Data Analysis Project

EMPLOYEE ATTRITION

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WHAT WE WILL TALK ABOUT

INTRODUCTION

The Employee Attrition Analysis project in Power BI aims to explore and understand the key factors contributing to employee turnover within an organization. By leveraging the powerful data visualization and analysis capabilities of Power BI, this project will examine various aspects such as employee demographics, job roles, performance, and workplace environment to uncover trends and patterns linked to attrition. Through interactive dashboards, the analysis will provide valuable insights that can help HR teams make informed decisions to improve employee retention, enhance workplace satisfaction, and reduce turnover costs.

OBJECTIVE

The Employee Attrition Analysis project investigates the key factors driving employee turnover in the company. It examines demographics, job roles, and workplace conditions to identify patterns contributing to attrition. By using Power BI's visualization tools, the project reveals trends impacting employee retention. The insights gained will support strategies to improve satisfaction and reduce turnover rates.

ABOUT DATASET

The dataset used for the Employee Attrition Analysis project in Power BI contains information about employees in an organization, capturing a wide range of attributes related to their demographics, job roles, performance, and attrition status. The dataset helps to analyze the factors contributing to employee turnover, such as job satisfaction, workload, and work-life balance.

ABOUT DATASET

- EmployeeID: Unique identifier for each employee.
- Age: Age of the employee.
- Gender: Gender of the employee (Male/Female).
- MaritalStatus: Employee's marital status (Single/Married/Divorced).
- Department: The department the employee works in (e.g., Sales, R&D, HR).
- JobRole: Specific role/job title within the department.
- YearsAtCompany: Number of years the employee has worked at the company.
- YearsInCurrentRole: Time spent by the employee in their current role.
- MonthlyIncome: Monthly salary of the employee.
- JobSatisfaction: Employee's satisfaction with their job (on a scale).
- PerformanceRating: Rating of employee performance.
- WorkLifeBalance: Employee's perceived work-life balance (on a scale).
- Attrition: Whether the employee left the company (Yes/No).
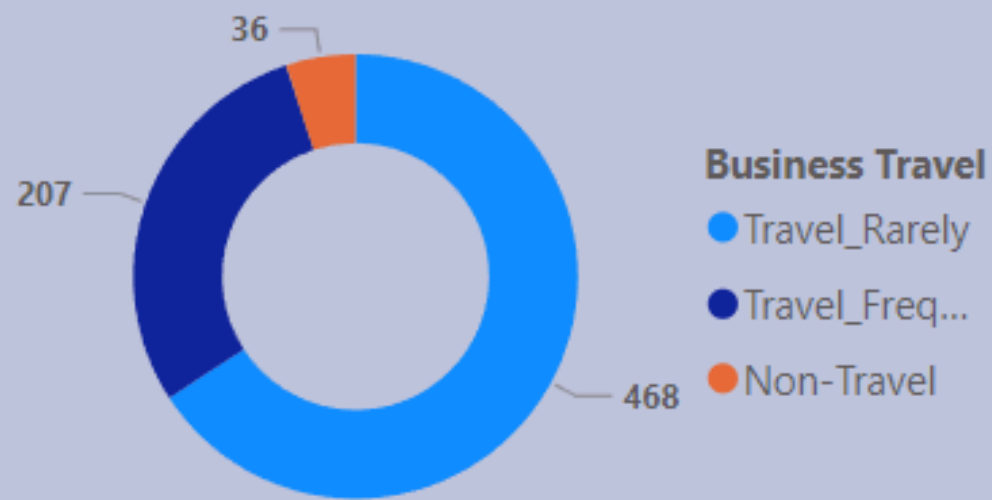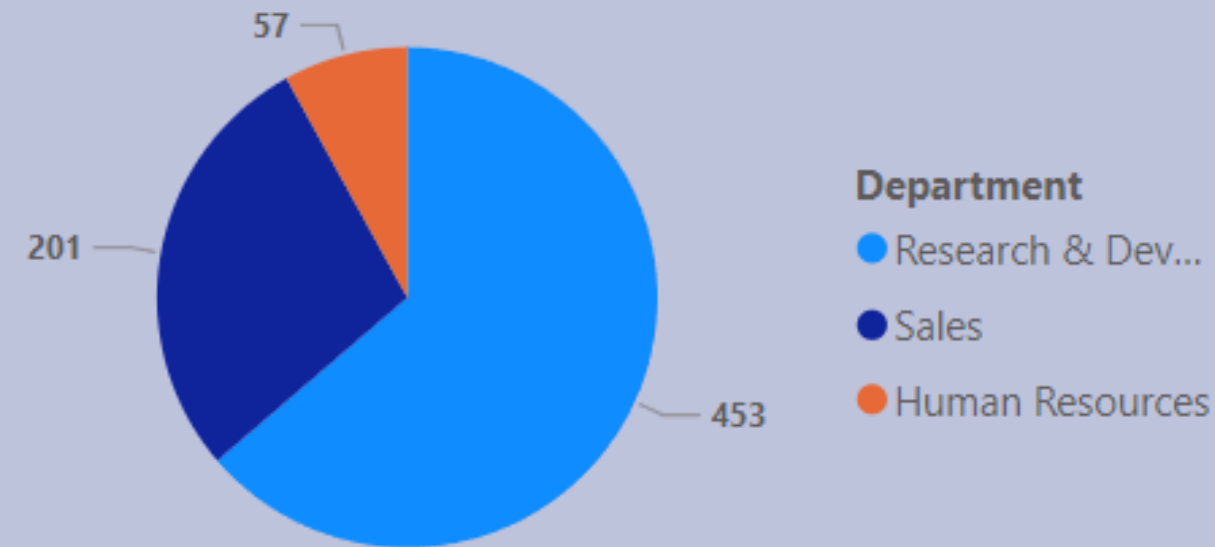
Employee Attrition Analysis
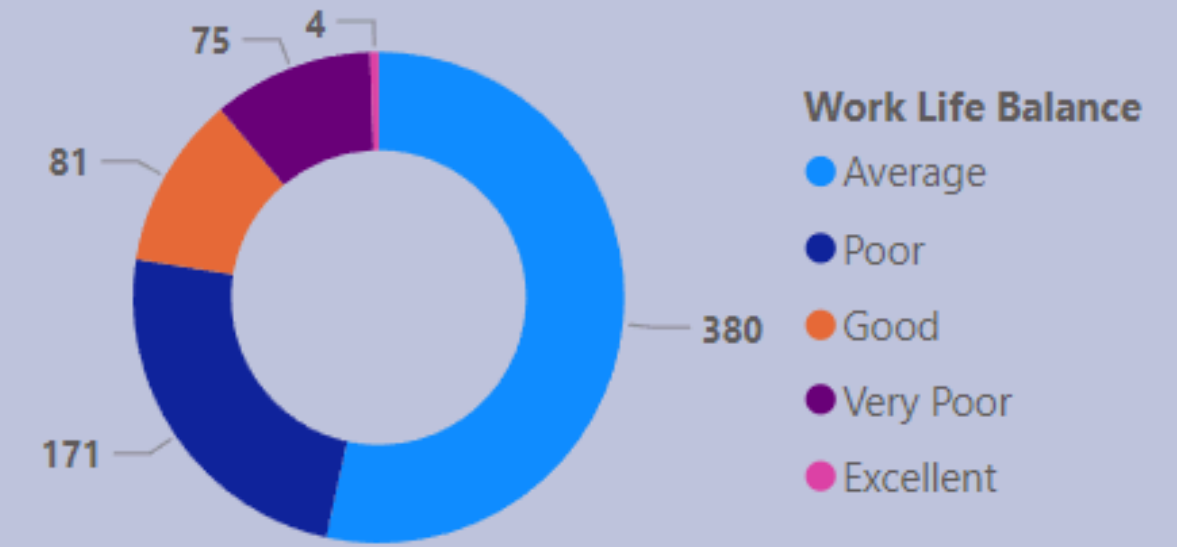
Total Employees
4410

