

# Stats

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## Statistics with R - Assignment

This repository contains an assignment related to statistical analysis using R.

### Project Overview

- This assignment involves applying statistical methods using R.
- It includes data exploration, visualization, and hypothesis testing.
- The goal is to gain hands-on experience with statistical concepts and R programming.

#### 1. Data exploration

A brief overview of the data set, including the number of variables and their data types, and the number of observations.

```
## [1] "The no.of variables in the dataset are: 12"
```

```
## [1] "The no.of rows in the dataset are: 1113"
```

```
## [1] "The no.of columns in the dataset are: 12"
```

Following is the list of variables and their data types:

```
## 'data.frame':  1113 obs. of  12 variables:
## $ age      : int  56 35 51 24 25 57 41 32 53 59 ...
## $ educ     : int  4 0 2 0 3 4 4 1 4 3 ...
## $ gender   : int  1 0 1 0 0 0 0 0 0 0 ...
## $ hrswork  : int  40 40 40 40 40 40 40 70 40 40 ...
## $ insure   : int  1 1 1 0 1 1 1 1 1 1 ...
## $ metro    : int  1 1 1 0 1 1 1 1 1 1 ...
## $ nchild   : int  0 2 2 0 0 0 1 1 0 1 ...
## $ union    : int  1 0 0 0 0 0 0 0 0 0 ...
## $ wage     : num  33.6 20 16.3 9.5 31 ...
## $ race     : chr   "White" "White" "White" "White" ...
## $ marital  : int  1 1 1 1 0 1 1 1 0 1 ...
## $ region   : chr   "south" "south" "midwest" "midwest" ...
```

Descriptive statistics. Present your results clearly using tables and comment on your findings.

```
## [1] "The average age of individuals is 42.55 years, with most falling between 18 and 80 years."
```

```
## [1] "People work on average 41.89 hours per week, but some report working a maximum of 80 hours"
```

```
## [1] "The wage distribution suggests that while some earn as little as 2.75 the highest earners make 10.75"
```

No.of Male & Females are as follows:

```
##  
##      Male Female  
##      625     488
```

```
## int [1:1113] 4 0 2 0 3 4 4 1 4 3 ...
```

```
##              Var1 Freq  
## 1      high school 356  
## 2 college no degree 194  
## 3 college with degree 125  
## 4              BA 287  
## 5              MA 135  
## 6              PHD  16
```