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Human Resources *Data Analysis*



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Project Name

Human Resources Data Analysis

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Introduction



In today's fast-paced business environment, understanding the composition and dynamics of an organization's workforce is essential for effective decision-making. As an HR manager, a comprehensive dashboard provides both high-level and detailed insights into the company's human resources data. This report covers the design and purpose of a human resources (HR) dashboard, focusing on three key sections: Overview, Demographics, and Income Analysis. In addition, a detailed employee records view allows for a more granular exploration of individual employee data.

Key Questions

To effectively analyze HR data, the following key questions were considered during the this analysis:

Overview

- How many employees have been hired, terminated, and are currently active?
- How are employees distributed across departments and job titles?
- How does the number of employees compare between headquarters and branch offices?

Demographics

- What is the gender ratio in the company?
- How are employees distributed across various age groups and education levels?
- Is there a correlation between educational background and performance ratings?

Income Analysis

- How do salaries compare across different education levels for both genders?
- Is there any discrepancy in salary based on education or gender?
- How does age correlate with salary for employees in each department?

Employee Records View

- Can the detailed employee list be filtered by key attributes such as name, department, position, gender, age, education, and salary?



Overview

Section Analysis

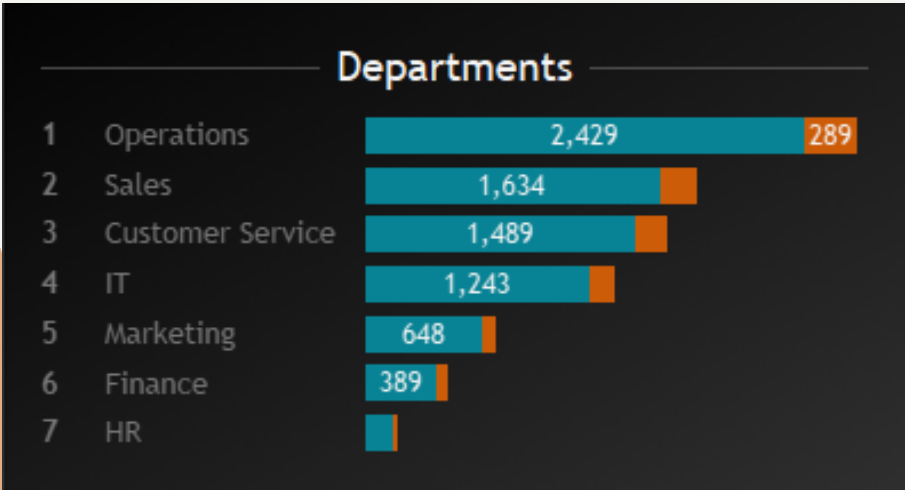
Total Employees:

The dashboard reveals the number of currently active employees, employees who have been terminated, and those recently hired. It is clear that hiring has outpaced terminations.



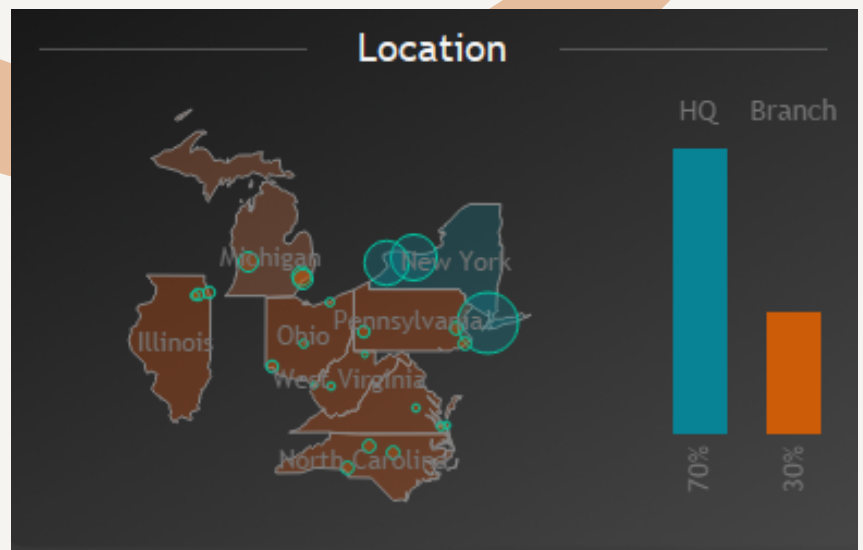
Departmental Breakdown:

The total number of employees by department highlights that which departments have growing in hiring as operation department, sales and customer service respectively



HQ vs. Branch Offices:

A comparison between New York headquarters and other branches in terms of employee count can offer insights into regional growth or challenges in staffing.



