

Regression Models

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Introduction

The report presents an analysis in the relationship automobile transmission and miles per gallon (MPG) as output. The dataset(mtcars) used in the study was extracted from the 1974 Motor Trend US magazine. This report also quantifies the MPG difference between automatic and manual transmission.

Analysis

Exploratory Analysis

The dataset mtcars is loaded for current analysis.

##	mpg	cyl	disp	hp	drat	wt	qsec	vs	am	gear	carb
## Mazda RX4	21.0	6	160	110	3.90	2.620	16.46	0	1	4	4
## Mazda RX4 Wag	21.0	6	160	110	3.90	2.875	17.02	0	1	4	4
## Datsun 710	22.8	4	108	93	3.85	2.320	18.61	1	1	4	1
## Hornet 4 Drive	21.4	6	258	110	3.08	3.215	19.44	1	0	3	1
## Hornet Sportabout	18.7	8	360	175	3.15	3.440	17.02	0	0	3	2
## Valiant	18.1	6	225	105	2.76	3.460	20.22	1	0	3	1

As Figure 1 in the appendix shows that manual transmission have better MPG compared to automatic transmission, there is more investigation required to see if other variables are also correlated to MPG.

Appendix

Exploratory Analysis

Figure 1

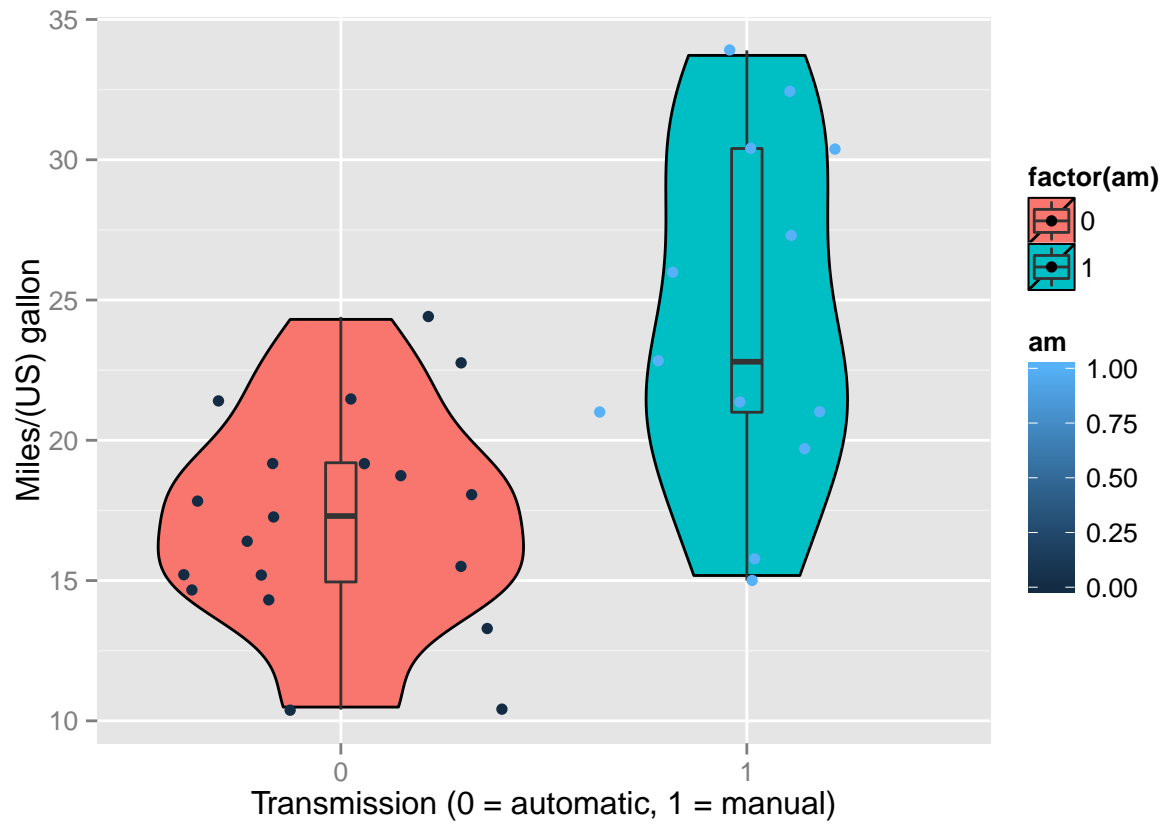


Figure 2

