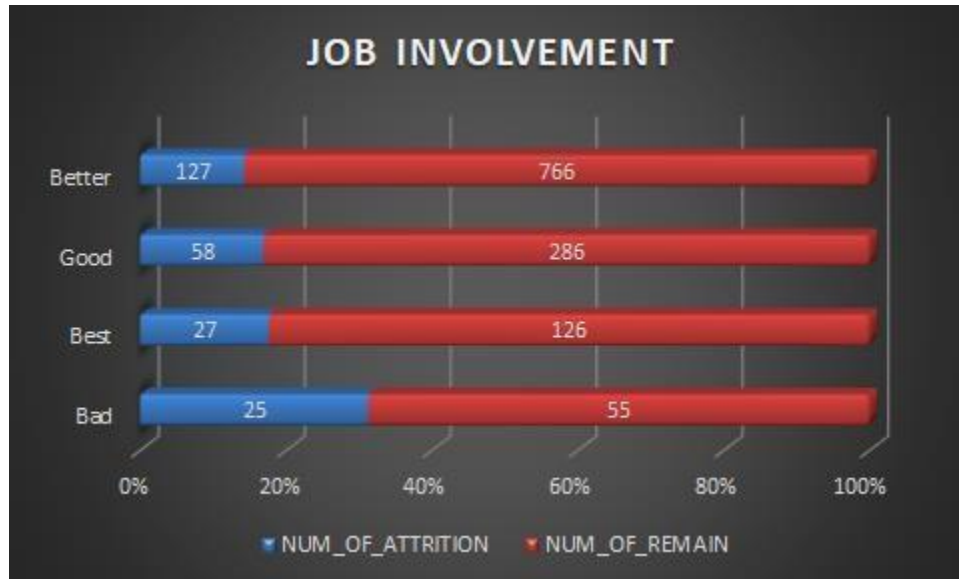


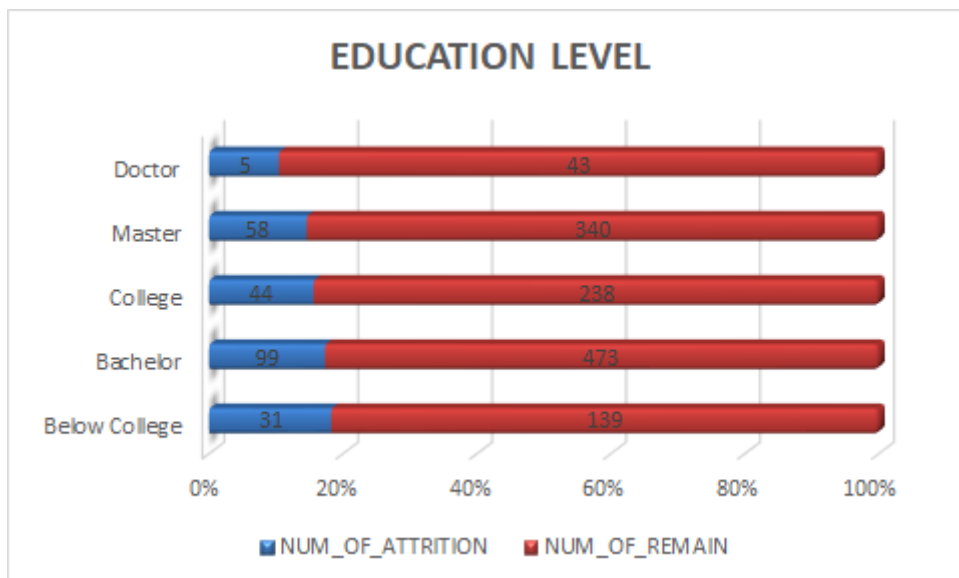
## Data Analysis & Visualization:

- **Job Involvement:**



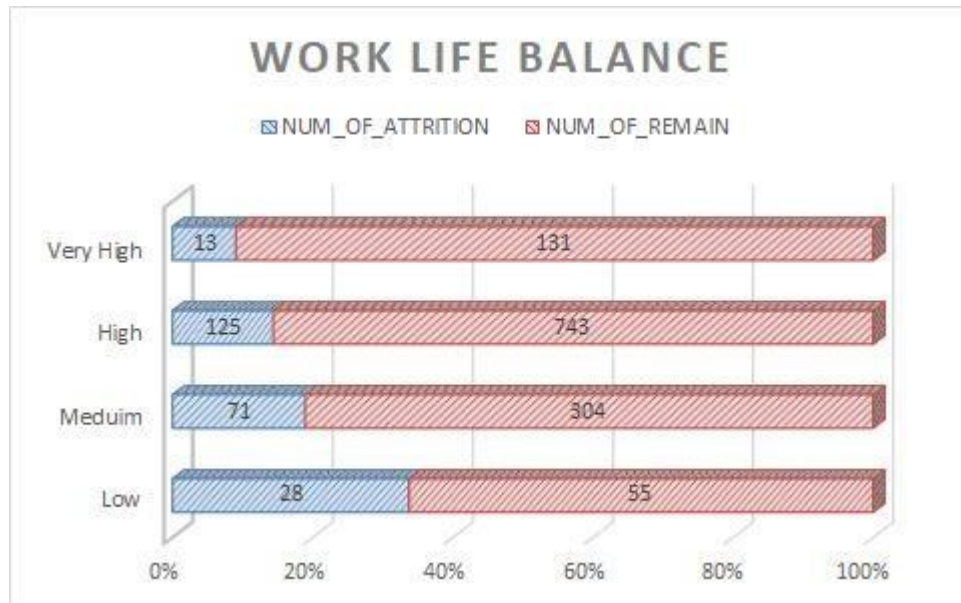
This chart shows that when the job involvement rate is very high, the attrition rate is lowest and when the job involvement rate is very low, the attrition rate is highest. So, IBM should help employees to get more involved in the job to reduce attrition rate.

- **Education Level:**



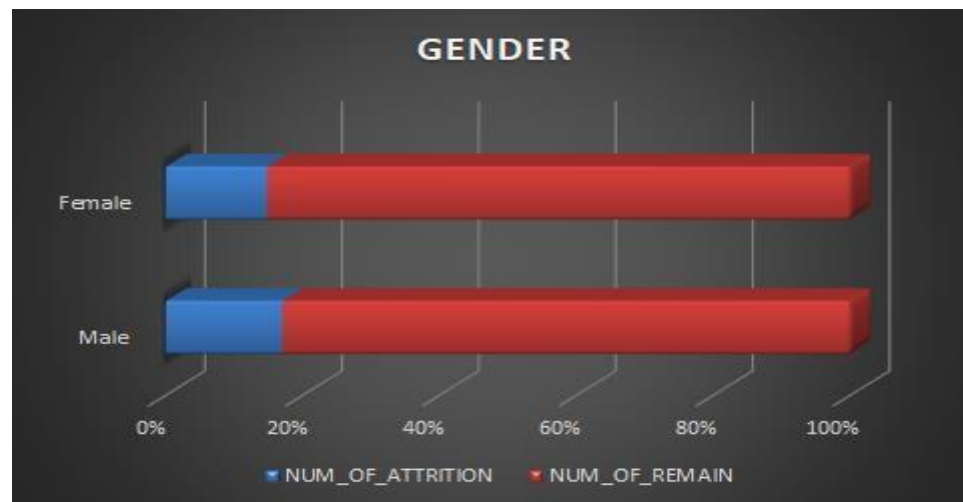
This chart shows that the attrition rate of employees whose education level is below college is the highest and the attrition rate of employees whose education level is doctor is lowest. So, IBM should hire more highly educated employees in order to reduce attrition rate.

