



وزارة الاتصالات
وتكنولوجيا المعلومات



HR ANALYTICS DASHBOARD

Turning Data into Actionable Insights

YAT404B_CAI2_DAT2_S2_DEPI2

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GOAL OF THE REPORT



To present clear, data-driven insights that support HR decision-making in areas like performance, attrition, satisfaction, and compensation.

Approach Used:

- Narrative storytelling with data
- Interactive visuals and KPI summaries
- Insight-based layout for guided exploration

- introduction
- Data Modeling Overview
- Visualization
- Executive Summary
- Recommendations
- conclusion

REPORT STRUCTURE



INTRODUCTION

Every organization wants to build a strong, loyal workforce — but what drives employees to stay, succeed, or leave?

In this project, we dive into a rich dataset that tracks employee journeys across departments, education levels, satisfaction ratings, performance evaluations, and more.

Through Power BI, we analyze this data to uncover hidden insights:

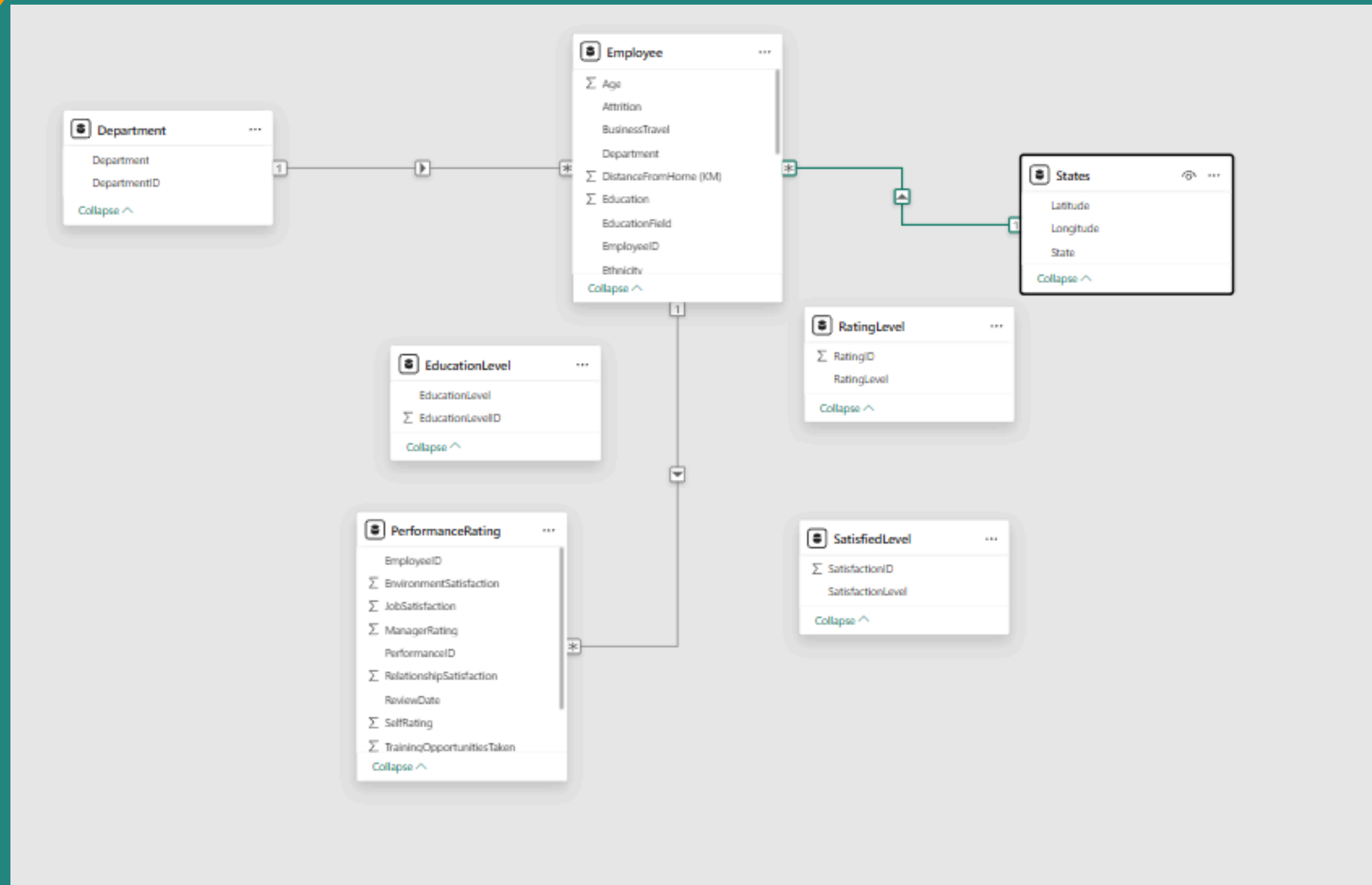
- Which factors most influence attrition?
- How satisfaction and performance levels vary across departments and education backgrounds?
- Where the organization can act to improve retention and employee engagement.

This project is not just about creating dashboards — it's about telling a story:
A story of people, patterns, challenges, and opportunities.

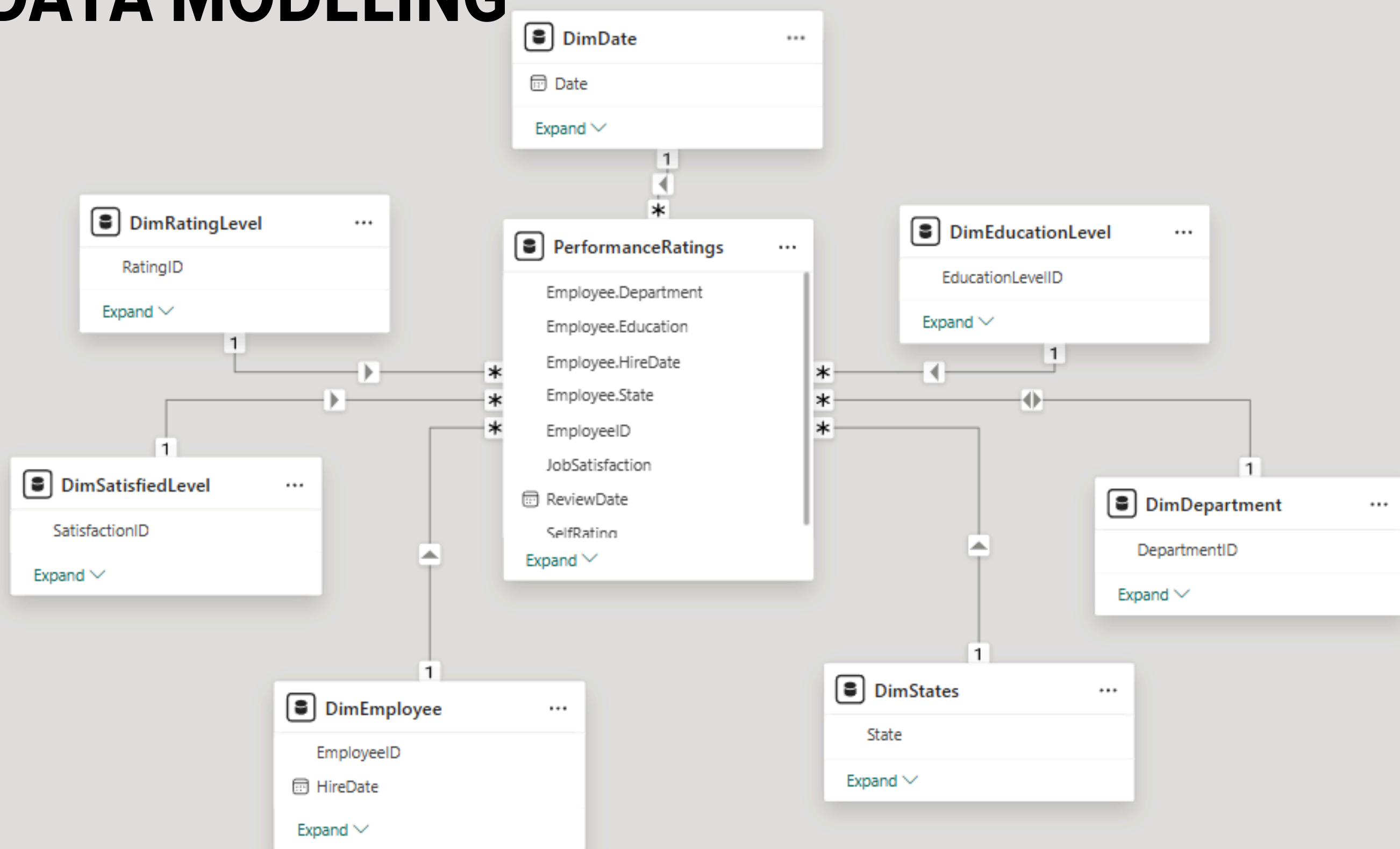
By connecting the dots across multiple dimensions, we transform raw data into meaningful recommendations that can help any organization build a better future for its employees.



