

IBM HR Analytics

IBM HR Analytics	Department and Gender	Environment and Job Satisfaction	Compensation and Benefits	Monthly Income and Total Years Worked	Education Field and Job Level	Personal Factors
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IBM HR Analytics Employee Attrition and Performance

Context:

Employees are one of the most important assets of an organization as they are essential to providing the goods and services that the organization offers. The employee workforce is the foundation of a strong, successful, and long-running company.

Many employers face the challenge of employee attrition. Employee attrition refers to the loss of employees from an organization due to voluntary or involuntary reasons. It can be measured as the rate at which employees leave a company's workforce and are not immediately replaced over a specific period of time. Employee attrition can be a significant issue for organizations, as it can lead to disruptions to organizational activities, costly capital expenditures used to hire and select new candidates to fill vacancies, cost incurred to train new employees, time costs required to adjust to new changes, loss of knowledge due to losing experienced employees, and reduction in profits due to loss of productivity. Attrition is an inevitable part of any business, but it is important to minimize employee attrition, and determine potential causes so that effective countermeasures can be applied.

Problem Statement:

- What are the factors that contribute to employee attrition?
- Which business units has an attrition issue?

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Department and Gender

Environment and Job Satisfaction

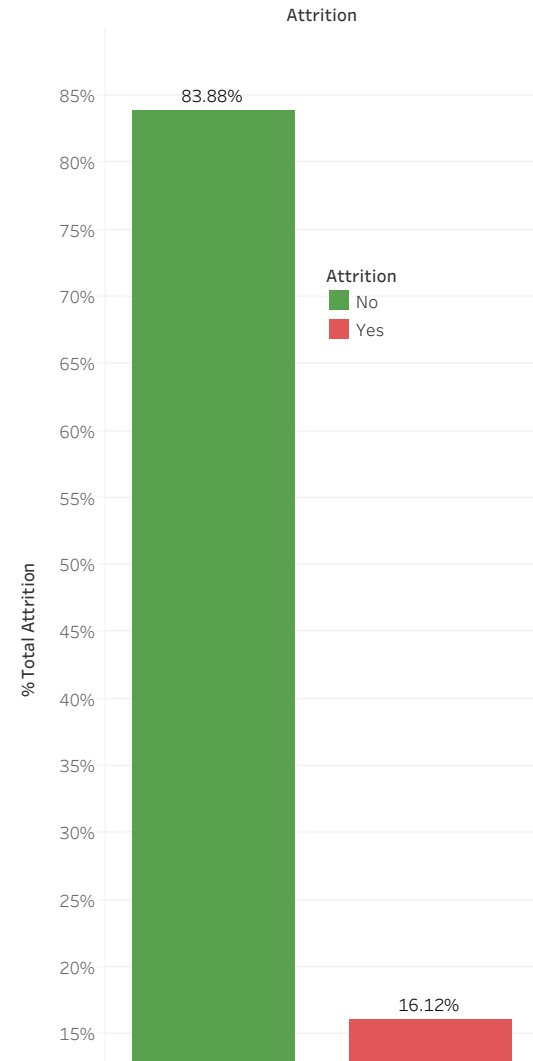
Compensation and Benefits

Monthly Income and Total Years Worked

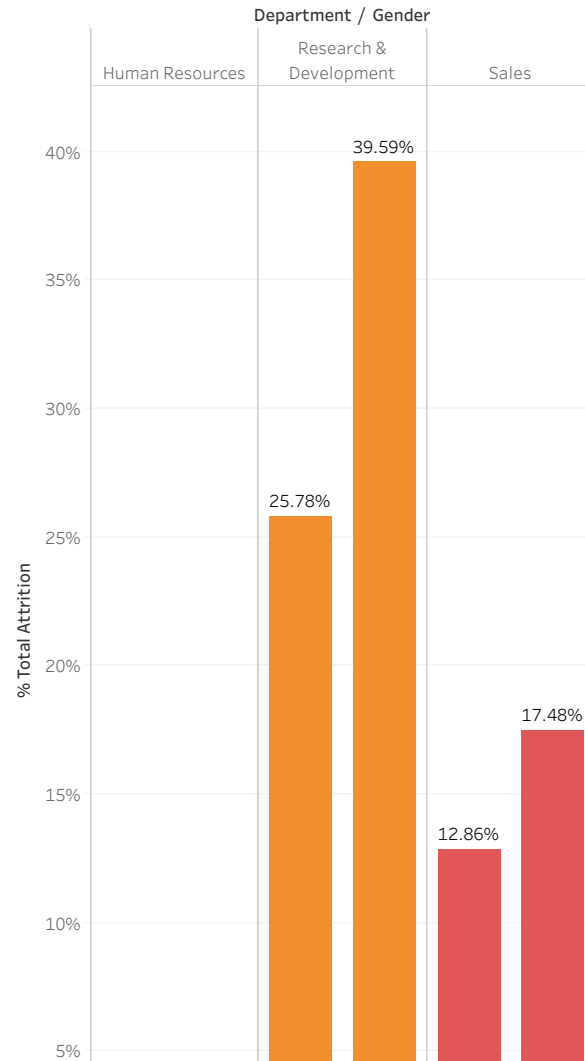
Education Field and Job Level

Personal Factors

Attrition Rate



Attrition Rate by Department and Gender



Department

- Human Resources
- Research & Development
- Sales

- Overall around 16% of employees left the company.

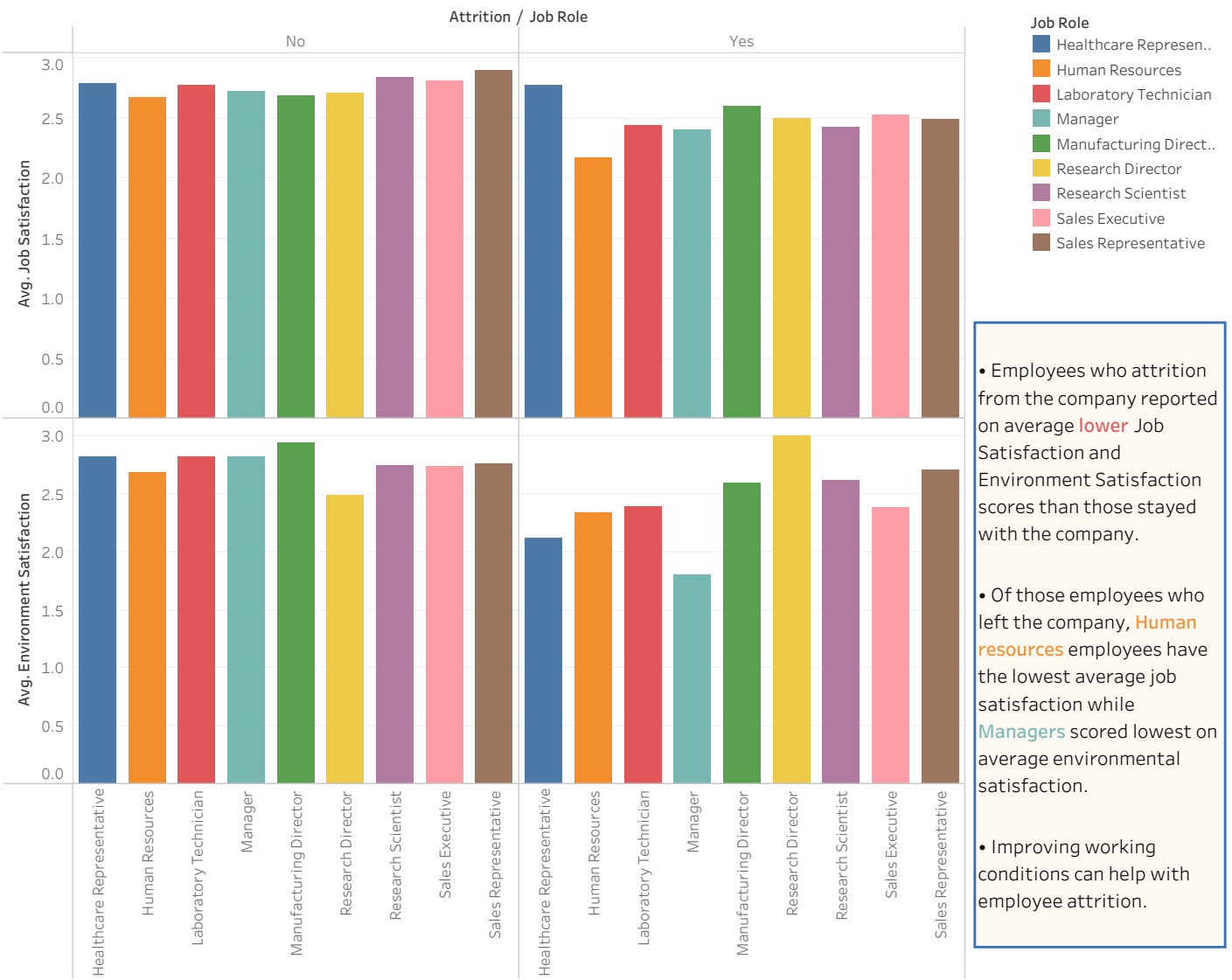
- Of those employees who left the company, males were more likely to attrition.

