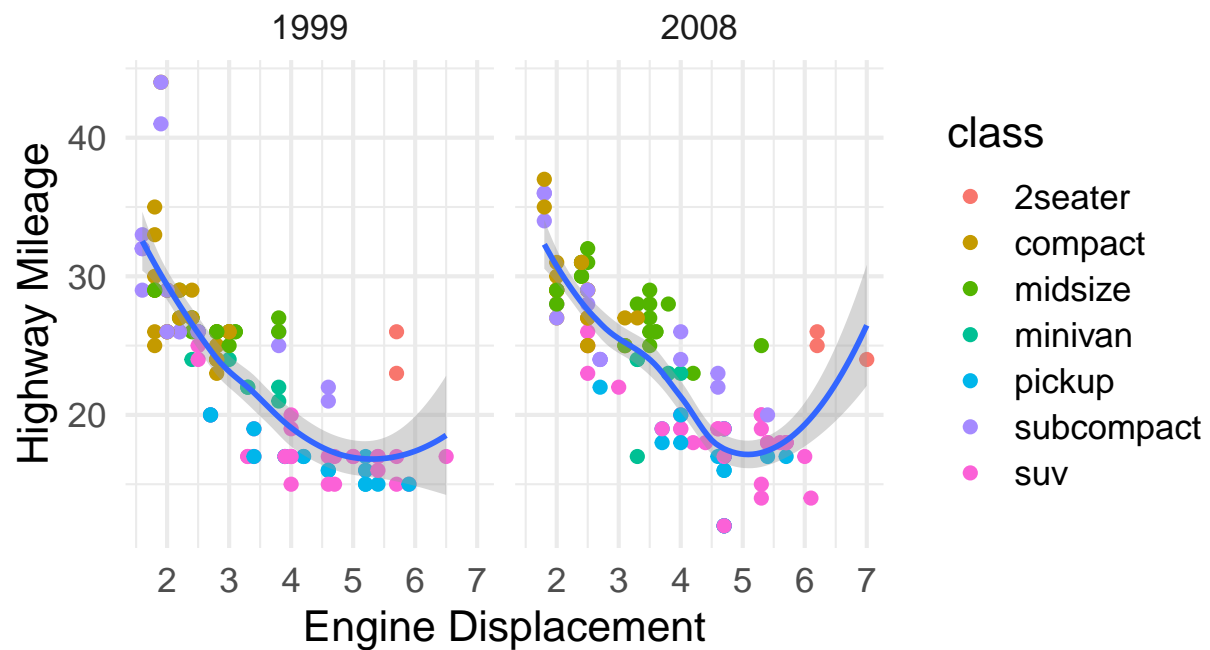
City 1999		Highway 1999		City 2008		Highway 2008	
model	City	model	Highway	model	City	model	Highway
new beetle	26.00	new beetle	35.00	corolla	27.0	corolla	36.00
civic	24.80	corolla	32.67	civic	24.0	civic	33.75
corolla	24.67	civic	31.60	gti	21.5	gti	29.00

Plot One

## City MPG by Class of Car: 1999, 2008



## Highway MPG by Class of Car: 1999, 2008



Plot Two

