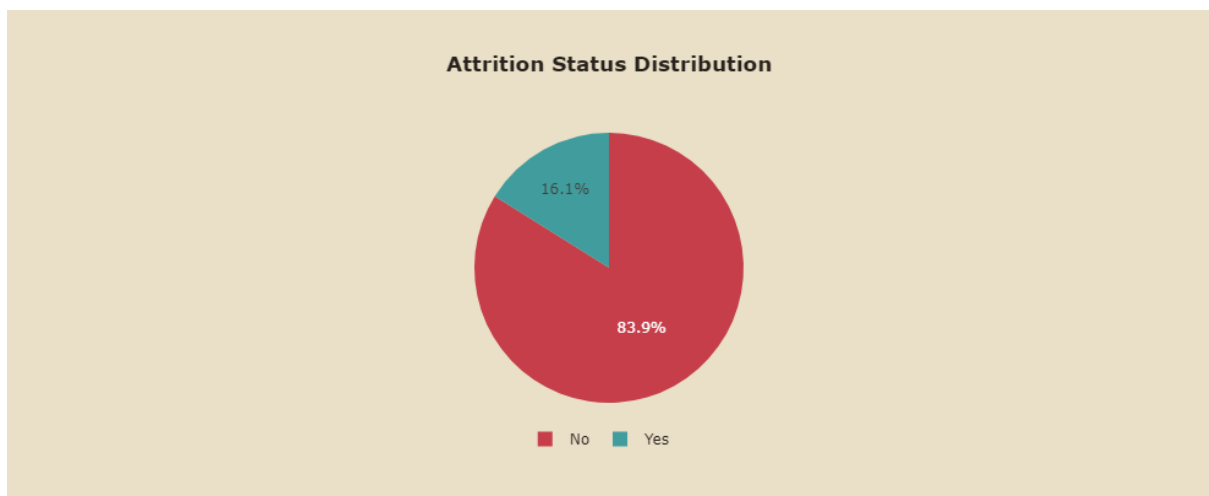# Employee Attrition Analysis Report

This report provides insights into employee attrition within the organization based on a provided dataset. Various visualizations and analyses were conducted to understand the patterns and factors influencing attrition rates.
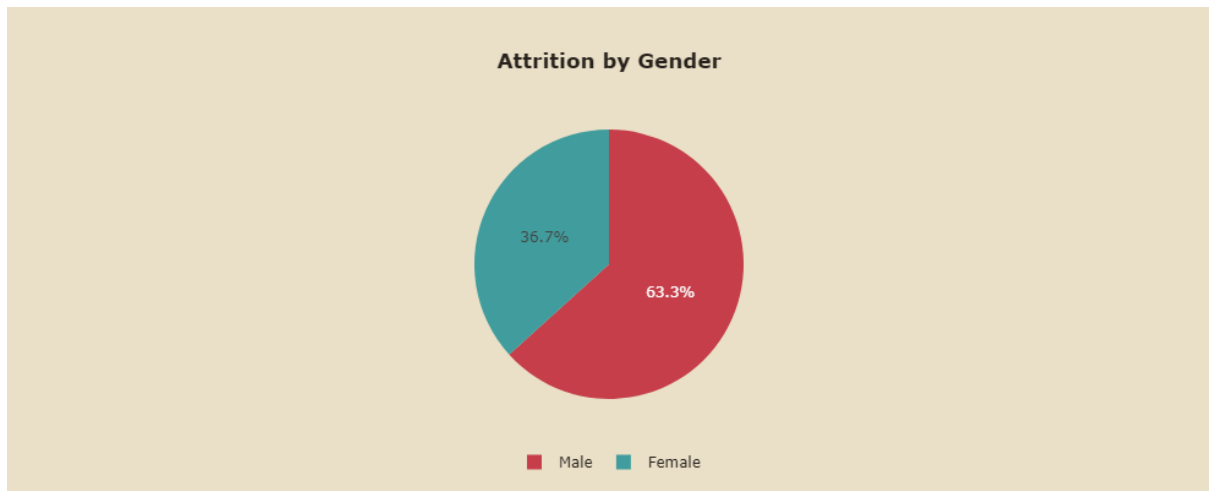
This insights can be found in **insights.ipynb** file

## Attrition Status Distribution:

- **Insight:**

  - The majority of employees (83.9%) in the dataset did not experience attrition.

- **Recommendation:**

  - While the attrition rate is relatively low, it's crucial to focus on retaining existing employees to maintain stability and productivity.

Attrition by Gender:

Attrition by Gender

- **Insight:**

  - Among employees who experienced attrition, approximately 63.3% were male.

- **Recommendation:**

  - Further investigation into gender-specific factors contributing to attrition may help in designing targeted retention strategies.

