

# Employee HR Data Analysis for Effective Workforce Management

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# OUTLINE

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Executive Summary

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Introduction

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Methodology

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Results

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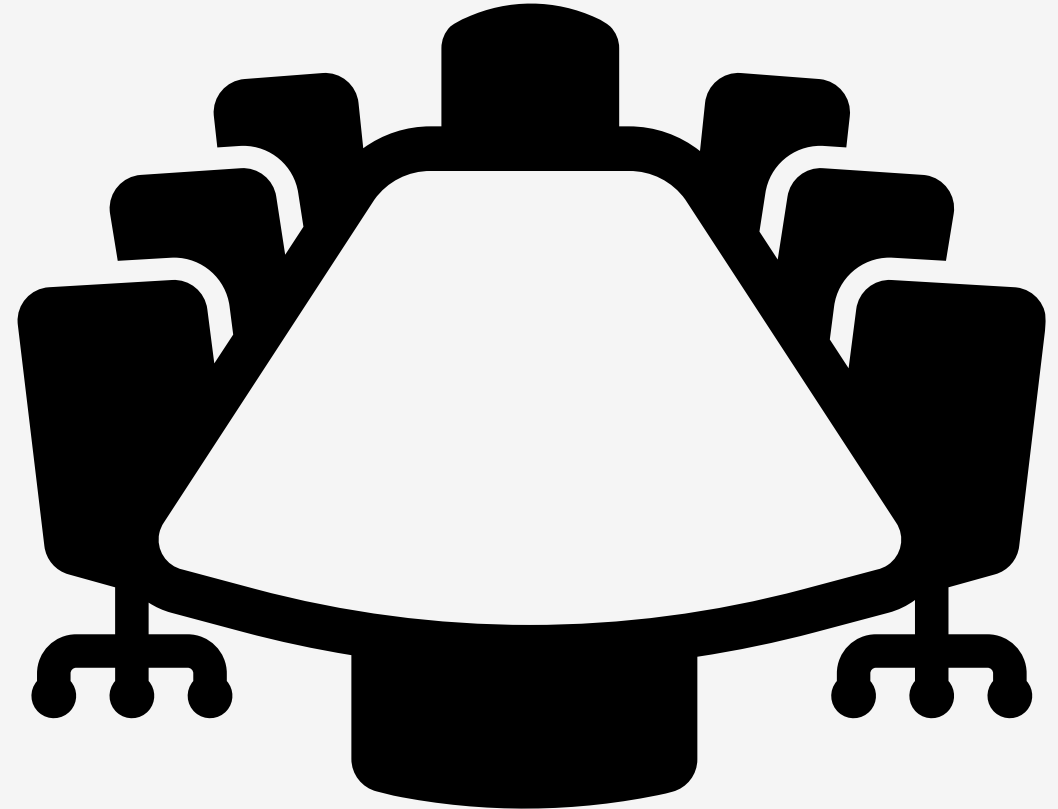
Conclusion

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Appendix

# EXECUTIVE SUMMARY

- Analyzed a dataset of 6,820 employee entries detailing demographics, salaries, performance ratings, and job roles.
- Key observations include:
  - Performance rating shows a weak correlation with salary.
  - Notable differences in average salaries among departments.
  - Significant gender and educational disparities in salary distribution.



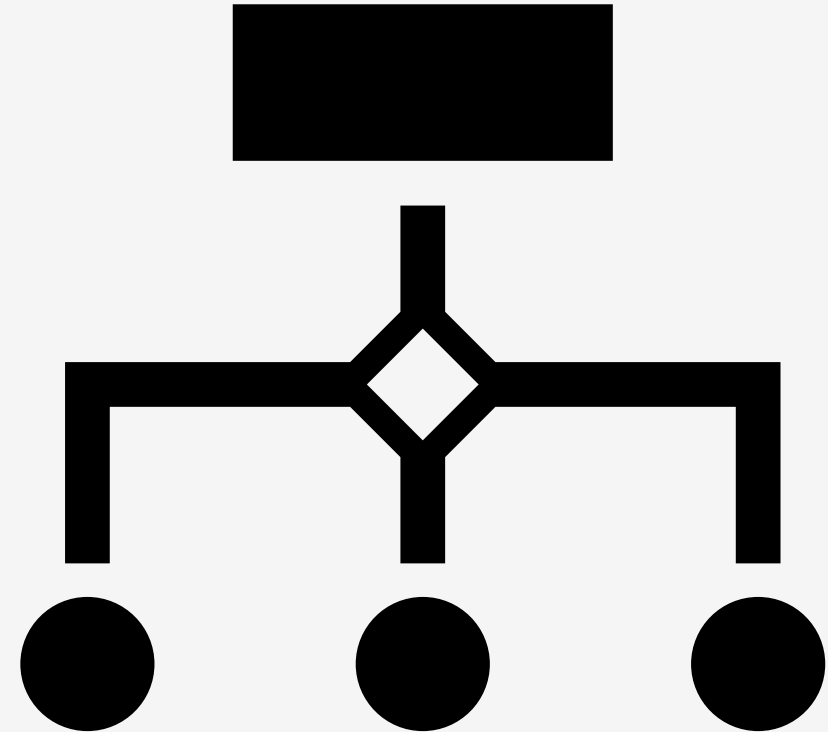
# INTRODUCTION

- Purpose: To evaluate the employee dataset to understand workforce demographics, performance ratings, and salary distributions.
- Importance: Insights from this analysis can inform HR policy, recruitment, and retention strategies.