- **Work Life Balance:**



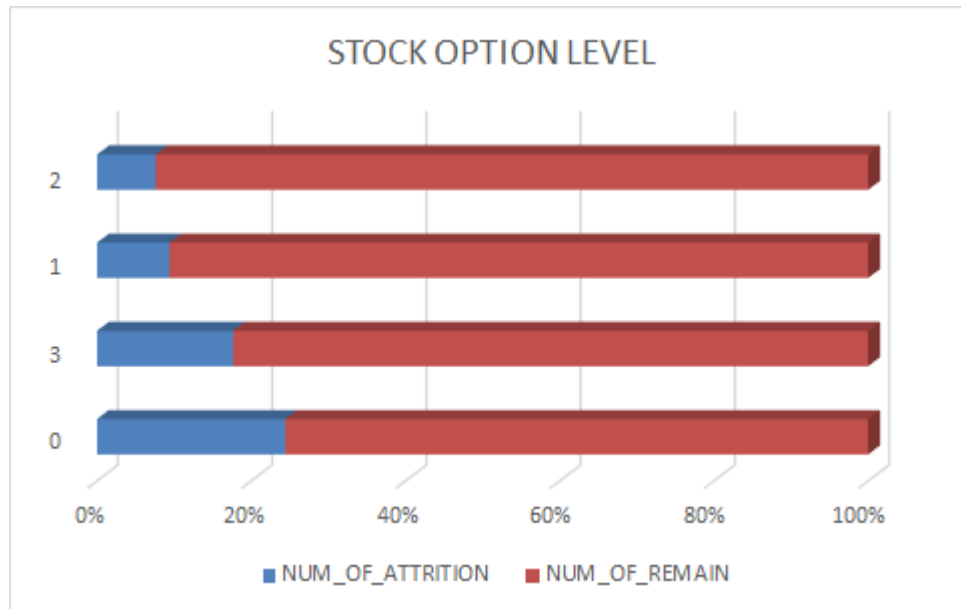
This chart shows that when employees can't balance work and life well, the attrition rate is high. So, IBM should give employees training in how to balance work and life in order to reduce attrition rate.

- **Gender:**



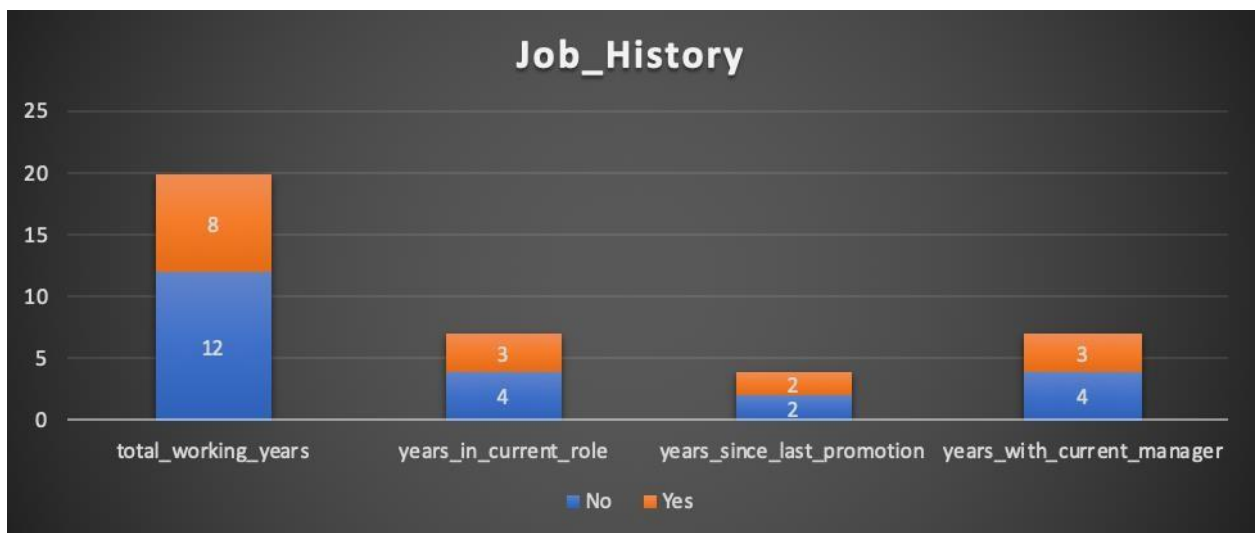
This chart shows that the attrition rates of male and female are similar. Gender is not an influential factor.

