Research question:

We found a better and statistically significant research question from our last submission based on the set of attributes from our dataset.

Our final research question is:
Does monthly income have an impact on employee job attrition?

Attrition is an inevitable part of any business. There will come a time when an employee wants to leave the company for either personal or professional reasons.

Dataset:


IBM HR_Employee Attrition Database (ve

To support our research question, we have identified a dataset from **Kaggle**, **"IBM HR Analytics Employee Attrition and Performance"**. This dataset consists of **35 attributes** and **1470 records (n)**. It has various attributes such as Attrition, Job Satisfaction, Monthly Income etc. which can be instrumental in backing our research question.

The unit of analysis in our dataset is "individuals" (employee)

Dependent Variable:
Ordinal scale categorical variable: Attrition (has two levels "Yes" and "No")

Descriptive Statistics:
Number of levels in the variable "Attrition"
```
> levels(df$Attrition)
[1] "Yes" "No"
```

Frequencies of Yes and No levels
```
> summary(df$Attrition)
 Yes   No
 237 1233
```

Percentage:
For "yes"
```
 > 237/1470*100
[1] 16.12245
```
For "No"
```
> 1233/1470*100
```

[1] 83.87755

Independent Variable:

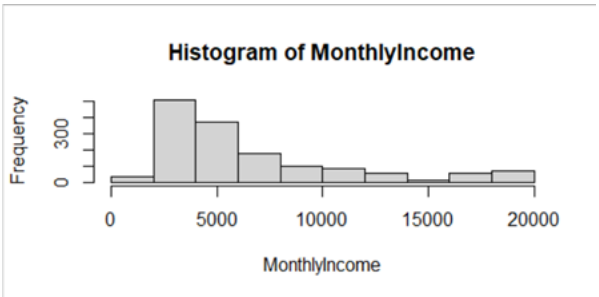
Ratio scale numerical variable: Monthly income

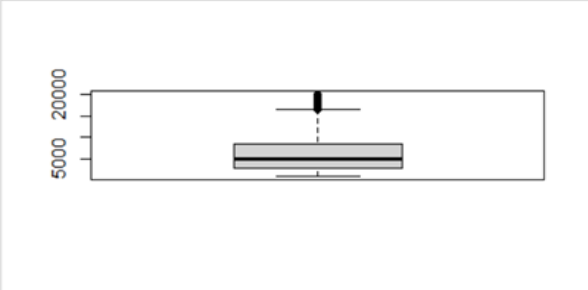
Descriptive Statistics:

Monthly income:
> summary(MonthlyIncome)
Min. 1st Qu. Median **Mean** 3rd Qu. Max.
1009 2911 4919 **6503** 8379 19999

> sd(MonthlyIncome)
[1] 4707.957

Histogram and Boxplot:





Initial interpreted analysis of our research question:

Looking at our dataset and the observed values “Monthly income” impacts employee job attrition. We will be performing a two-sample t-test to verify our problem statement.

Future Analysis

If time permits, further in this project we can consider job satisfaction and work-life balance as independent variables and job attrition as our dependent variable and perform the required statistical analysis.