# METHODOLOGY

- Simulated real-world HR dataset cleaned and standardized to ensure accuracy.
- Statistical analysis including correlation studies and salary comparisons by department and role.
- Visualization of hiring trends, employee demographics, and performance ratings.
- Comparative analysis of performance ratings across departments and educational levels.

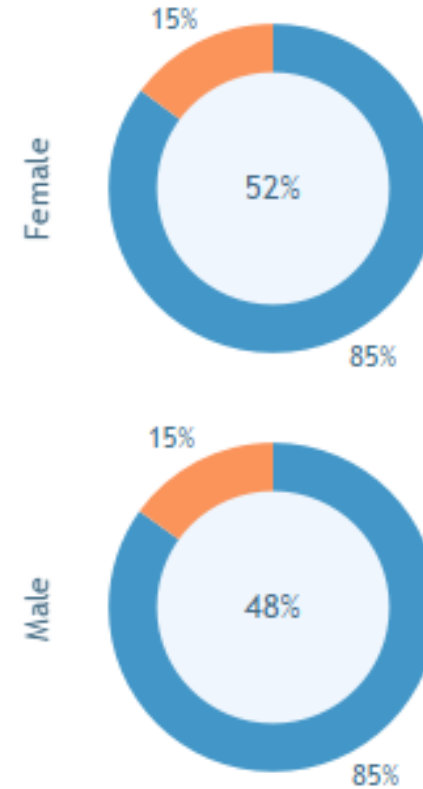


# RESULTS



# Employee Composition:

- Active Employees: 5,801 (85.06%),  
Terminated Employees: 1,019 (14.94%)
- Gender Distribution: Slightly higher female representation (3,049) than male (2,752)





# Salary Insights:

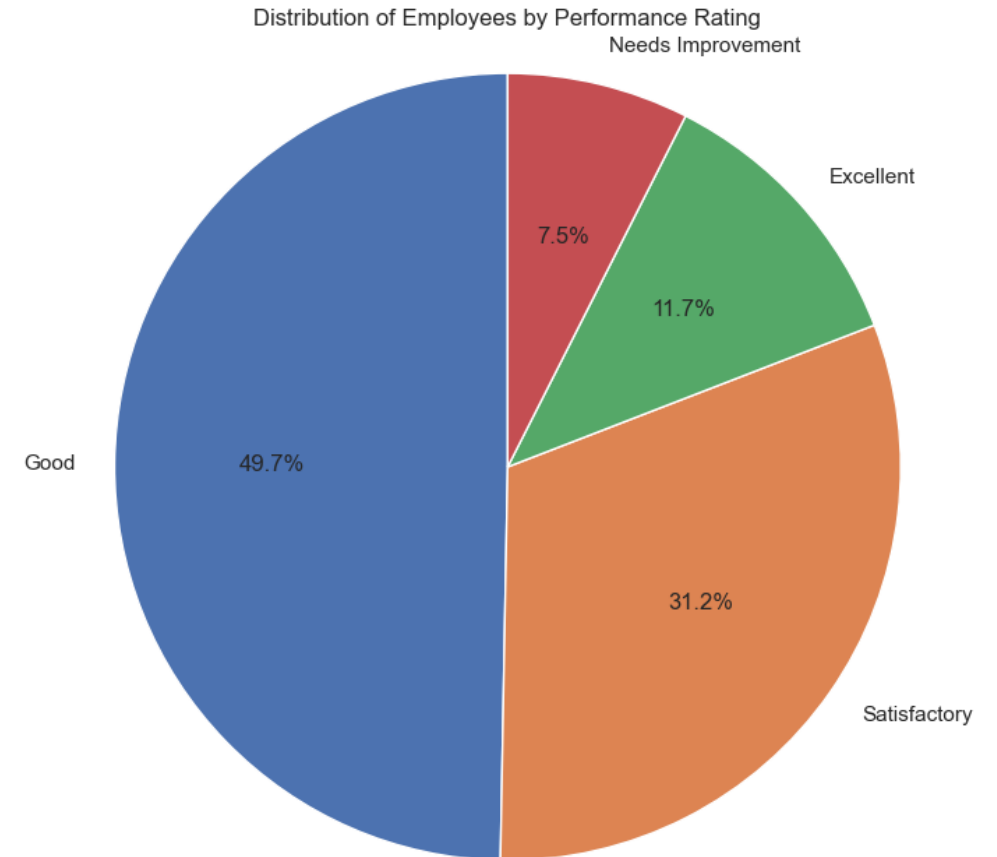
- Average Salaries by Department:
  - IT: \$82,129
  - Finance: \$77,424
  - Sales: \$75,730
  - Marketing: \$67,288
  - Customer Service: \$65,667
  - HR: \$65,492
  - Operations: \$64,538
- Significant variances observed in salaries based on education level and gender.

