

**+** A  
HR Analytics  
Company

# Ascend Analytics

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# Why do we do?

At Ascend Analytics, our focus is on leveraging advanced data analytics to understand and improve workforce dynamics.

**Dataset :** This fictional database, created by our expert data scientists, is a comprehensive collection of 1,470 employees encompassing 35 different attributes

The objective is to investigate how various employee satisfaction indicators affect employee attrition and to provide insights to reduce turnover and improve work culture and policies

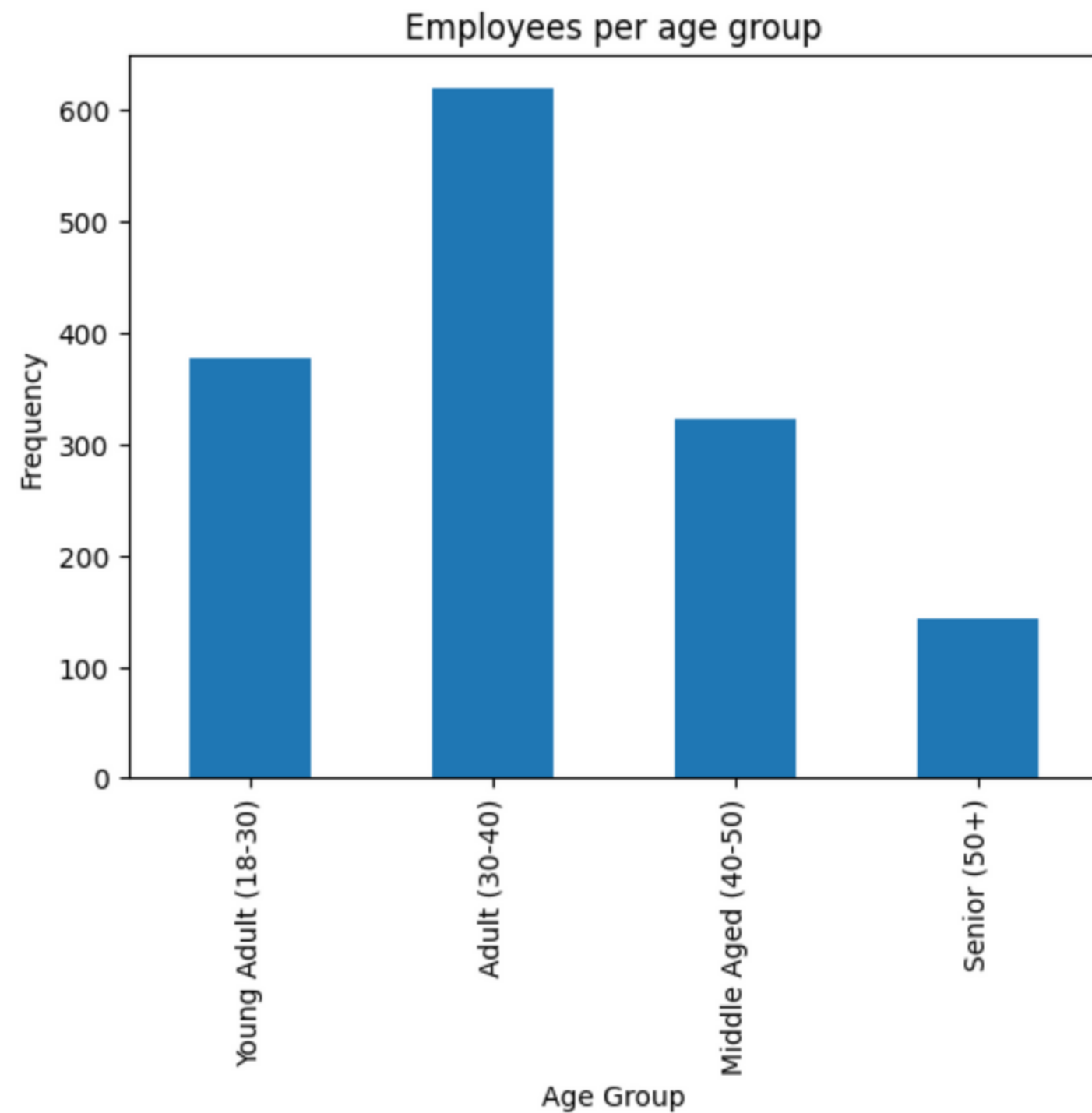
