# HR Attrition Analysis Memo for 'ABC Solutions'

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## Introduction

Recently we received a dataset which contains human resource related data from your company 'ABC Solutions', and we got the request to analyze the key components affecting attrition. As a professional enterprise analysis partner, we 'Insight Analytics Group' will provide detailed and deep analysis which consists of various employee factors and job factors that may influence attrition. We used a variety of significant factors like education field and degree of employees, Age, Marital status, Job satisfaction ratings, Number of years in the Company, Overtime, Work-life balance, etc. Within all these variables of HR data, we will pick several essential factors for our analysis, and present the visualizations.

Attrition refers to the process of employees leaving their jobs or roles within a company. Understanding attrition factors is crucial for your company's success as it directly impacts productivity, morale, and overall organizational performance. Informed decisions backed by evidence, leading to more effective HR and management strategies. Understanding attrition factors aligns with company's strategic objectives by contributing to improving employee satisfaction and organizational stability.

## Insights

After careful data exploration and evaluation, we decided to include the following factors in our analysis:

Employee demographic factors: Education Field; Age; Marital Status; Gender

Job factors: Job Role; Job Satisfaction; Department; Overtime; Monthly Salary; YearAtCompany

- **Overall number of employees part of this analysis: 1470**
- **Overall Attrition Count: 237**
- **Attrition rate: 16.12%**
- **Active employees: 1233**

To present clearly and systematically, we decided to present the attrition by each department: Human Resources, R&D, and Sales and we have segmented into a broader category as Demographic factors and Job related factors.

The overall attrition rate in the Human Resources department is 19.05% and 12 of their employees left the company. The overall attrition rate in Research & Development department is 13.84% and

133 of the employees left the company which is a huge number. The overall attrition rate in Sales department is 20.63% and that 92 of their employees left the company.

Let's deep dive into the insights we gathered.

# Demographic Factors

**Human Resource Department:**

- Attrition is equal amongst men and women.

- Most of them majored in Human Resources.

- Highest attrition was related to the age-group from 25 to 34 years old.

- 50% employees who left were married and 41.67% were divorced.
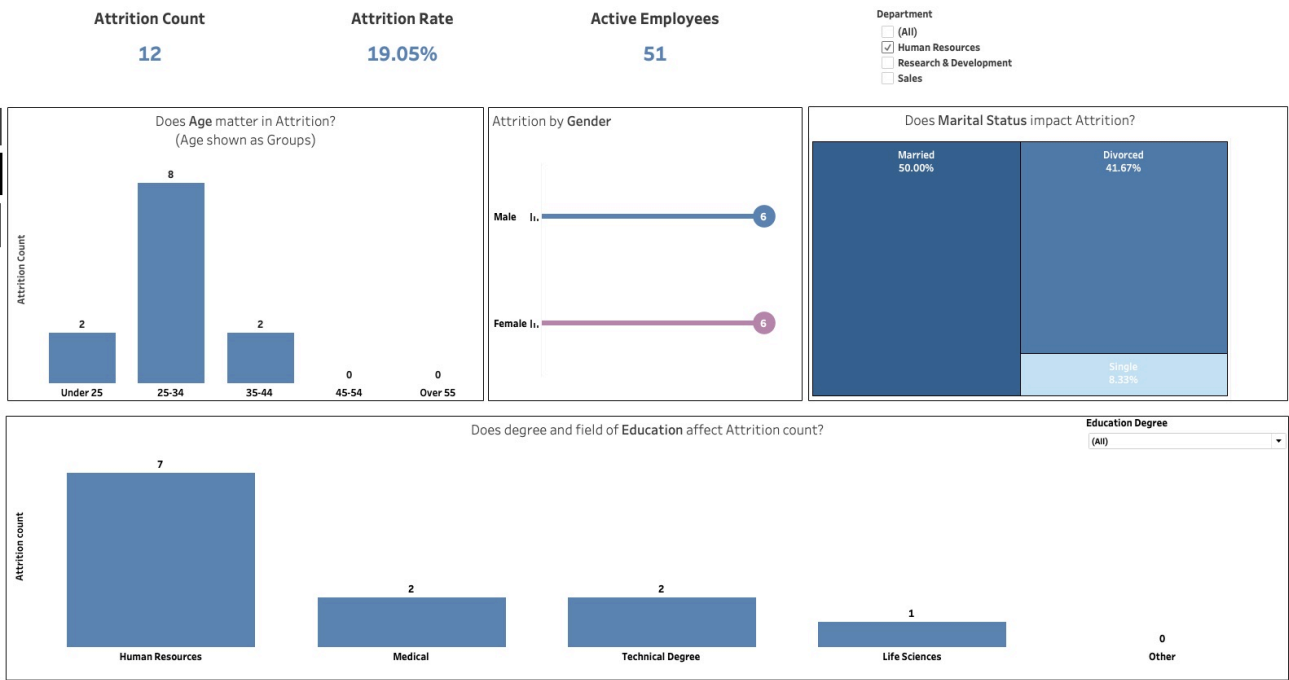


**R&D Department:**

- Attrition is approximately double for men over women.

