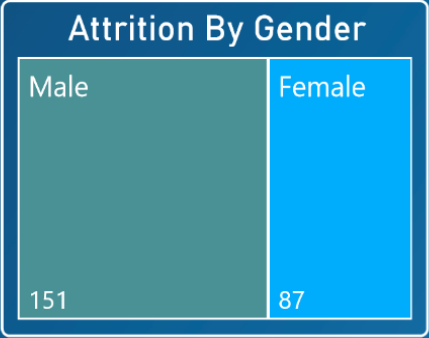


HR Analytics Dashboard

Human Resources

Research & Development

Sales



Employee Count

1480

Attrition

238

Attrition Rate

16%

Avg Age

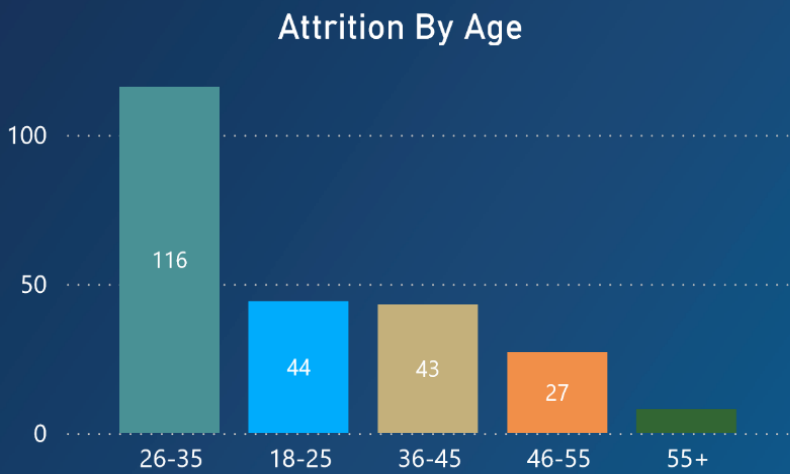
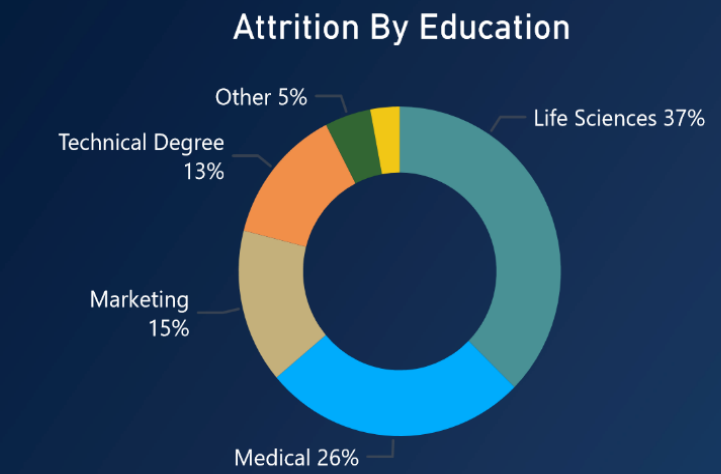
37