# Demographic Distribution

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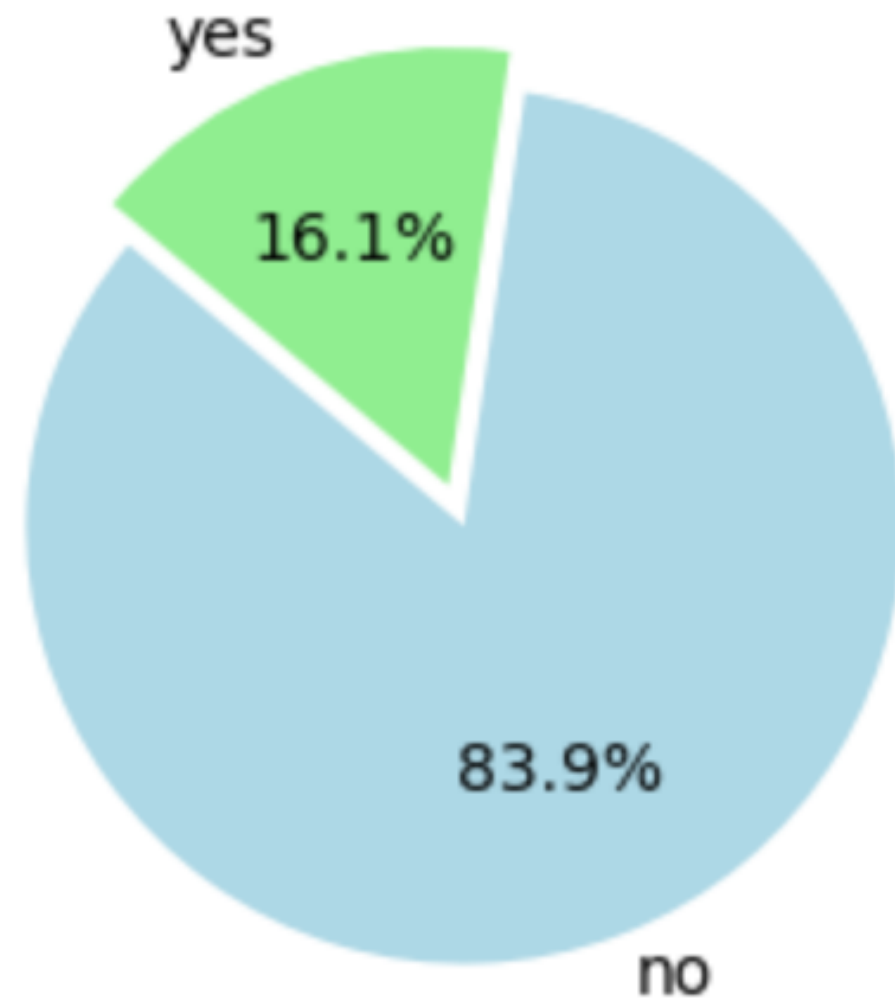
Most employees are Adults between the age of 30-40

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Data reflected that most individuals are in their mid-career phase.



## Employee Attrition +



84%

majority of individuals have not  
left the organization. +

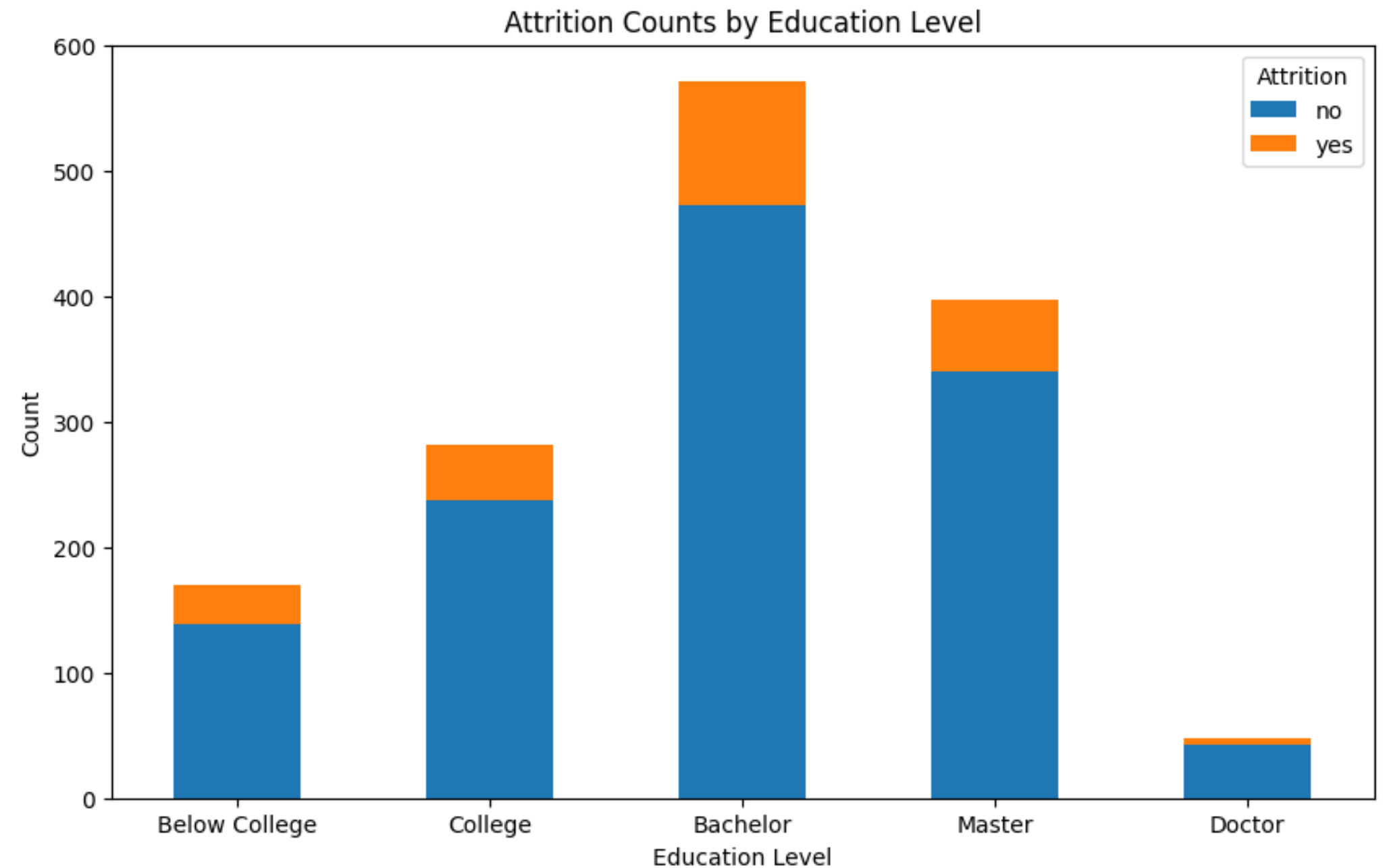
# Educational Background and Attrition

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Bachelor's level of education have the highest count of attrition compared to other education levels

