POWER BI HR DASHBOARD ANALYSIS

RIVERWOOD INDUSTRIES WORKFORCE ANALYSIS

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INTRODUCTION:

Riverwood Industries faced challenges understanding and analyzing their employee data, needing insights to improve HR decision-making. This project aims to deliver a Power BI dashboard that visualizes workforce distribution, trends, and demographics to empower HR leaders with actionable insights.

BUSINESS PROBLEMS AND HR QUESTIONS:

Summary page:

-present a page of key HR metrics

Headcount analysis:

-Showcase year-on-year trends in headcount.

-Display headcount breakdown based on gender.

-Display headcount distribution across various age groups.

-Analyze headcount based on gender.

-Show headcount by different departments.

Slicers for Enhanced Analysis:

-Implement multiple slicers enabling dynamic filtering by department, country, and employee full name.

Data refresh information

-Incorporate a visual element indicating the date and time of the last data refresh

By transforming this data into an insightful dashboard, the company will gain a clearer understanding of their workforce dynamic and be better equipped to make informed decisions.

DATASET OVERVIEW:

- **Source**: HR data provided (Excel/CSV format).
- **Size**: 1,000 employee records.
- **Key Fields**: Employee Name, Gender, Age, Business Unit, Country, Job Title, Headcount, and Date fields.

DATA PREPARATION AND MODILING:

- Removed duplicates and blank records.

- Ensured proper data types (dates, whole numbers, categorical fields).

- Standardized column names for clarity (e.g., *BusinessUnit*, *JobTitle*).

- Created calculated columns/measures:
  - **Headcount**
  - **Gender Ratio %**
  - **Employee Distribution by Department**

DASHBOARD PAGE-BY-PAGE EXPLANATION:

