

HR DATA ANALYSIS REPORT

1. INTRODUCTION

This report presents the findings from the analysis of HR data spanning from the year 2000 to 2020. The dataset consists of over 22,000 rows and was subjected to data cleaning using MySQL. Data visualization was performed using Power BI. The primary objective of this analysis was to gain insights into various aspects of the HR data and identify key trends and patterns.

2. PROBLEM STATEMENT

The HR department of the organization wants to better understand their workforce demographics, employee turnover, and other relevant factors to inform decision-making and HR strategies. The specific questions and challenges addressed in this analysis include:

- What is the gender distribution among employees?
- Which race is the most dominant, and which races are the least dominant?
- What is the age distribution of the employees, and in which age groups are the majority of employees?
- What is the distribution of employees based on work location (headquarters vs. remote)?
- What is the average length of employment for terminated employees?
- How is the gender distributed across different departments?
- Which departments have the highest and lowest turnover rates?
- Which state do most employees come from?
- How has the net change in the number of employees evolved over the years?
- What is the average tenure for each department?

3. SUMMARY OF FINDINGS

3.1 *Employee Demographics*

- *Gender Distribution:* The analysis reveals that there are more male employees than female employees in the dataset.
- *Race Distribution:* The dominant race among the employees is White, while the least dominant races are Native Hawaiian and American Indian.

3.2 **Age Distribution**

- *Age Range:* The dataset includes employees with ages ranging from 20 to 57 years.
- *Age Groups:* To better understand the age distribution, five age groups were created: 18-24, 25-34, 35-44, 45-54, and 55-64. The largest number of employees falls into the 25-34 age group, followed by the 35-44 age group. The smallest group is the 55-64 age group.

3.3 **Employment Details**

- *Work Location:* The analysis reveals that a significant number of employees work at the headquarters, as opposed to remote locations.
- *Tenure:* The average length of employment for terminated employees is approximately 7 years.
- *Departmental Gender Distribution:* While the gender distribution across departments is fairly balanced, there are generally more male employees than female employees in the organization.

3.4 **Turnover Rate**

- *Departmental Turnover:* The Marketing department has the highest turnover rate, followed by the Training department. The departments with the lowest turnover rates are Research and Development, Support, and Legal.

3.5 **Geographic Distribution**

- *Employee Origin:* A large number of employees come from the state of Ohio.

3.6 ***Historical Employee Trends***

- **Net Employee Change:** The analysis reveals that the net change in the number of employees has increased over the years, indicating growth or fluctuation in the workforce.

3.7 ***Tenure by Department***

- **Average Tenure:** The average tenure for each department is approximately 8 years. The departments with the highest average tenure are Legal and Auditing, while Services, Sales, and Marketing have the lowest average tenure.