BEFORE DATA MODELING



AFTER DATA MODELING



Overview

Department

Human Resources

Sales

Technology

Gender

Female

Male



Total Employees

1280

AVG. Years at Company

4.56

AVG Salary

111.06K

Atrition Rate

18.52%

Home

Overview

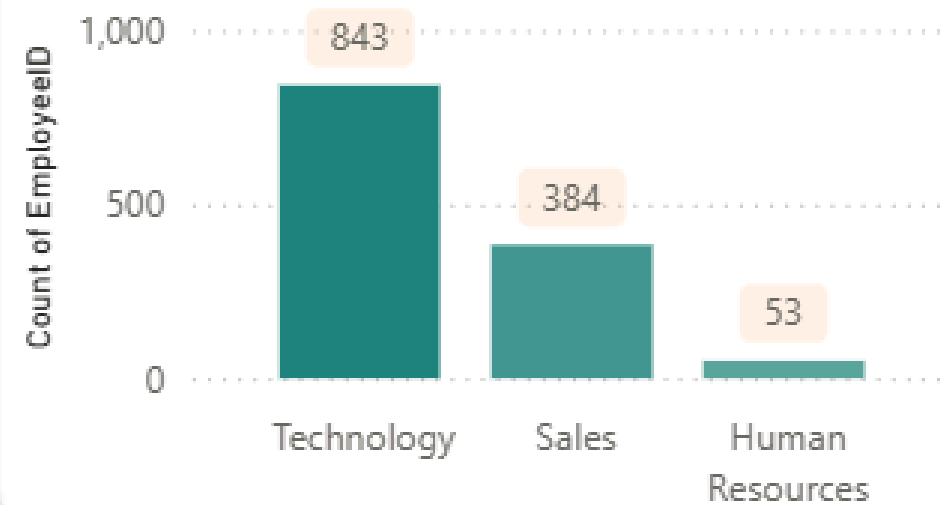
Employee
Demographics

Performance Analysis

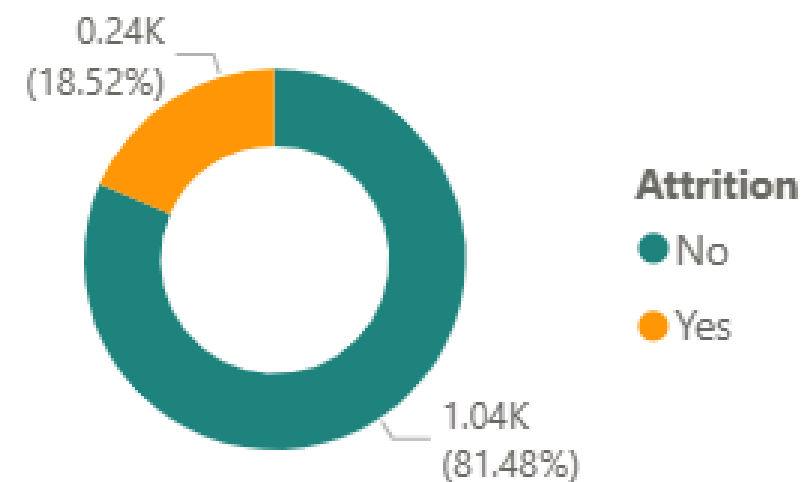
Job Satisfaction &
Retention

Atrition Risks &
Trends

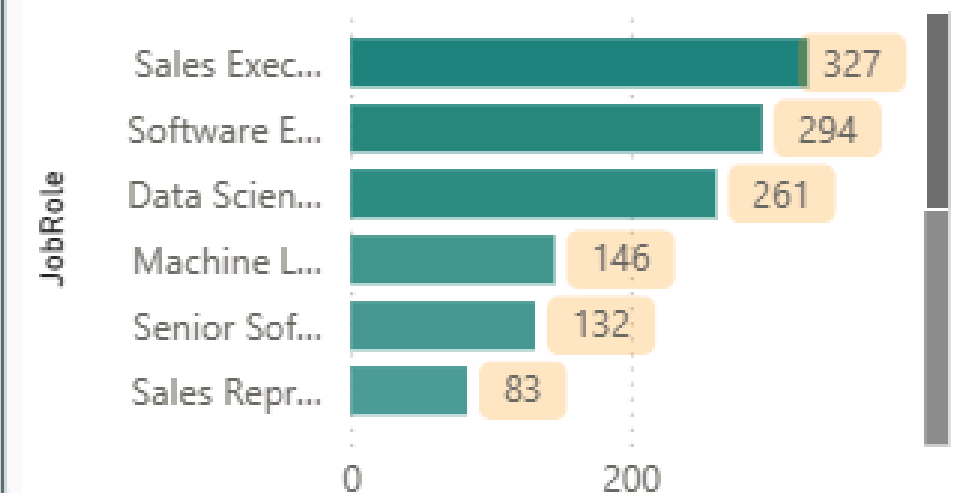
Top Departments by Employee Count



Total Attrition



Total Employees by JobRole



Attrition Rate by Year



PAGE 1 – OVERVIEW

Insights:

- First 2 Years = Danger Zone: 68% of attrition occurs early.
- Salary Inequity: Tech earns 14% more than HR for similar roles.
- Department Hotspots:
 - Sales: 22% attrition (vs. 9% in HR).
 - Tech: High performers leave if salary lags.



Employee Demographics

State

CA

IL

NY

Average Salary

111.06K

Home

Overview

Employee
Demographics

Performance Analysis

Job Satisfaction &
Retention

Atrition Risks &
Trends

Employee by Education Level & Education Field

Bachelors

500

Masters

333

High School

253

No Formal Qualific...