Total Attrition
711

Attrition due to Business Travel

36
207
468

Business Travel
- Travel_Rarely
- Travel_Freq...
- Non-Travel

Department Wise Attrition

57
201
453

Department
- Research & Dev...
- Sales
- Human Resources

Attrition by Work Life Balance

75
4
81
171
380

Work Life Balance
- Average
- Poor
- Good
- Very Poor
- Excellent

Attrition in Different Job Levels

300

252
285

96

200

100

51
27

0

Count of Attrition

2   4

JobLevel

Attrition Due to Environment
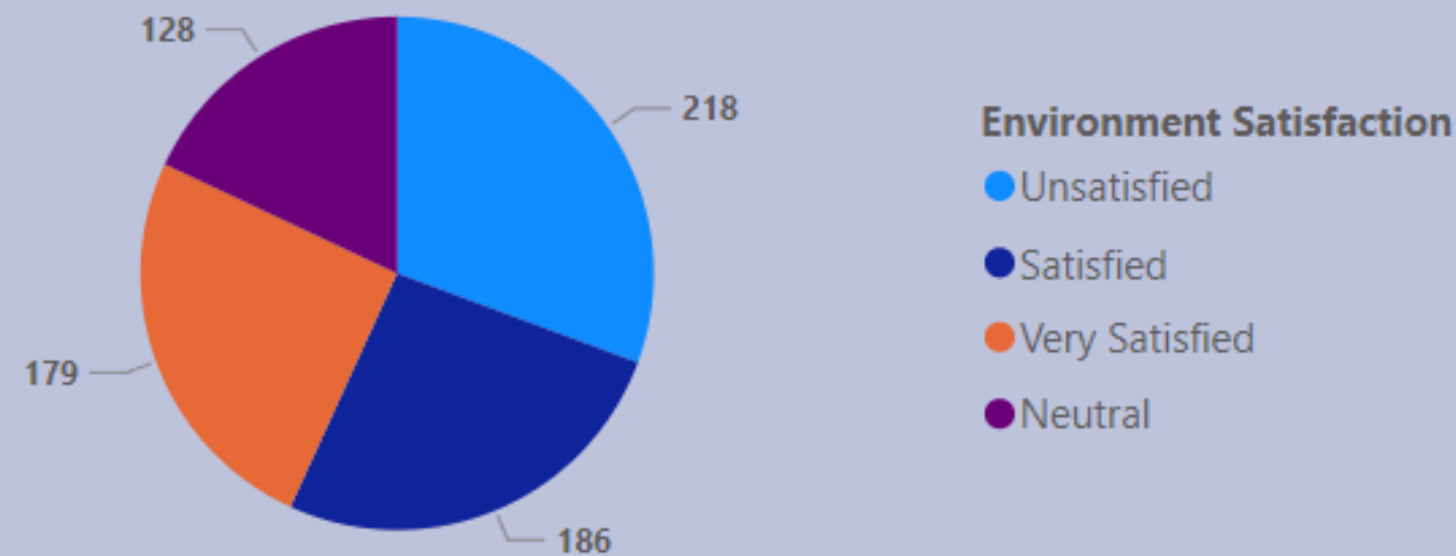
128
218
179
186