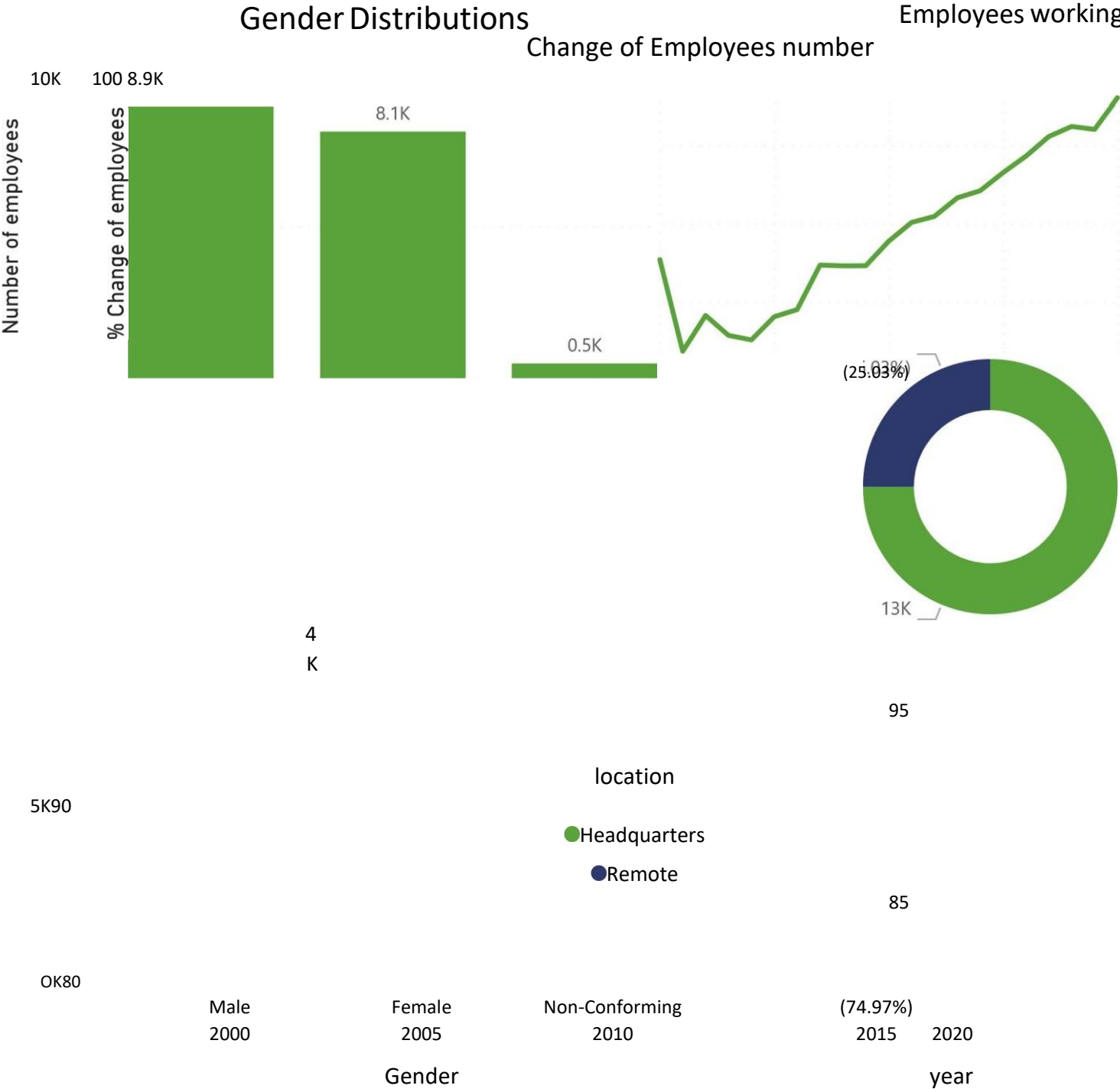
4. **LIMITATIONS**

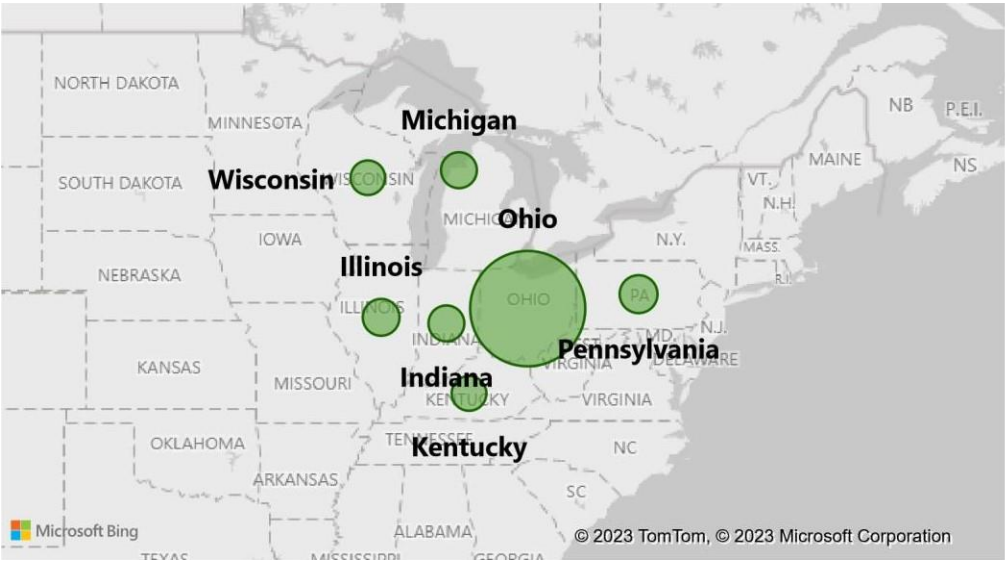
- **Negative Ages:** Some records contained negative ages and were excluded during the analysis (967 records). Ages considered for analysis were 18 years and above.
- **Future Termination Dates:** Some termination dates were far into the future and were not included in the analysis (1599 records). Only termination dates up to the current date were considered.

5. **CONCLUSION**

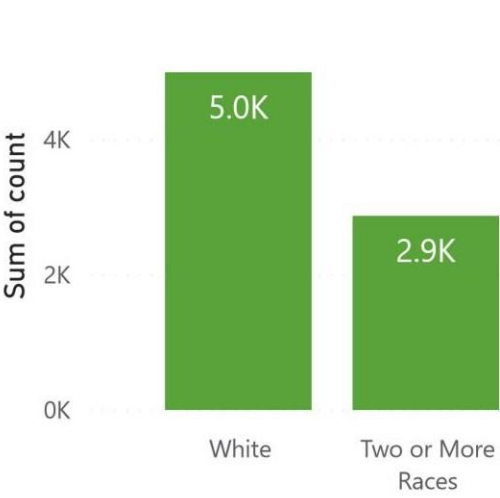
In conclusion, this data analysis provides valuable insights into the HR data, highlighting various trends and patterns. The findings suggest a gender imbalance among employees, with the dominance of White race. The age distribution reveals a significant number of employees in their late 20s and early 30s. The turnover rate varies across departments, with Marketing and Training having higher rates. The data also indicates the importance of the headquarters as a work location. Additionally, the analysis provides insights into the historical employee trends and tenure across departments. These findings can help inform decision-making and HR strategies within the organization.

HR EMPLOYEE DISTRIBUTION

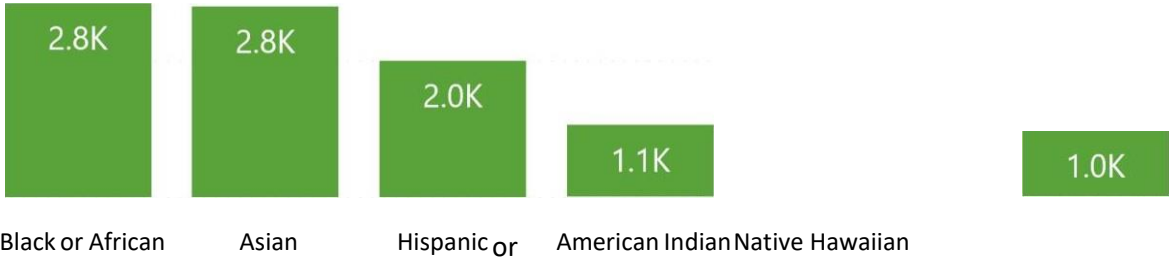




Employees by state



Race Distribution



American

Latino

or Alaska Native or Other Pacific
Islander
race