SUMMARY PAGE
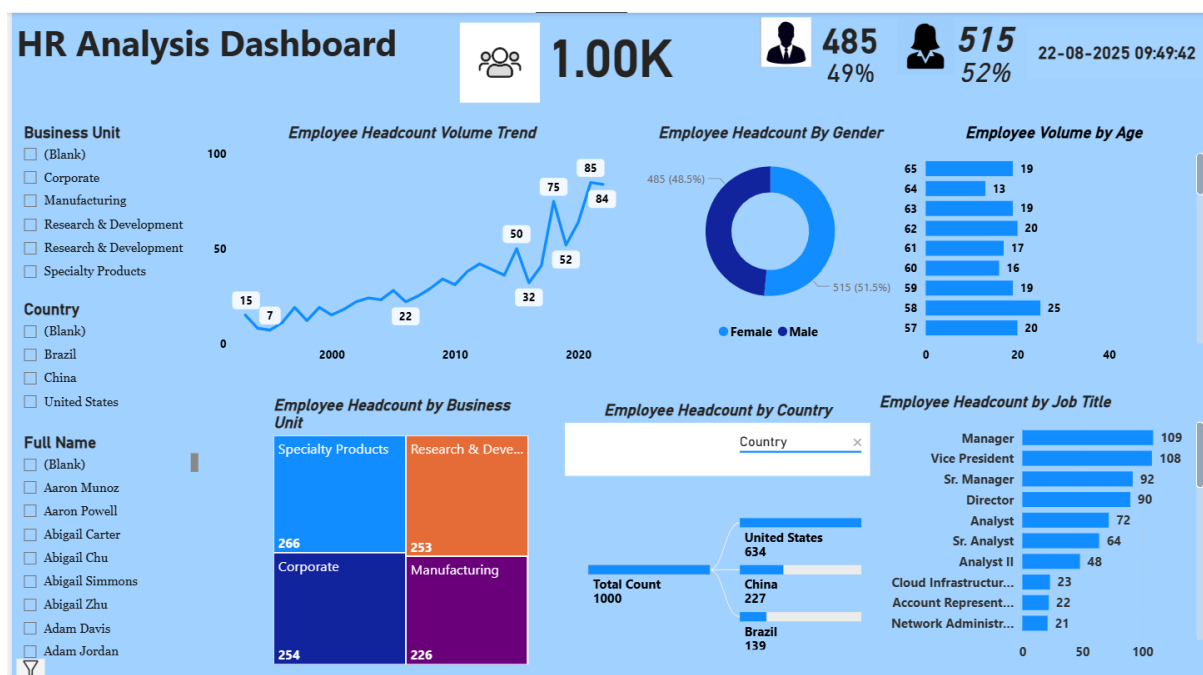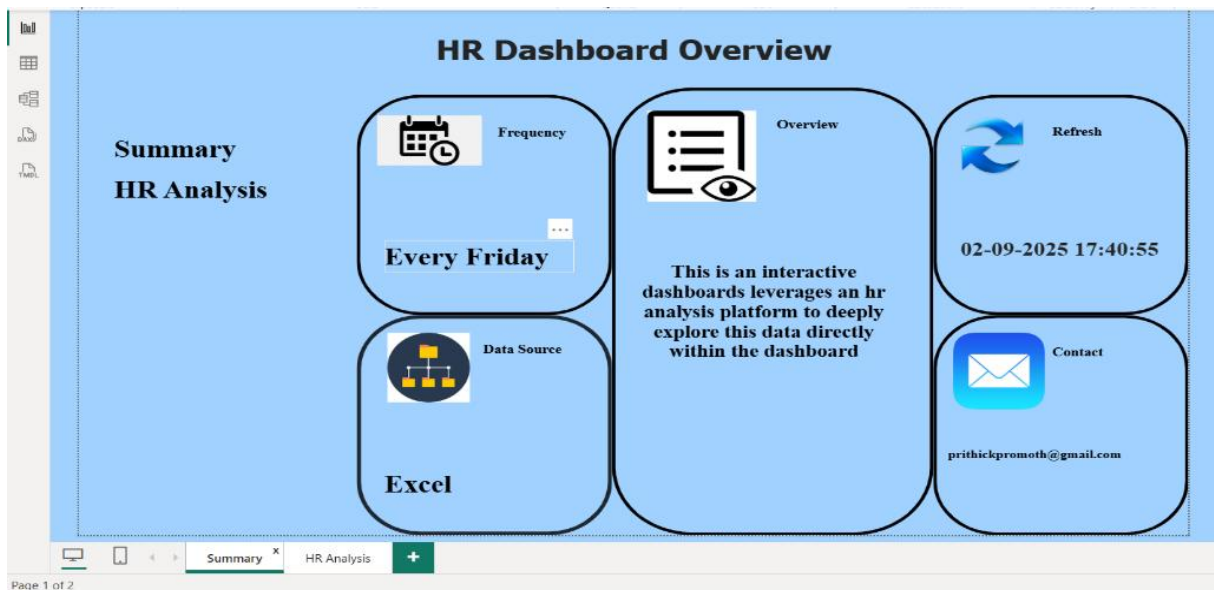
This HR summary page gives the key HR metrics.

- Frequency – project been refreshed every Friday.
- Data source- from where there the data has been gathered.
- Overview- detailed overview of the project.
- Last refresh- time and date of the last refresh.
- Contact- contact is given if any type of issues or clarification.

Summary KPIs Page

Charts/Visuals:

- Total Headcount
- Male vs Female Ratio
- Last Data Refresh Timestamp
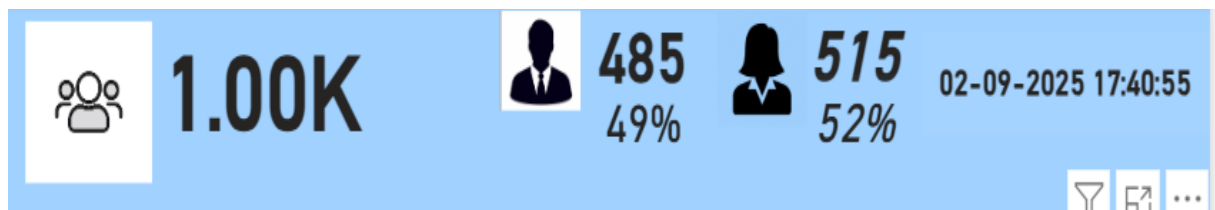
Insights:

The workforce consists of 1,000 employees with near gender parity: 49% male, 51% female. The dashboard updates dynamically with the latest data refresh timestamp to ensure real-time accuracy.