- **Stock option Level:**



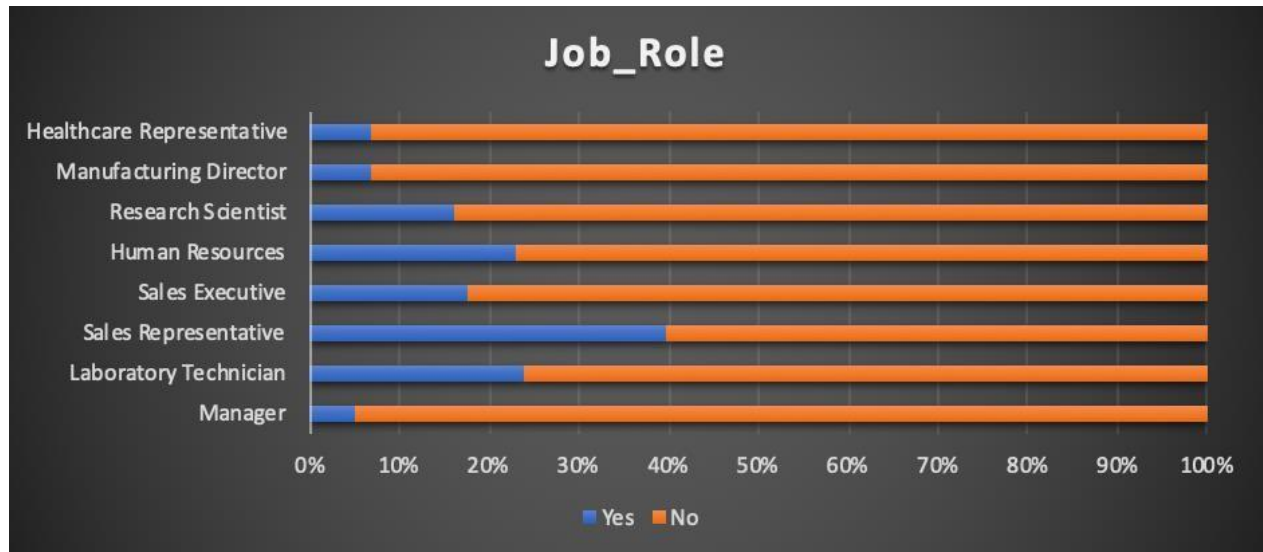
This chart shows that when there is no stock provided to employees, the attrition rate is the highest and when the employees' stock-option level is 1 or 2, the attrition rate is the relatively low.

- **Job History:**



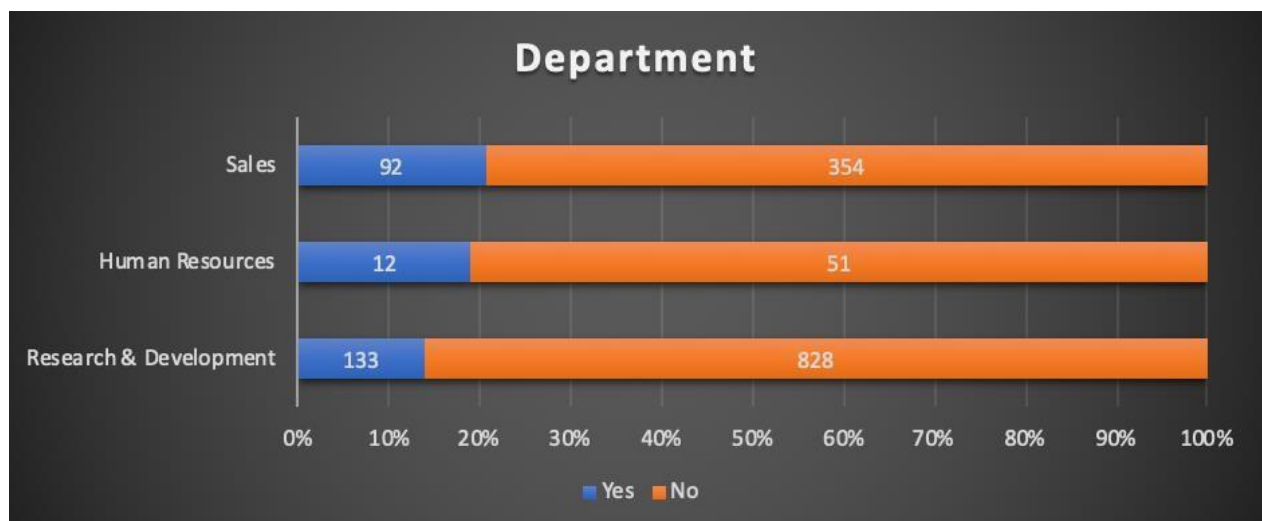
People who went through attrition have less average working years, less average years in the same role, and less years with the same manager, however the years since last promotion are similar for both