- The Research & Development and Sales departments make up the majority of employees who leave the company.

- The Research & Development department has the highest rate of attrition, but this may be partly due to the department having more employees.

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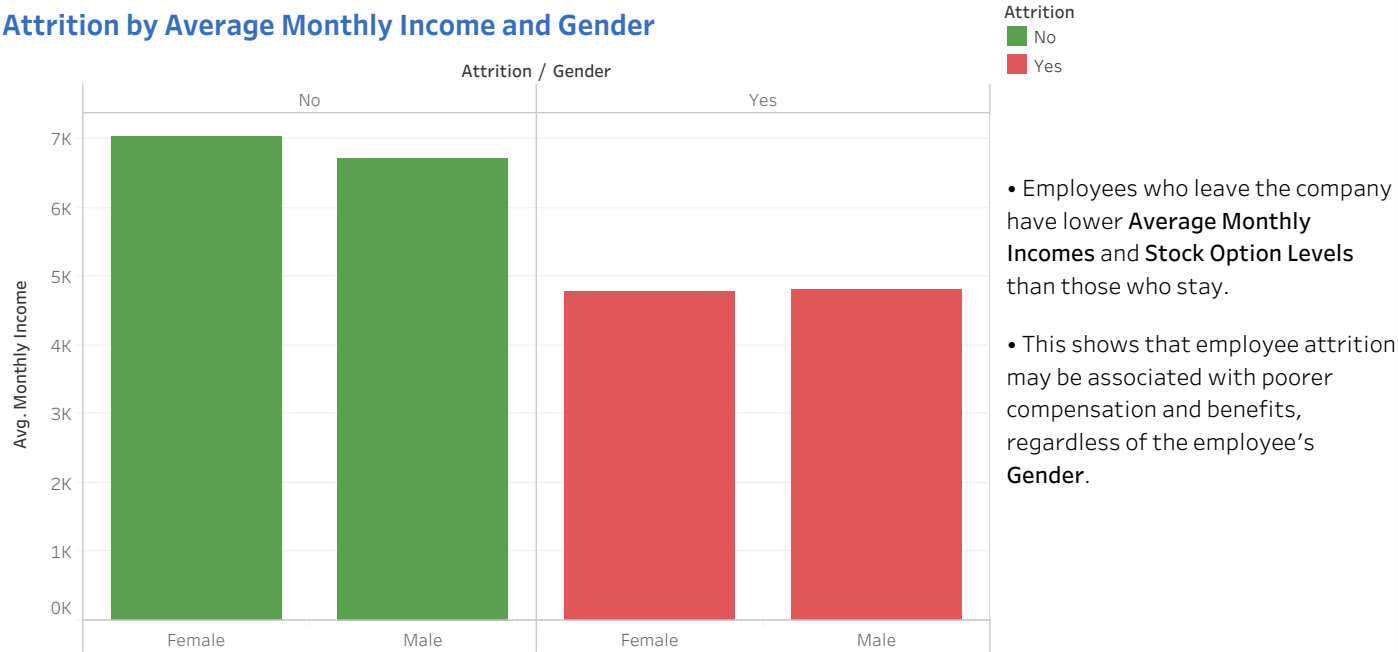
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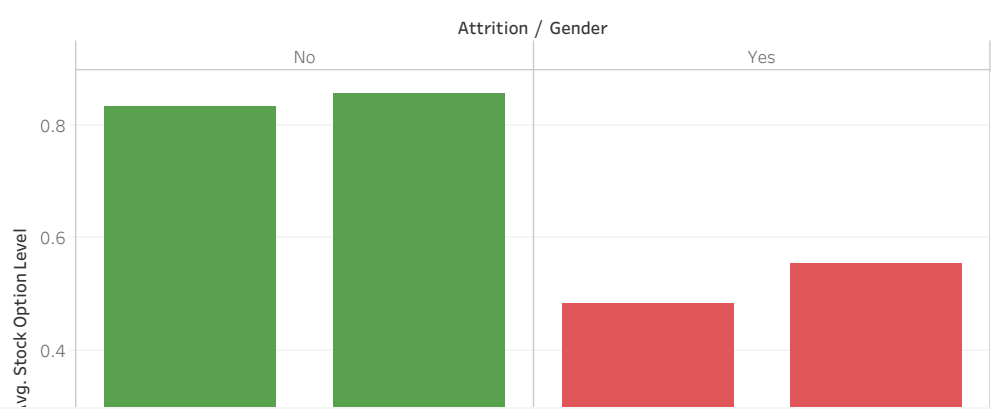
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Attrition by Average Monthly Income and Gender