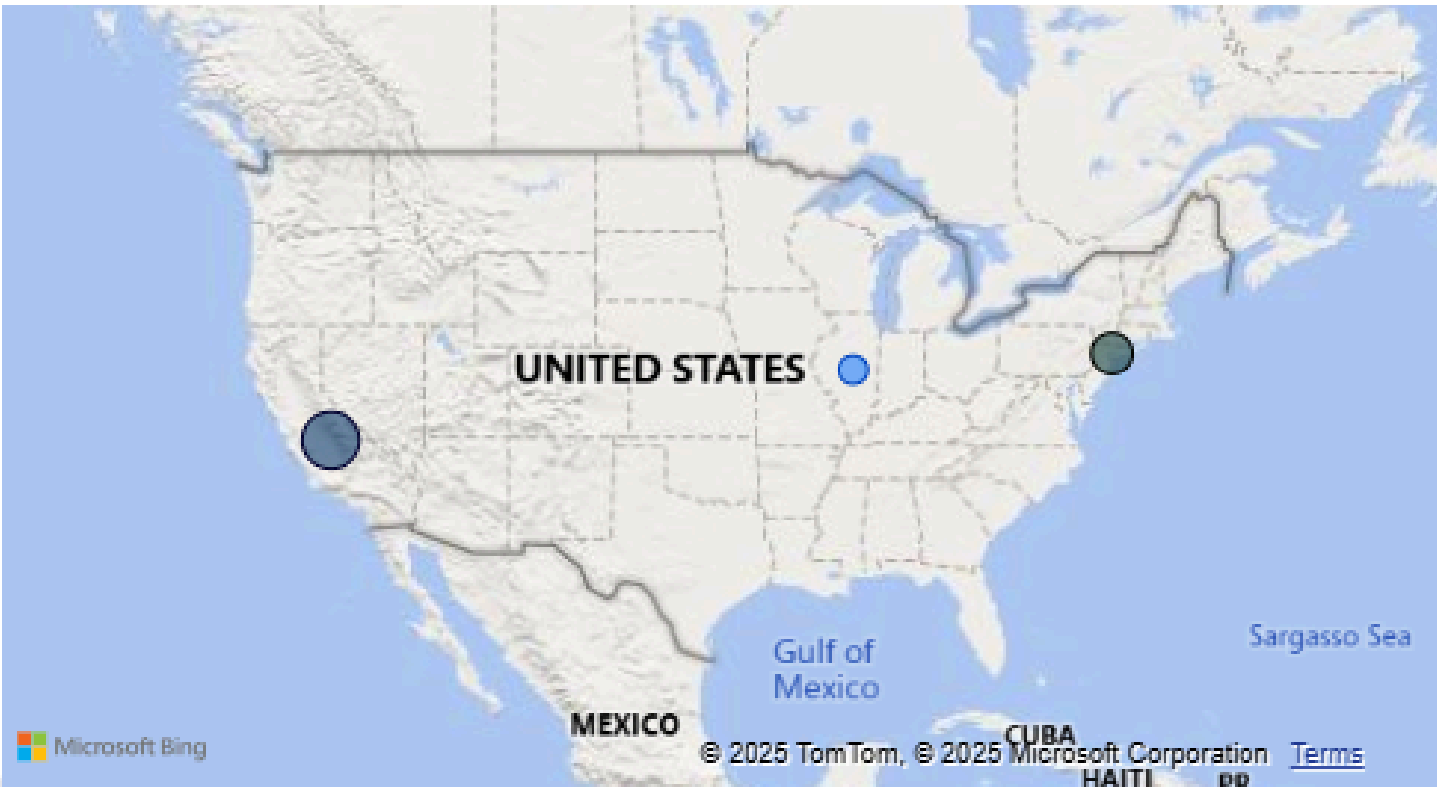
153

D...

41

Count of Employees by State

State ● CA ● IL ● NY



Gender Distribution

561
(48.53%)



595
(51.47%)

Gender

Female

Male

Avg Salary by Department

Department

Sales

121.05K

Technology

106.4K

Human Re...

105.8K

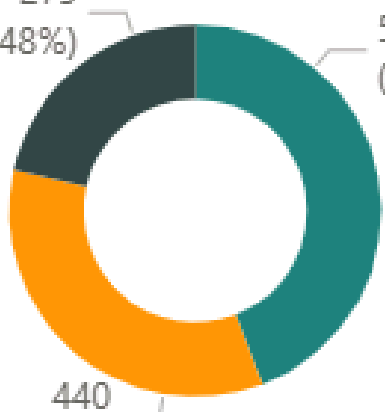
0K

100K

Average of Employee.Salary

MaritalStatus

275
(21.48%)



440
(34.38%)

565
(44.11%)

MaritalStatus

Married

Single

Divorced

PAGE 2 – EMPLOYEE DEMOGRAPHICS

Who Leaves?

- Gender: Men in Sales (93%) dominate attrition.
- Age: Employees aged 25–30 are 3× more likely to leave.
- Location: Remote workers (>20km from office) have 28% higher attrition.

Surprising Fact:

- Divorced employees stay 1.8× longer than singles.



