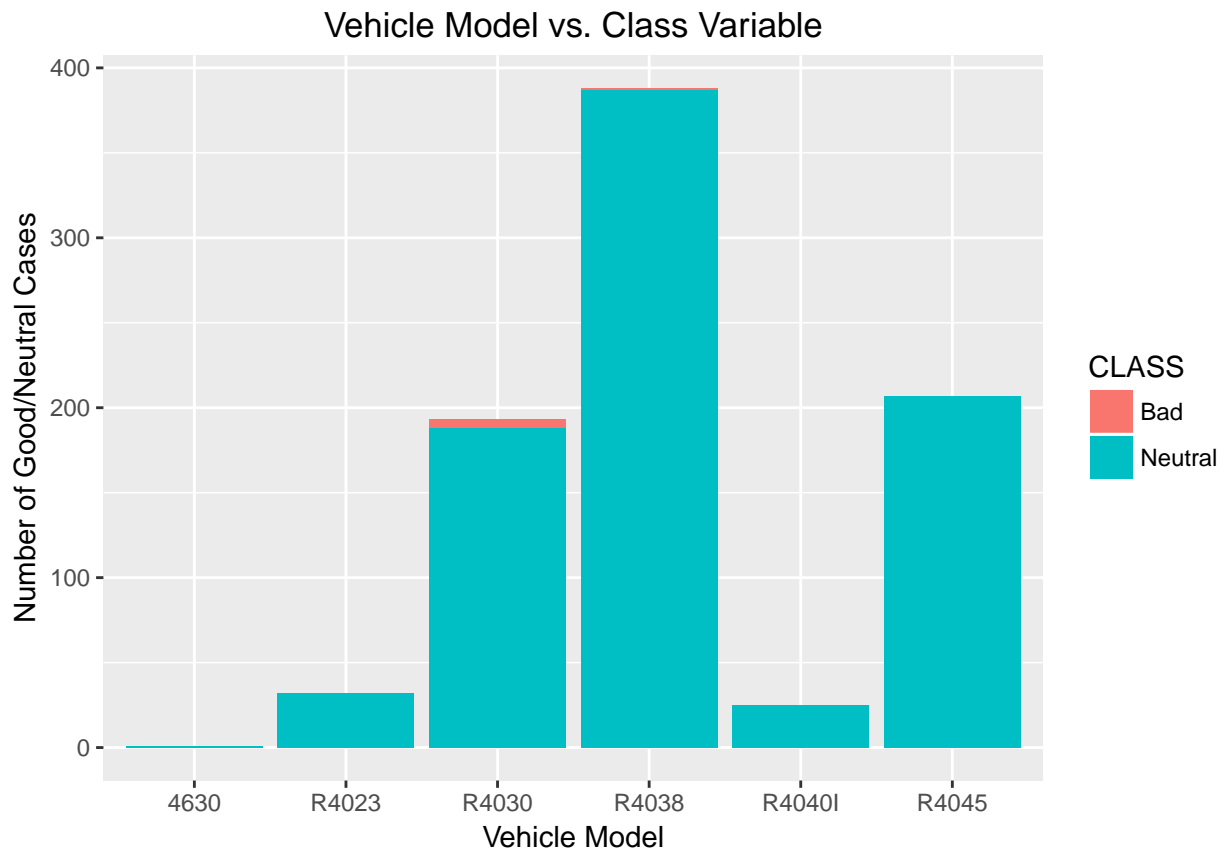# Capstone Charts

Ryan Fortney

April 27, 2017

```
library(readxl)
Sprayer_Data_Master_test <- read_excel("~/Box Sync/Sprayer Data Master_test.xlsx")