- Most of them majored in Life Science or Medical field of education.

- Highest attrition was related to the age-group from 25 to 34 years old.

- Approximately 50% employees were having 'Single' marital status.

## Sales Department:

- Attrition is higher for men than women.

- Most of them majored in Marketing followed by Life Sciences field of education.

- Highest attrition was related to the age-group from 25 to 34 years old.

- Approximately 57.61% employees who left were having 'Single' marital status.
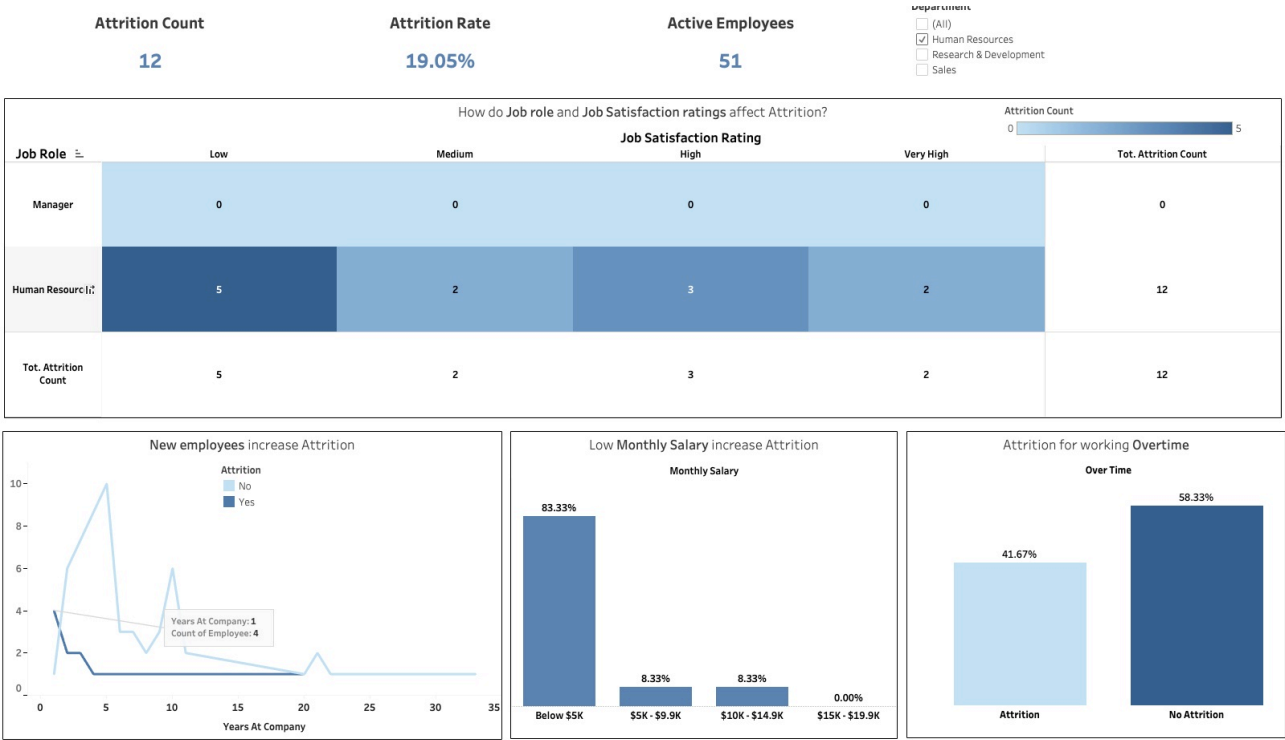


# Job factors

## Human Resource Department:

- From job role side, all of them are HR employees and none of them are manager.

- From job satisfaction side, most with "low" satisfaction level tend to leave the company.

- In the first year only most of the employees left the company.

- Monthly salary also plays an important role as people below $5k monthly salary tend to leave the company more.



### R&D Department:

- From job role side, most of them are laboratory technician and research scientists, while few belong to higher positions like manager, healthcare representative and research director.

- From job satisfaction side, we see people with high as well as low satisfaction rating tend to leae the company more. Hence, there could be some other factors which might be related to their attrition.

- In the first year only almost 38 of the employees left the company.

- Monthly salary also plays an important role as people below $5k monthly salary which is almost 82.71% tend to leave the company more.

| Attrition Count | Attrition Rate | Active Employees | Department |
|---|---|---|---|
| **133** | **13.84%** | **828** | ☐ (All) ☐ Human Resources ☑ Research & Development ☐ Sales |

How do **Job role** and **Job Satisfaction ratings** affect Attrition?

