

Human Resources Descriptive Analysis

This analysis examines various aspects of employee data, including demographics, performance, and retention. It provides insights into workforce composition, management effectiveness, and factors influencing employee turnover.



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Employee Distribution

The analysis examines employee distribution across positions, states, and departments.

Position Count

Production Technician is the most common role. This suggests a focus on manufacturing.

State Distribution

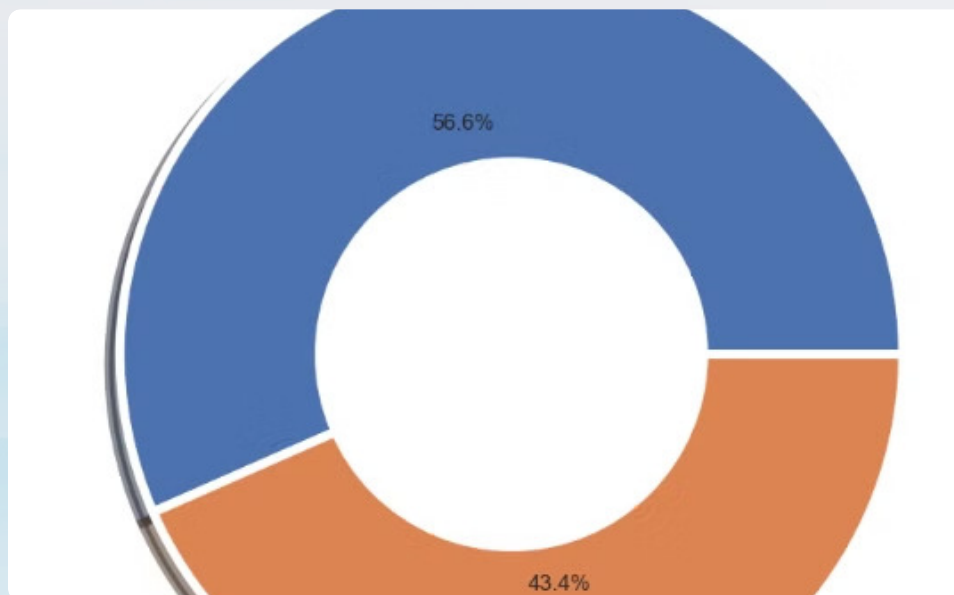
Massachusetts has the highest employee count, likely the company's base. It's the only state with production units.

Department Breakdown

The Production department has the largest workforce, aligning with the company's focus.

Gender and Age Demographics

The company shows interesting trends in gender ratio and age distribution.



Gender Ratio in Massachusetts

There are more female employees (56.6%) than males (43.4%) in Massachusetts.



Age Distribution

The majority of employees are middle-aged, with 35 being the most common age.

Salary Analysis

Salary distribution reveals interesting patterns across gender and management.

1

Gender Pay Gap

Women are given higher-paid jobs compared to men. Janet King receives the highest salary.

2

Manager Impact

The highest-paid employee works under Manager ID 9.