DAX:

TOTAL HEADCOUNT

    total_count = counta('Employee Data'[Gender])

MALE HEADCOUNT

    total_Male_Count =

COUNTAX (

   FILTER ('Employee Data', 'Employee Data'[Gender] = "Male"),

   'Employee Data'[Employee ID]

)

FEMALE HEADCOUNT

    total_Female_Count =

COUNTAX (

   FILTER ('Employee Data', 'Employee Data'[Gender] = "Female"),

   'Employee Data'[Employee ID]

)

MALE PERCENTAGE

Male% = DIVIDE([total_Male_Count],[total_count])

FEMALE PERCENTAGE

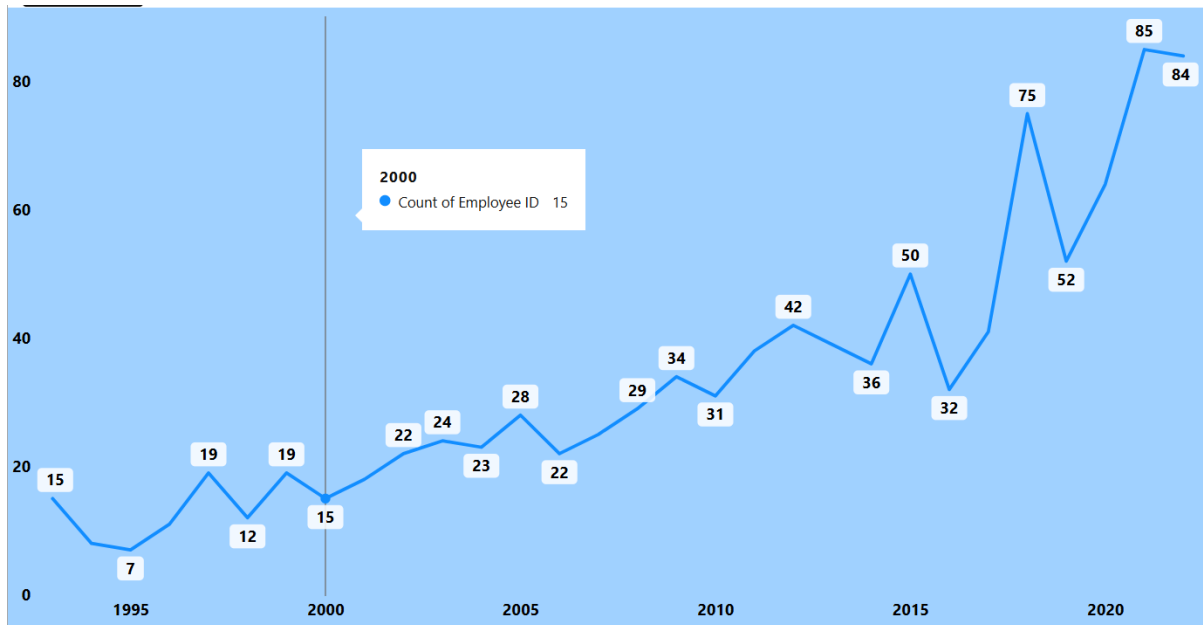Female% = DIVIDE([total_Female_Count],[total_count])

LAST DATE REFRESH TIMESTAMP

Created new column to calculate the last refresh date and timestamp.

HEADCOUNT TREND ANALYSIS:

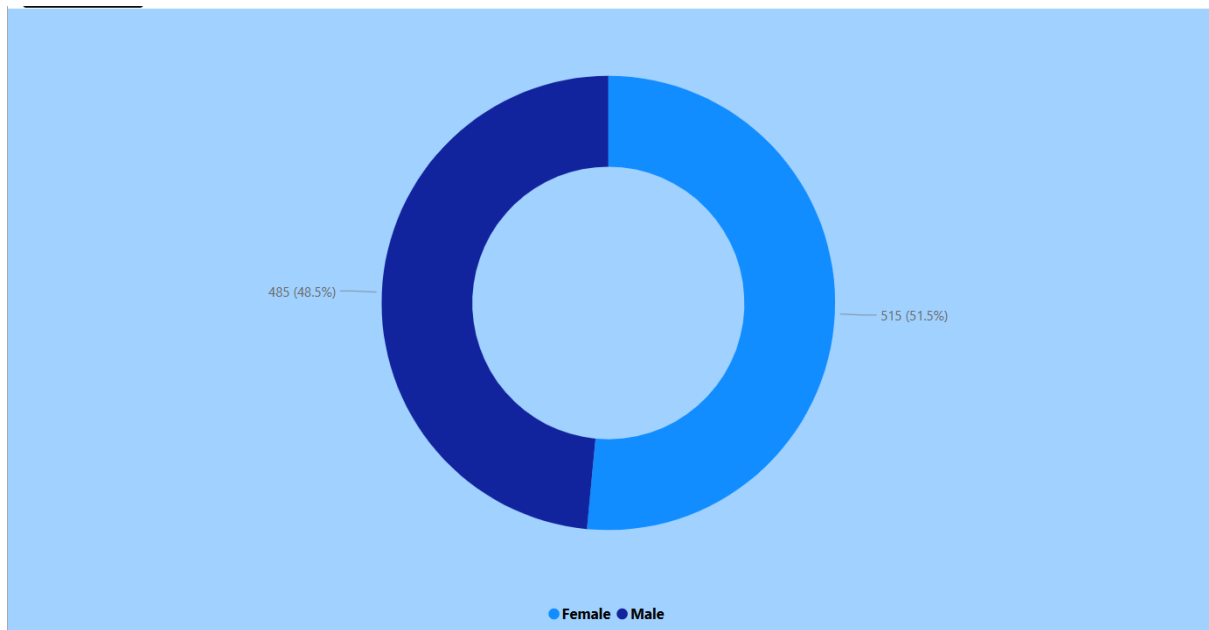## CHART:

Line chart shows year-on-year headcount growth.

Insights:

The headcount grew steadily with a peak increase in 2025 of 85 new employees, indicating a period of workforce expansion.

GENDER DISTRIBUTION:

CHART:

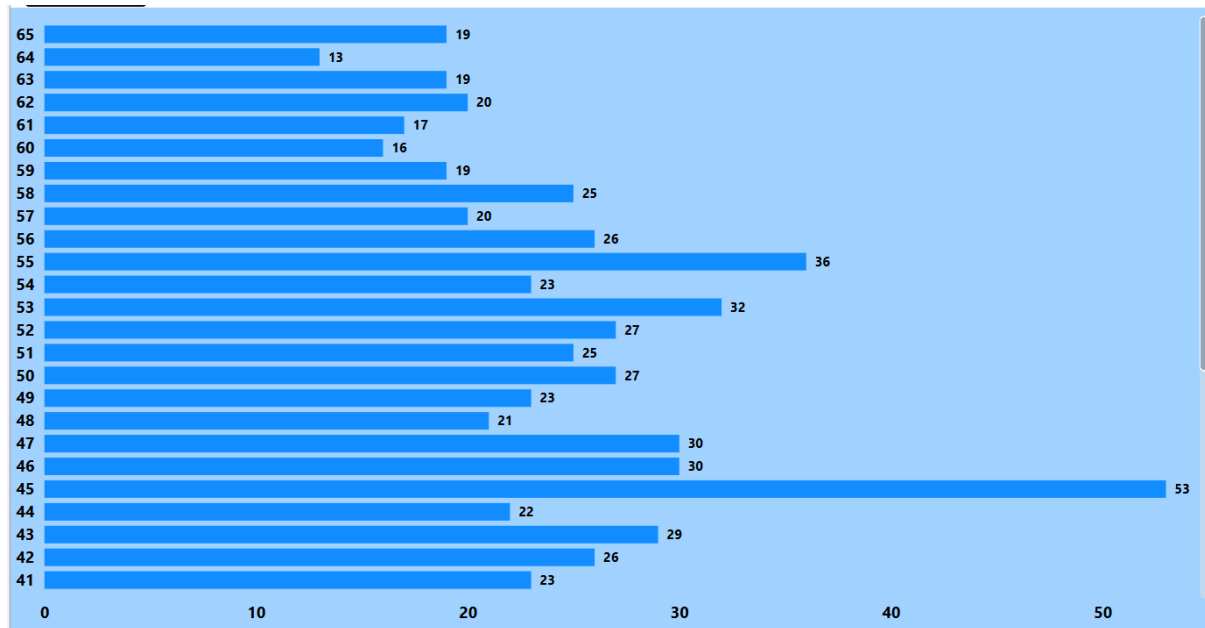Pie chart representing the proportion of male and female employees.