Sprayer_Data_Master_test$ENGINE_SIZE <- as.character(Sprayer_Data_Master_test$ENGINE_SIZE)
```
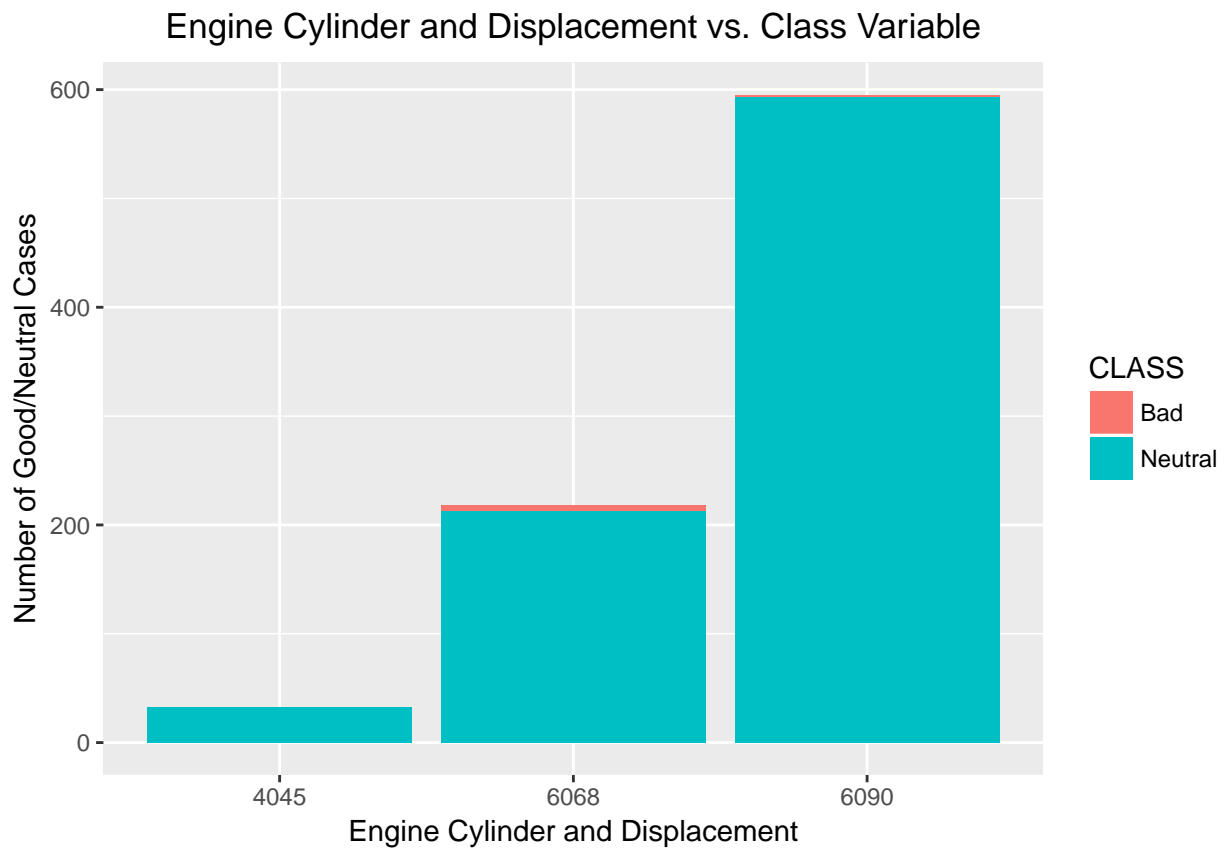
Vehicle Model

Including Plots

MODEL	Bad	Neutral
4630	NA	1
R4023	NA	32
R4030	5	188
R4038	1	387
R4040I	NA	25
R4045	NA	207