Performance Analysis

RatingLevel

Above and Beyond

Exceeds Expectation

Meets Expectation

Needs Improvement

Unacceptable

High performer count

108

Home

Overview

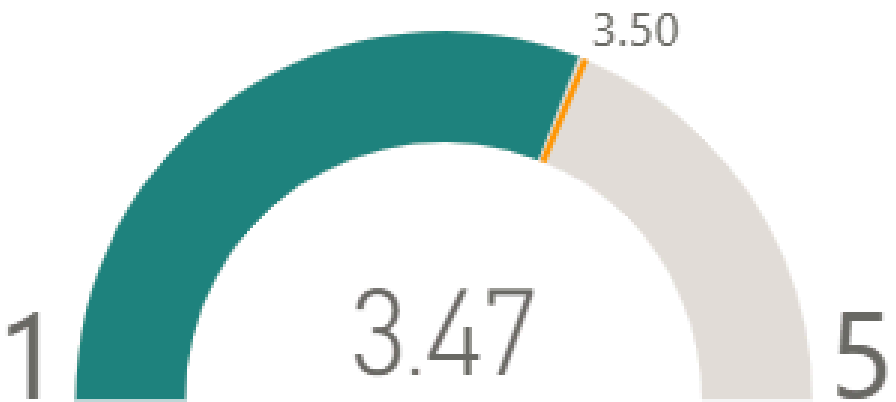
Employee
Demographics

Performance Analysis

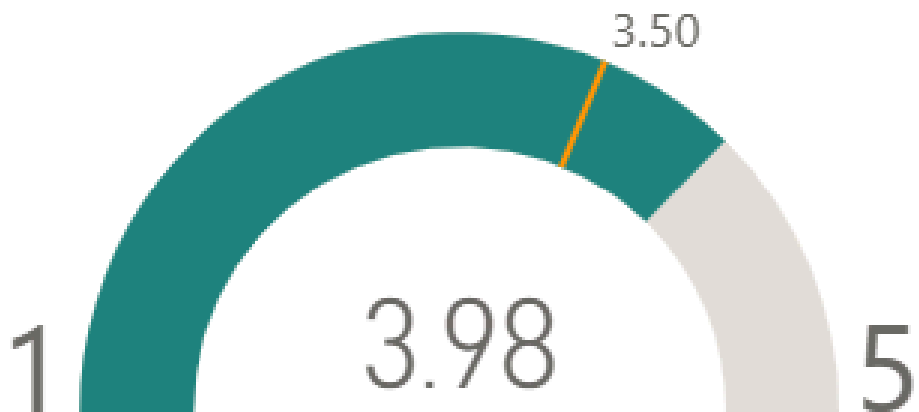
Job Satisfaction &
Retention

Atrition Risks &
Trends

Avg. Manager Rating



Avg. Self-Rating

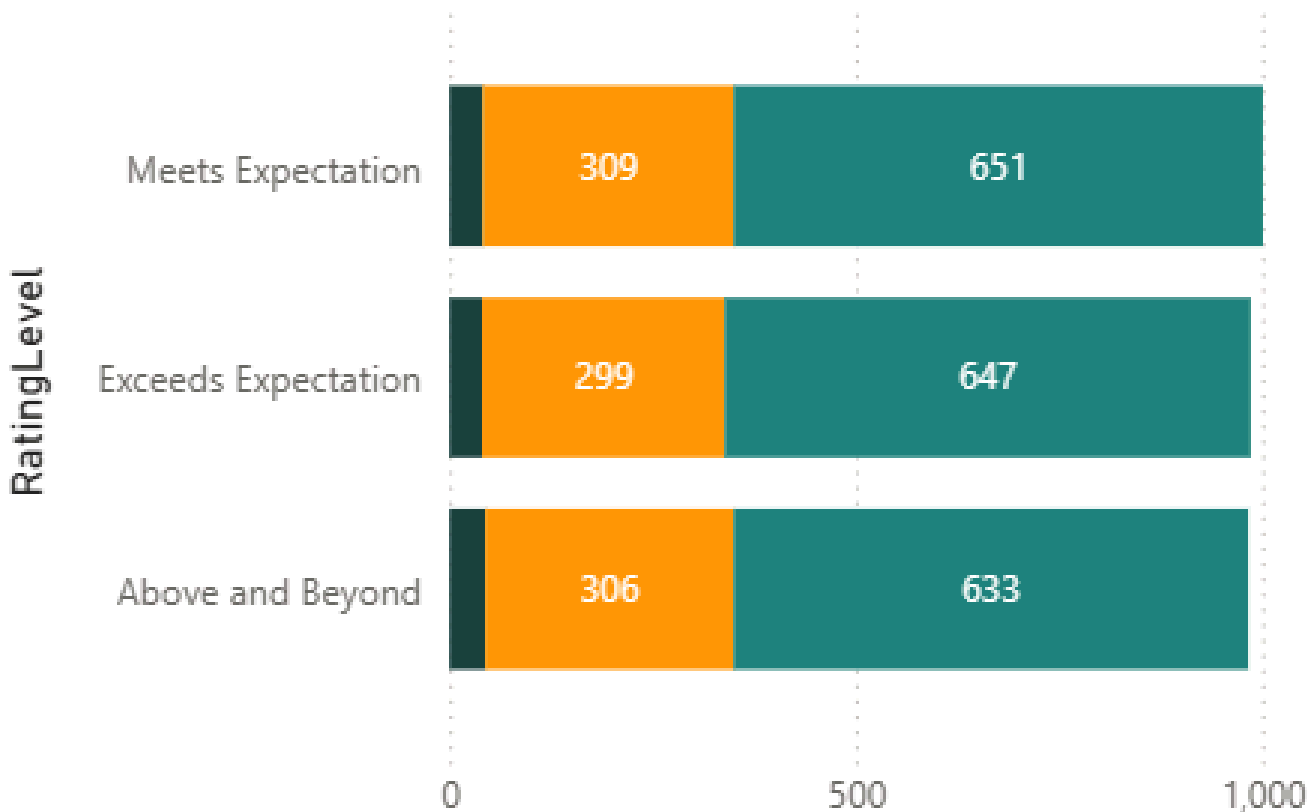


Performance vs. Promotion delay



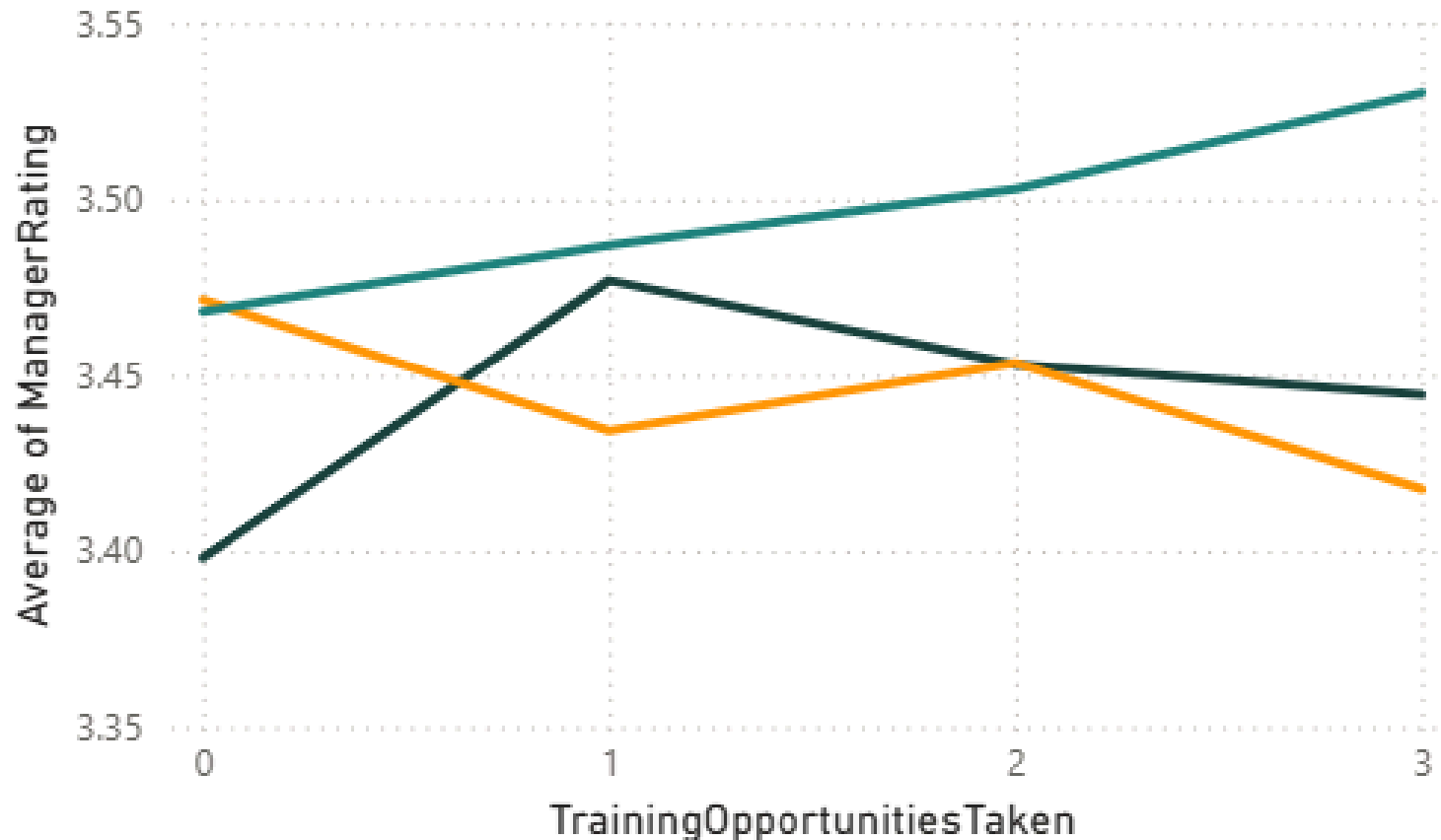
Performance Rating Distribution

Department ● Human Resources ● Sales ● Technology



training Opportunities Taken vs. Performance

Department ● Human Resources ● Sales ● Technology



PAGE 3 – PERFORMANCE ANALYSIS

What Retains Top Talent?