Job Title	Salary
Finance Manager	\$126,316
IT Manager	\$121,784
Sales Manager	\$112,187
Marketing Manager	\$102,353
Operations Manager	\$94,942
Software Developer	\$92,848
HR Manager	\$89,146
Customer Service Manager	\$87,468
Sales Consultant	\$85,564
Financial Analyst	\$85,430
System Administrator	\$85,320
Sales Specialist	\$76,047
Accountant	\$74,203
Operations Analyst	\$73,324
SEO Specialist	\$72,369
Help Desk Technician	\$72,369
Sales Representative	\$67,787
Recruiter	\$67,728
Marketing Coordinator	\$67,283
HR Assistant	\$62,190
HR Coordinator	\$62,130
Logistics Coordinator	\$62,122
Accounts Payable Specialist	\$61,736
Content Creator	\$61,518
Customer Service Representative	\$61,447
Support Specialist	\$61,340
IT Support Specialist	\$61,251
Inventory Specialist	\$61,164



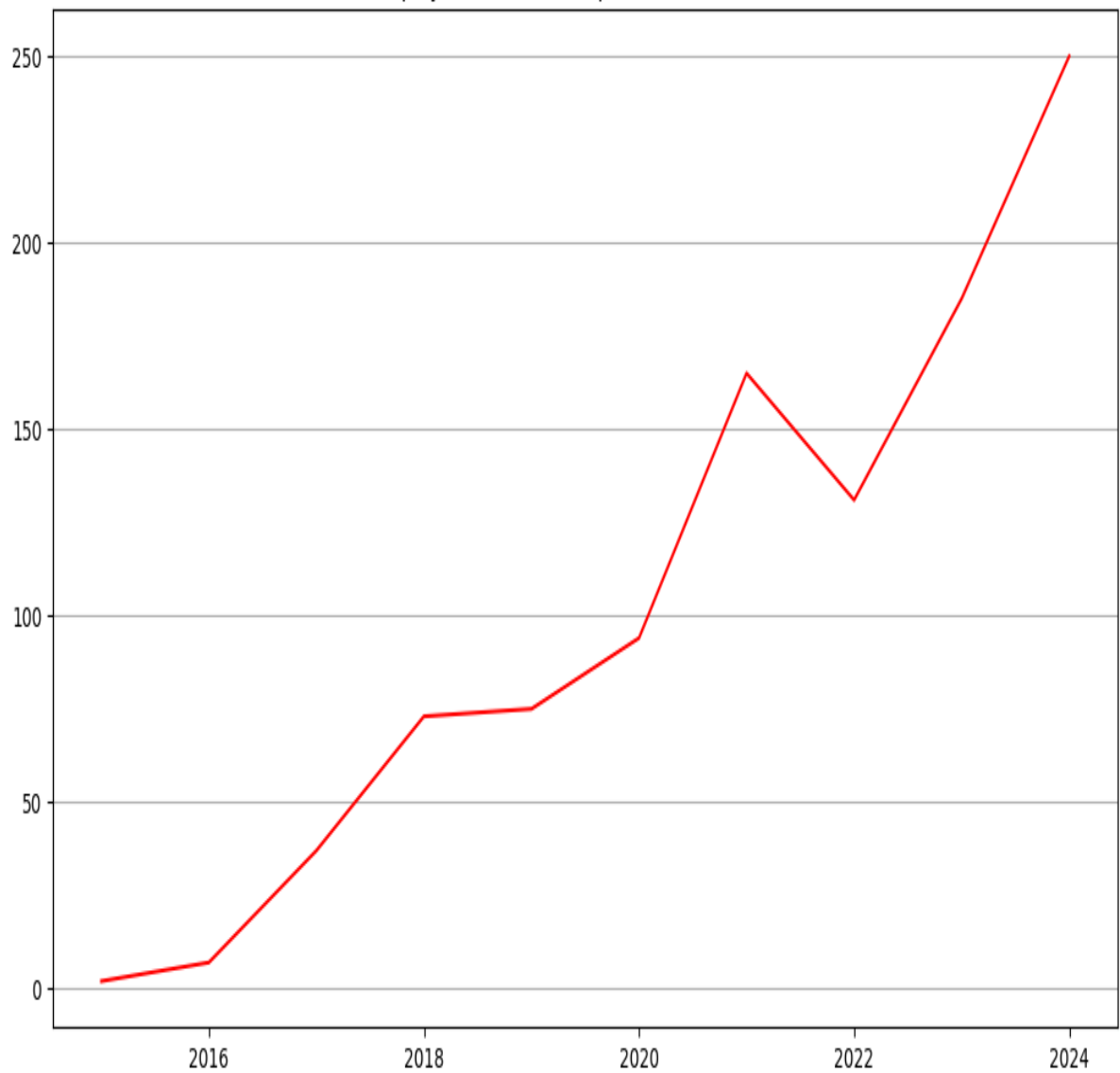
# Performance Ratings:

- Majority (approximately 50%) rated 'Good'; 7.5% 'Needs Improvement.'
- Performance ratings bridge no significant salary gaps across departments or gender.

