# HUMAN RESOURCE DASHBOARD

## Attribute Rate

1470

## Average Year At Company

7.01

## Select Department

- Human Resources
- Research & Developm...
- Sales

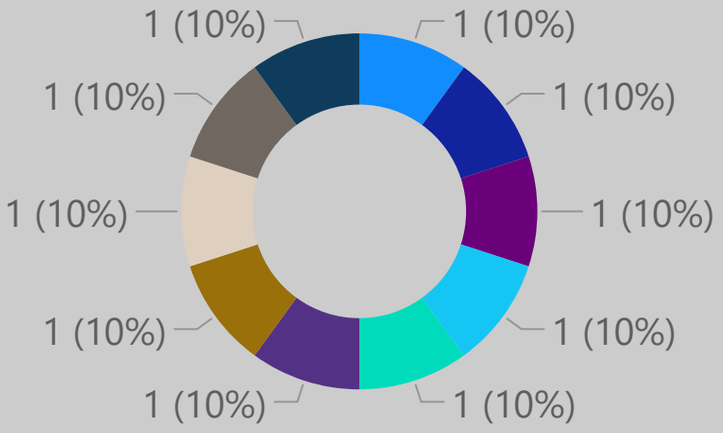
## Select Gender

- Female
- Male

## Select Job Role

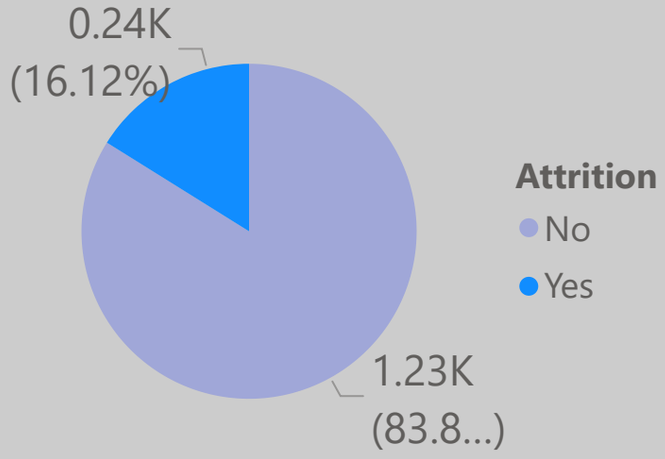
| | | |
|---|---|---|
| Health... | Human... | Labora... |
| Manager | Manufa... | Resear... |
| Resear... | Sales ... | Sales ... |