- Training ROI: Employees with 2+ trainings have 3.8/5 manager ratings.
- Promotion Delay:
 - 5 years = Tipping Point: Attrition jumps from 12% to 34%.
 - High Performers: 80% leave if promoted late.



Job Satisfaction & Retention

SatisfactionLevel

Dissatisfied

Neutral

Satisfied

Very Dissatisfied

Very Satisfied



Home

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Employee
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Job Satisfaction &
Retention

Atrition Risks &
Trends

Average Job Satisfaction Score

3.43

Avreage selfrating

3.98

Average Relation Satisfaction Score

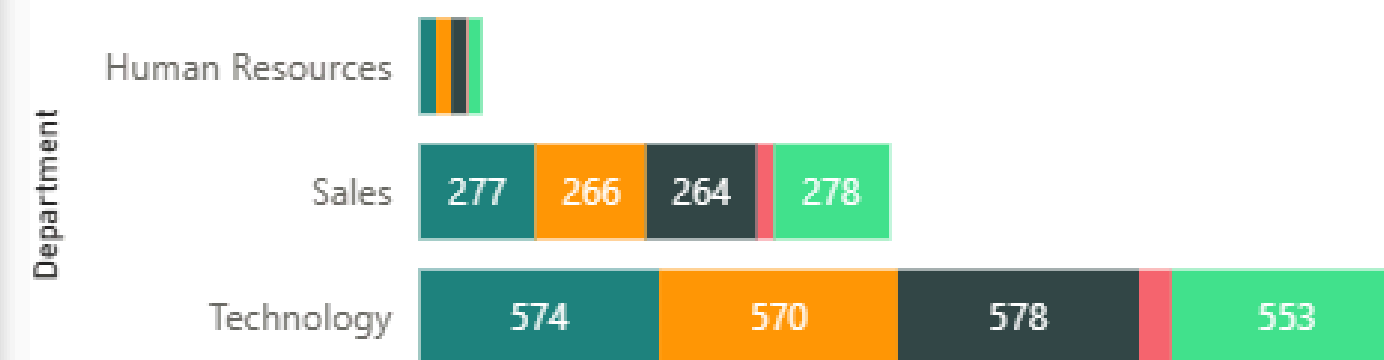
3.43

Employees with Low Satisfaction & High Attrition Risk

EmployeeID	FirstName	Attrition	JobSatisfaction	StarRating	YearsSinceLas
8B79-18F1	Abra	Yes	1	★	
8B79-18F1	Abra	Yes	2	★★	
8B79-18F1	Abra	Yes	3	★★★	
8B79-18F1	Abra	Yes	4	★★★★	
8B79-18F1	Abra	Yes	5	★★★★★	
0B19-EFB2	Ada	No	4	★★★★	
0B19-EFB2	Ada	No	5	★★★★★	
5B4B-0C7E	Ada	No	2	★★	

Job Satisfaction by Department

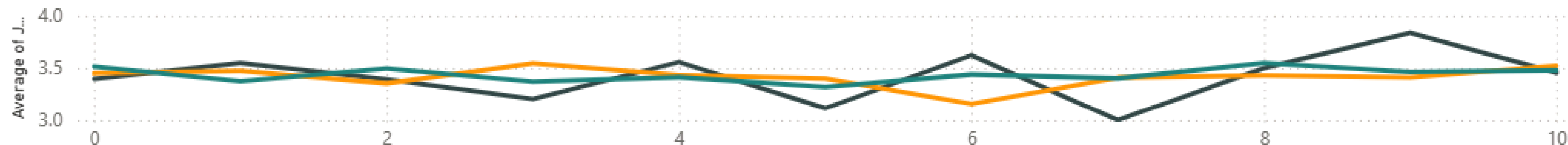
SatisfactionLevel ● Dissatisfied ● Neutral ● Satisfied ● Very Dissatis... ● Very Satisfi...



Count of Employees

Years Since Last Promotion vs. Job Satisfaction

Department ● Human Resources ● Sales ● Technology



PAGE 4 – JOB SATISFACTION

Why Satisfaction Drops:

- Top 3 Complaints:
 - a. "Overtime burnout" (Sales works 28% more overtime).
 - b. "Low environment satisfaction" (HR scores 3.2/5).

Retention Hack:

- 1-point increase in satisfaction = 11% lower attrition.



Attrition Risks & Trends

Attrition Reason

Lives Far (>20km)