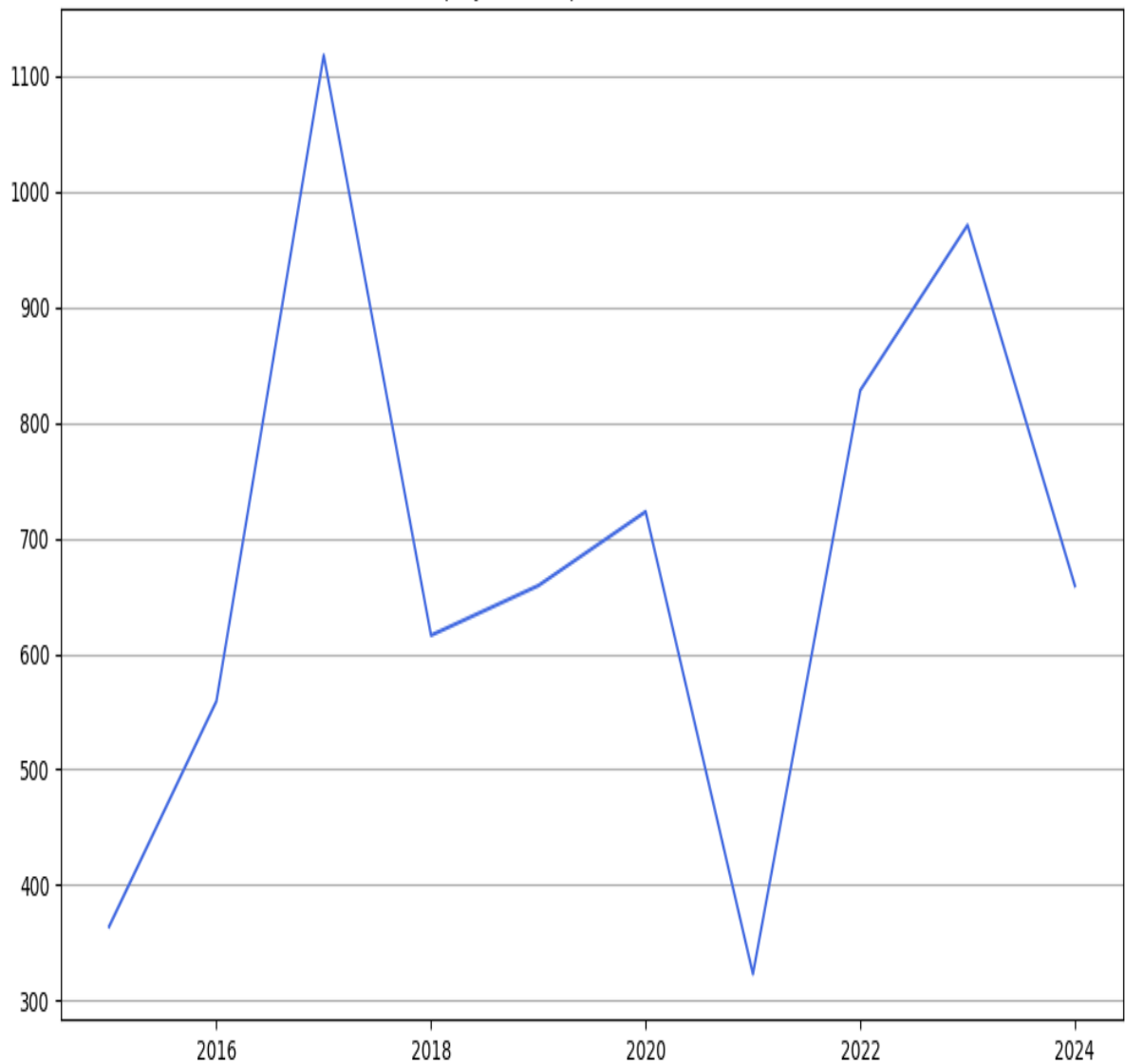


# Terminations and Hires

Employee Terminations per Year (2015-2024)



Employee Hires per Year (2015-2024)