3

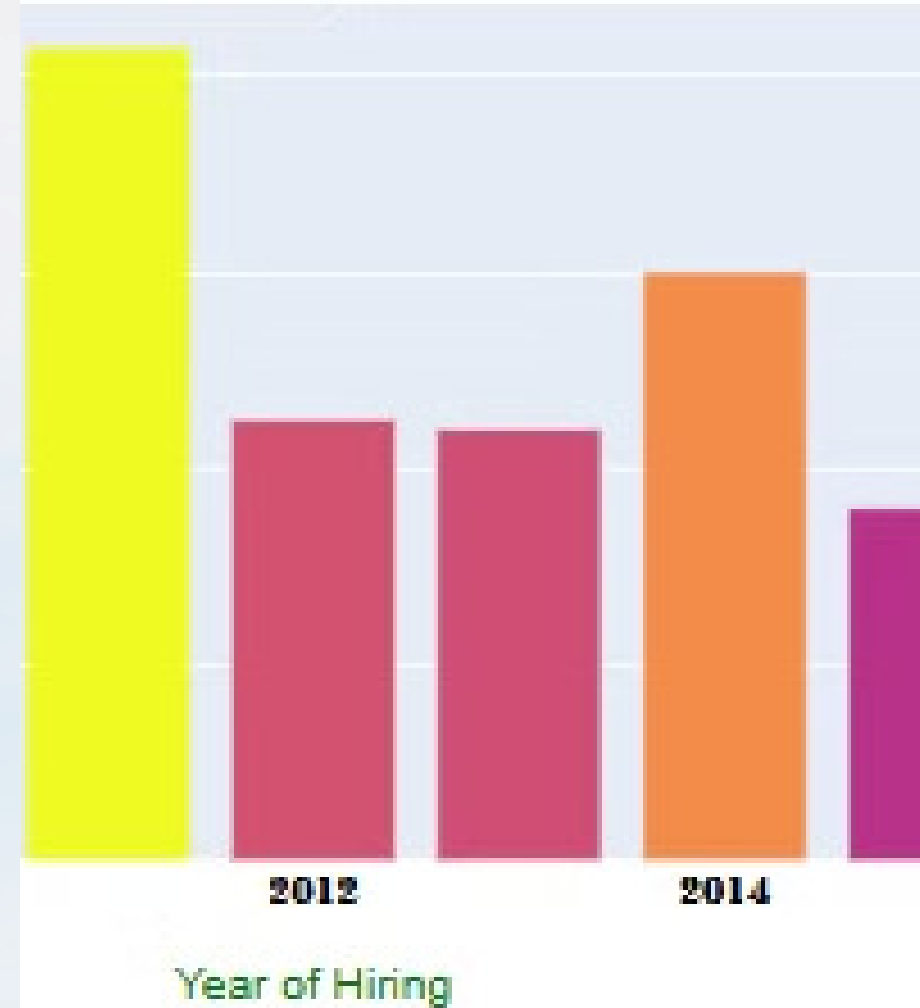
Salary Correlation

There's a significant correlation between salary and special projects count.

Recruitment Trends

2011 was the peak recruitment year with 83 new hires. The waffle chart visualizes this trend, highlighting 2011's significance in the company's growth.

Bar Chart



Performance Evaluation

Performance scores were analyzed to evaluate team effectiveness under different managers. Manager ID 18 leads the best-performing team. Women generally outperform men in efficiency.



Impact of A/B Testing in HR

Data-Driven Decisions

A/B testing methodologies allowed for informed HR strategies.

Performance Improvement

Structured feedback led to better employee performance.

Increased Retention

Targeted interventions resulted in higher employee retention rates.

Business Alignment

HR strategies were better aligned with overall business goals.

Employee Turnover

1

Top Reasons for Leaving

Better position elsewhere (20%), lack of job satisfaction, and higher salary offers from competitors.

2

Departmental Trends

The Production Department has experienced the highest employee turnover.

3

Manager Impact

Some correlation exists between termination dates and specific managers.



Performance Improvement Plan Experiment

1

Test Objective

We tested if introducing a performance improvement plan (PIP) could increase retention and improve performance.

2

Experimental Design

Control group: Current performance review system. Test group: PIP with structured feedback.

3

Metrics

We measured performance score improvement and retention rate.

4

Results

PIP group showed 10% higher performance improvement and 15% higher retention rate.

Production Department Turnover Experiment

1

Hypothesis

Employees were leaving due to lower pay rates compared to market standards.

2

Experiment

We provided targeted salary increases to match market rates.

3

Outcome

20% reduction in employee turnover within the production department.



Key Insights and Recommendations



Promote Diversity

Maintain gender balance and leverage women's high performance in leadership roles.



Improve Retention

Address job satisfaction and competitive salaries to reduce turnover, especially in Production.



Enhance Performance

Study successful managers' practices to improve overall team performance.