Attrition Count: 0 ▬▬ 21

| Job Role | Low | Medium | High | Very High | Tot. Attrition Count |
|---|---|---|---|---|---|
| Research Director | 0 | 1 | 1 | 0 | 2 |
| Manager | 1 | 1 | 1 | 0 | 3 |
| Healthcare Representative | 2 | 2 | 1 | 4 | 9 |
| Manufacturing Director | 2 | 2 | 4 | 2 | 10 |
| Research Scientist | 13 | 10 | 15 | 9 | 47 |
| Laboratory Technician | 20 | 8 | 21 | 13 | 62 |
| Tot. Attrition Count | 38 | 24 | 43 | 28 | 133 |



New employees increase Attrition — Years At Company: 1, Count of Employee: 38

Low Monthly Salary increase Attrition: Below $5K 82.71%, $5K - $9.9K 9.02%, $10K - $14.9K 6.02%, $15K - $19.9K 2.26%

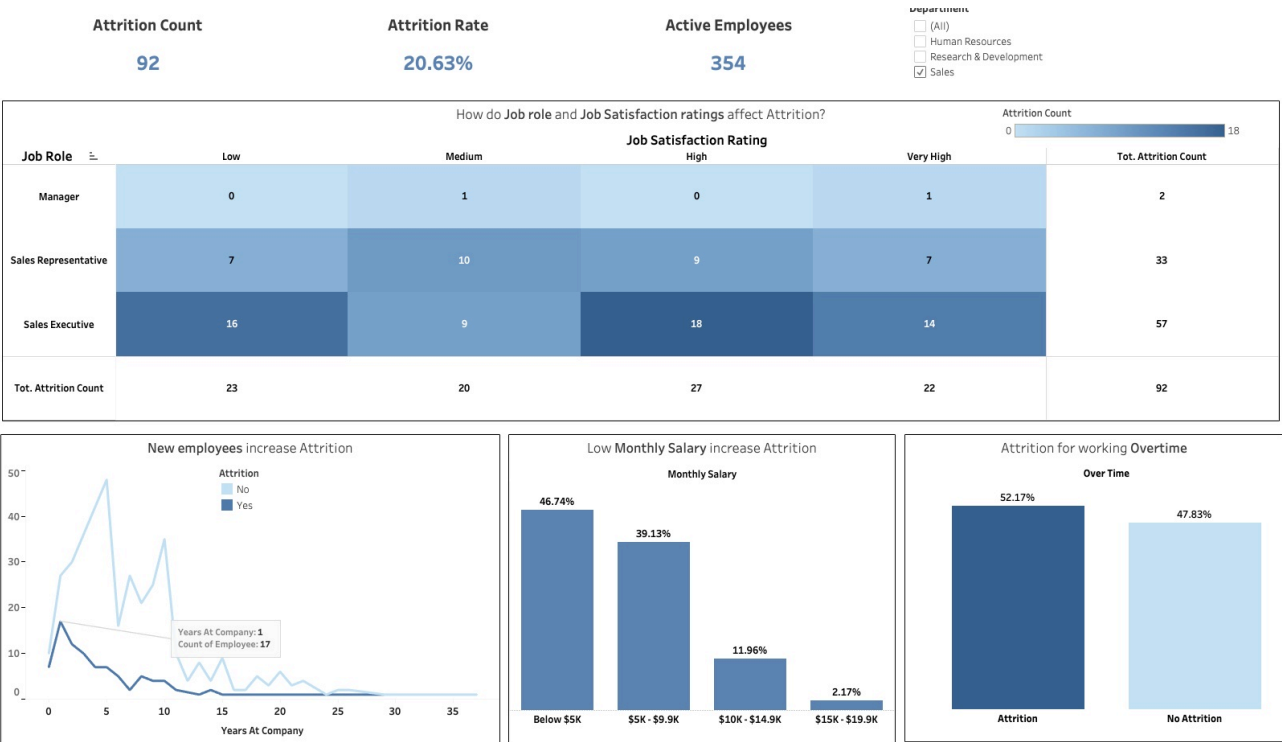Attrition for working Overtime: Attrition 55.64%, No Attrition 44.36%

## Sales Department:

- From job role side, most of them are laboratory technician and research scientists, while few belong to higher positions like manager, healthcare representative and research director.

- From job satisfaction side, we see people with high as well as low satisfaction rating tend to leave the company more. Hence, there could be some other factors which might be related to their attrition.

- In the first year only almost 38 of the employees left the company.

