```r
options(repos = c(CRAN = "https://cran.r-project.org"))
install.packages("readxl")
```

```
## Installing package into 'C:/Users/jaiti/AppData/Local/R/win-library/4.3'
## (as 'lib' is unspecified)

## package 'readxl' successfully unpacked and MD5 sums checked
##
## The downloaded binary packages are in
##  C:\Users\jaiti\AppData\Local\Temp\Rtmpmyo2C9\downloaded_packages
```

```r
library(readxl)
```

```
## Warning: package 'readxl' was built under R version 4.3.2
```

```r
install.packages("car")
```

```
## Installing package into 'C:/Users/jaiti/AppData/Local/R/win-library/4.3'
## (as 'lib' is unspecified)

## package 'car' successfully unpacked and MD5 sums checked

## The downloaded binary packages are in
##  C:\Users\jaiti\AppData\Local\Temp\Rtmpmyo2C9\downloaded_packages
```

```r
library(car)
```

```
## Warning: package 'car' was built under R version 4.3.2

## Loading required package: carData

## Warning: package 'carData' was built under R version 4.3.2
```

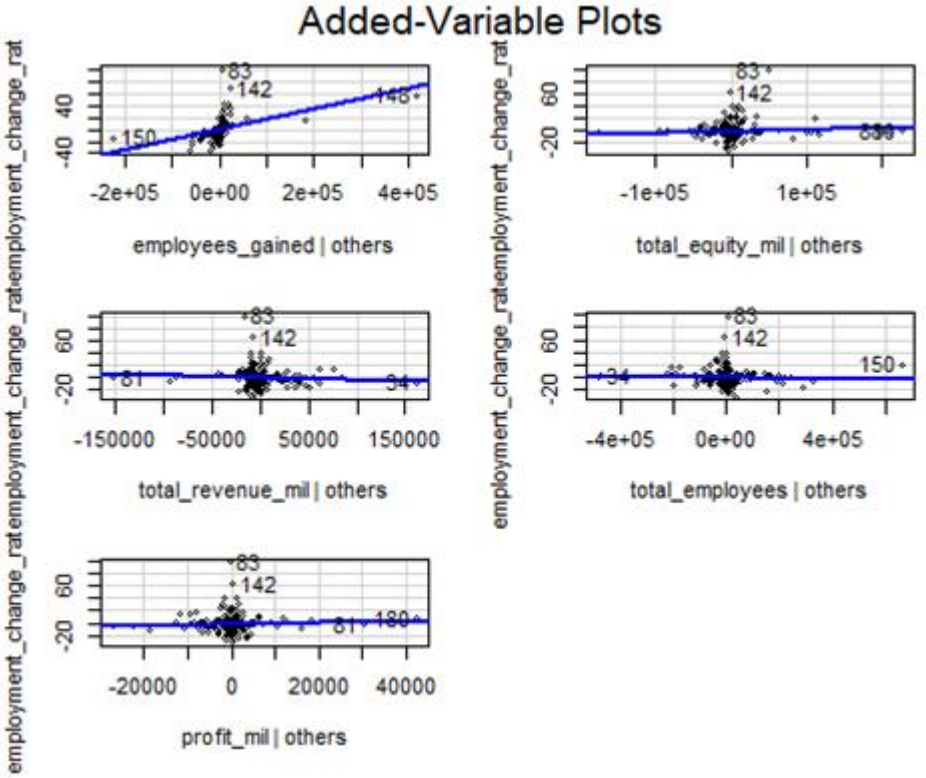
```r
#imported necessary packages

emp_df <- read_excel("employmentfortune.xlsx")
#loaded data set

emp_df <- na.omit(emp_df)
lm_model <- lm(employment_change_rate ~ employees_gained + total_equity_mil +
total_revenue_mil + total_employees + profit_mil, data = emp_df)
summary(lm_model)
```

```
##
## Call:
## lm(formula = employment_change_rate ~ employees_gained + total_equity_mil
+
##     total_revenue_mil + total_employees + profit_mil, data = emp_df)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
```

```
## -31.800  -6.322  -1.211   3.568  99.028
##
## Coefficients:
##                      Estimate Std. Error t value Pr(>|t|)
## (Intercept)         3.850e+00  1.092e+00   3.524 0.000517 ***
## employees_gained    1.728e-04  2.447e-05   7.061  2.1e-11 ***
## total_equity_mil    2.633e-05  2.471e-05   1.065 0.287828
## total_revenue_mil -4.152e-05  3.404e-05  -1.220 0.223820
## total_employees   -6.012e-06  9.582e-06  -0.627 0.531011
## profit_mil          1.325e-04  1.535e-04   0.863 0.388955
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 13.63 on 222 degrees of freedom
## Multiple R-squared:  0.1901, Adjusted R-squared:  0.1719
## F-statistic: 10.42 on 5 and 222 DF,  p-value: 5.344e-09
```

```
#summary of multilinear regression output
```

```
partial_plots <- avPlots(lm_model)
```




```
#partial regression plots for all the independent variables
```