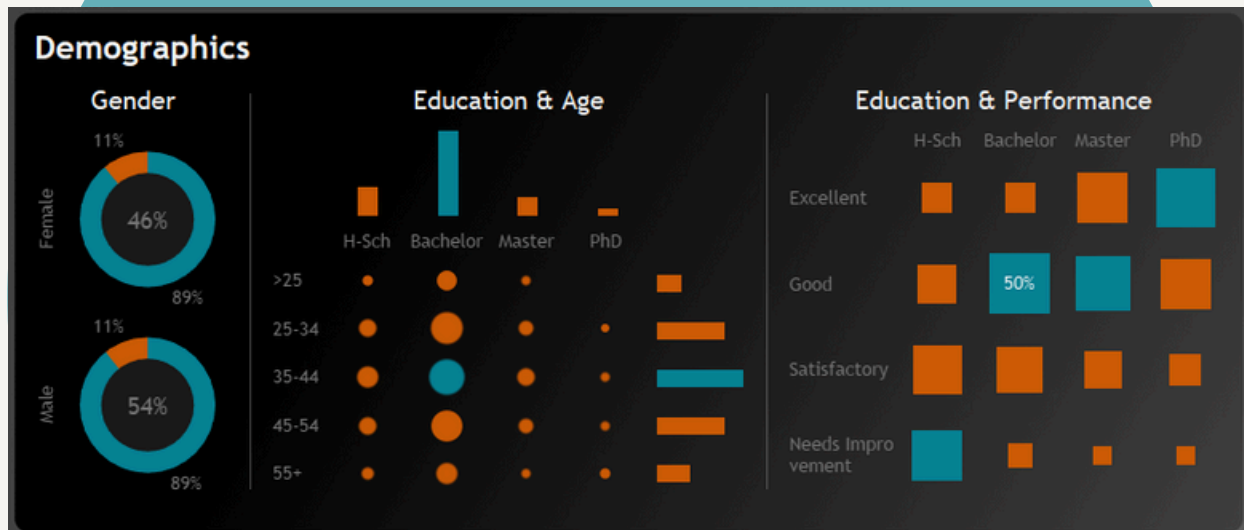
Employee List

ID	Demographics	Role	Geographics	Salary	Status	Length of Employment
00-10001272	Samuel Burgess 49 Bachelor	Help Desk Technician Customer Service	Huntington West Virginia	\$66,787	Hired 10/30/2018 -	6 years
00-10008169	Barbara Blair 65 Bachelor	Operations Analyst Operations	Warren Michigan	\$88,579	Hired 11/23/2022 -	2 years
00-10012470	Amy Davidson 35 Bachelor	Accountant Finance	Grand Rapids Michigan	\$62,543	Hired 10/15/2019 -	5 years
00-10017850	Ricky Serrano 24 Bachelor	Sales Specialist Sales	New York City New York	\$92,123	Hired 10/7/2016 -	8 years
00-10033114	Kathryn Scott 23 Bachelor	Logistics Coordinator Operations	New York City New York	\$64,807	Hired 9/12/2017 -	7 years
00-10047461	Steven Armstrong 32 Bachelor	Accountant Finance	Naperville Illinois	\$70,778	Hired 8/8/2016 -	8 years
00-10076576	Erica Kelly 25 Bachelor	Inventory Specialist Operations	Buffalo New York	\$63,824	Hired 1/3/2020 -	4 years
00-10076959	Mark Stewart 61 Bachelor	Marketing Coordinator Marketing	Buffalo New York	\$76,850	Hired 3/31/2017 -	7 years
00-10080009	Gabrielle Crane 47 Bachelor	Sales Representative Sales	Buffalo New York	\$59,328	Hired 1/9/2023 -	1 years
00-10137666	Ralph Sanford 47 Bachelor	Marketing Coordinator Marketing	Buffalo New York	\$75,028	Hired 4/18/2021 -	3 years
00-10146265	Melanie Rodriguez 42 Bachelor	Accountant Finance	New York City New York	\$68,161	Hired 6/29/2017 -	7 years
00-10147197	Henry McCarthy 40 Bachelor	Operations Analyst Operations	Buffalo New York	\$56,478	Hired 3/10/2023 -	1 years
00-10171954	Kathryn Williams 45 Bachelor	Accounts Payable Specialist Finance	New York City New York	\$55,510	Hired 9/1/2015 -	9 years

Yearly Trends in Hiring and Termination:

By visualizing the hiring and termination trends over several years, HR managers can observe periods of rapid growth or contraction, aligning them with organizational events such as expansion or restructuring.

Demographics Section Analysis



Gender Ratio:

The gender distribution allows for analysis of diversity within the workforce, and in these pie charts we can see that no big difference in gender distribution.