Avg Salary

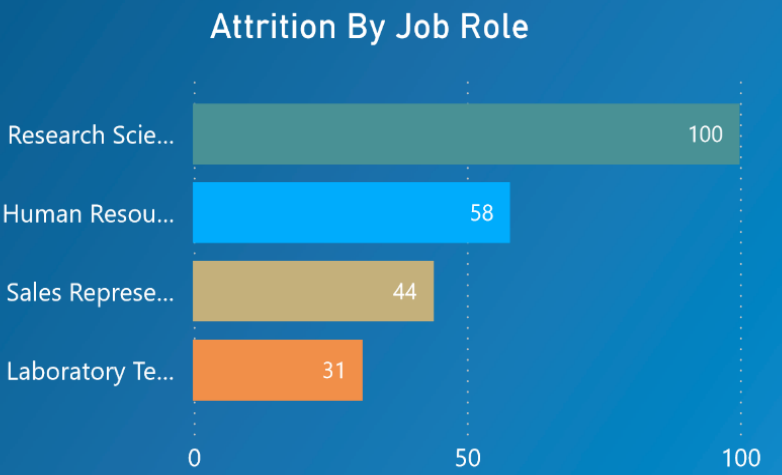
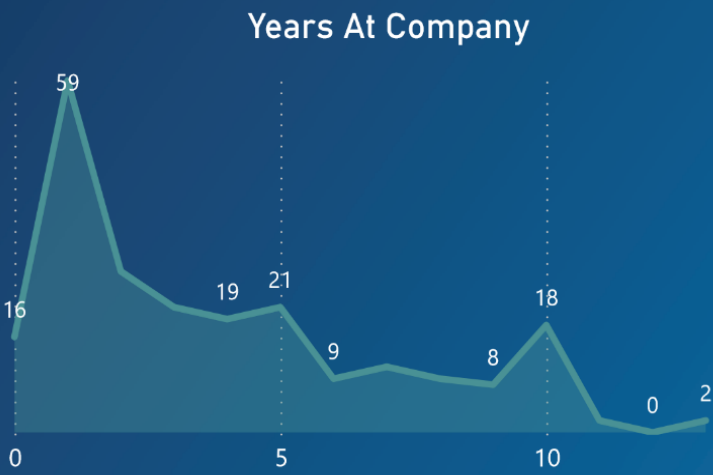
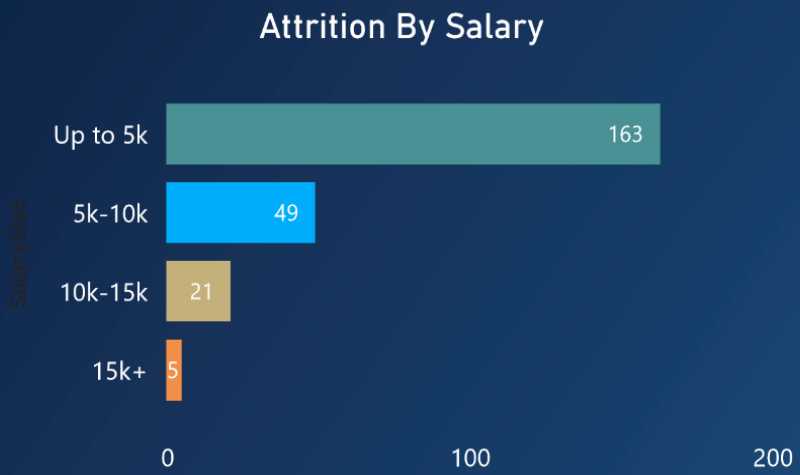
6.50K