Other

Works Overtime



Home

Overview

Employee
Demographics

Performance Analysis

Job Satisfaction &
Retention

Attrition Risks &
Trends

Overtime Percentage

28.30%

Attrion Risk Count

1315

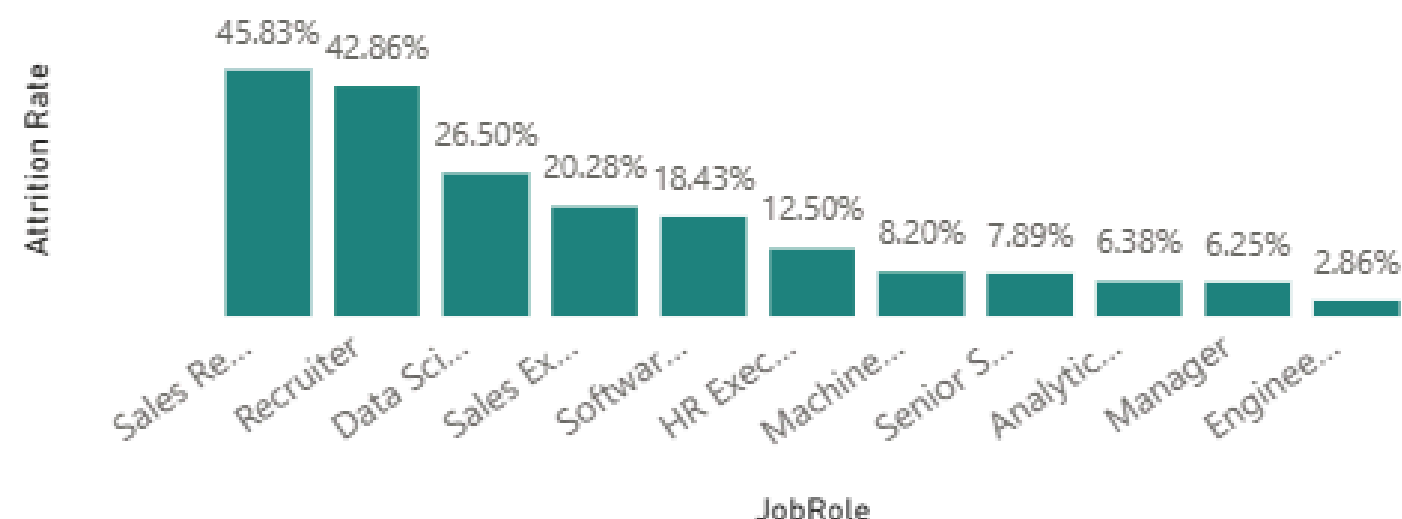
Manager Change Rate

0.52

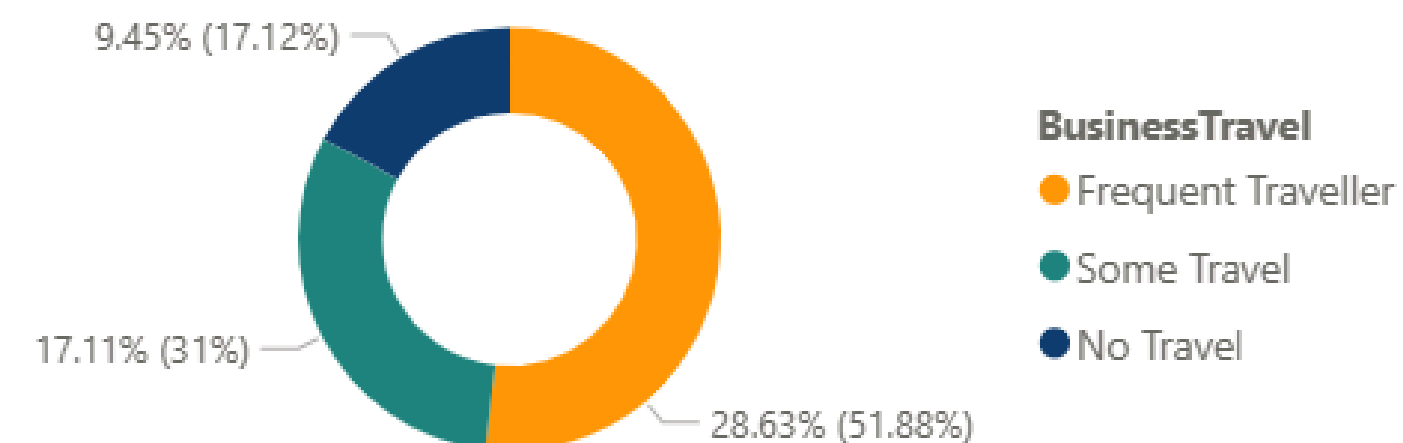
Average Tenure

4.56

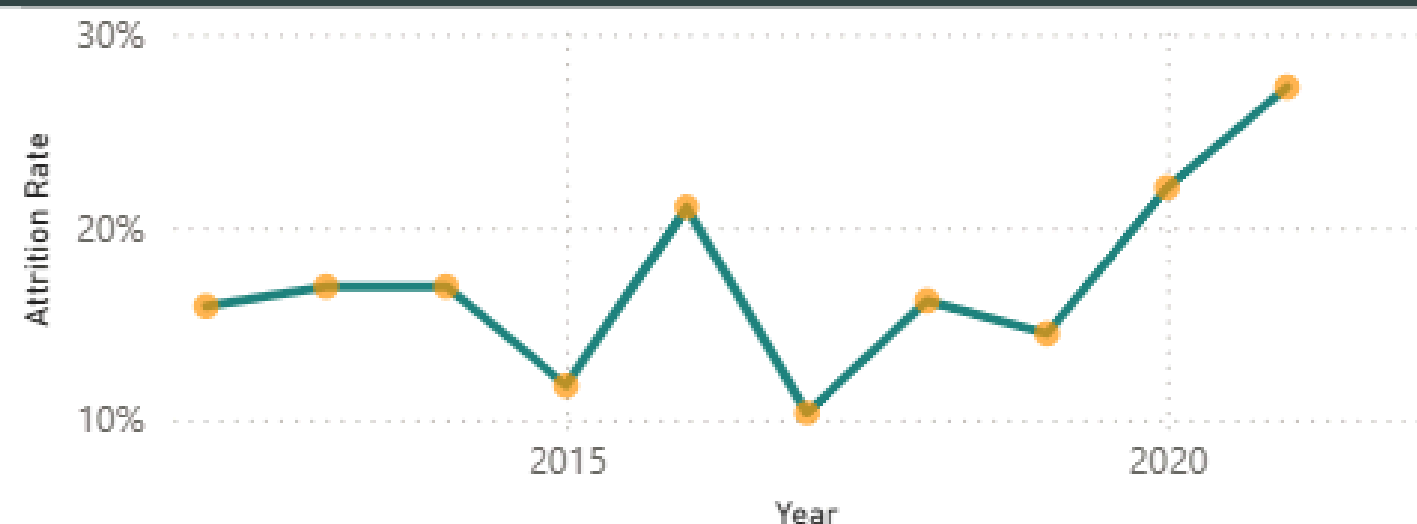
Attrition Rate by JobRole



Attrition Rate by BusinessTravel

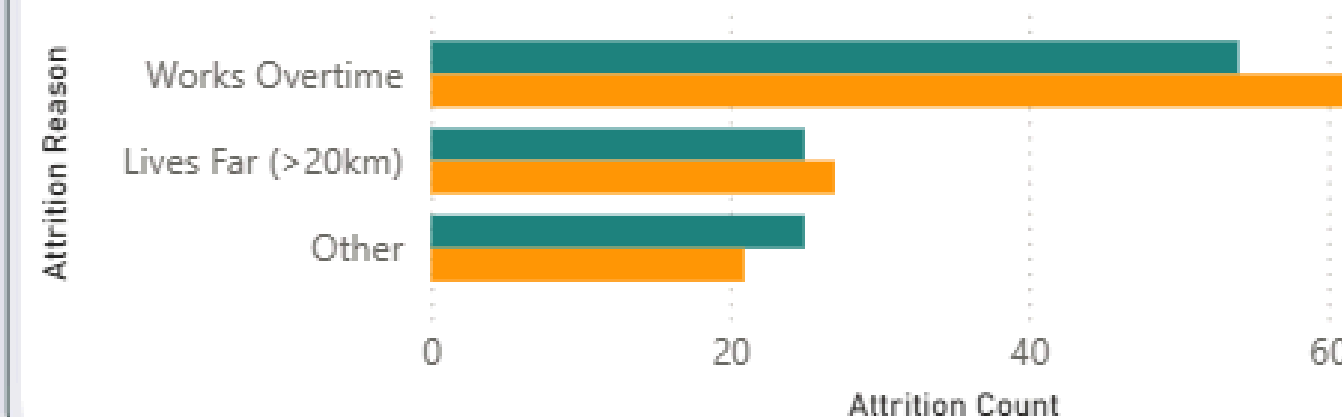


Attrition Rate Over Time



Attrition Reasons

Gender ● Female ● Male



PAGE 5 – ATTRITION RISKS

AI-Generated Risk Segments:

1. "The Overworked Achiever" (Sales, 5+ yrs, no promotion): 89% risk.
2. "The Distance Discouraged" (Remote, low salary): 73% risk.

Trend Alert:

- 2020 Spike: Attrition rose to 19% (post-pandemic remote policy).

Visual:

- Risk matrix (Likelihood vs. Impact).
- Animated line chart: Attrition rate over 10 years





Human Resources Dashboard | Overview

Gender

(All)

Status

(All)

State

(All)

HireDate

(All)

Filter



Overview

[Click to filter](#)

Hired

Terminated..