ENGINE SIZE

Including Plots

Engine Cylinder and Displacement vs. Class Variable

ENGINE_SIZE	Bad	Neutral
4045	NA	33
6068	5	213
6090	1	594

ENGINE MODEL

Including Plots

Engine Model vs. Class Variable
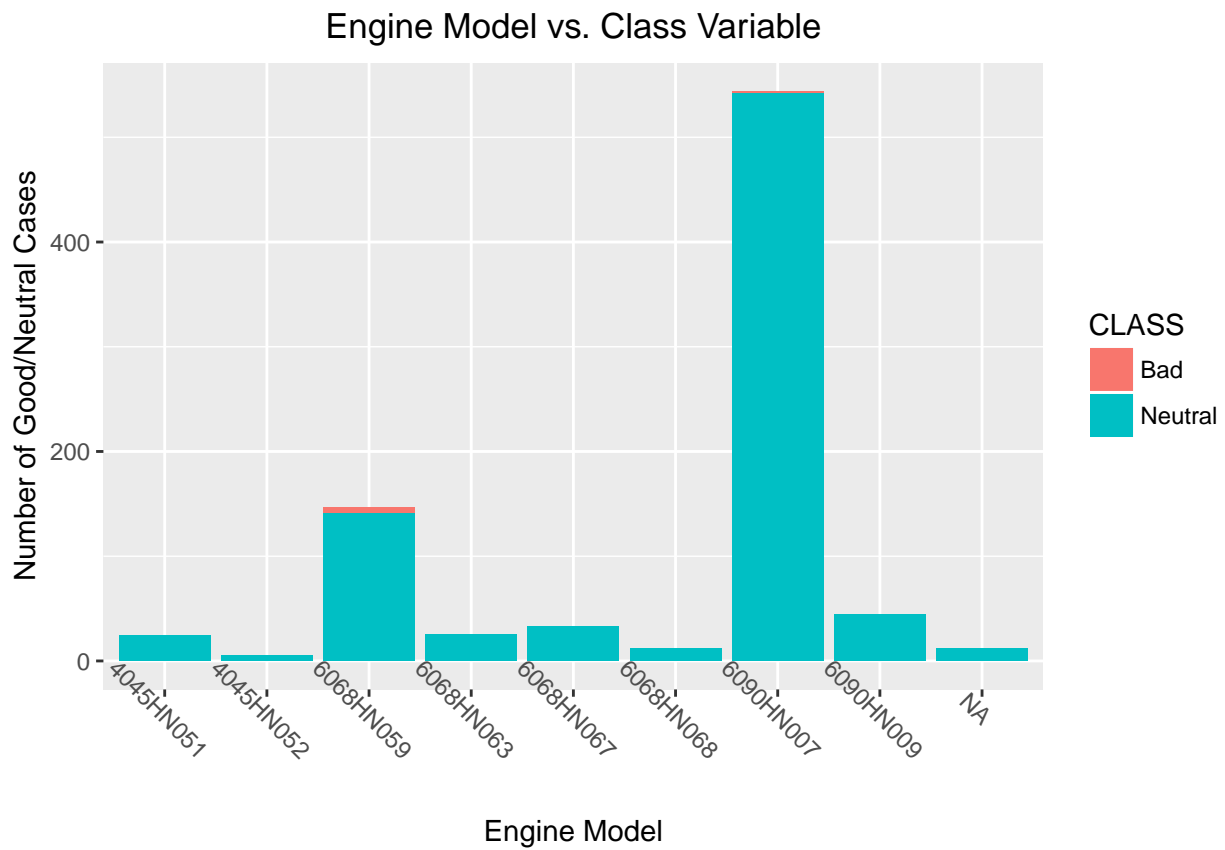
Engine Model

ENGINE_MODEL	Bad	Neutral
4045HN051	NA	24
4045HN052	NA	5
6068HN059	5	142
6068HN063	NA	25
6068HN067	NA	33
6068HN068	NA	12
6090HN007	1	543
6090HN009	NA	44
NA	NA	12