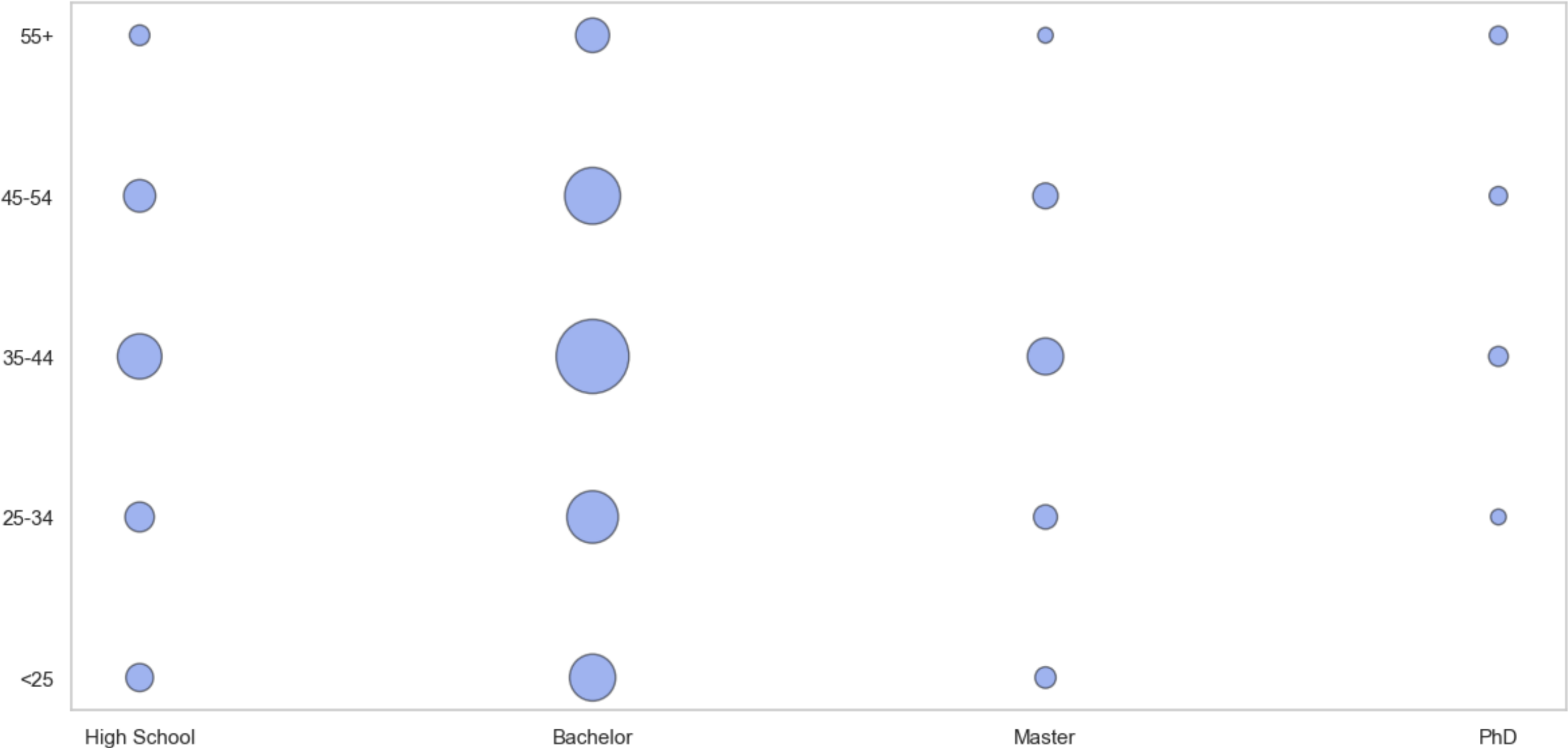


# Terminations and Hires – Findings and Implications

- While termination rates are consistent with departmental sizes, an upward trend continues.
- A reassessment of retention strategies is crucial to mitigate risks associated with employee shrinkage.
- Peak hiring year: 2017; Low in 2021; Sideways trend in hiring.
- Management and allocation of resources must be reassessed to ensure future employment growth.

# Educational Impact

Bubble Chart of Education Level and Age Group



# Educational Impact – Findings and Implications

- Bachelor's holders dominate across age groups (especially 35-44, accounting for 23%)
- Men tend to earn more with a high school diploma or bachelor's degree, while women earn more in the master's and doctoral levels.
- There is a need to filled skilled roles necessitating potential improvements in recruitment tactics
- A significant salary difference based on gender highlights an underlying issue of pay equity

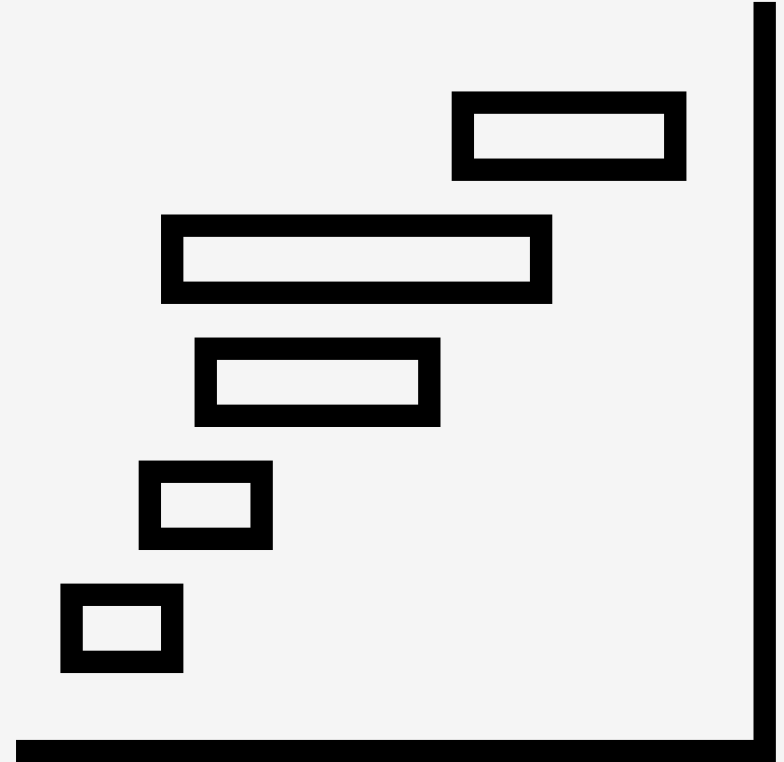
# DASHBOARD

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Human Resources Interactive

Tableau Dashboard

<https://public.tableau.com/app/profile/alexander.j.porter/viz/2024HumanResourcesDashboard/Summary>