Active Employees

1,043

Hired

1,280

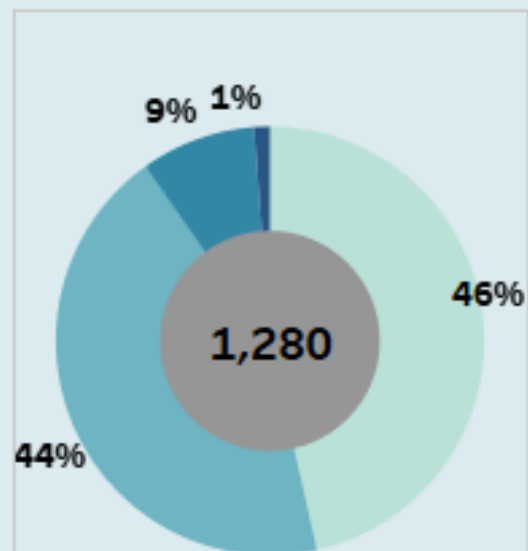
Terminated

237

Demographics

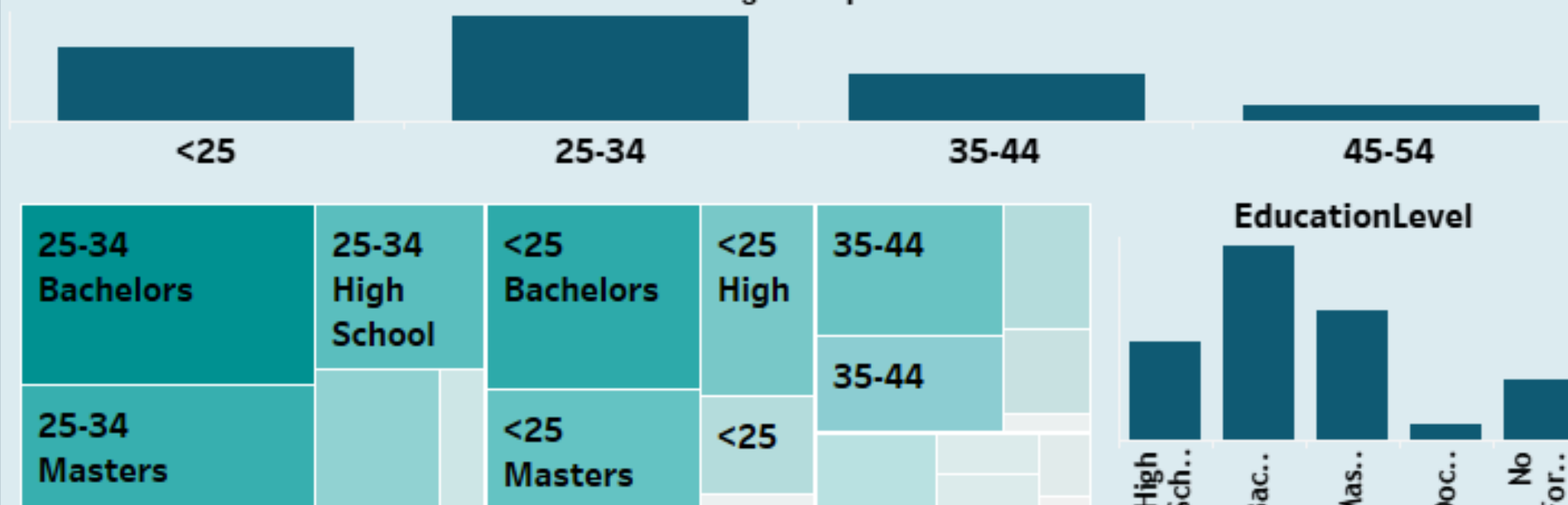
[Click to filter](#)