485 (48.5%)   515 (51.5%)

● Female ● Male

Insights:
The workforce is balanced with a slight female majority, supporting diversity efforts.

AGE GROUP DISTRIBUTION:

CHART:

Bar chart displaying employee count within age groups.

Age	Count
65	19
64	13
63	19
62	20
61	17
60	16
59	19
58	25
57	20
56	26
55	36
54	23
53	32
52	27
51	25
50	27
49	23
48	21
47	30
46	30
45	53
44	22
43	29
42	26
41	23

Insights:

Most employees fall in the 58-61 age group, indicating an aging workforce that may affect future workforce planning.

EMPLOYEE DISTRIBUTION BY COUNTRY:

CHART:

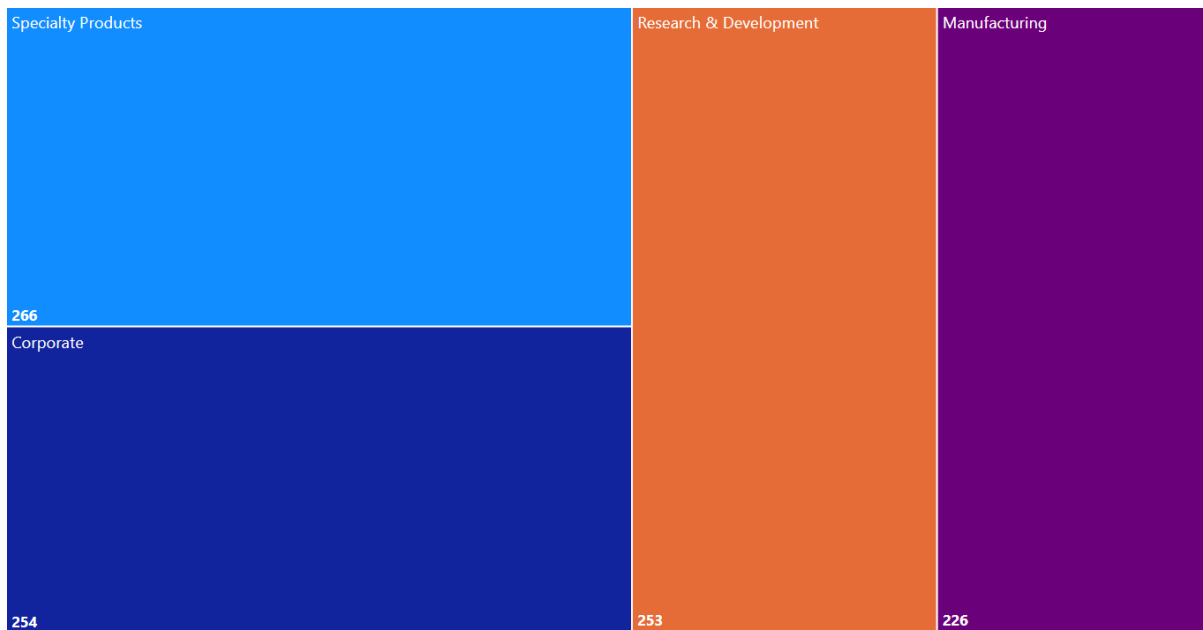Decomposition tree displays employee distribution by country.
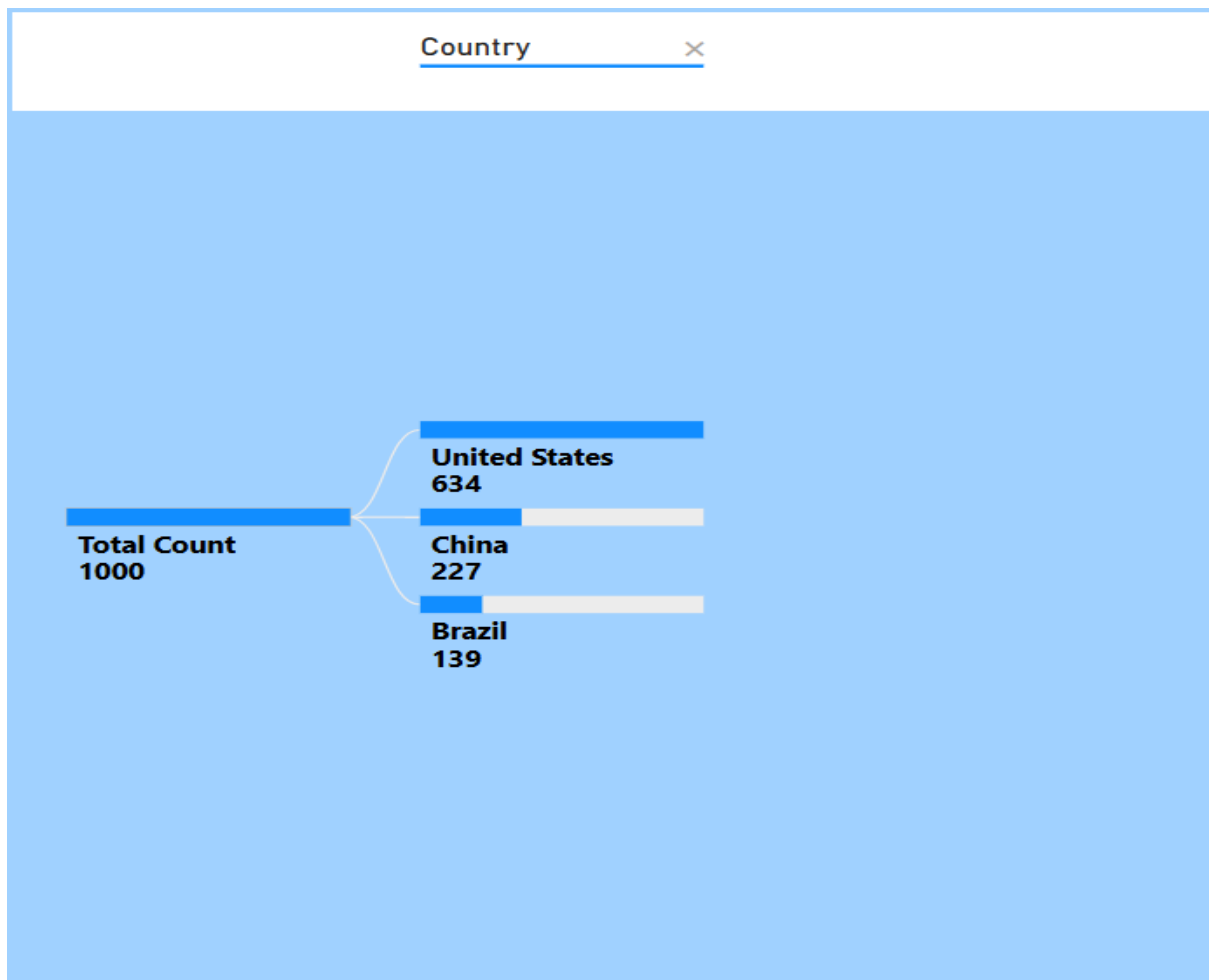
Insights:
63% of the workforce is based in the United States, making it the predominant location.