# Human Resources Dashboard | Summary

Filter ☐

Dash



Info



Export



Follow



## Overview

| Click item to filter

Terminated Hired

Active Employees

5,801

Terminated

1,019

Hired

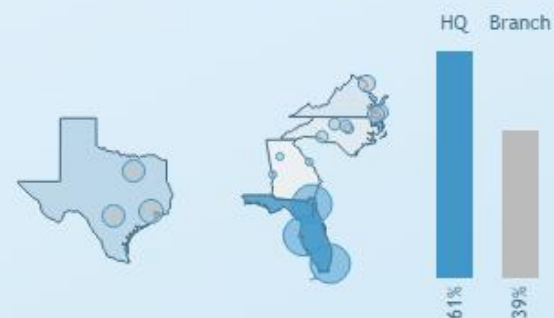
6,820



### Departments



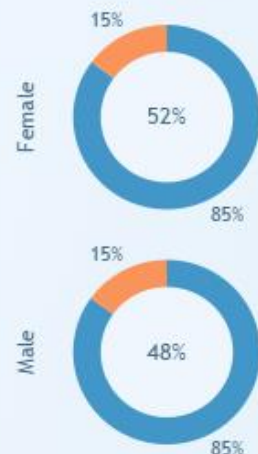
### Location



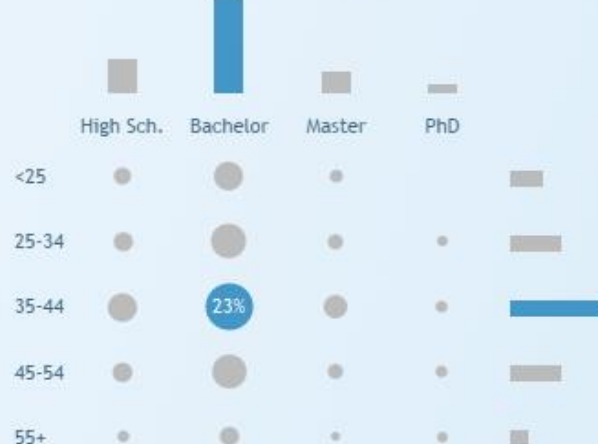
## Demographics

| Click item to filter

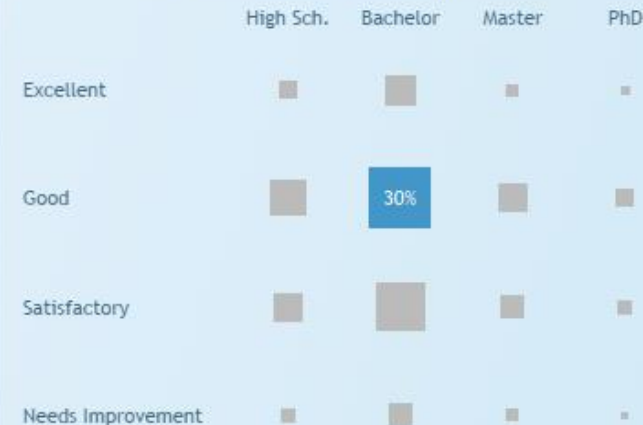
### Gender



### Education & Age



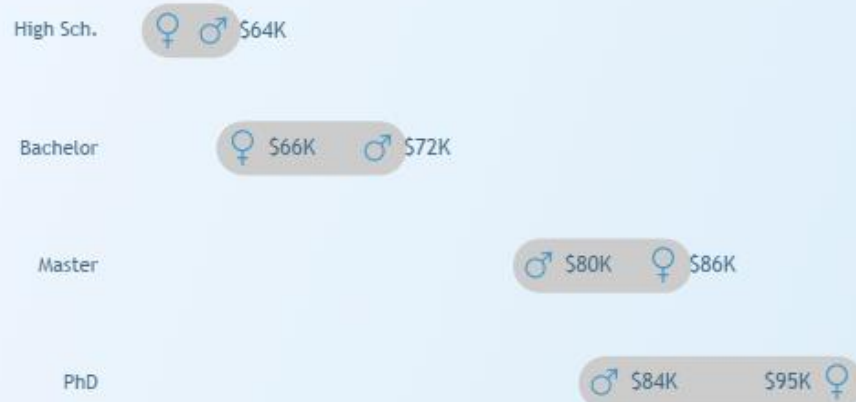
### Education & Performance



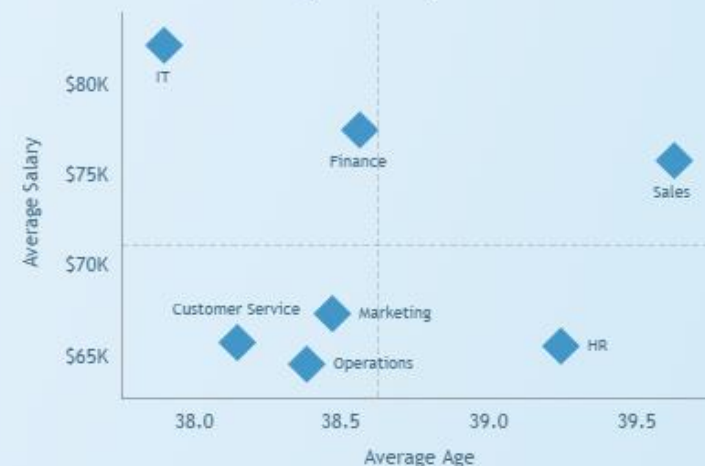
## Income

| Click item to filter

### Education & Gender



### Age & Salary







# Human Resources Dashboard | Details

## Employee List | Click chevrons for filter options



ID

Employee ID



Demographics

Full Name

Gender

Age Groups

Education Level



Role

Job Title

Department



Geographics

Location

State

City



Salary

Salary



Status

Status

Year of Hiredate

Year of Termdate



Length of Employment

Length of Hire



US-10212821	Ella Blake 54   Bachelor	Software Developer IT	Jacksonville Florida	\$99,966	Hired 2/13/2020 -	4 years
US-10302186	Winona Ryan 23   Bachelor	Software Developer IT	Jacksonville Florida	\$96,243	Hired 3/6/2016 -	8 years
US-10764034	Esme Spencer 29   Bachelor	Software Developer IT	Tampa Florida	\$73,631	Hired 1/10/2023 -	1 years
US-10802510	Bianca Quinn 20   Bachelor	Software Developer IT	Jacksonville Florida	\$75,547	Hired 3/1/2020 -	4 years
US-11642473	Iris Hart 47   Bachelor	Software Developer IT	Tampa Florida	\$86,672	Hired 4/2/2016 -	8 years
US-12153059	Sophia Gonzales 22   Bachelor	Software Developer IT	Miami Florida	\$86,822	Hired 3/15/2023 -	1 years
US-12326935	Jess Mcdonald 37   Bachelor	Software Developer IT	Miami Florida	\$86,653	Hired 7/21/2017 -	7 years
US-13122454	Karina Sharp 47   Bachelor	System Administrator IT	Miami Florida	\$87,391	Hired 5/14/2019 -	5 years
US-13409042	Xandra Hubbard 29   Bachelor	IT Support Specialist IT	Tampa Florida	\$59,402	Hired 10/14/2019 -	5 years
US-15830187	Maisie Santos 33   Bachelor	Software Developer IT	Miami Florida	\$82,148	Terminated 8/26/2017 - 2/22/2018	1 years
US-17716155	Xenia Meyer 46   Bachelor	Software Developer IT	Jacksonville Florida	\$87,998	Hired 6/9/2019 -	5 years

