Overview of "sat" Dataset from "faraway" Package

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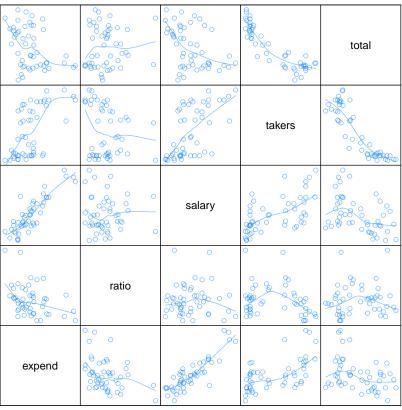
This document provides a brief overview of the sat dataset in the faraway R package.

```
##
        expend
                         ratio
                                         salary
                                                          takers
           :3.656
                                                             : 4.00
##
   Min.
                            :13.80
                                             :25.99
                    Min.
                                     Min.
                                                      Min.
   1st Qu.:4.882
                    1st Qu.:15.22
                                     1st Qu.:30.98
                                                      1st Qu.: 9.00
##
##
   Median :5.768
                    Median :16.60
                                     Median :33.29
                                                      Median :28.00
##
   Mean
           :5.905
                    Mean
                            :16.86
                                     Mean
                                             :34.83
                                                      Mean
                                                             :35.24
    3rd Qu.:6.434
                    3rd Qu.:17.57
                                     3rd Qu.:38.55
                                                      3rd Qu.:63.00
##
                            :24.30
                                             :50.05
                                                             :81.00
##
    Max.
           :9.774
                    Max.
                                     Max.
                                                      Max.
        verbal
                                         total
##
                          math
   Min.
                                     Min.
##
           :401.0
                    Min.
                            :443.0
                                             : 844.0
##
   1st Qu.:427.2
                    1st Qu.:474.8
                                     1st Qu.: 897.2
##
   Median :448.0
                    Median :497.5
                                     Median : 945.5
   Mean
           :457.1
                    Mean
                            :508.8
                                     Mean
                                             : 965.9
    3rd Qu.:490.2
                    3rd Qu.:539.5
##
                                     3rd Qu.:1032.0
   Max. :516.0
                    Max. :592.0
                                     Max. :1107.0
```

From the summary, and the associated help (not shown), the following observations can be made:

The dataframe contains 50 rows and 7 columns.

Scatter Plot Matrix of sat



Scatter Plot Matrix not all variables included

Figure 1: multi-variate comparisons

```
# Row names give the specific US State
# name. There are no factor variables for
# coding.

# The math and verbal variables are
# highly correlated with each other and
# the total variable. They will not be
# shown in the splom.
```

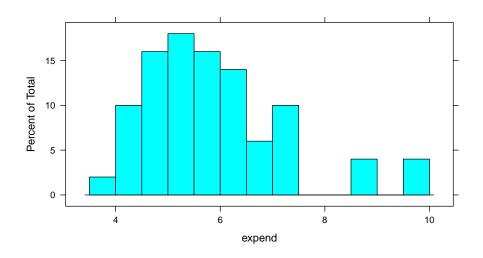


Figure 2: Histogram of the expend variable

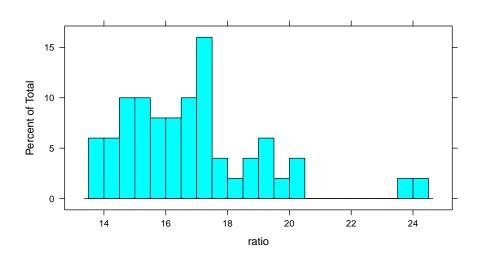


Figure 3: Histogram of the ratio variable

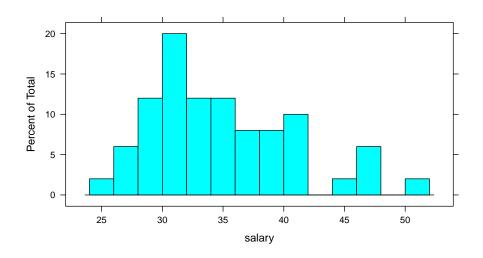


Figure 4: Histogram of the salary variable

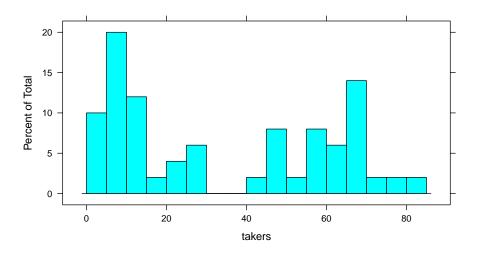


Figure 5: Histogram of the takers variable

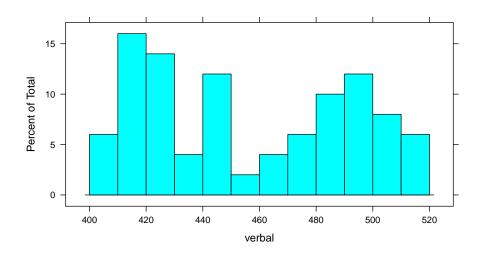


Figure 6: Histogram of the verbal variable

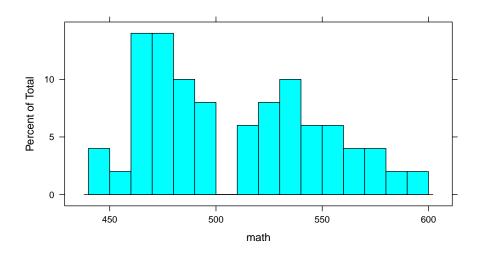


Figure 7: Histogram of the math variable

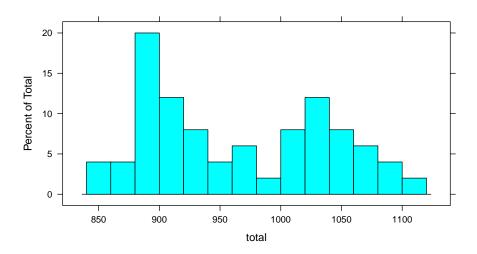


Figure 8: Histogram of the total variable

Correlogram of sat

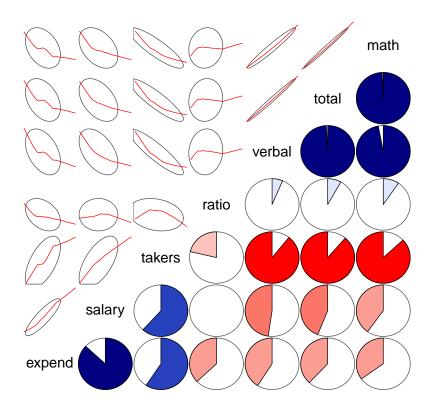


Figure 9: Correlogram