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Implement targeted retention strategies for employees with a Bachelor's degree, potentially including career development programs, to address the higher attrition rates



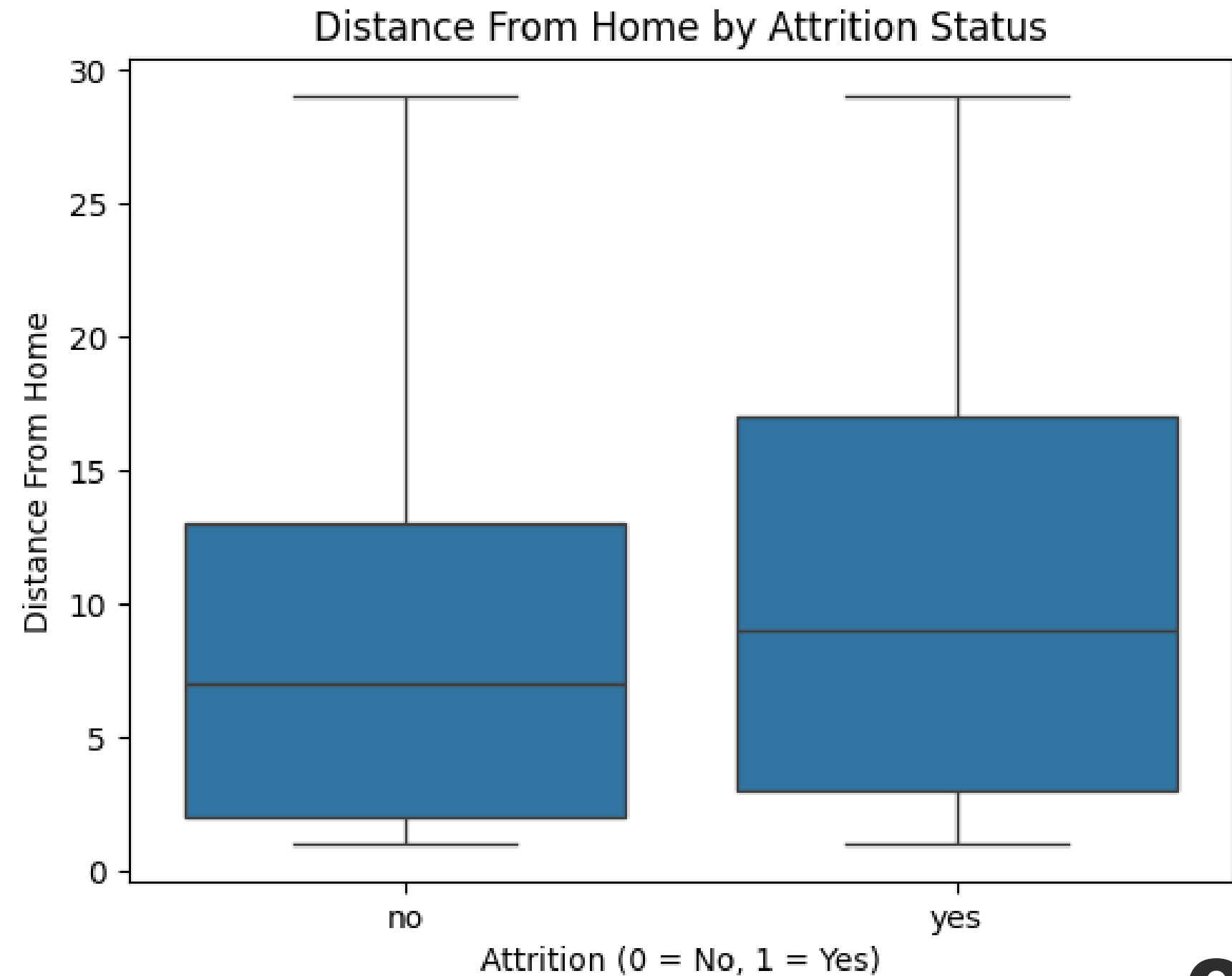
# Distance from Home and Attrition

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The median distance from home for employees who have left the company is higher than that for those who have stayed

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Consider introducing or expanding remote work options and flexible scheduling to accommodate employees who live further away from the office