- **Job Role:**



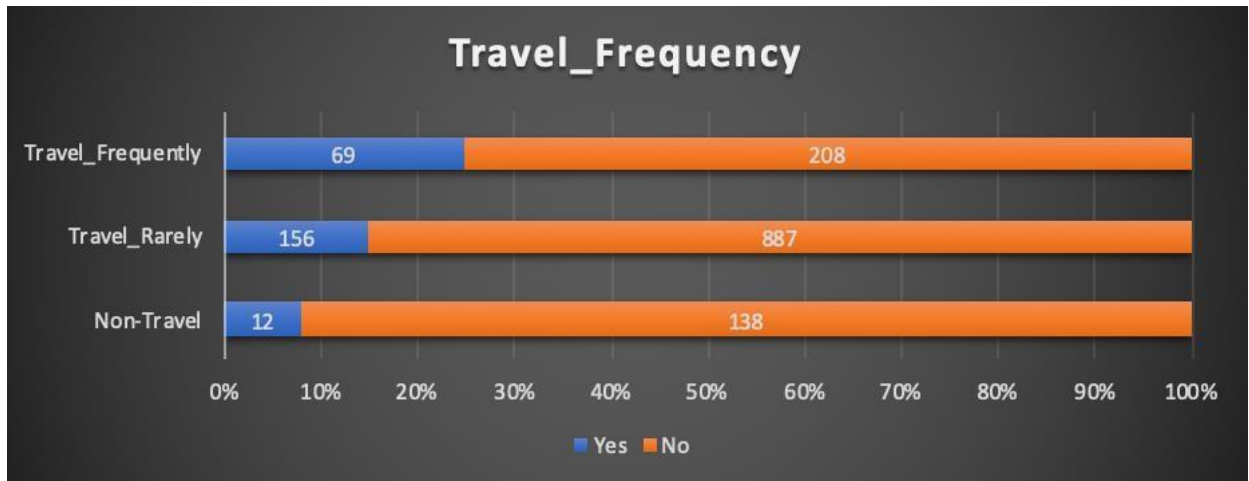
The percentage of attrition is highest amongst sales representatives and lowest amongst managers, manufacturing directors, and healthcare representatives.