Environment Satisfaction
- Unsatisfied
- Satisfied
- Very Satisfied
- Neutral

Attrition by Gender

Gender ● Male ● Female

441   270
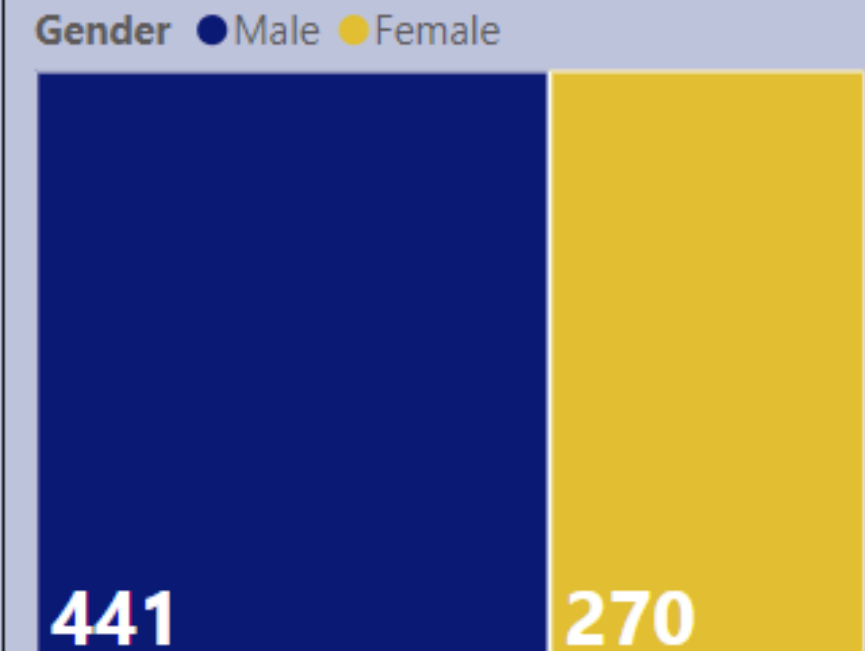
Employee Attrition Analysis
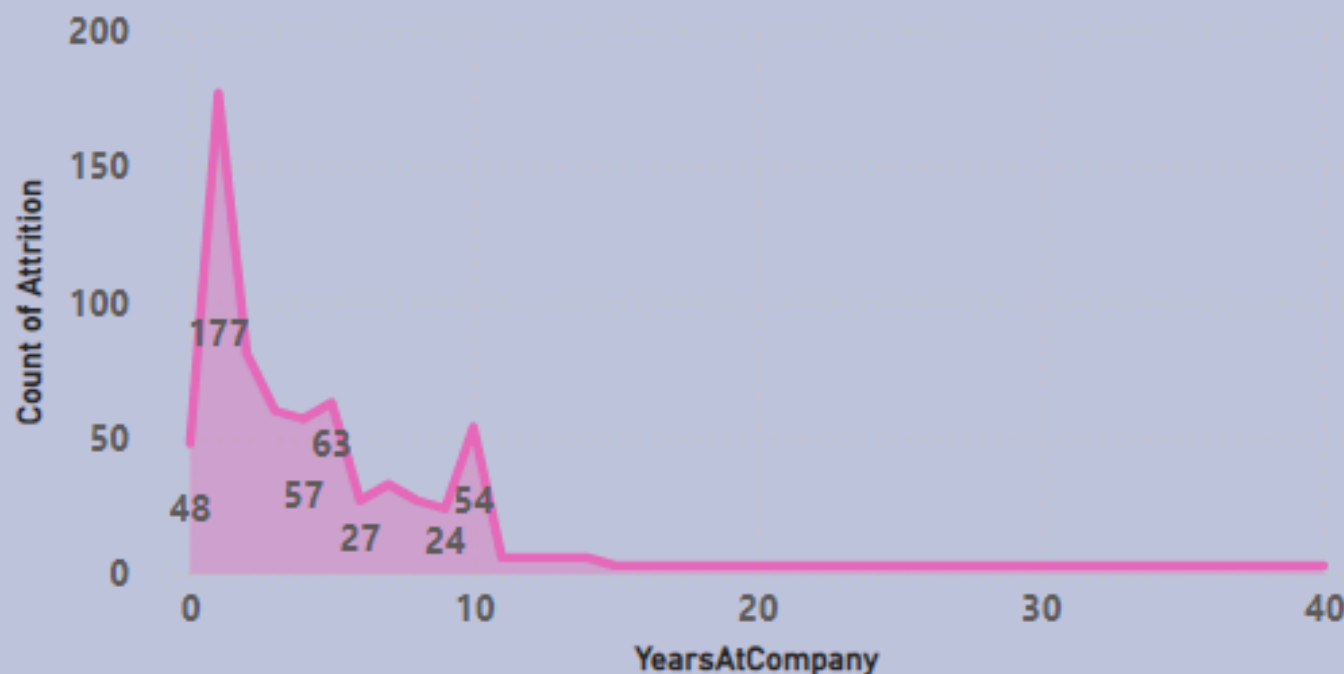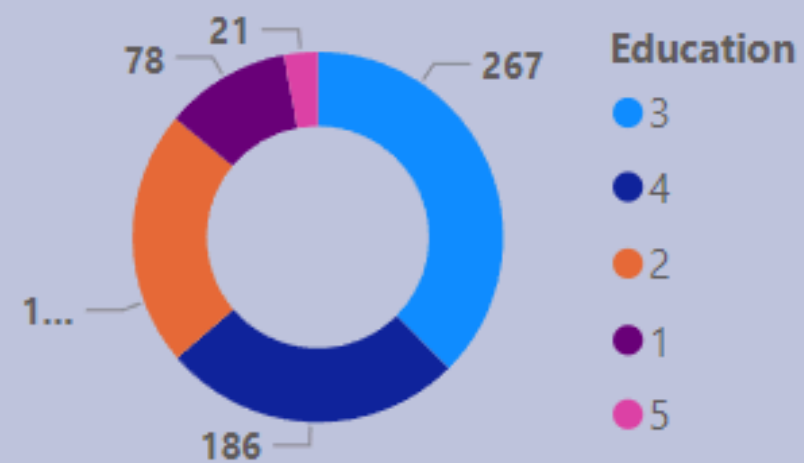
Total Employees 4410

