

Report on Vehicle Failures

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PART-1: Read data

```
#Read the data
```

```
vehicle <- read.csv('vehicle.csv', header = T)  
str(vehicle)
```

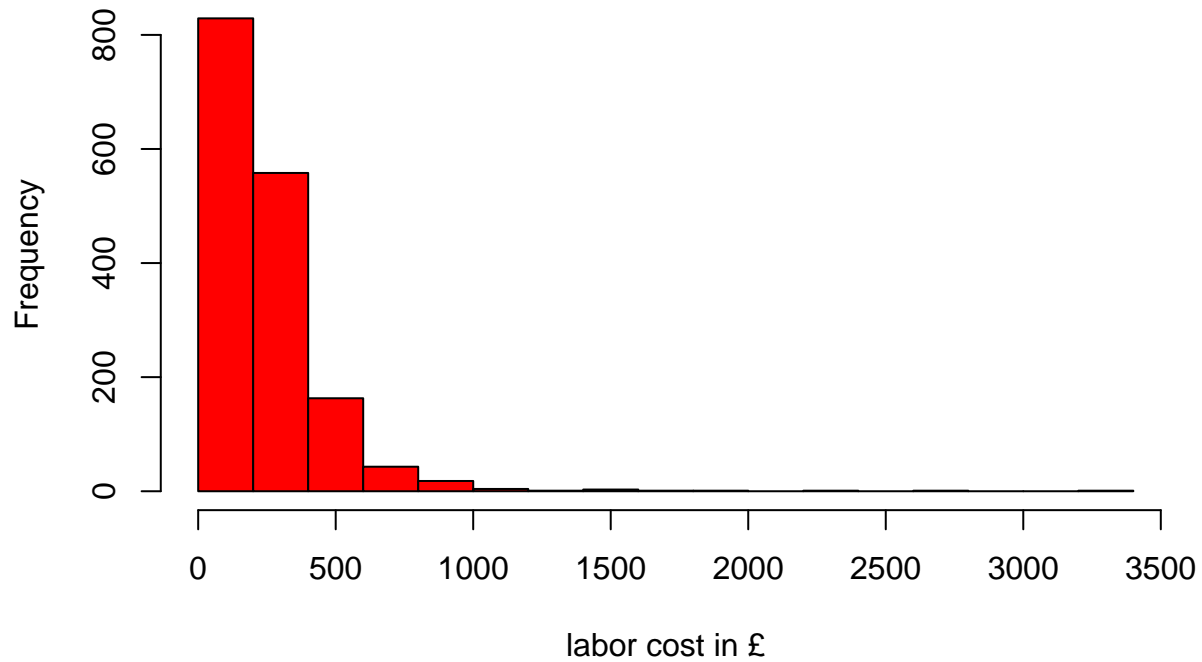
```
## 'data.frame': 1624 obs. of 7 variables:  
## $ Vehicle: int 1 2 3 4 5 6 7 8 9 10 ...  
## $ fm : num 0 10 15 0 13 21 11 5 8 1 ...  
## $ Mileage: num 863 4644 16330 13 22537 ...  
## $ lh : num 1.1 2.4 4.2 1 4.5 3.1 0.7 2.9 3.4 0.7 ...  
## $ lc : num 66.3 233 325.1 66.6 328.7 ...  
## $ mc : num 697 120 175 0 175 ...  
## $ State : chr "MS" "CA" "WI" "OR" ...
```

COMMENTS: There are seven variables. One variable is factor.

```
#make an histogram
```

```
hist(vehicle$lc,  
      col = 'red',  
      main = 'Histogram for Labor Cost',  
      xlab = 'labor cost in £')
```