ENGINE GENERATION MODEL

Including Plots

Engine Generation vs. Class Variable
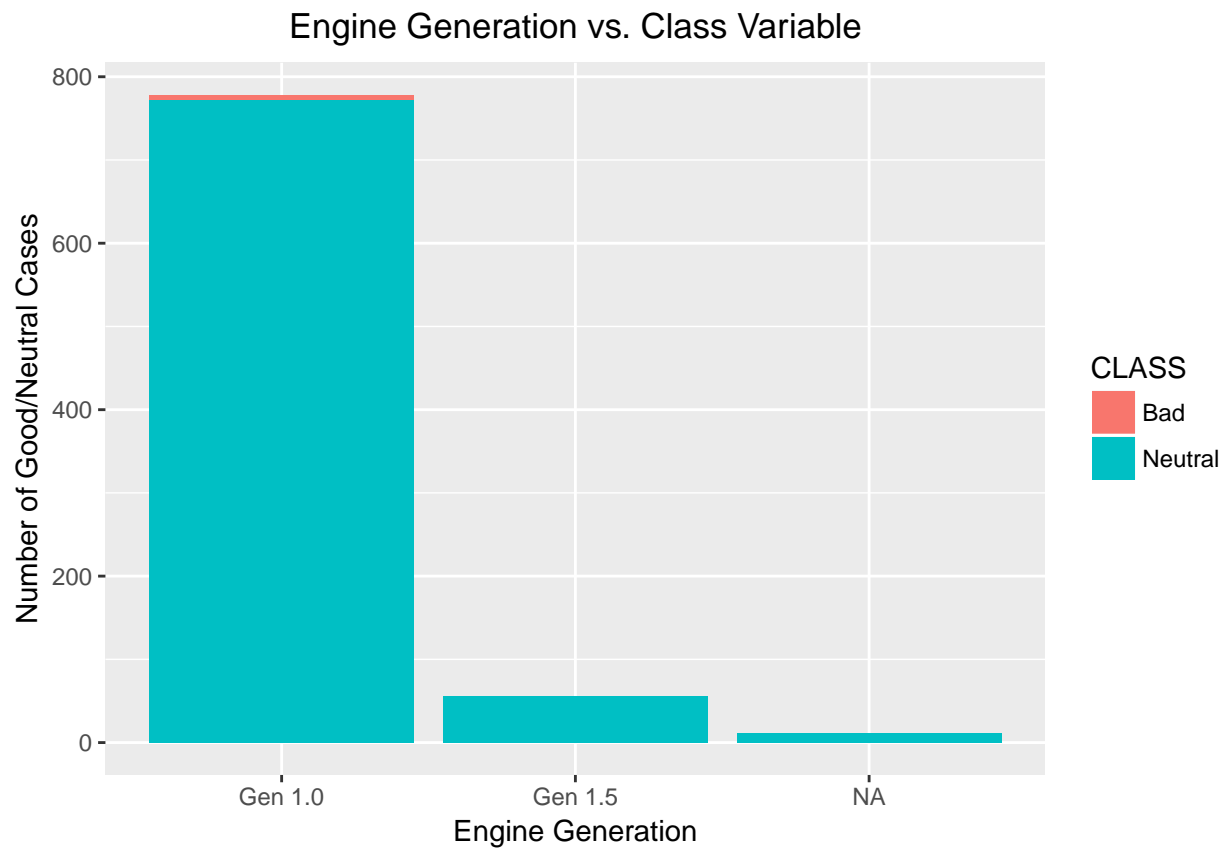
GEN	Bad	Neutral
Gen 1.0	6	772
Gen 1.5	NA	56
NA	NA	12

ENGINE HARDWARE SET

Including Plots

Engine Hardware Set vs. Class Variable

HW_SET	Bad	Neutral
HW1	5	187
HW11	NA	29
HW2	NA	25
HW3	1	587
NA	NA	12
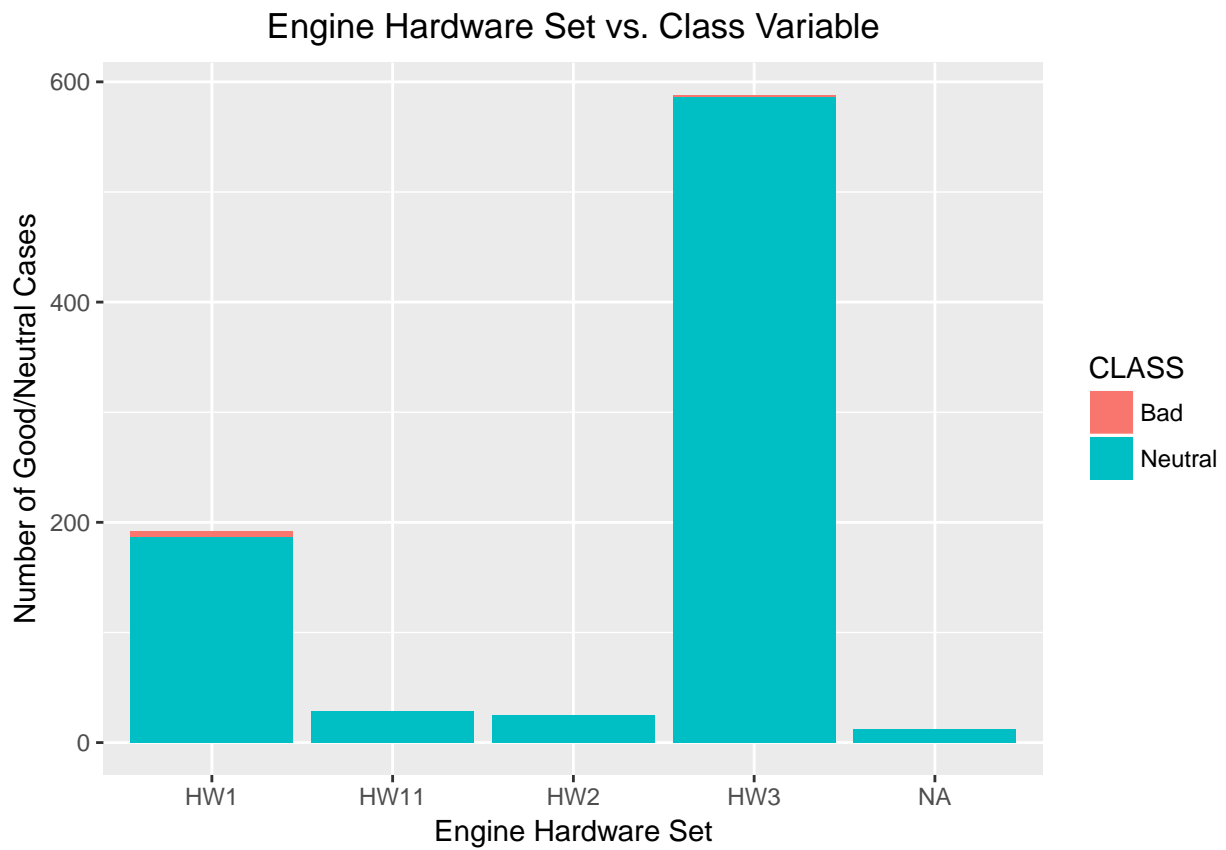
ENGINE AFTERTREATMENT