- **Department:**



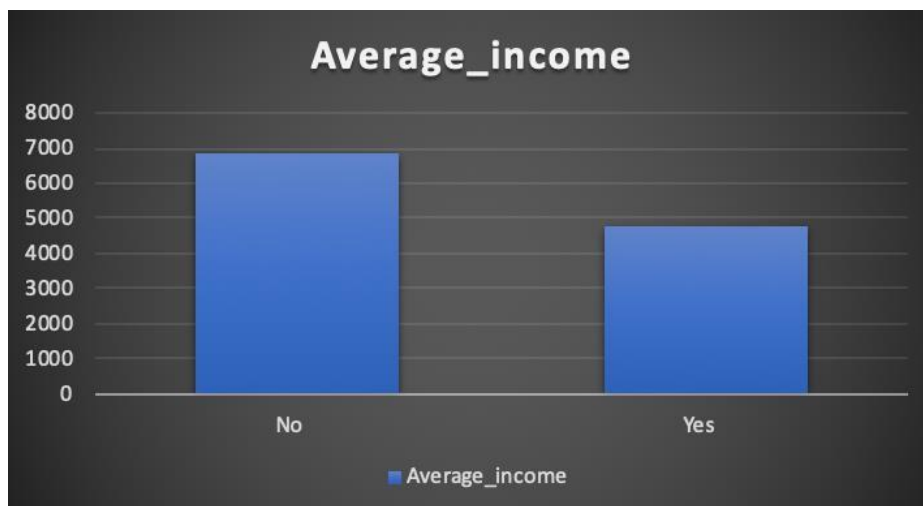
Attrition percentage is highest in the sales department at 20.63% where 92 employees out of 446 went through attrition and the lowest in the research and development department at 13.84% where 133 employees went through attrition out of 961.

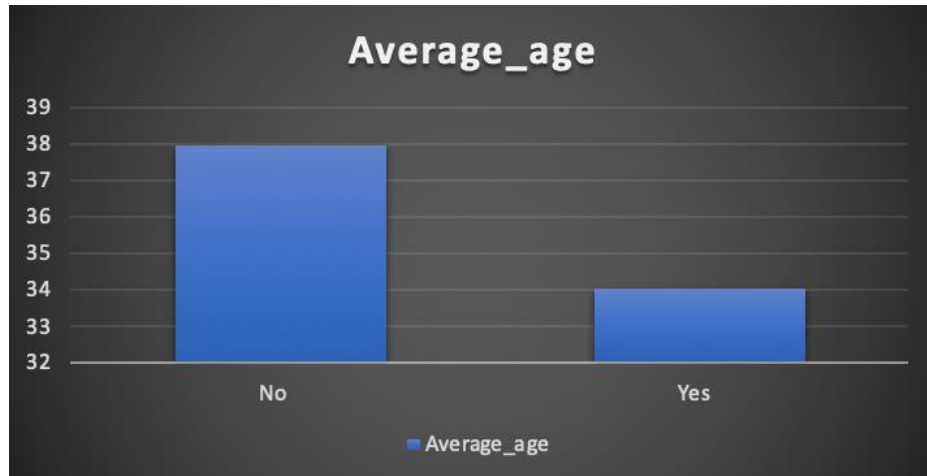
- **Travel Frequency:**



The attrition rate amongst employees goes up from 8% to 25% when comparing employees who don't travel to employees who travel frequently. Employees who travel rarely have an attrition percentage of 15% in between both ends.

- **Average income and Average Age:**





The average monthly income of employees who go through attrition is lower by around \$2000 when compared to people who don't go through attrition. The average age of people who go through attrition is around 34 years which is 4 years lower than people who don't go through attrition.

- **Marital Status:**



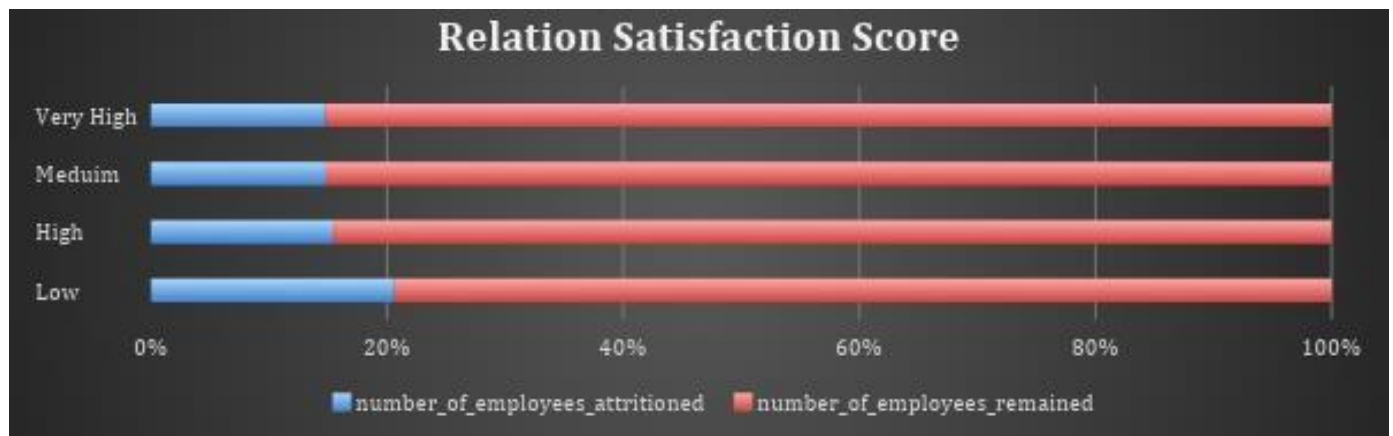
Single employees are the most likely to attrition with approximately 1 in 4 single employees likely to attrition. This is followed by married employees (12.5%), with divorced employees least likely to attrition.