Total Attrition 711
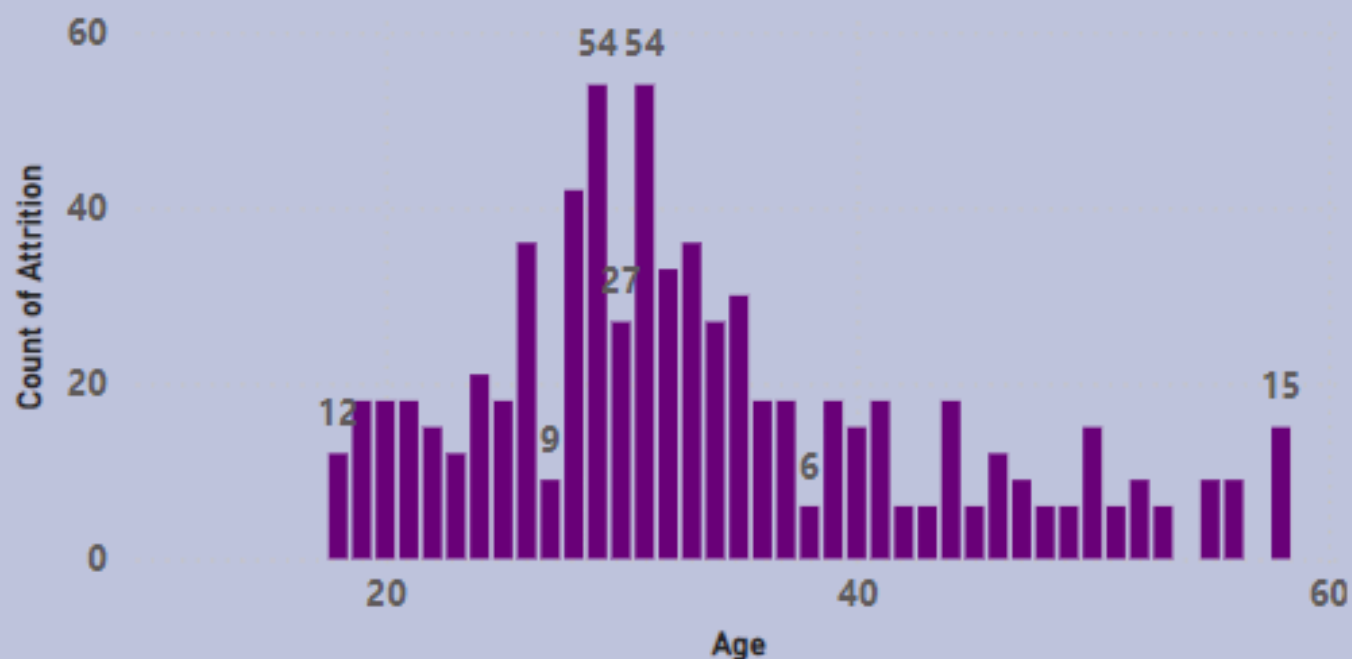
Attrition by Age

Attrition After Years at company

Attrition in Education Levels

Education: 3, 4, 2, 1, 5
267, 186, 78, 21, 1...

