

Attrition Project Overview

Data Quality

- There are no missing values in the dataset.
- There are no duplicated rows.

Dataset Composition

- The dataset contains 35 variables:
 - 15 Numeric variables
 - 3 Boolean variables
 - 17 Categorical variables
- The dataset includes a total of 1,470 employees:
 - 882 males
 - 588 females

Employee Distribution by Distance

- 940 employees (63.9%) live very close to the company.
- 15.58% of employees live very far from the company.

Attrition by Education Field

- 37.55% of employees with an education in Life Sciences have experienced attrition.

Attrition and Travel

- There is a significant relationship between attrition and employee travel frequency.
- Employees who rarely travel have a higher attrition rate, with 156 out of the total 237 attrition cases (65.8%) falling into this category.

Attrition by Education Level

- 41.77% of employees who left the company had an education level of 3.

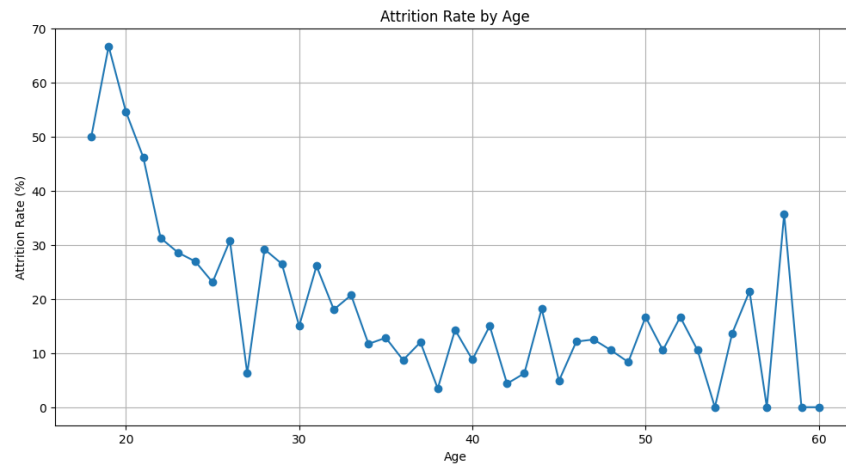
Gender and Attrition

The analysis reveals the following attrition rates by gender:

- Male: 17.01%
- Female: 14.80%

The attrition rate for male employees is higher than that for female employees. Specifically, 17.01% of male employees have left the company compared to 14.80% of female employees.

Age and Attrition



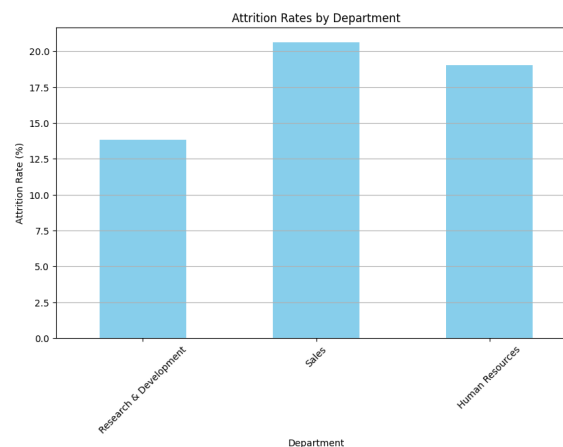
- Younger Employees Are More Likely to Leave

The highest attrition rates are observed among younger employees, particularly those in their twenties. This could be due to a variety of factors, such as career exploration, better opportunities, or dissatisfaction with their current roles.

Stable Middle-Aged Workforce:

Department and Attrition

Sales is the highest department with attrition. Further investigation should be done.



Promotion Analysis

- Employees who have remained in their position for more than 5 years since their last promotion are likely due for a promotion.
- 14.6% of employees are identified as needing a promotion based on this criterion.

Compensation and Benefits

- The average monthly income of employees who left the company is \$4,787.09.
- The average monthly income of employees who stayed with the company is \$6,832.74.

Employees who left the company had a significantly lower average monthly income compared to those who stayed. This suggests that lower compensation may be a contributing factor to higher attrition rates. Employees with lower salaries are more likely to leave, possibly seeking better-paying opportunities elsewhere.