Including Plots

Engine Aftertreatment Size vs. Class Variable
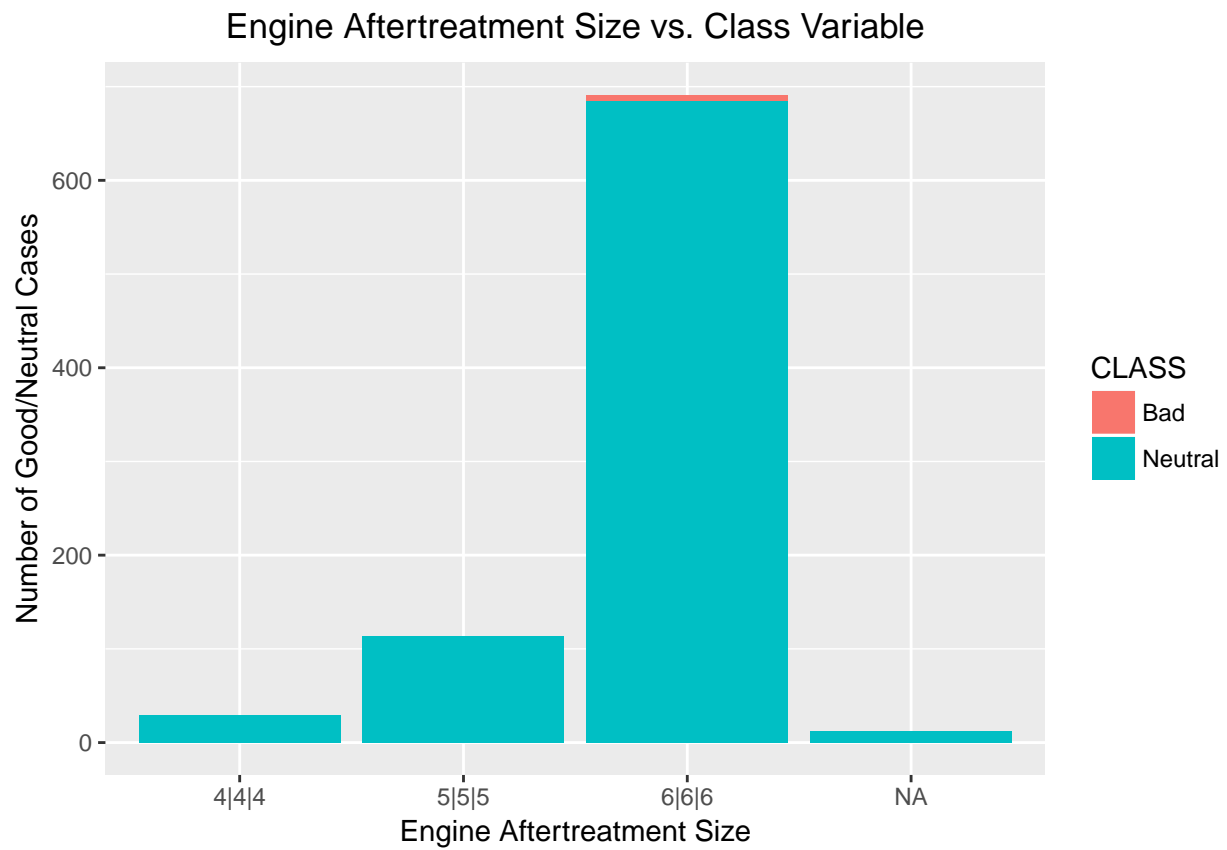
AT_SIZE	Bad	Neutral
4|4|4	NA	29
5|5|5	NA	114
6	6	6	6	685
NA	NA	12

