Football_Export.Rmd

An implementation in R Markdown

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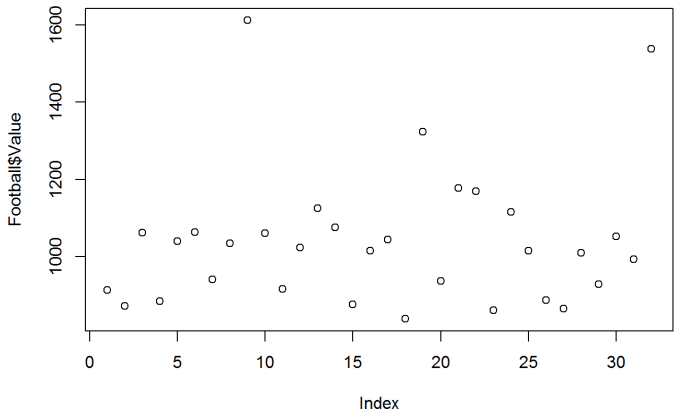
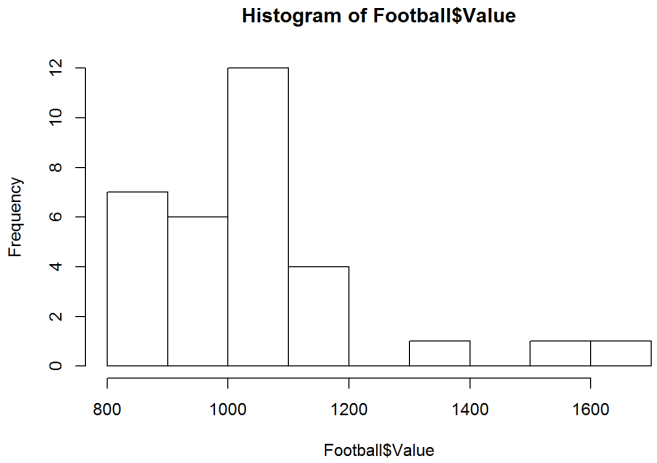
Introduction

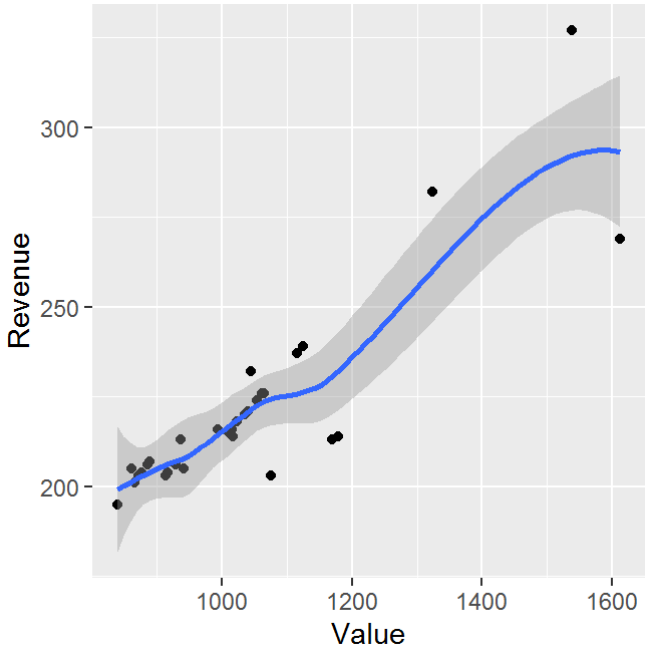
The test was data collected on all 32 American Football teams to see if team revenue was related to percieved value of the team. The data came from the 2014 season.

1. A section with the descriptive statistics, reporting the descriptive statistics in word and numbers,

```
##   count  sum min max     mean median range  q1  q3 iqr       sd
## 1    32 7090 195 327 221.5625  214.5   132 205 226  21 26.72553 714.
##             Df Sum Sq Mean Sq F value   Pr(>F)
## Value        1  16990   16990   98.93 5.19e-11 ***
## Residuals   30   5152     172
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```







Football: Revenue Versus Value

```
library(ggplot2)
football2 <- Football
ggplot(football2, aes(Value, Revenue)) +
  geom_point() + geom_smooth() +
  theme(legend.position = 'bottom')
```

ANOVA Analysis

including the hypothesis, testing the assumptions and the result of these tests (Normality, Homogeneity of Variance)

Hypothesis is a p value less than .05. The p-value from this data set was less than .05, we decided not to reject the null hypothesis.

For this data set, the shapiro test was not functioning properly - instead we used a quantile-quantile plot. Found only one outlier and concluded that it satisfied this test.

Homogeneity of Variance did not work with this data set due to the fact the levene test not function. This could jeapordize the validity of this data set, but since there is no other data to collect in regards to this(All 32 teams have been accounted for). The p value is very small, thereofre it is unlikely the result is wrong.

```
qqp <- ggplot(Football) +
stat_qq(aes(sample = Revenue, colour = factor(Value))) +
guides(col = guide_legend(title = "Cylinder"))
```

```
knitr::kable(
  Football[1:30, 1:3], caption = 'Football'
)
```

Football

Team	Revenue	Value
Arizona Cardinals	203	914
Atlanta Falcons	203	872
Baltimore Ravens	226	1062
Buffalo Bills	206	885
Carolina Panthers	221	1040
Chicago Bears	226	1064
Cincinnati Bengals	205	941
Cleveland Browns	220	1035
Dallas Cowboys	269	1612
Denver Broncos	226	1061
Detroit Lions	204	917
Green Bay Packers	218	1023
Houston Texans	239	1125
Indianapolis Colts	203	1076
Jacksonville Jaguars	204	876
Kansas City Chiefs	214	1016
Miami Dolphins	232	1044
Minnesota Vikings	195	839
New England Patriots	282	1324
New Orleans Saints	213	937
New York Giants	214	1178
New York Jets	213	1170
Oakland Raiders	205	861
Philadelphia Eagles	237	1116
Pittsburgh Steelers	216	1015
San Diego Chargers	207	888
San Francisco 49ers	201	865
Seattle Seahawks	215	1010
St Louis Rams	206	929
Tampa Bay Buccaneers	224	1053

Block Quotes

> "Football is like life, it requires perseverance, self-denial, hard work sacrifice, dedication and respect for authority."
>
> — Vice Lombardi

More Examples

```
p <- ggplot(football2, aes(Value, Revenue)) +
  geom_point()
p
p + geom_smooth()
```