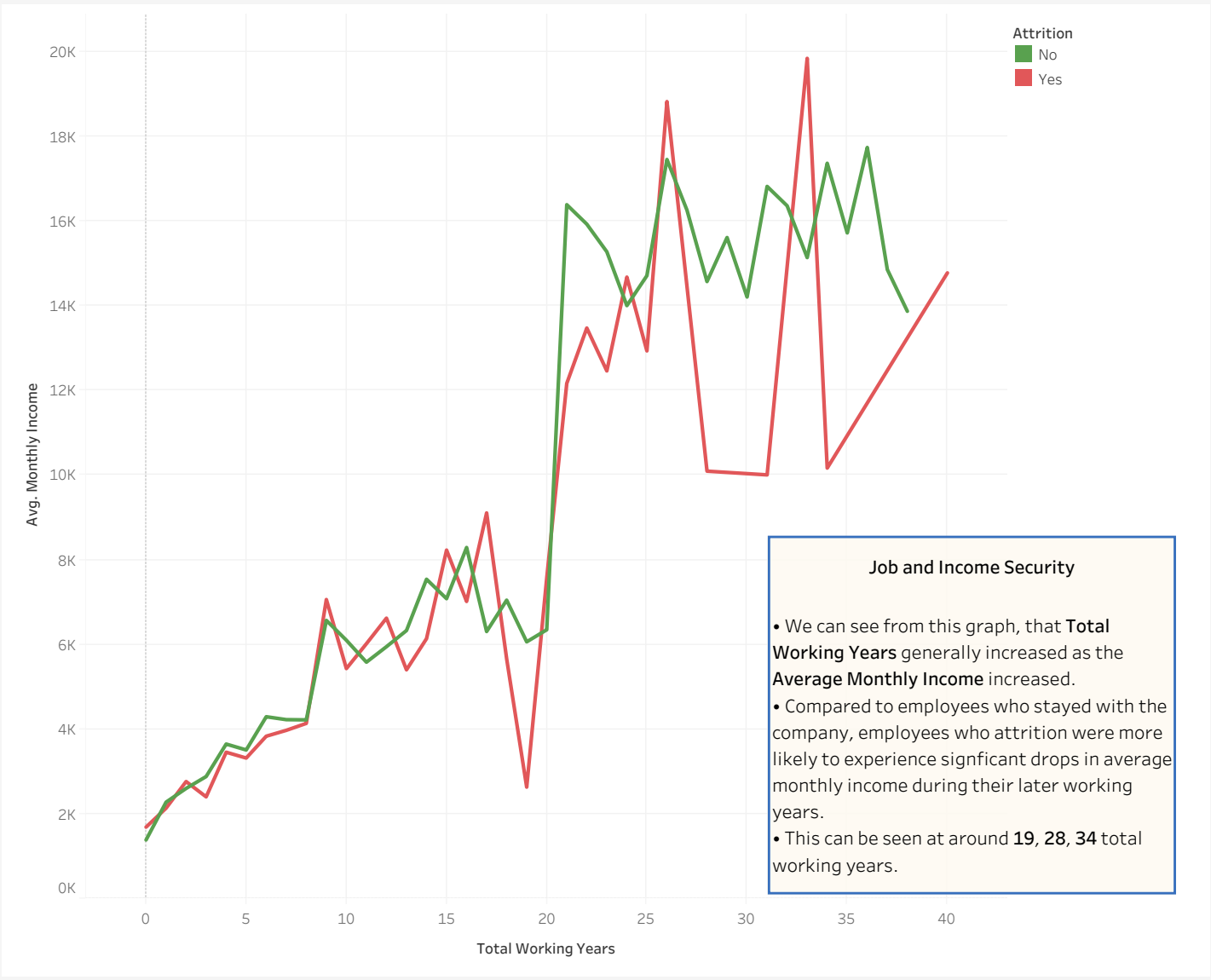


Attrition by Average Stock Option Level and Gender



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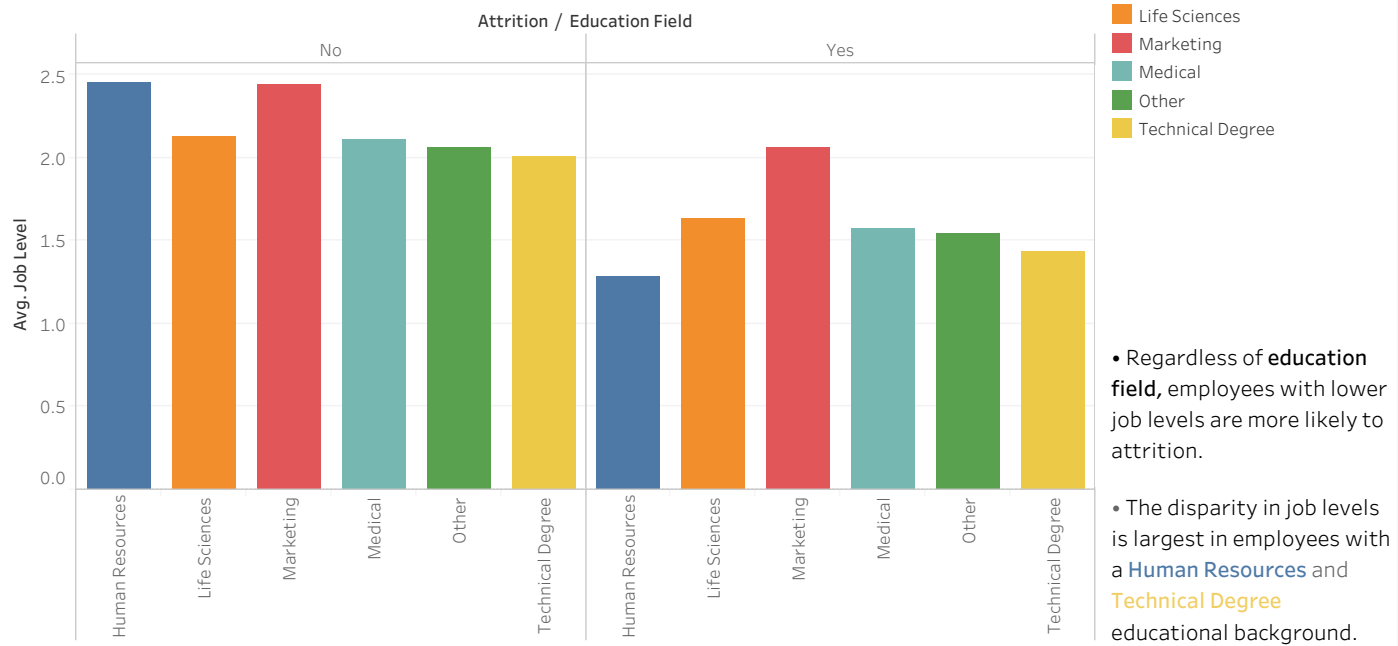