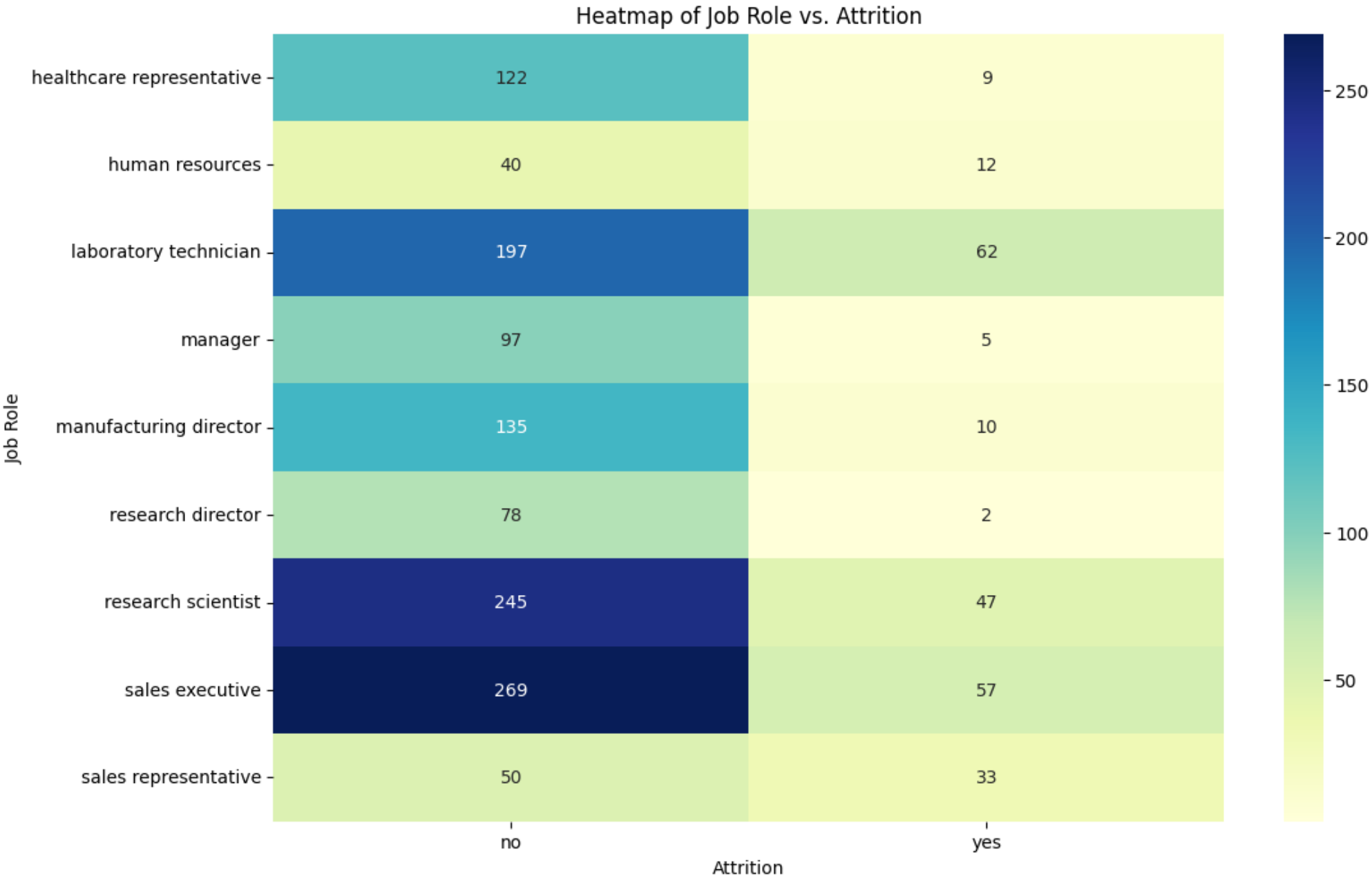
The Chi-Square statistic of 86.19 and the extremely low p-value indicate a strong association between job role and attrition, with certain job roles experiencing higher turnover than others.



In this case, the p-value is extremely low , suggesting that the observed frequencies are staistically significantly different from the expected frequencies

**Implement role-specific retention initiatives for sales executives and laboratory technicians, and investigate underlying causes of attrition like job satisfaction, work conditions, and growth opportunities.**

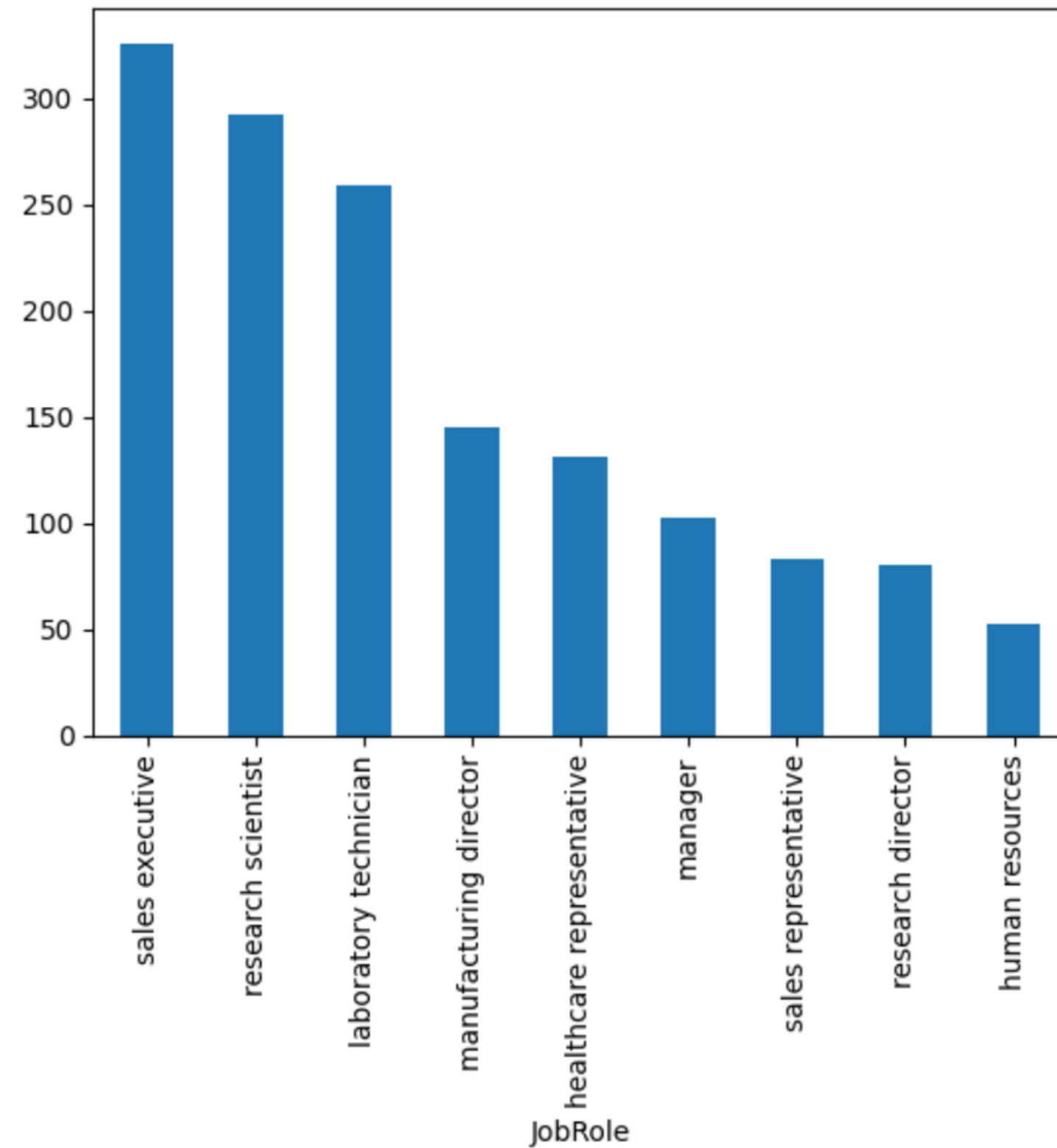
# Association Between Job Roles and 'Attrition