- **Performance:**



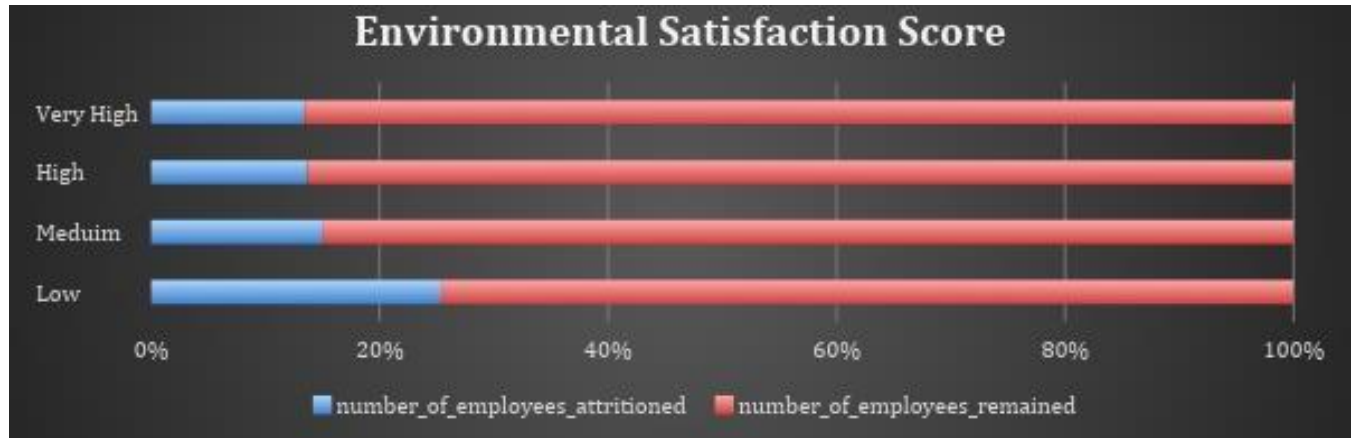
The sample of IBM employees in this data were constricted to two performance scores: Outstanding and Excellent. Both scores had very similar rates of attrition of approximately 16%

- **Relationship Satisfaction:**



It's expected that employees with the lowest relationship satisfaction with IBM are the most likely to attrition; 1 in 5 employees with a low score attrition. But what wasn't expected was for the medium score to have an attrition rate lower than the high score, even though the difference is minute.

- **Environmental Satisfaction:**



It's expected for the employees who have the lowest environmental satisfaction score to attrition the most out of the all the remaining scores, with approximately 1 out of 5 employees who have low satisfaction score likely to attrition. The trend here is: the lower the satisfaction score, the higher the percentage of attrition.

**Job Satisfaction:**



As it can be observed from the above graph, employees with the lowest job satisfaction score are the most likely to attrition when compared to the other scores, with an attrition percentage of 23%. The trend observed here was the same trend observed in relationship satisfaction figure, with the difference being that the very high job satisfaction score has a lower attrition percentage and its values is more different than the medium and high score values.