- Monthly salary also plays an important role as people below $5k monthly salary which is almost 82.71% tend to leave the company more.

| Attrition Count | Attrition Rate | Active Employees | Department |
|---|---|---|---|
| **92** | **20.63%** | **354** | ☐ (All) ☐ Human Resources ☐ Research & Development ☑ Sales |

How do **Job role** and **Job Satisfaction ratings** affect Attrition?

Attrition Count: 0 ▬▬ 18

| Job Role | Low | Medium | High | Very High | Tot. Attrition Count |
|---|---|---|---|---|---|
| Manager | 0 | 1 | 0 | 1 | 2 |
| Sales Representative | 7 | 10 | 9 | 7 | 33 |
| Sales Executive | 16 | 9 | 18 | 14 | 57 |
| Tot. Attrition Count | 23 | 20 | 27 | 22 | 92 |



New employees increase Attrition — Years At Company: 1, Count of Employee: 17

Low Monthly Salary increase Attrition: Below $5K 46.74%, $5K - $9.9K 39.13%, $10K - $14.9K 11.96%, $15K - $19.9K 2.17%

Attrition for working Overtime: Attrition 52.17%, No Attrition 47.83%

# Summary:

Based on the analysis of all departments above we come to the below summary on an overall basis :

- Age: 25-35 age group has the highest attrition count

- Gender: Male employees tend to have more attrition

- Marital Status: 'Single' and 'Married' employees have tendency to leave company more compared to 'Divorced' ones.

- Education field: Attrition is highest in Life Sciences followed by Medical and Marketing field.

- Job Role: Attrition is highest for Laboratory Technician followed by Sales Executive  and Research Scientist.

- Over Time: Employees working overtime i.e. extra hours has more attrition

- Monthly Income: Employees with monthly salary less than $5k has more attrition

- Department: Attrition is highest in R&D dept followed by Sales and then Marketing

- Years At Company: Employees who are only for 1 year in the company are having more attrition

# Limitations

Data Quality and Completeness:

- Reliance on the HR database of 'ABC Solutions' for data accuracy.

- Inaccuracies, inconsistencies, or missing data may impact reliability.

- The analysis focuses on key factors; missing factors may affect results.

Scope of Data:

- The dataset may not capture all relevant attrition factors.

- External market conditions, organizational culture, and individual aspirations are not fully considered.

- Limited data scope leads to an incomplete understanding of drivers.

Timeframe:

- Analysis based on a specific timeframe may miss the dynamic nature of attrition factors.

- Changes in HR policies, leadership, or economic conditions beyond the analyzed period.

- Consider company performance over time for context and insights.

Lack of Historical Context:

- Snapshot of current data may overlook historical trends.

- Difficult to assess the long-term impact of attrition factors without historical context.

- Historical data provides consistent evidence of how variables affect attrition rates.

Simplified View of Job Satisfaction:

- Job satisfaction assessment based on employee ratings.

- Ratings may oversimplify the multidimensional nature of job satisfaction.

- Additional qualitative insights are needed for comprehensive understanding.

Incomplete Consideration of Variables:

- Due to project time limitations, some external factors were not considered.

- Next analysis is expected to account for additional variables.

# Recommendation

To effectively manage attrition and improve employee retention, organizations must prioritize data validation, comprehensive data collection, longitudinal analysis, incorporation of additional data sources, strategic interventions, and continuous monitoring and evaluation. Regular audits and validation processes ensure the accuracy, completeness, and consistency of HR data, while expanding data collection efforts to include variables like employee engagement and work-life balance provides a more comprehensive understanding of attrition drivers. Longitudinal analysis tracks attrition trends over time and assesses historical impacts, while incorporating additional data sources such as engagement surveys enriches analysis with diverse perspectives. Insights derived from analysis should inform targeted interventions aimed at addressing specific attrition drivers, with proactive measures implemented to enhance job satisfaction and retention strategies. Establishing a system for ongoing monitoring and evaluation ensures the relevance and effectiveness of strategies, allowing organizations to make informed decisions and adapt as needed to improve employee retention efforts.

Let's look at the key actionable items based on our analysis on an overall basis which will help reduce attrition and increase retention:

- Prioritize attention towards creating a supportive work environment, offering comprehensive onboarding training sessions, and facilitating organized knowledge transition for new hires, particularly focusing on early-career individuals and singles who tend to switch jobs.

- Collaborate between executive leadership and HR to research strategies for retaining young talent, recognizing their importance as a vital resource for the company.

- Explore opportunities to increase base salaries across departments, as compensation plays a significant role in retention efforts.

- Implement initiatives aimed at enhancing job satisfaction and minimizing overtime, acknowledging their impact on employee retention.

- Conduct an in-depth analysis of departments characterized by research work and employees with Bachelor's degrees to identify specific factors contributing to higher turnover rates, thereby informing targeted retention strategies.

- By addressing these key areas, organizations can create a more conducive work environment and strengthen their efforts in retaining valuable talent.