# Job Roles

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Sales executives role has the most employees. Human Resources has the least



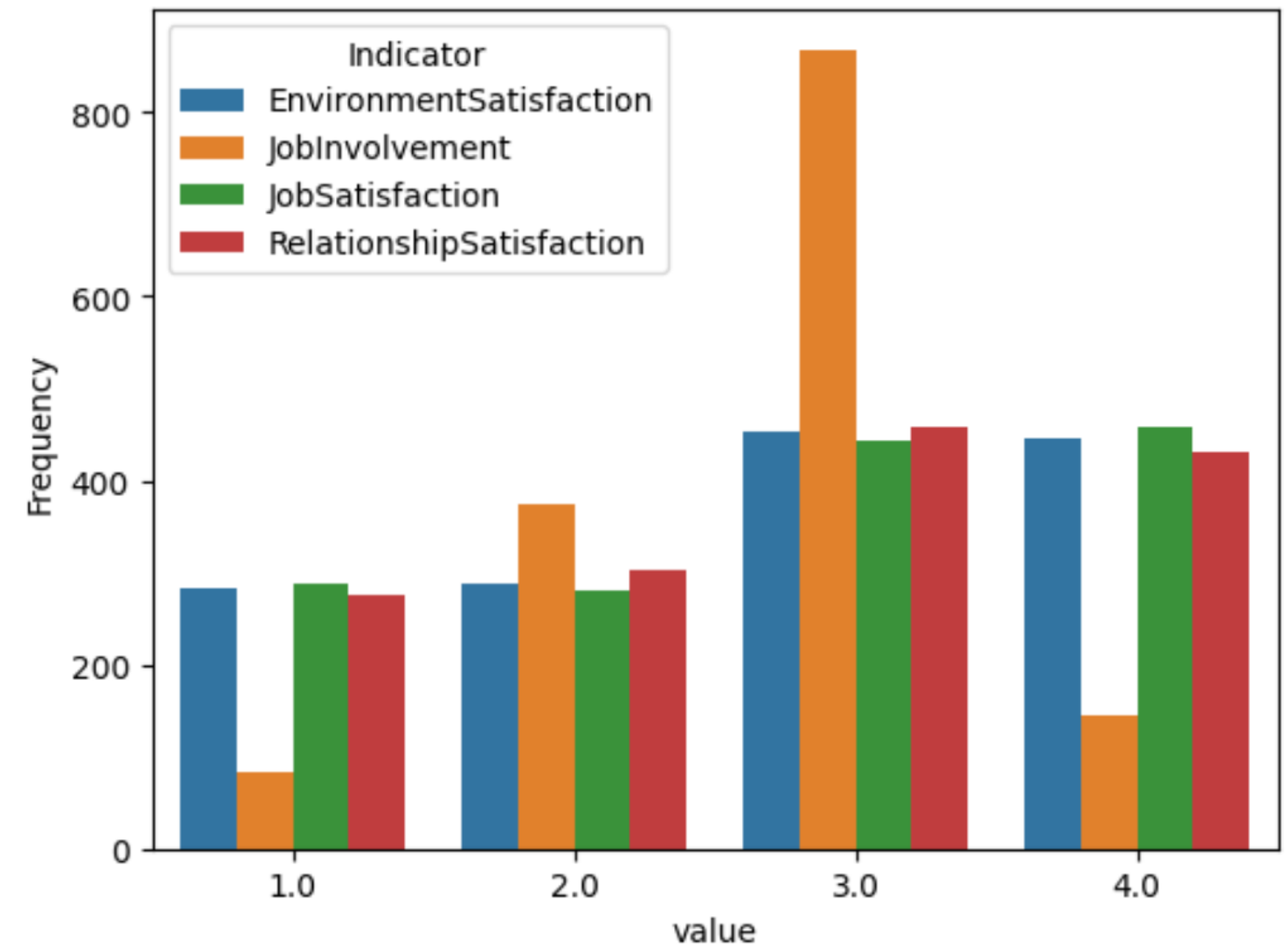


# Employee Satisfaction Metric

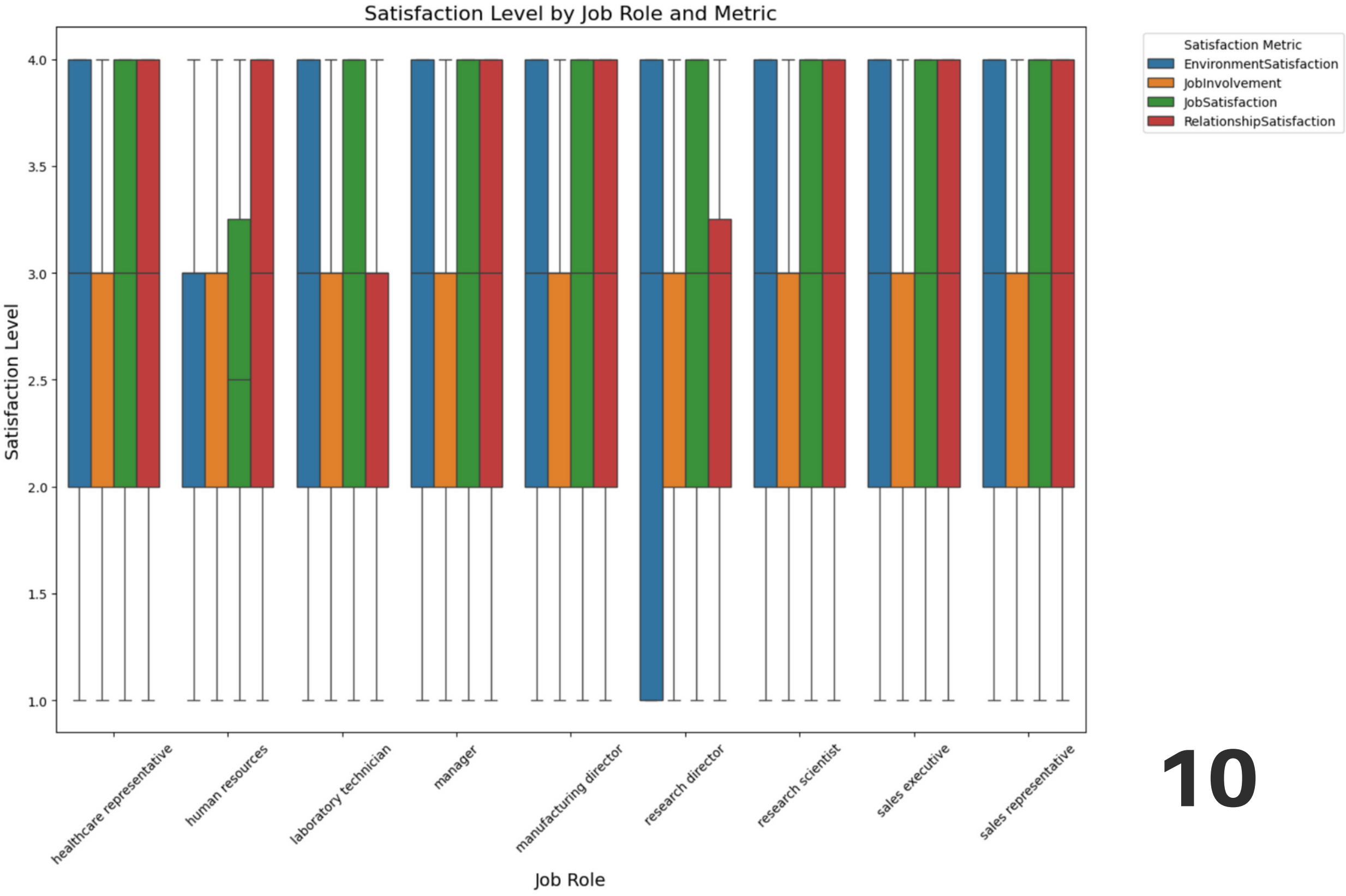
Employees show a high level of job involvement (level 3.0), indicating strong engagement in their roles. This suggests a potential benefit from enhancing employee development programs like Career Advancement Tracks and Skill Development Workshops. HR has the most employees. Human Resources has the least

While Environmental Satisfaction is evenly distributed, Job and Relationship Satisfaction frequently score at level 4.0, highlighting a very satisfied workforce. This calls for maintaining and reinforcing the company culture and values.

**To capitalize on the high satisfaction levels, the company should implement Regular Feedback Mechanisms, alongside organizing Community Building Events to strengthen team bonds.**



# Job Roles and Employee Satisfaction



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It seems Job Involvement and Satisfcation are fairly consistent across all job roles.

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Research directors typically have lower relationship satisfaction compared to other roles, while Human Resources report lower environmental satisfaction, meriting further investigation