Age Distribution within Organization with Attrition:
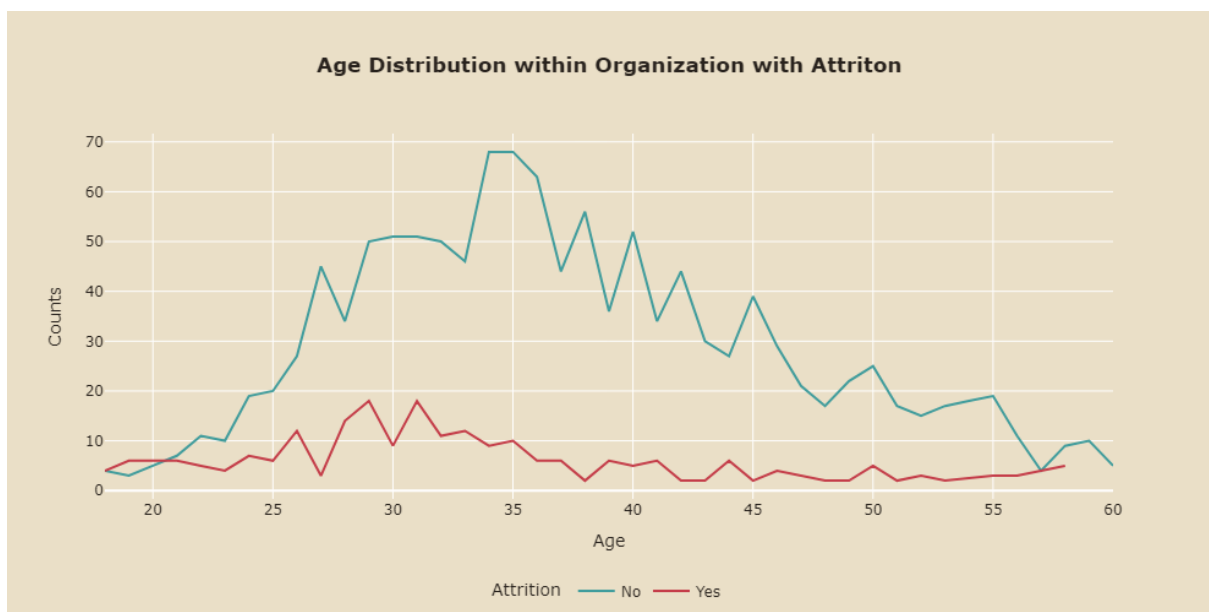
- **Insight:**

- Attrition among employees who stayed within the organization tends to increase till the age of 34, peaks at ages 34 and 35, then gradually decreases till the age of 60.

- For employees experiencing attrition, there's a relatively flat distribution, with peaks at ages 29 and 31.

- **Recommendation:**

  - Implementing age-specific engagement and development programs might help in retaining employees, especially during the critical age range where attrition peaks.

Monthly Income-based Analysis:

Monthly Income-based Counts of People in an Organization
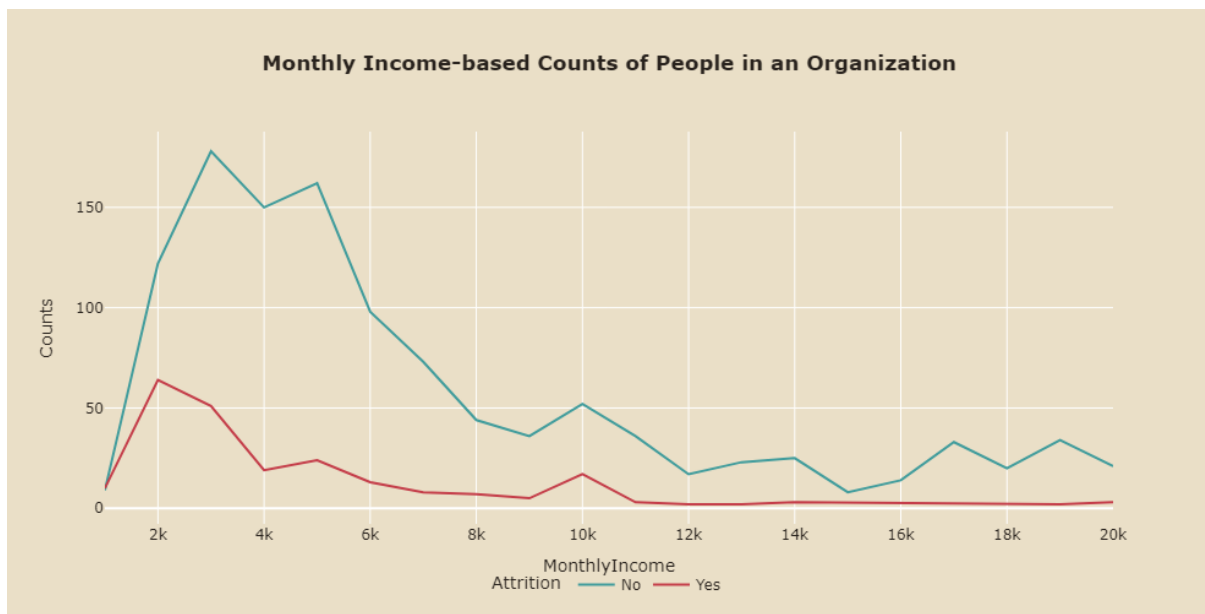
- **Insight:**

  - Employees with lower incomes (around $1000) have a relatively low attrition rate, which increases rapidly till income reaches around $3000 (with a count of 178), then gradually decreases.

  - Conversely, employees with higher incomes (around $20,000) have a lower attrition rate.

- **Recommendation:**

- Offering competitive compensation packages and periodic reviews to ensure fair compensation might help in reducing attrition, especially among mid-level income earners.

Conclusion:

Understanding the dynamics of employee attrition is crucial for maintaining a healthy and stable workforce. By analyzing various factors such as age, gender, and income, organizations can develop targeted retention strategies to mitigate attrition and foster a positive work environment conducive to employee satisfaction and productivity.