Attrition After Total Working Years

Attrition due to Distance from Home

Attrition by Marital Status

Marital Status: Single 360, Married 252, Divorced 99

Employee Attrition Analysis

Total Employees
4410

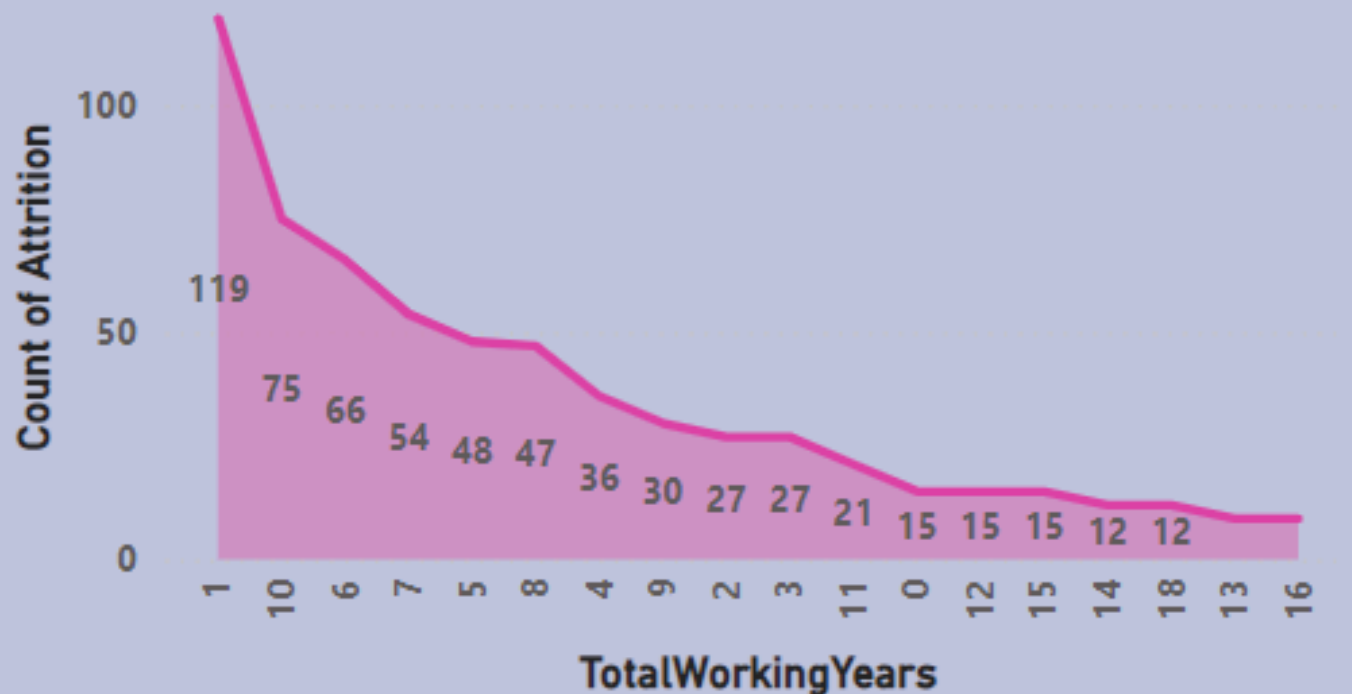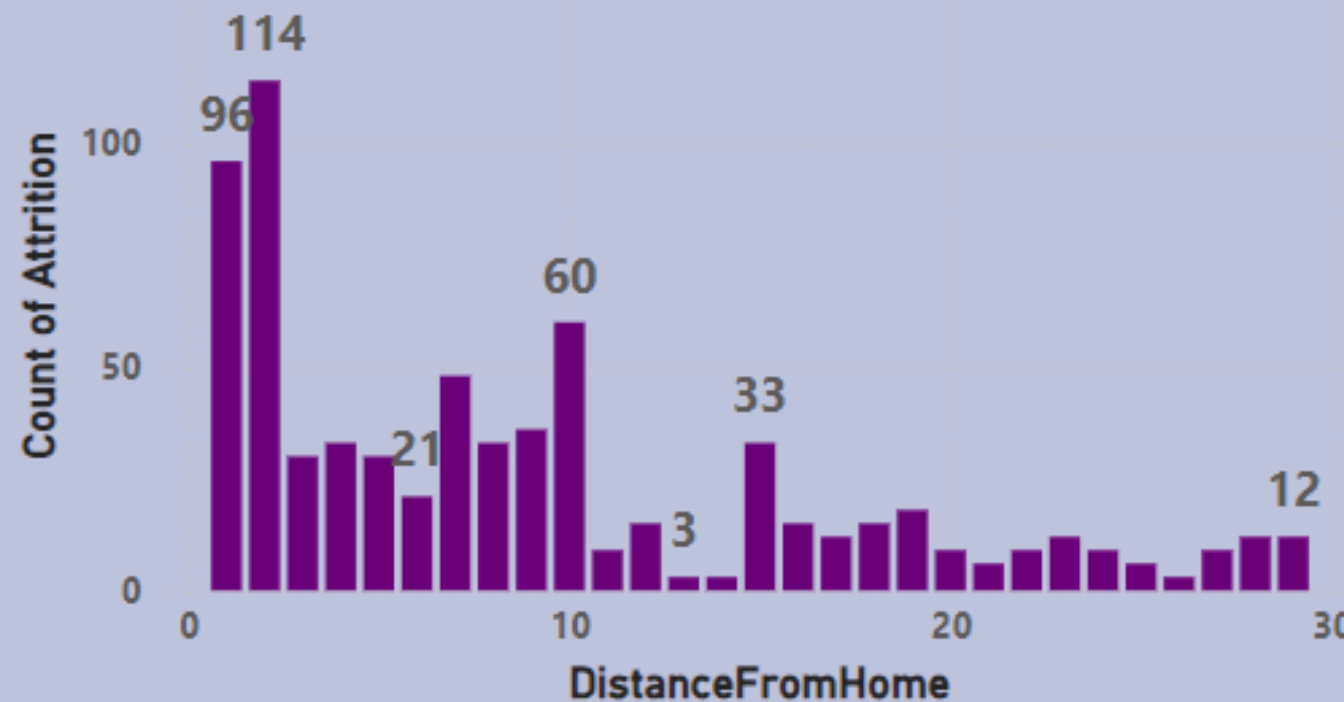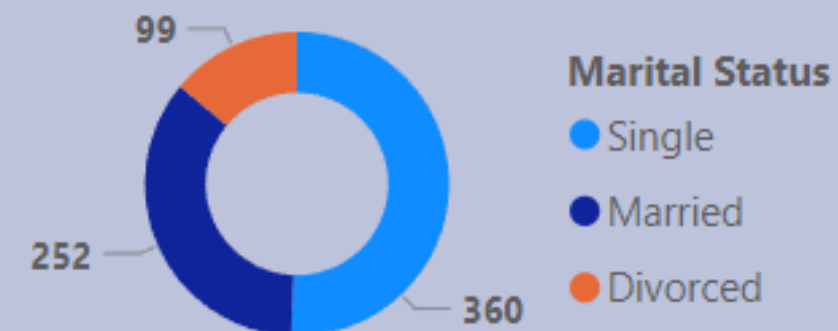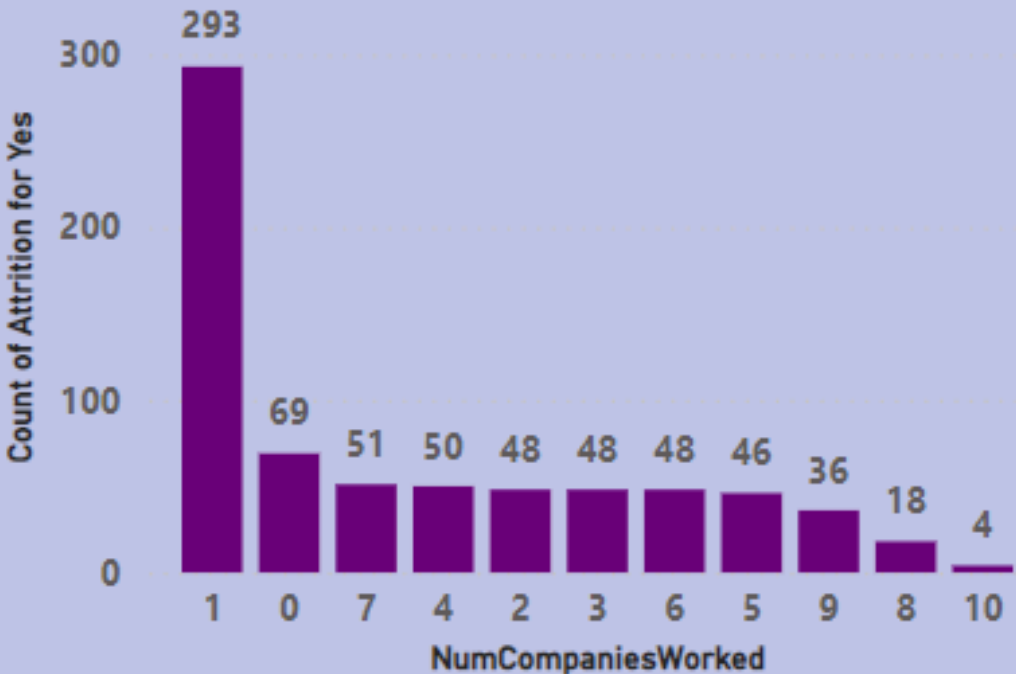**Total Attrition**
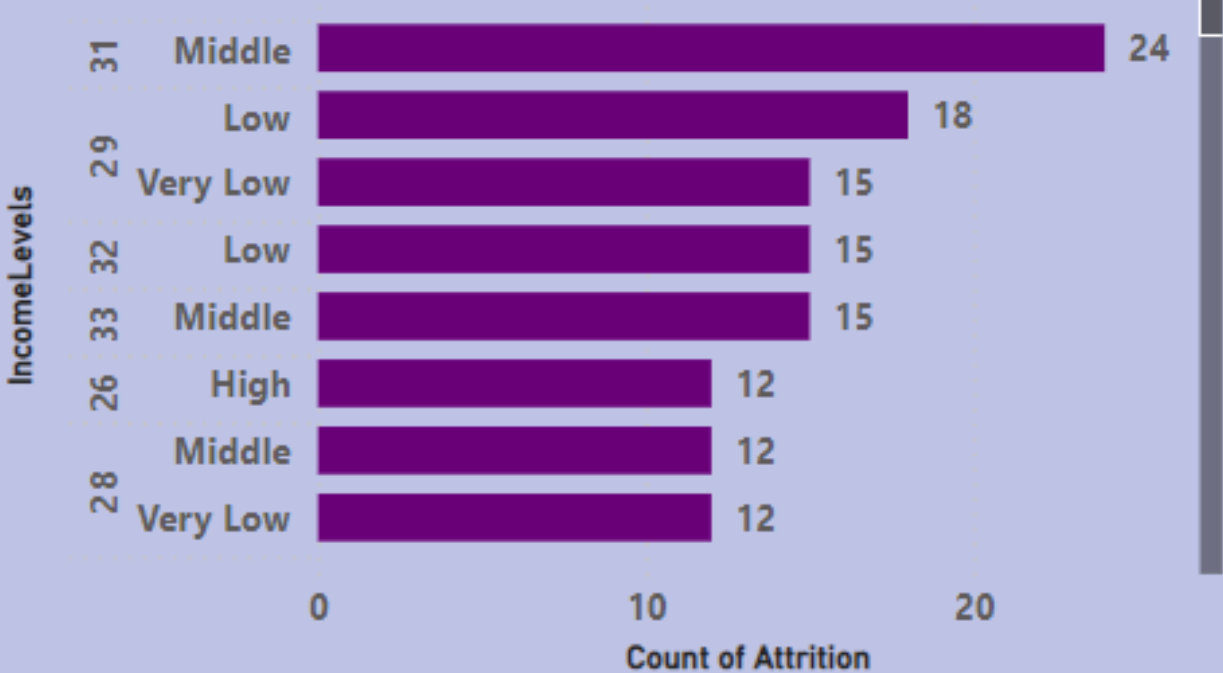711