DEPARTMENT WISE-HEADCOUNT:

CHART:

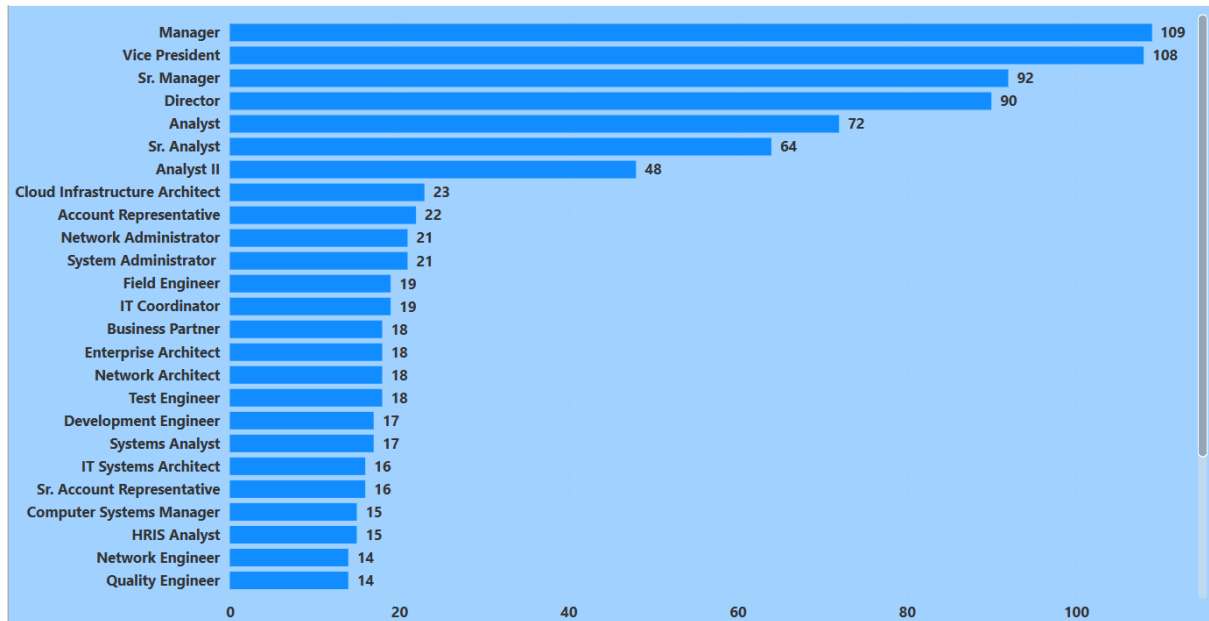Tree map chart displays department wise headcount.

Specialty Products	Research & Development	Manufacturing
266		
Corporate		
254	253	226

Insights:
Specialty Products leads with 266 employees, followed by Research & Development with 253, highlighting key operational units.

JOB TITLE DISTRIBUTION:

CHART:

Bar chart displays job title distribution.

Insights:

The distribution shows a leadership-heavy structure with many employees in Manager (109) and Vice President (108) roles.

SLICERS AND FILTERS

Slicers and Filter Functionality

Dynamic slicers incorporated for filtering data by Business Unit, Country, and Employee Name enable tailored analysis and drilldowns, enhancing dashboard usability and interactivity.

Overall Dashboard Summary and Insights

The dashboard delivers a comprehensive view of Riverwood Industries' workforce, highlighting growth trends, demographic distribution, and key departmental and geographical insights to support strategic HR decisions.

Key Takeaways

- Balanced gender composition supports diversity goals.

- Aging workforce may prompt succession planning.

- Specialty Products and R&D are primary employment hubs.

- Majority employees located in the US, with significant roles in leadership positions.

- Positive headcount growth reflects company expansion activities.

CONCLUSION:

The conclusion of the Power BI HR Dashboard project for Riverwood Industries highlights the successful transformation of raw employee data into a comprehensive and interactive dashboard. This dashboard provides key insights into workforce distribution, headcount trends, gender balance, age demographics, departmental composition, and geographic spread. By leveraging Power BI's data modeling and visualization capabilities, the HR team can now make data-driven decisions to enhance workforce planning, monitor attrition, and address critical business challenges such as an aging workforce and leadership distribution. Overall, this project demonstrates the effectiveness of using Power BI to convert complex HR data into actionable insights that support strategic decision-making and promote organizational growth.