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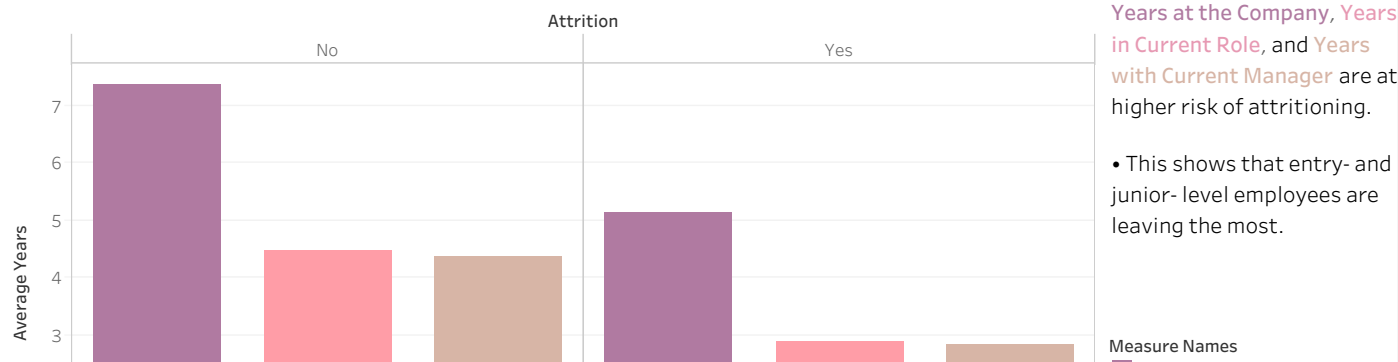
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Attrition by Education Field and Job Level