Dash



Info



Export



Follow

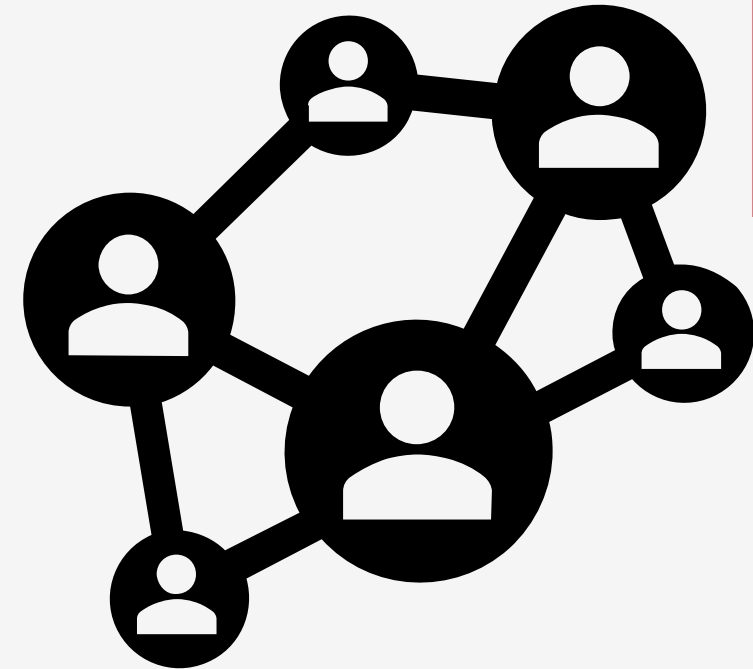


# Conclusion

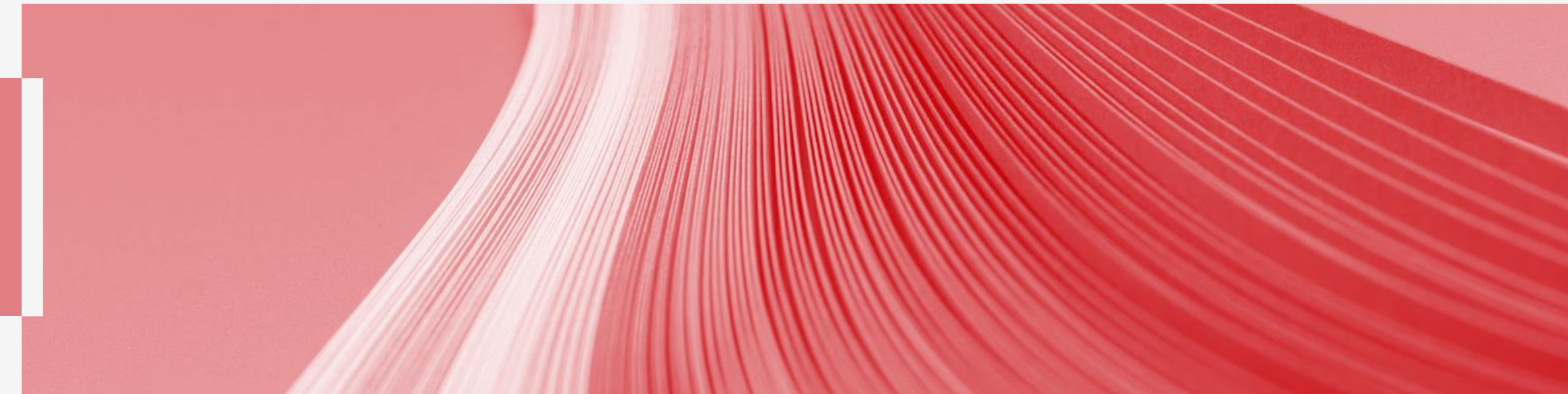


# ACTIONABLE INSIGHTS

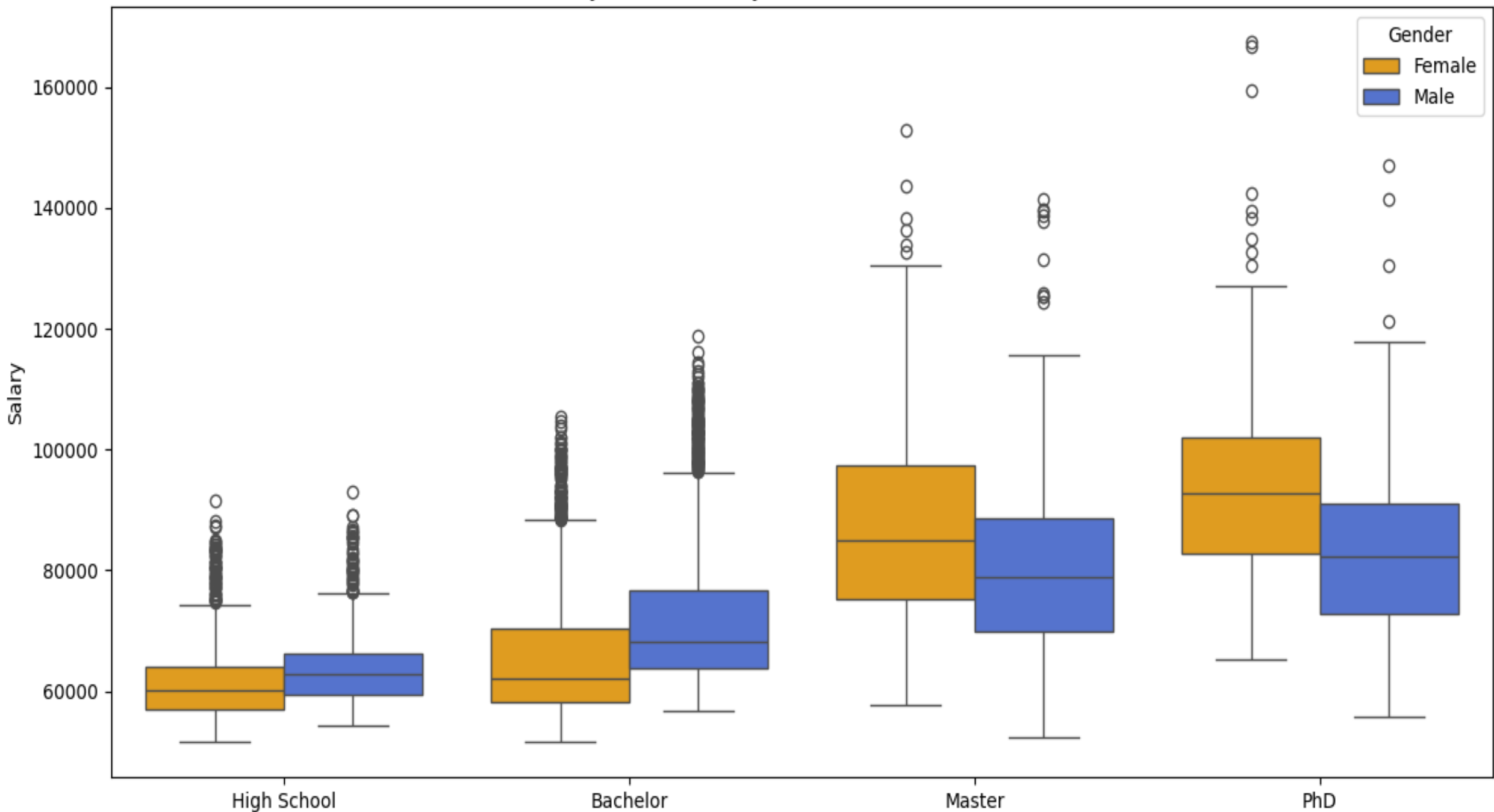
- Companies seeking to attract top talent should immediately bridge gender pay disparities which will boost morale, retention, and corporate reputations
- Companies should create salary-based incentives tied to performance across departments, thereby enhancing overall employee performance ratings and workforce quality
- Organizations should emphasize developmental programs to foster higher qualifications among employees as educational attainment plays a crucial role in salary scales
- Organizations facing multiyear growth in termination rates need to conduct further investigation into workplace satisfaction and retention strategies



# APPENDIX



Salary Distribution by Education Level and Gender





Heatmap of Employee Count by Education Level and Performance Rating