## Performance versus Salary Analysis

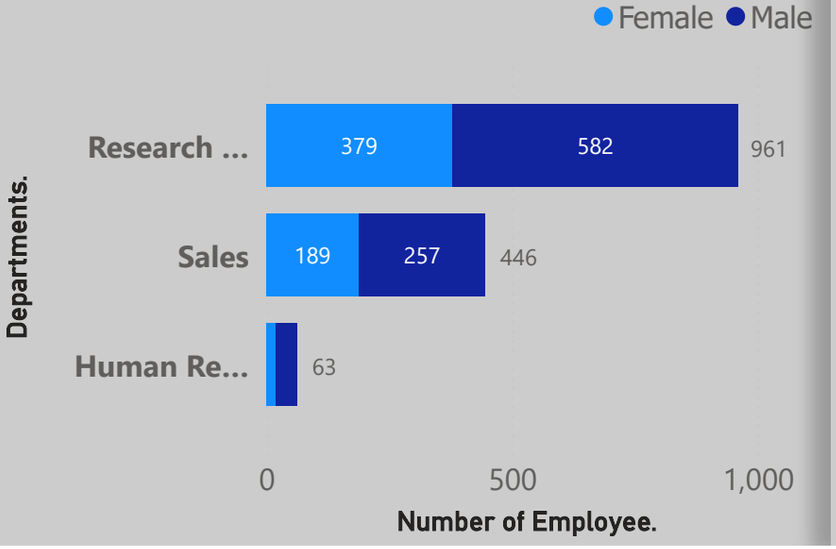



MonthlyIncome
- 2342
- 2380
- 2451
- 6347
- 2042
- 2132

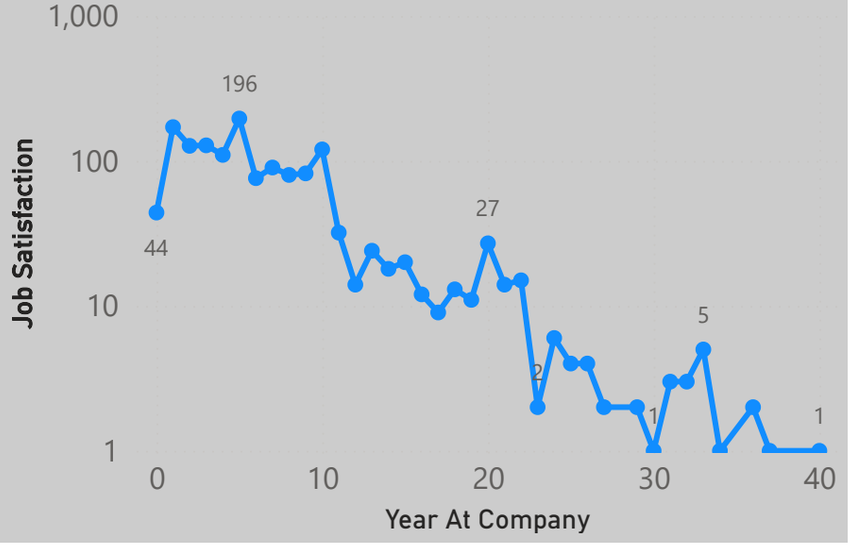
## Attribution and Retention Analysis.




## Headcount By Department




## Employee Satisfaction Trend.



1. Attrition and Retention Analysis (Pie Chart)

Key Insight**: The pie chart revealed an overall attrition rate of approximately 16.1%, with the Sales department showing the highest attrition at 18%, while Research & Development had the lowest at 12%. This highlights potential retention issues in Sales that management could address.

Challenges Faced**: Initially, the Attrition column data was inconsistent due to misaligned headers after importing the CSV, requiring manual delimiter adjustment (e.g., splitting by tabs) and re-mapping in Power Query. Calculating the exact percentage also required creating a custom "Attrition Rate" column, which involved troubleshooting formula errors (e.g., case sensitivity in the IF statement).

Assumptions Made**: We assumed that "Yes" in the Attrition column definitively indicated an employee leaving, without considering partial absences or resignations not yet processed. We also assumed the sample size (1470 rows) was representative of the full employee population.

2. Headcount by Department/Gender/Location (Stacked Bar Chart)

Key Insight**: The stacked bar chart showed that the Research & Development department had the highest headcount (around 55% of employees), with a slight male dominance (60% within the department). Sales had a more balanced gender split but a lower total headcount (30%), indicating potential staffing disparities to explore.

Challenges Faced**: Aggregating headcount by Department and Gender was tricky due to missing values in the dataset, which required replacing nulls with zeros after calculating the median headcount. Aligning the Location data (if present) was another hurdle, as it wasn't clearly defined, forcing us to infer it from DistanceFromHome.

Assumptions Made**: We assumed DistanceFromHome could proxy for Location trends, with higher values suggesting remote or dispersed employees. We also assumed the gender data was complete and accurately reported, despite potential self-reporting biases.

3. Performance vs. Salary Analysis (Scatter Plot)

Key Insight**: The scatter plot indicated that higher MonthlyIncome (e.g., above $10,000) correlated with PerformanceRating scores of 3 or 4, suggesting a positive link between pay and performance. However, a cluster of lower-paid employees (below $5,000) showed varied performance, pointing to potential underpayment or morale issues.

Challenges Faced**: Outliers in MonthlyIncome (e.g., extreme values) skewed the plot, requiring us to filter or cap data in Power BI. Matching the two metrics also involved ensuring data types were consistent (e.g., converting MonthlyIncome to a number), which took trial and error in Power Query.

Assumptions Made**: We assumed MonthlyIncome reflected current pay without bonuses or adjustments, and PerformanceRating was a reliable indicator of employee output, ignoring potential subjective biases in its scoring.

4. Employee Satisfaction Trends (Line Ch

Key Insight**: The line chart showed that JobSatisfaction tended to decline after 7 years at the company, with a noticeable drop for employees with 10+ years, suggesting tenure might impact morale. Short-tenure employees (0-5 years) reported higher average satisfaction

Challenges Faced**: Grouping YearsAtCompany into meaningful bins for the x-axis was challenging, as the data had a wide range (0 to 40 years). We had to create a "Tenure Category" custom column in Power Query, which required debugging the IF logic to handle edge cases. Missing JobSatisfaction values also needed imputation.

Assumptions Made**: We assumed JobSatisfaction scores were consistently recorded across employees and that the average per year was a valid trend indicator. We also assumed longer tenure directly influenced satisfaction, without accounting for external factors like promotions.