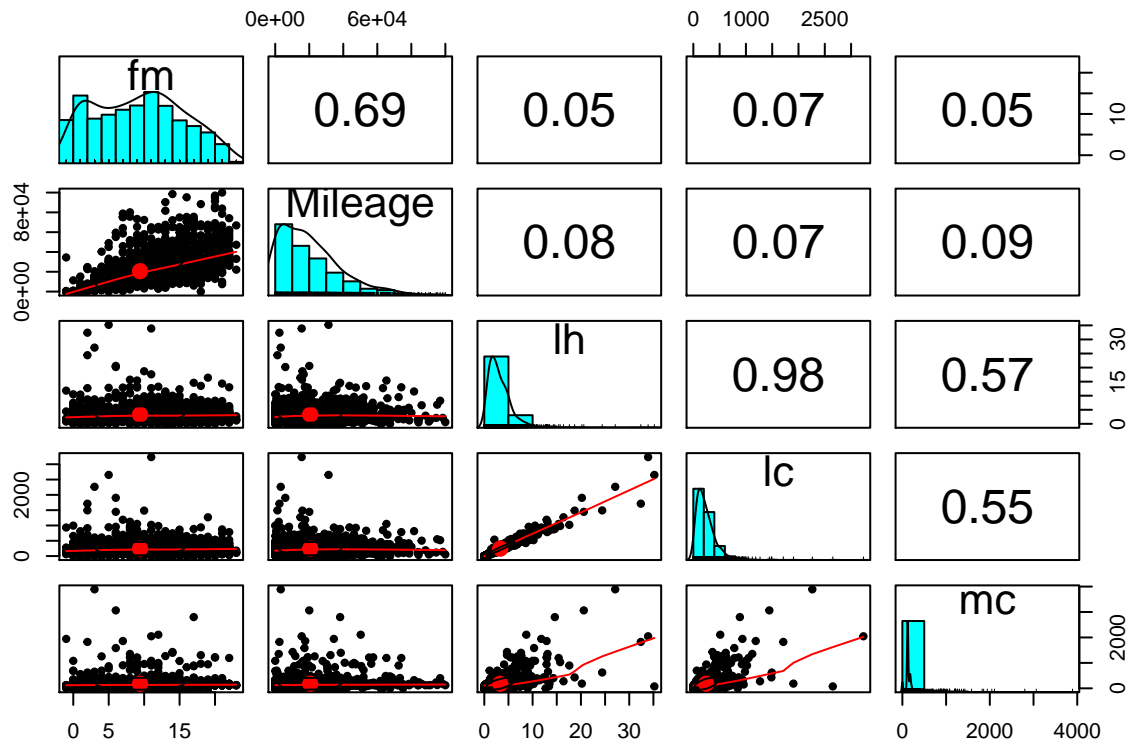
Histogram for Labor Cost



COMMENTS: This histogram is right skewed that has a long tail on the right side. Most of labor cost is below £500, but some repairs have more than £2000 labor cost.

PLOT-2: Pair Panels

```
#install psych package
library(psych)
pairs.panels(vehicle[,c(2:6)])
```



COMMENTS: Variables lc and lh have a strong correlation. Correlation coefficient is 0,98 wich is very high.

R Markdown

This is an R Markdown document. Markdown is a simple formatting syntax for authoring HTML, PDF, and MS Word documents. For more details on using R Markdown see <http://rmarkdown.rstudio.com>.

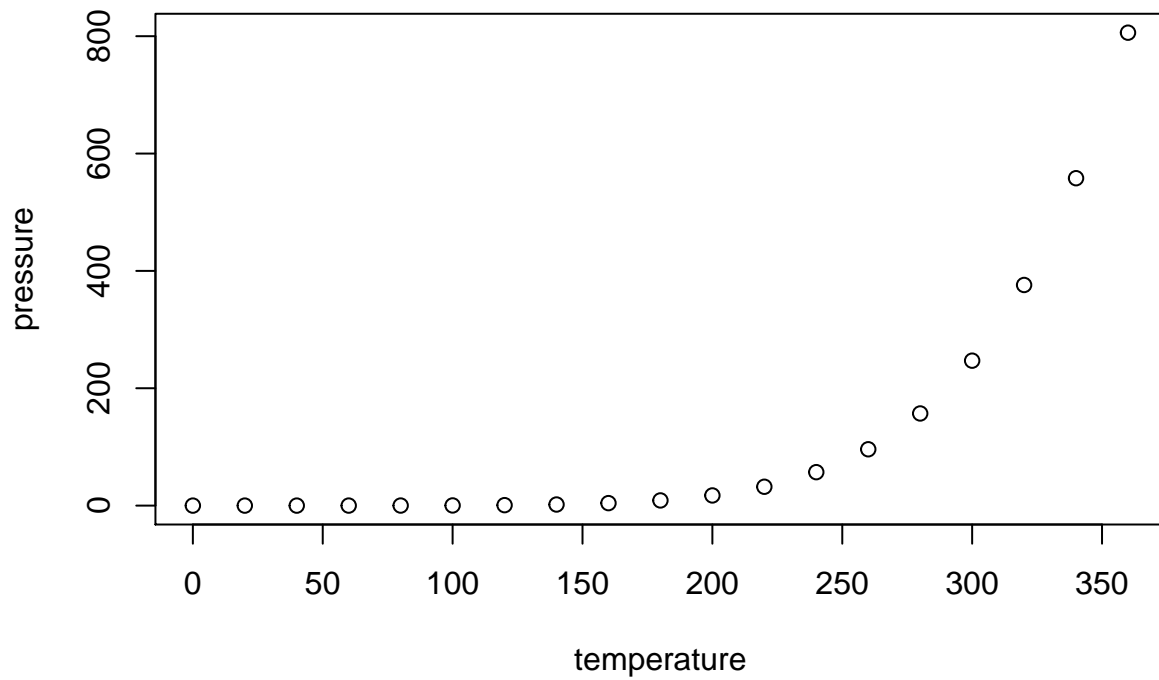
When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

```
summary(cars)
```

```
##      speed      dist
##  Min.   : 4.0    Min.   :  2.00
## 1st Qu.:12.0    1st Qu.: 26.00
## Median :15.0    Median : 36.00
## Mean   :15.4    Mean   : 42.98
## 3rd Qu.:19.0    3rd Qu.: 56.00
## Max.   :25.0    Max.   :120.00
```

Including Plots

You can also embed plots, for example:



Note that the `echo = FALSE` parameter was added to the code chunk to prevent printing of the R code that generated the plot.