ENGINE MFG YR

Including Plots

Engine Manufacture Year vs. Class Variable
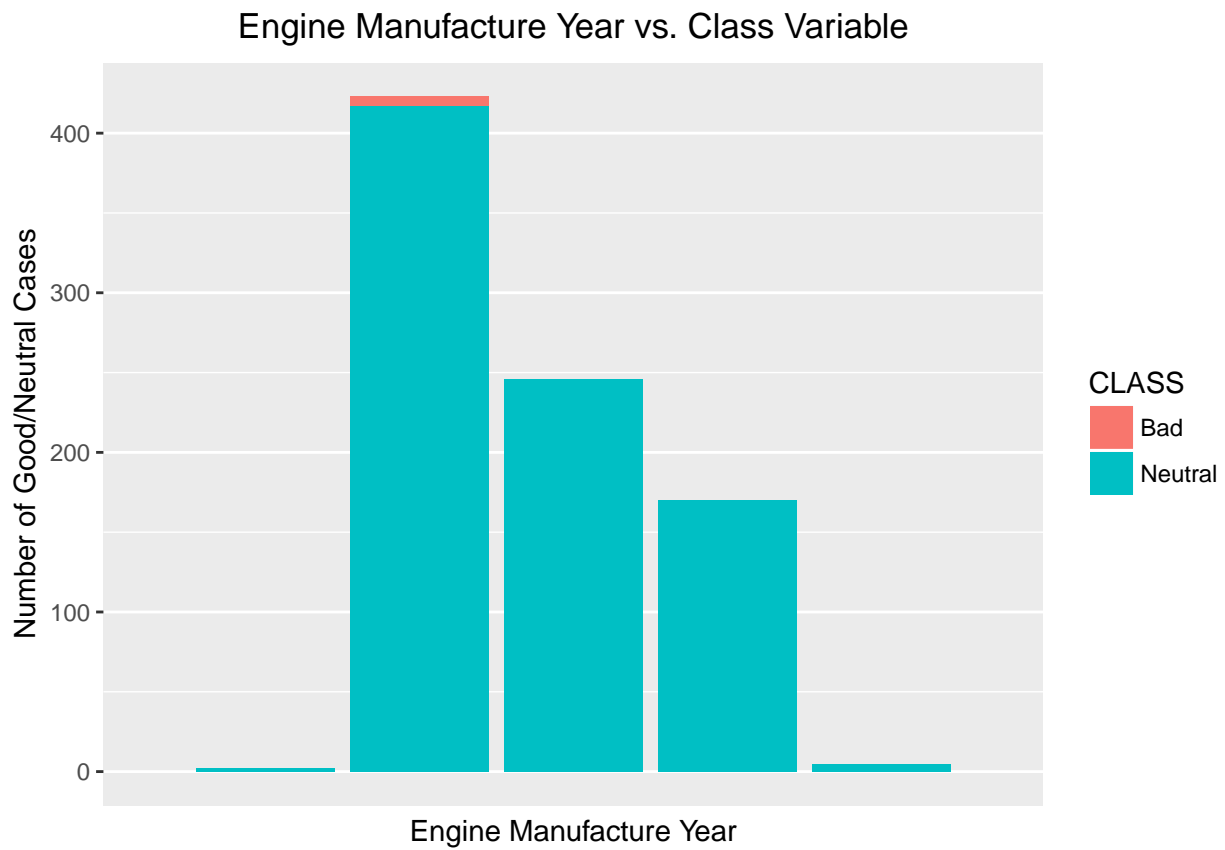
MFG_YR	Bad	Neutral
2013	NA	2
2014	6	417
2015	NA	246
2016	NA	170
2017	NA	5