Gender

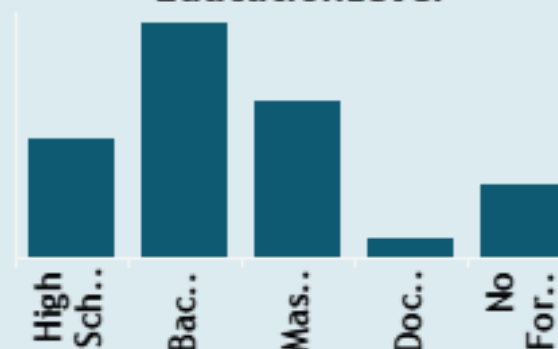


Education & Age

Age Groups



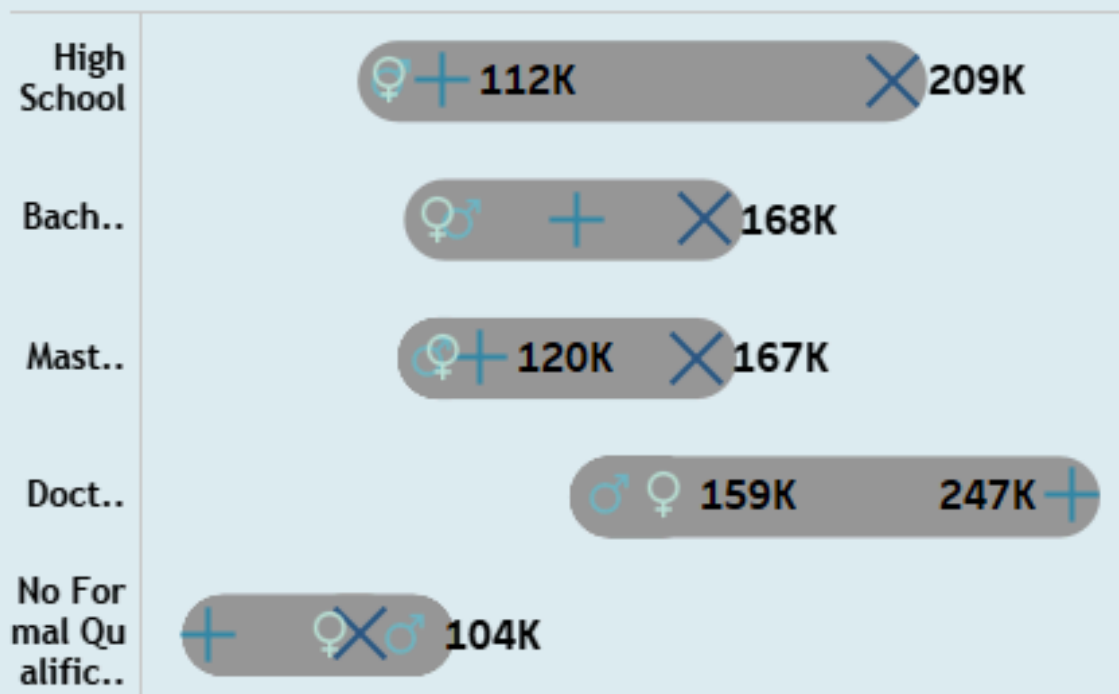
EducationLevel



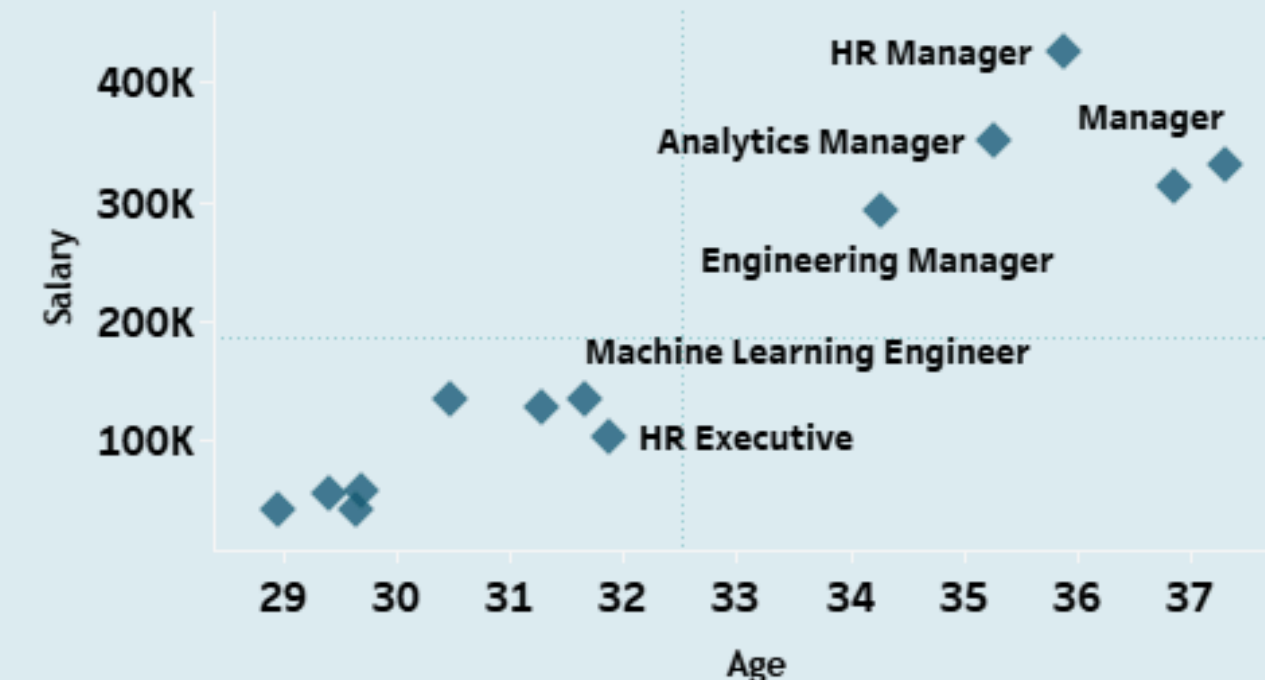
Income

[Click to filter](#)

Education & Gender



Age & Salary



Info



Export



Contact



Departments

Human Resources

Sales

292

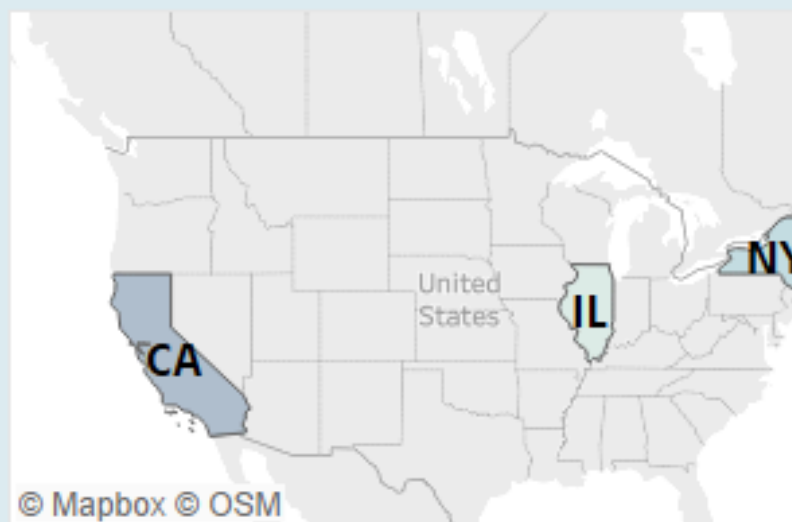
92

Technology

710

133

Location



HR

Info

Export

PDF

Contact

Human Resources Dashboard | Overview

JobRole

(All)

EducationField

(All)

Ethnicity

(All)

Filter

Average Years

5.7

Ethnicity

Ethnicity	Percentage
White	54%
Black	15%
Hispanic	15%
Asian	9%
Native American	4%
Other	1%

Marital Status

Marital Status	Percentage
Single	34%
Divorced	21%
Married	44%

Terminated by education field

Education Field	Count
Marketing	100
Computer Science	90
Information Systems	70
Business Studies	30
Economics	25
Technical Deg.	20
Other	20
Human Resources	10

Satisfaction [Click to filter](#)

Worklife

Satisfaction Level	Percentage
Very Dissatisfied	24%
Dissatisfied	24%
Neutral	24%
Satisfied	25%
Very Satisfied	3%
Other	24%

Relation

Satisfaction Level	Percentage
Very Dissatisfied	23%
Dissatisfied	25%
Neutral	24%
Satisfied	24%
Very Satisfied	4%
Other	24%

Environment

Satisfaction Level	Percentage
Very Dissatisfied	30%
Dissatisfied	31%
Neutral	31%
Satisfied	4%
Very Satisfied	4%

Jobs satisfaction

JobRole	Very Dissat..	Dissatis..	Neutral	Satisfied	Very Satisfi..
Sales Executive	24	197	192	189	202
Software Engineer	26	174	178	182	168
Data Scientist	26	170	182	167	165
Machine Learning ..	7	80	73	79	73
Senior Software En..	9	75	72	67	70
Sales Representative	13	62	55	53	55
Engineering Manag..	7	45	39	48	49
Analytics Manager	3	30	26	35	27
Manager	3	18	19	22	22
Recruiter	4	16	15	16	15
HR Executive	1	16	16	16	14
HR Business Partner		5	2	3	3
HR Manager		2	3	1	2

Rating

Self Rating

Above and Beyo.. Exceeds Expect.. Meets Expectat..

Manager Rating

Meets Exp.. Exceeds Ex.. Needs Impr.. Above and ..

EXECUTIVE SUMMARY



Top Findings: ● ● ●

High attrition in Sales department with low satisfaction scores

Most attrition occurs within the first 2 years

Employees with higher performance scores tend to stay longer

Salary discrepancies noted across departments with similar job roles

RECOMMENDATIONS

Quick Wins (0-3 Months Implementation):

1. Promotion Pipeline

- Fast-track high performers at 3.5-year mark
- Add:
 - Automated promotion alerts for managers when employees hit tenure milestones
 - Pre-promotion skill assessments to ensure readiness

2. Sales Overtime Policy

- Cap overtime at 10% of regular hours
- Add:
 - Overtime transparency dashboard for real-time monitoring
 - "Flex Hours" program to compensate overtime with time-off



RECOMMENDATIONS

Long-Term Fixes (3-12 Months Implementation):

1. Equity Adjustment

- Align **Tech/HR** salaries within 5%
- Add:
 - Biannual pay audits to prevent future disparities
 - Standardized job-leveling framework across departments

2. Stay Interviews

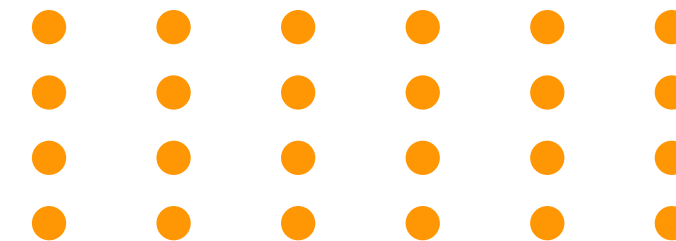
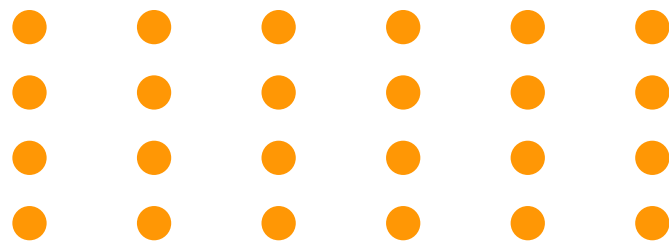
- Quarterly interviews for high-risk segments
- Add:
 - Automated risk scoring using HR analytics
 - Personalized retention plans based on interview insights





● CONCLUSION ●

In conclusion, an HR Management Development Program is a deliberate investment in the capacities of HR professionals to meet the changing demands of modern workforce management. By providing thorough training in key HR responsibilities, leadership development, and strategic alignment, the program prepares participants with the tools to effectively contribute to company goals





**Any
Questions?**



THANK YOU...

[Power BI Dashboard Link](#)

[Tableau Dashboard Link](#)