Avg Years

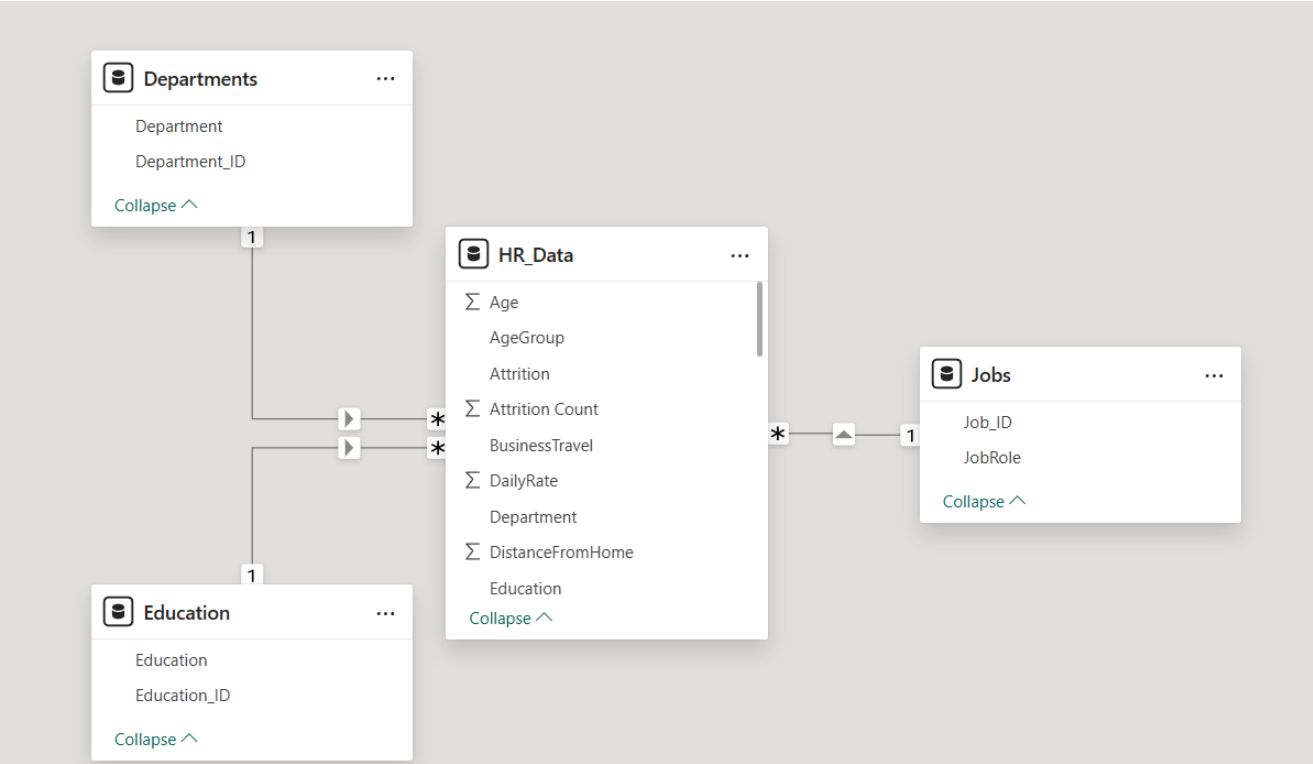
7



JobRole	1	2	3	4	Total
Research Scientist	31	19	29	21	100
Human Resources	16	11	19	12	58
Sales Representative	10	10	17	7	44
Laboratory Technician	8	4	8	11	31
Manufacturing Director	2	2	0	1	5
Total	67	46	73	52	238



Data Analytics Dashboard Process



This HR Analytics dashboard provides a comprehensive view of workforce size and attrition, segmented by education, age, salary, and job role. The underlying data model consists of four tables:

- Three dimensional tables detailing departments, education, and job roles.
- One fact table containing the core HR data.

The screenshot on the left-hand side illustrates the Power BI model view where these tables are connected to create a unified dataset for analysis.

	EmployeeCount	EmployeeNumber	EnvironmentSatisfaction	Gender	HourlyRate	JobInvolvement	JobLevel
1	211	1	1156		80	3	1
2	111	1	1012		73	3	1
3	211	1	1624		70	3	1
4	211	1	411		69	2	1
5	111	1	405		54	3	1
6	311	1	614		69	3	1
7	211	1	1839		33	3	1
8	111	1	1368		97	3	1
9	311	1	167		50	3	1
10	211	1	1248		96	2	1
11	111	1	1269		57	4	1
12	211	1	201		79	3	1
13	411	1	566		52	2	1
14	611	1	959		37	2	1
15	111	1	243		47	2	1
16	111	1	1193		54	3	1
17	411	1	235		100	1	1
18	111	1	657	4 "Female"	83	2	1
19	211	1	1016	4 Female	98	2	1
20	411	1	960	1 Male	84	3	1
21	111	1	137	4 "Female"	66	2	1
22	211	1	701	4 Male	32	3	1
23	111	1	1198	1 Male	87	2	1
24	311	1	1226	3 Male	43	4	1
25	311	1	1077	4 Female	54	3	1
26	211	1	922	3 "Female"	49	2	1

Data Cleaning in Power Query

In the screenshot below from the Power Query Editor, you can see the raw data before any transformations. Notice that the "Gender" column, which should ideally only contain "female" and "male", shows four different values due to typos and data inconsistencies. To ensure that our analysis is accurate and reliable, I standardized the column, consolidating it to just the two correct values. At the same time, I'm checking each column and each data type to make sure that they match, meaning if a column has a date its data type should be a date, if it has numbers then the data type should be a number and so on and so forth.