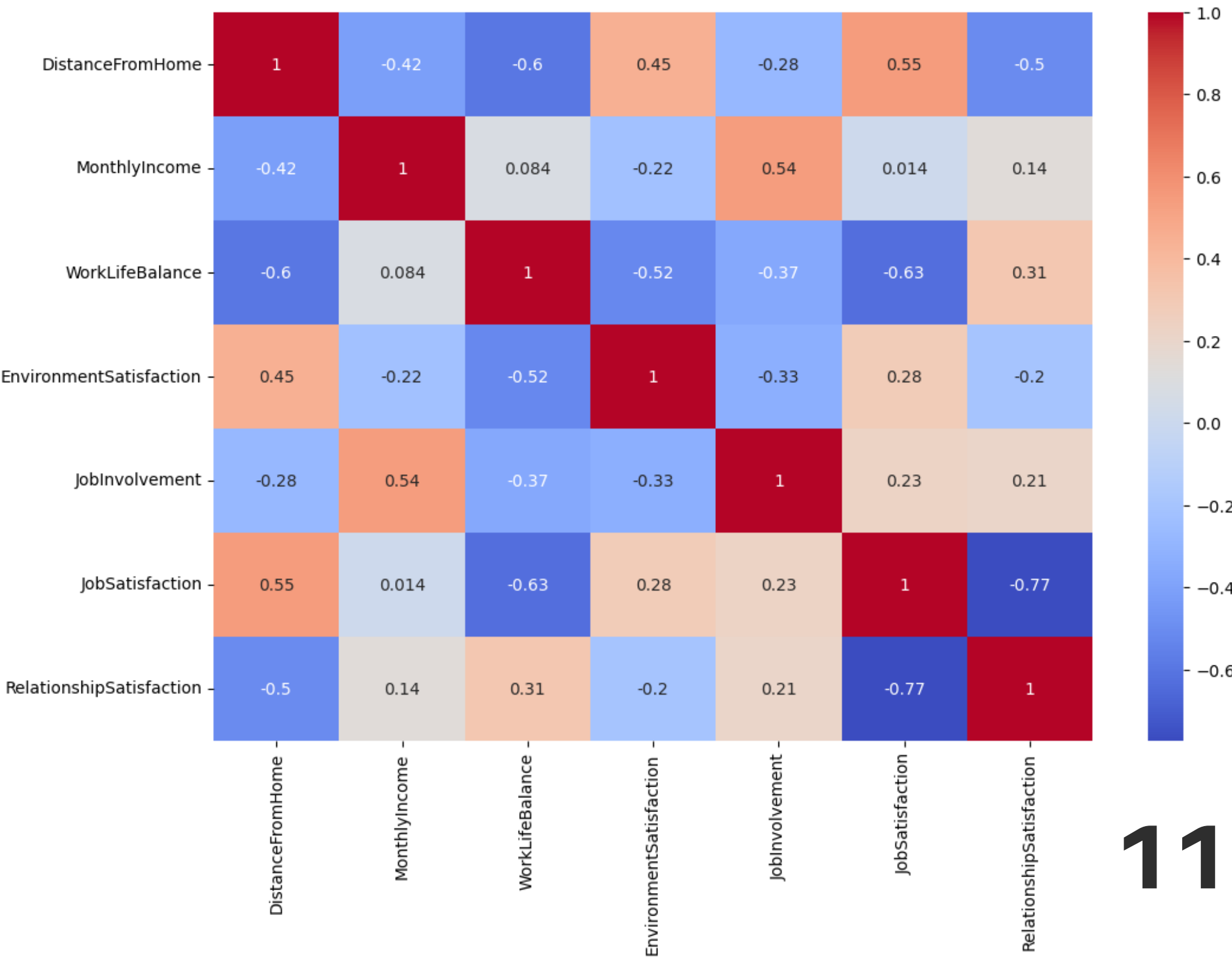
# Correlations between Job Satisfaction Metrics

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Leverage the positive correlation between monthly income and job involvement to enhance employee engagement through competitive compensation.

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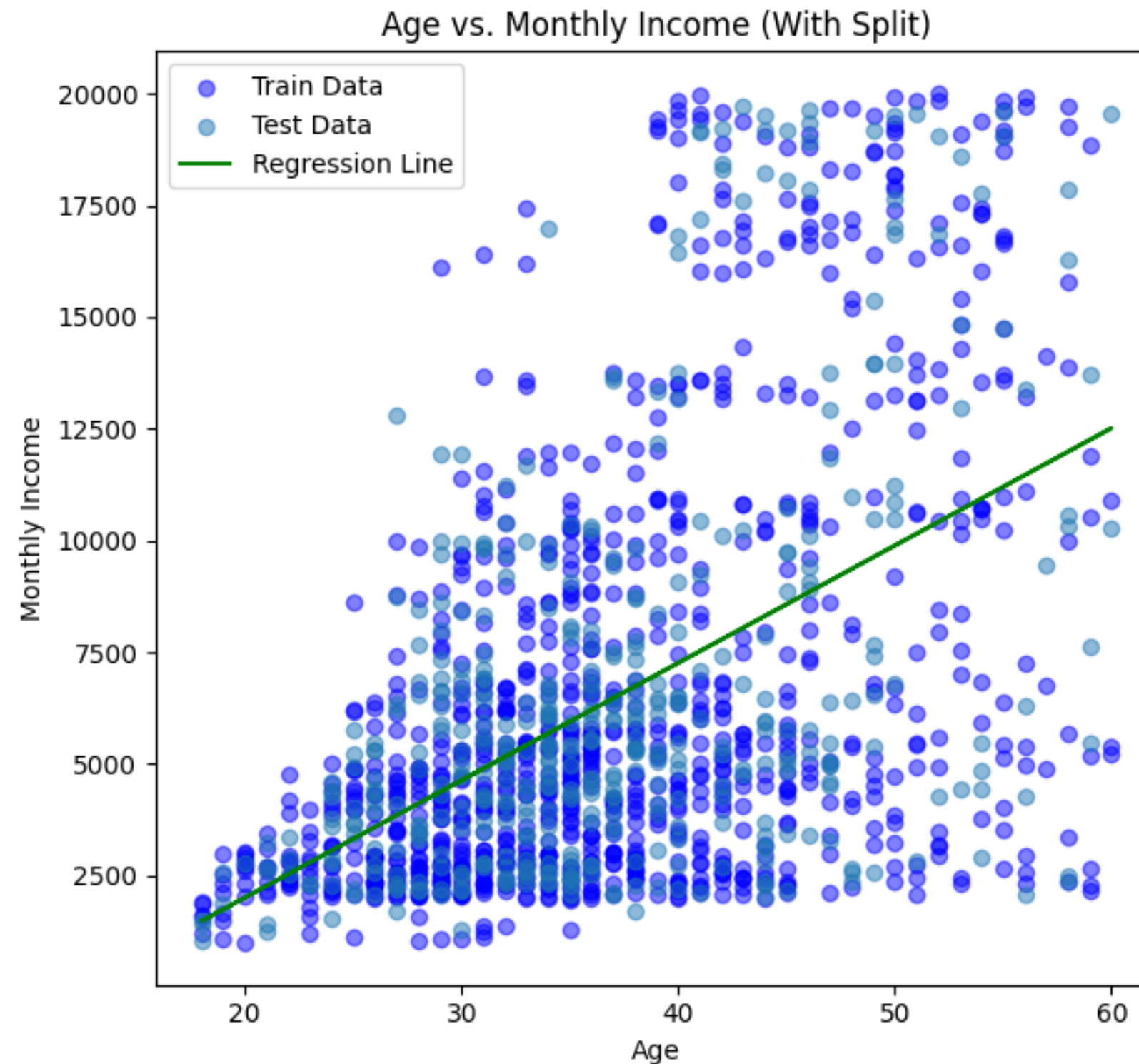
Implement flexible working arrangements for those with longer commutes, addressing the negative correlation between distance from home and work-life balance.