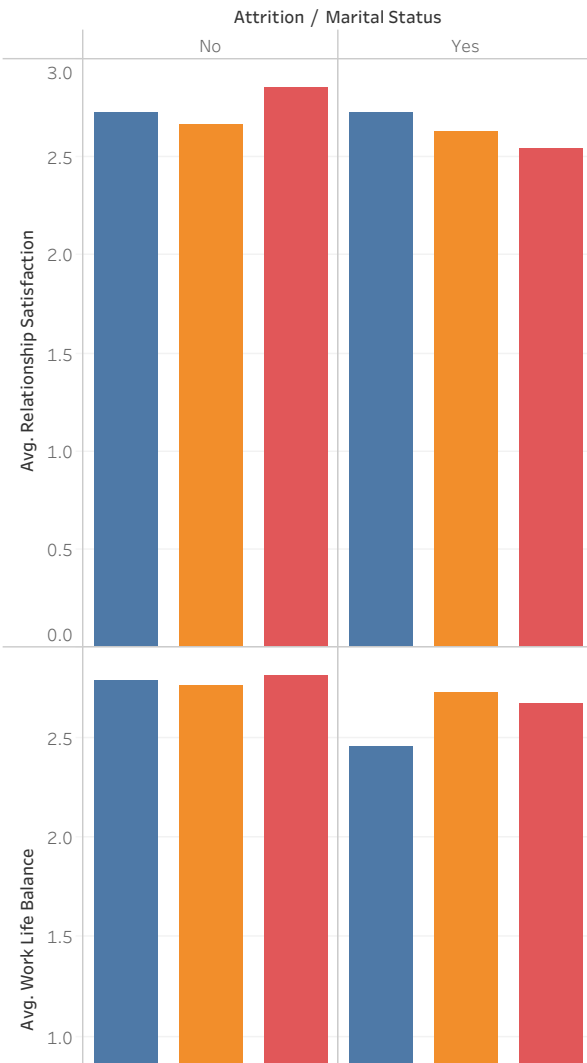
Years at Company, in Current Role, & with Current Manager



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Personal Factors



Marital Status

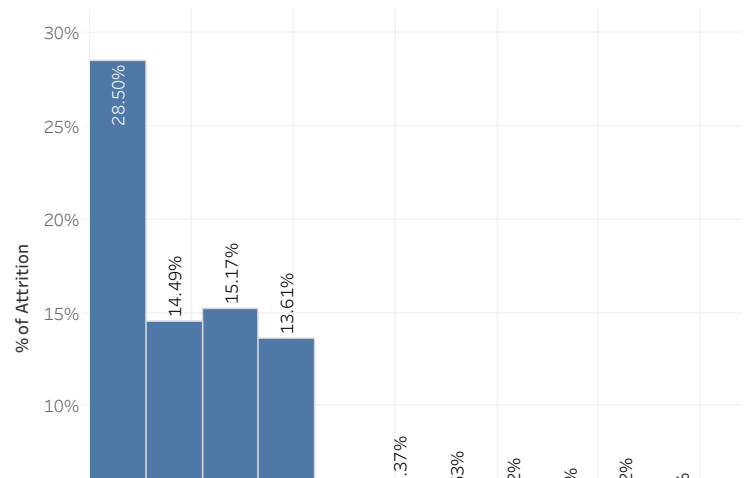
■ Divorced

☒ Married

☒ Single

- **Relationship Satisfaction** is contributing factor to employee attrition only when the employee is **Single**.
- However, employees leaving the company report lower **Work Life Balance** across the board, regardless of **Martial Status**. Improving work life balance may help reduce employee attrition.
- The majority of employees who attrition live close the company, within 10 miles.

Attrition Rate by Distance From Home



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Insights and Summary

- About 16% of employees left the company.
- The department that accounted for most of the attrition was **Research & Development** and followed by **Sales**.
- Males made up the majority of those who attrition across all departments.

There are several factors that contribute to employee attrition:

- **Working conditions** - employees who left the company reported lower *Job* and *Environment Satisfaction*. Employees may leave if they are not satisfied with their physical working environment or if they feel the company culture is not conducive to their work productivity.
- **Compensations and benefits** - those who attritioned had lower *Average Monthly Incomes* and *Stock Option Levels*. Thus, employees may leave if they feel as if they are not being compensated fairly or if the company's benefits package is not competitive.
- **Career Growth Opportunities** - employees with lower *Job Levels* and *Years at the Company* are more likely to leave. Employees may want to leave if they feel there are no opportunities for advancement or development within the company.
- **Personal Factors** - employees with lower *Work Life Balance* and live within 10 miles of the company are at higher risk of attrition.