NFL Salary Research

Austin Miles

September 9, 2019

```
library(ggplot2)
```

```
## Warning: package 'ggplot2' was built under R version 3.5.3
```

```
library(readxl)
```

```
## Warning: package 'readxl' was built under R version 3.5.3
```

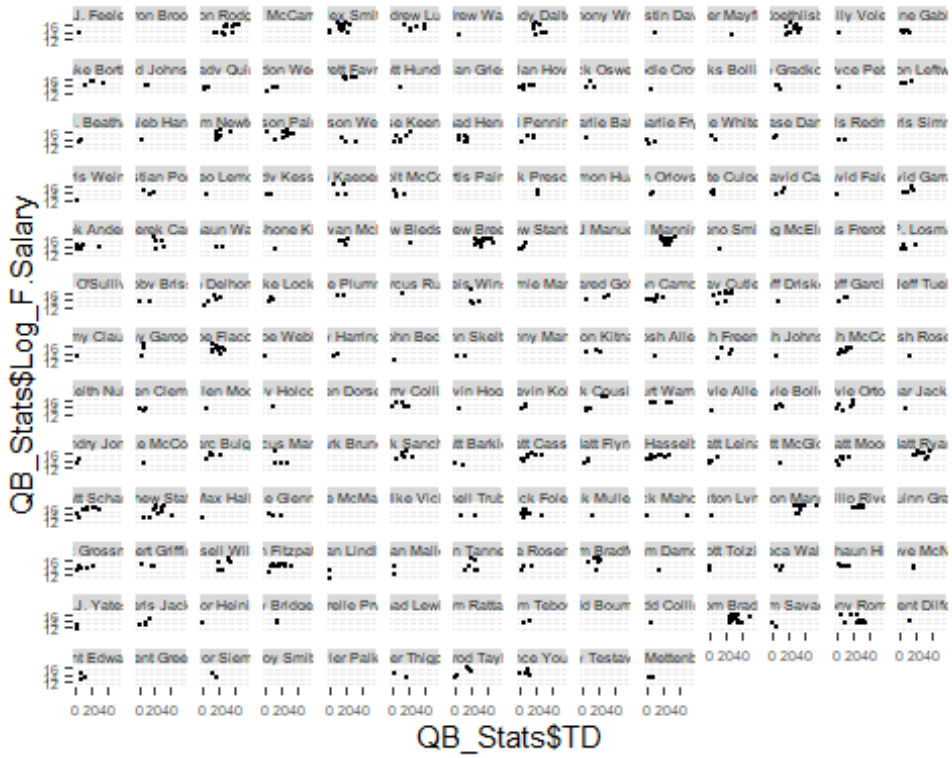
```
QB_Stats <- read_excel("QBstats.xlsx")
QB_Salary <- read_excel("QBsalaray.xlsx")
for (i in 1: 700){
  for (j in 1: 1340){
    if  (QB_Stats[i, "Player"] == QB_Salary[j, "Player"]){
      if (QB_Stats[i, "Following Year"] == QB_Salary[j, "Year"]){
        QB_Stats[i, "Following Salary"] = QB_Salary[j, "base"]
      }}}}
QB_Stats$Log_F.Salary <- log(QB_Stats$`Following Salary`)
```

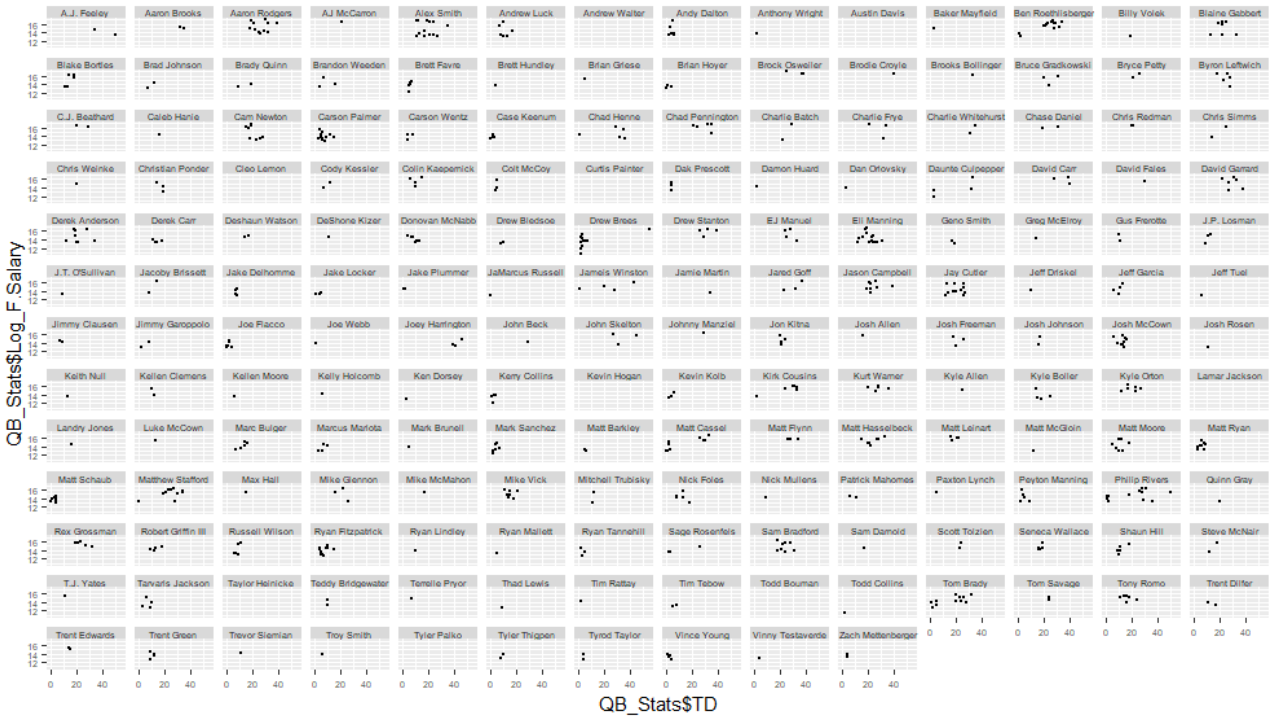
```
head(QB_Stats[1:10,c("Player","TD","Following Salary")])
```

```
## # A tibble: 6 x 3
##   Player               TD `Following Salary`
##   <chr>             <dbl>              <dbl>
## 1 Ben Roethlisberger    34            2500000
## 2 Patrick Mahomes       50             645000
## 3 Matt Ryan             35            2750000
## 4 Jared Goff            32            4259683
## 5 Andrew Luck           39            9125000
## 6 Aaron Rodgers         25            1100000
```

```
ggplot(QB_Stats, aes(x = QB_Stats$TD, y = QB_Stats$Log_F.Salary))+
         geom_point(colour = "black", size = .5) +
facet_wrap(~QB_Stats$Player)+
  theme(axis.text=element_text(size=5), strip.text = element_text(size = 5,
margin = margin()))
```

```
## Warning: Removed 95 rows containing missing values (geom_point).
```





It is clear that the two outputs are different. The top one was done in R markdown and the bottom was done in the R script.