# Correlations between Age and Monthly Income

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The positive correlation coefficient, along with the visualization, suggests that age is a predictor of monthly income, also implying a linear relationship between these two variables.



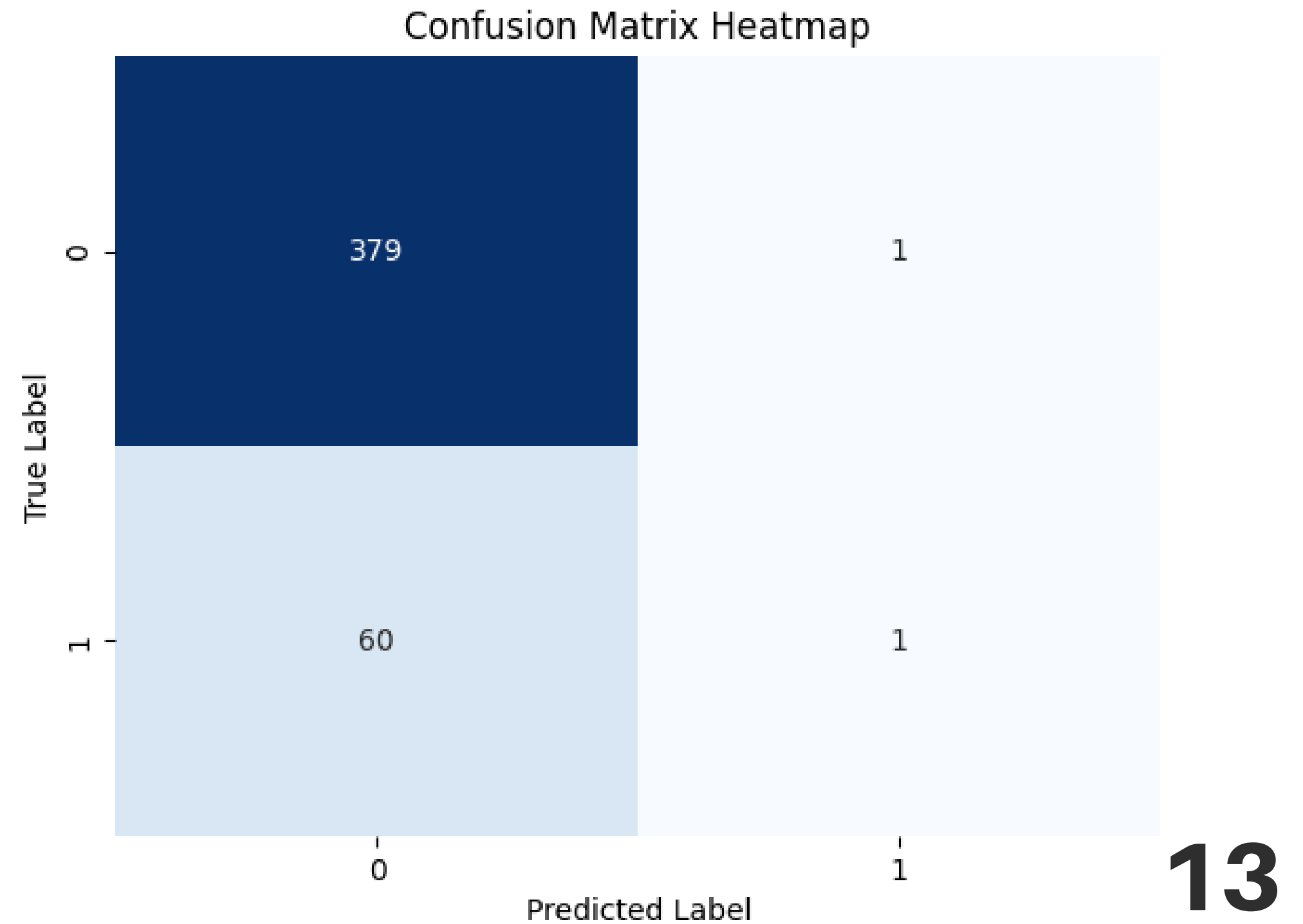
# Classification Model to predict Attrition

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Logistic regression to predict whether a person is will leave based on features such as Age, Monthly Income, and Job Role, Years at Company, Years in Current Role.

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The model performs well in identifying non-attritions (0) but struggles with identifying attritions (1)



# Factors to Consider

- + Longer commutes correlate negatively with work-life balance, potentially increasing attrition
- + Employees with a Bachelor's degree exhibit higher attrition, indicating a need for targeted retention efforts.
- + Higher monthly income is associated with increased job involvement, suggesting salary as a key motivator
- + A negative correlation between environmental satisfaction and work-life balance requires exploration of workplace conditions
- + Significant variances in attrition rates across job roles demand tailored retention strategies and in-depth analysis of role-related dissatisfaction factors.