ENGINE INJECTOR PART NUMBER

Including Plots

Fuel Injector Part Number vs. Class Variable
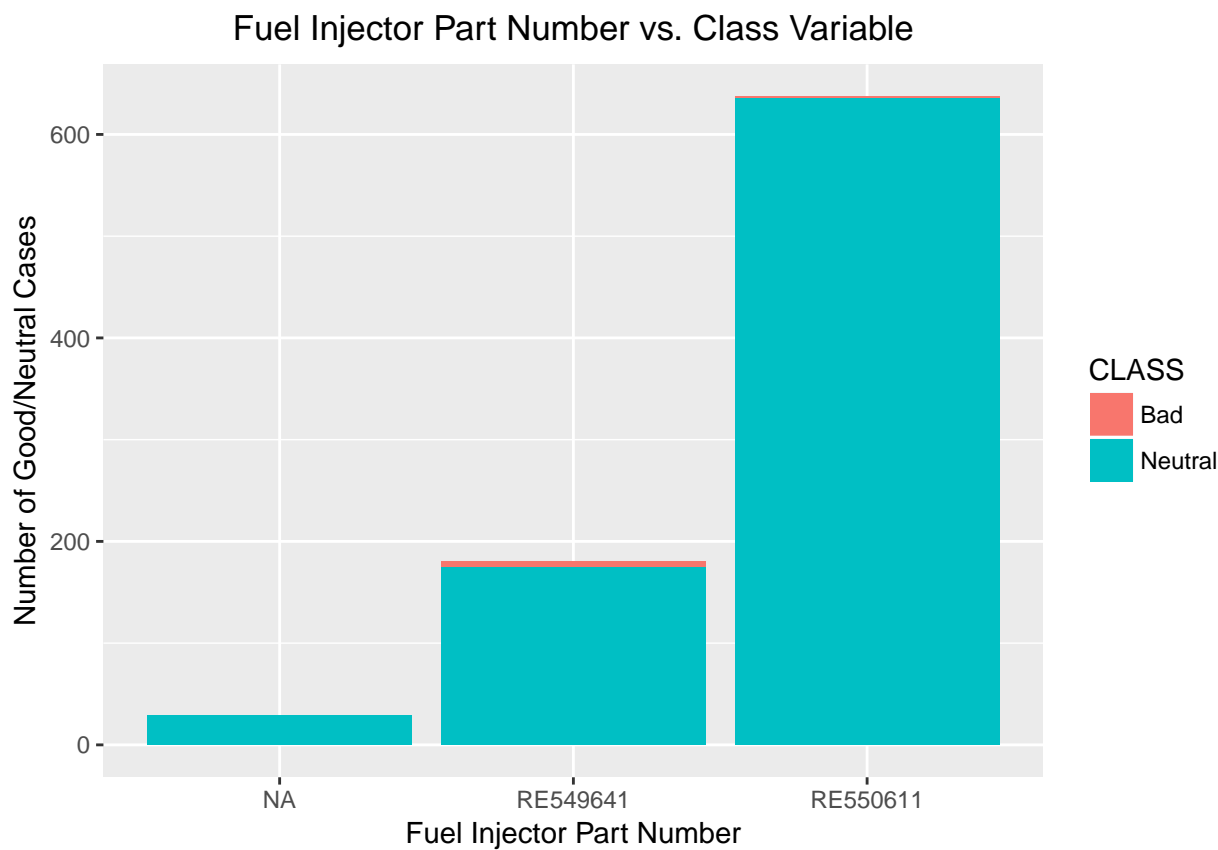
INJ_1_PN	Bad	Neutral
NA	NA	29
RE549641	5	175
RE550611	1	636