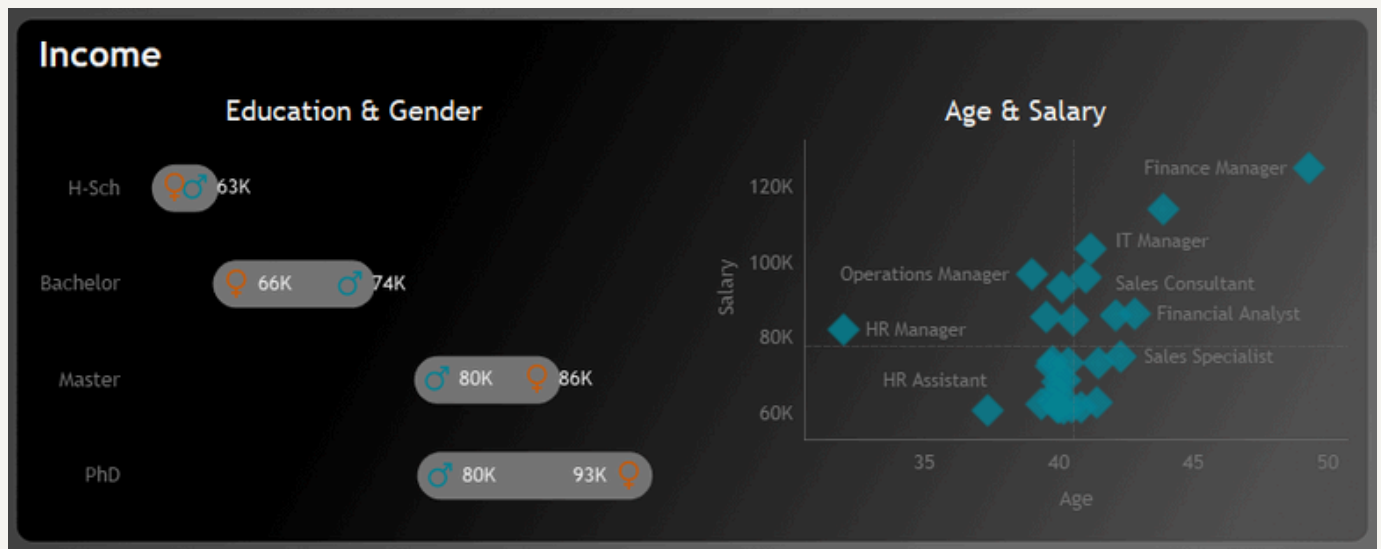
Age Group and Education Distribution:

This section reveals that age bracket(35-44) dominates the age range and educational rank.

Performance vs. Education:

It is obvious that PHD ranks excellent performance, while Bachelors rank needs more support as it dominates educational rank among employees

Income Analysis Section



Salary Discrepancy:

The comparison of salaries across education levels for both genders can reveal potential pay gaps. This is crucial for addressing gender equity and ensuring compliance with pay equity laws.

Age and Salary Correlation:

The relationship between age and salary, especially by department, provides insights into career progression and compensation fairness.

Recommendations

1. Overview Section Insights:

- Optimize resource allocation in marketing and technology departments.
- Empower regional offices and consider decentralization strategies.
- Support regional expansion with localized investments and workforce development.
- Maintain organizational culture across HQ and branches to avoid silos.
- Forecast workforce needs and create a strategic, future-oriented hiring plan.
- Enhance talent management to improve retention in growing departments.

2. Demographics Section Insights:

- Increase gender diversity in leadership through targeted development and bias-free promotion processes.
- Enhance retention of the 25-35 age group by offering career growth, mentoring, and tailored development programs.
- Capitalize on high-performing employees with advanced degrees by recruiting more, offering upskilling opportunities, and providing internal mobility.
- Establish leadership pipelines for high performers, especially in technical roles, to transition them into leadership.
- Offer continuous educational development to employees, encouraging further learning and certifications.
- Strengthen DEI efforts at the leadership level through inclusive leadership training, recruitment, and support for employee resource groups.

3. Income Section Insights:

- Close the gender pay gap at senior management through pay audits, adjustments, and policy changes.
- Benchmark salaries for specialized roles to stay competitive and ensure fair pay for younger employees in these roles.
- Develop clear compensation frameworks and career progression paths to ensure transparency in how pay increases are achieved.
- Ensure pay equity across age groups by adopting skill- and performance-based pay policies.
- Conduct regular salary reviews to monitor for and correct pay disparities.
- Offer retention bonuses and competitive packages for high-performing employees in specialized, high-demand roles.

THANK YOU!