Attrition After Work in Companies

Count of Attrition for Yes (y-axis): 300, 200, 100, 0

Bar values: 293, 69, 51, 50, 48, 48, 48, 46, 36, 18, 4

NumCompaniesWorked (x-axis): 1, 0, 7, 4, 2, 3, 6, 5, 9, 8, 10

Attrition With Current Manager

Count of Attrition for Yes (y-axis): 200, 100, 0

Bar values: 255, 33, 150, 12, 93, 3, 6

YearsWithCurrManager (x-axis): 0, 5, 10
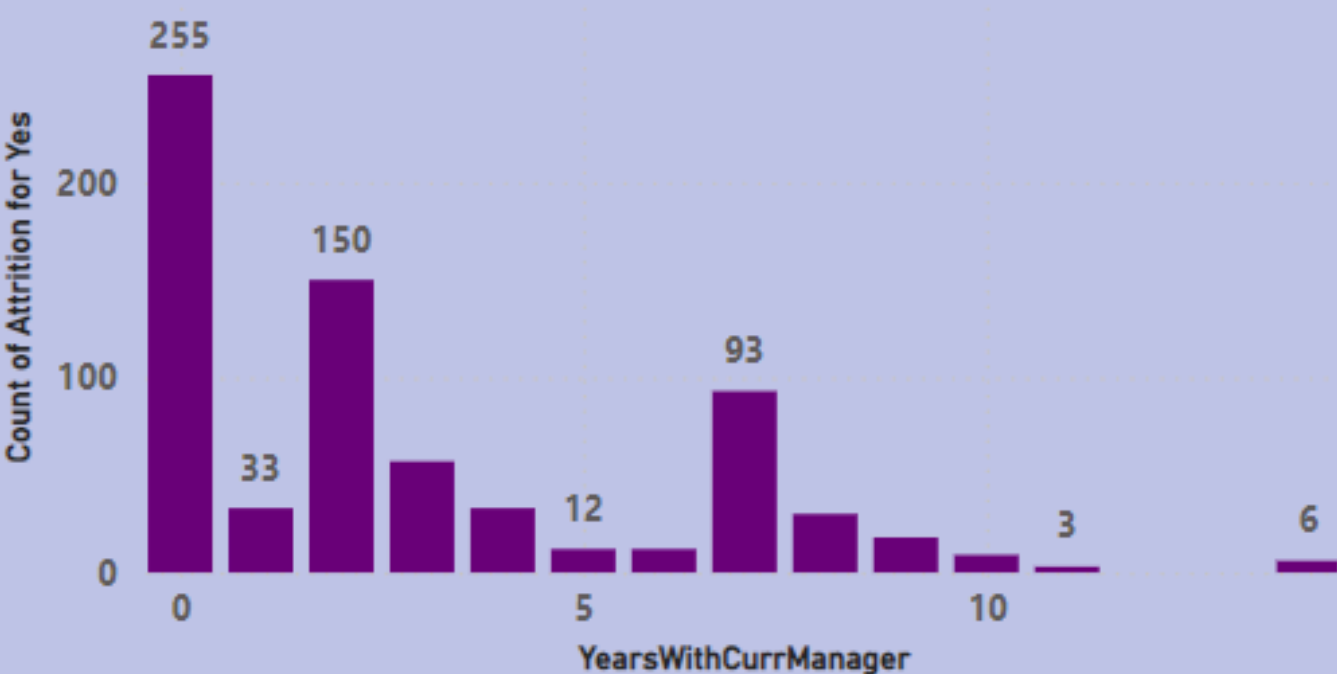
Attrition due to Promotion

Count of Attrition for Yes (y-axis): 300, 200, 100, 0

Values: 330, 27, 6, 48, 3, 3, 9

YearsSinceLastPromotion (x-axis): 0, 5, 10, 15, 20
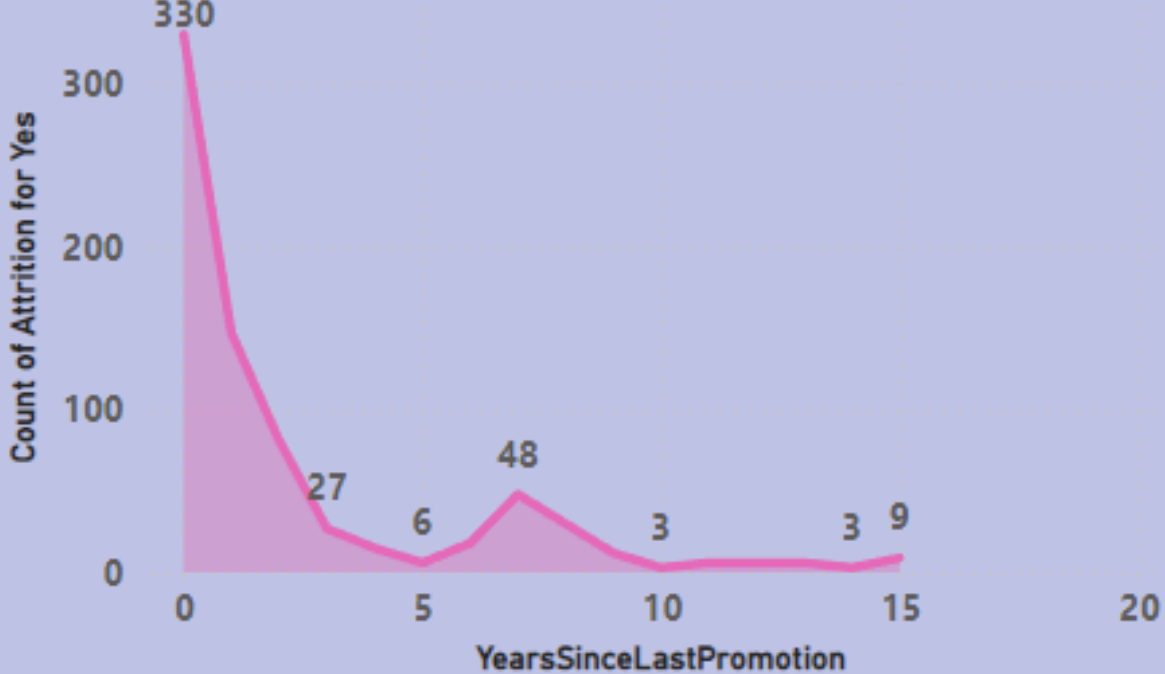
Attrition by Age and Income

IncomeLevels (y-axis), Count of Attrition (x-axis): 0, 10, 20

IncomeLevel (Age)	Count of Attrition
Middle (31)	24
Low	18
Very Low (29)	15
Low (32)	15
Middle (33)	15
High (26)	12
Middle	12
Very Low (28)	12

Attrition in Education Field

Pie chart values: 303, 225, 75, 45, 33, 30

Education Field
- Life Sciences
- Medical
- Marketing
- Technical Degree
- Human Resources
- Other
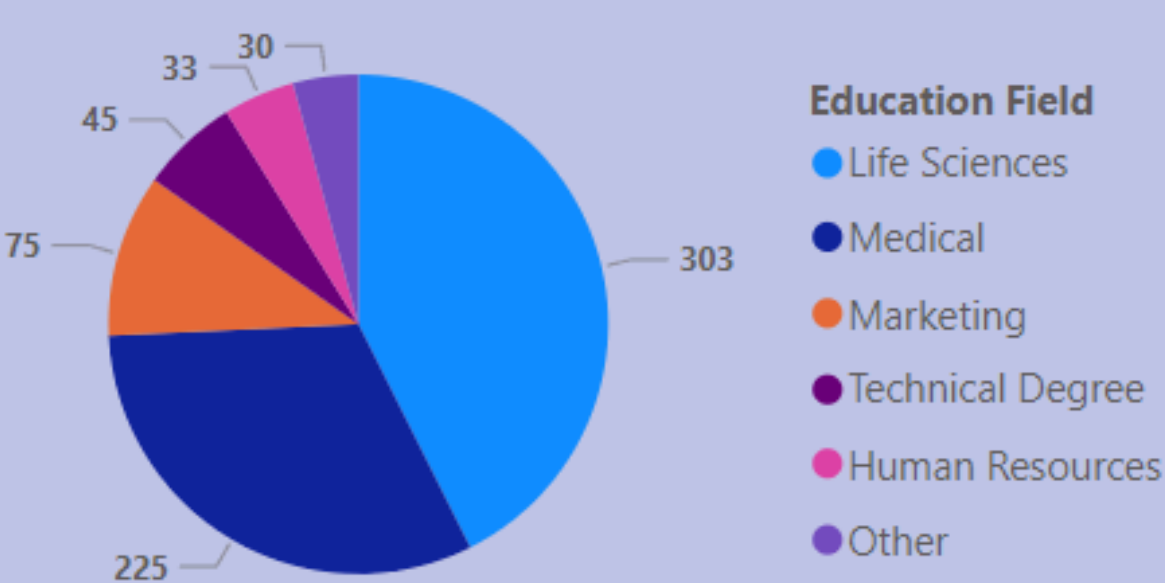
Attrition by Percent of Salary Hike

Count of Attrition (y-axis): 100, 50, 0

Values: 90, 102, 30, 42, 30, 15

PercentSalaryHike (x-axis): 10, 20
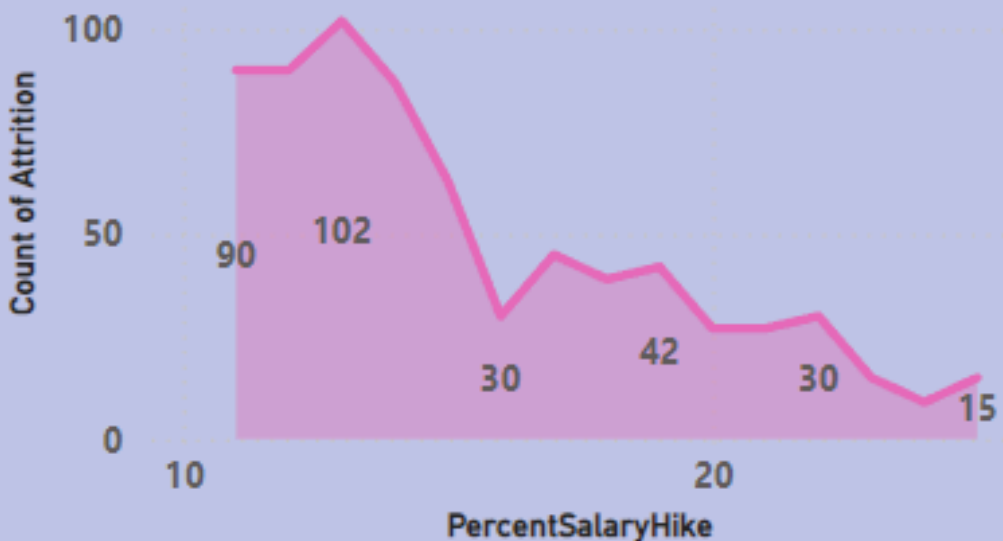
CONCLUSION

The Employee Attrition Analysis project using Power BI effectively identified key factors influencing employee turnover. By visualizing data on demographics, job roles, satisfaction levels, and performance, the analysis revealed patterns and trends related to attrition. Interactive dashboards highlighted high-risk employee segments, such as specific age groups, departments, or job roles, allowing HR teams to focus retention efforts. The project also provided actionable insights into how work environment, compensation, and career development impact employee satisfaction. This analysis enables organizations to develop targeted strategies for reducing attrition, improving employee retention, and fostering a more engaged workforce.

TALK TO ME

If you have any questions, feel free to reach out to us through any of the following:

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THANK YOU