This essential data cleaning step not only improves data quality but also sets the foundation for the insightful visualizations in our HR analytics dashboard.

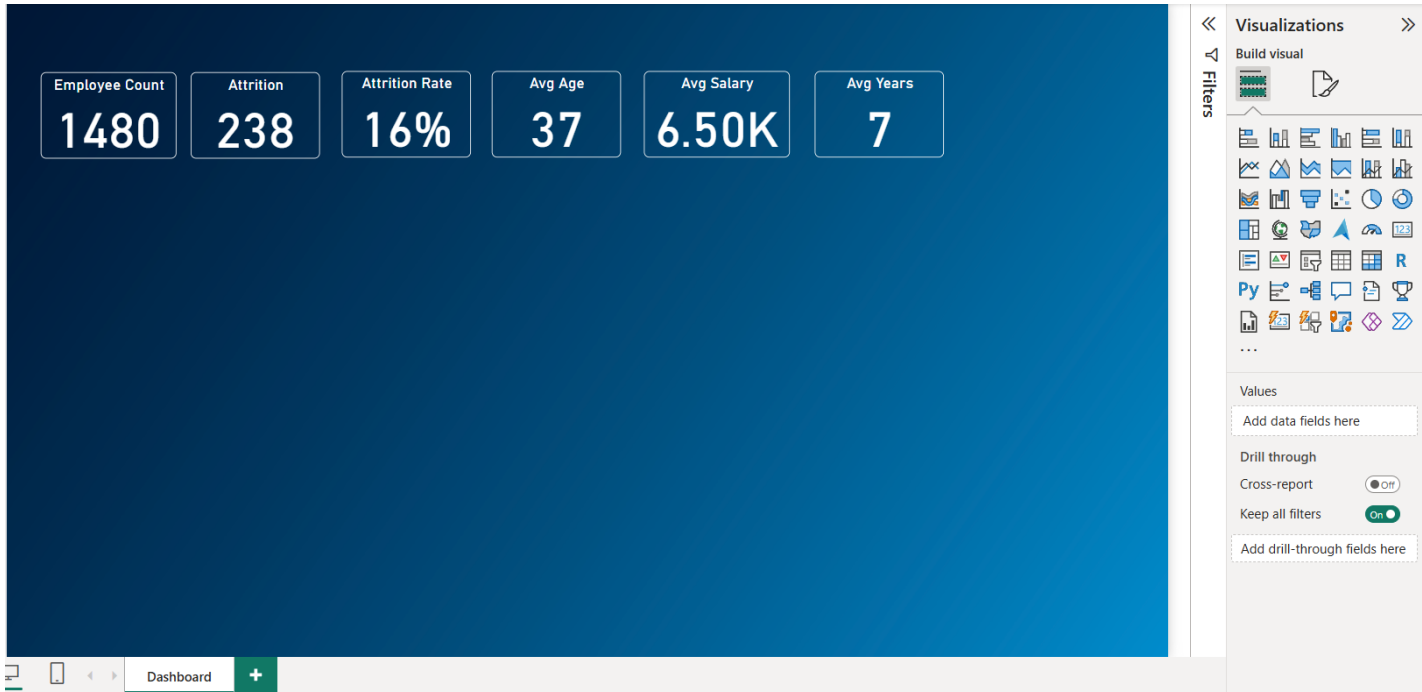
As you can see in the next two screenshots, many columns had text within a numeric data type column, which is going to cause issues down the line, so before I could assign the numeric data type to these columns, I had to clean them up by replacing the “None”, with a numeric value (0).

Before:

	ABC 123 StockOptionLevel	ABC 123 TotalWorkingYears	ABC 123 TrainingTimesLastYear	P3 WorkLifeBalance	ABC 123 YearsAtCompany	ABC 123 YearsInCurrentRole	ABC 123 YearsSinceLastPromotion
1	80 None	None	None		3 None	None	None
2	80 None	None		2	3 None	None	None
3	80 None	None		2	4 None	None	None
4	80 None	None		2	3 None	None	None
5	80 None	None		2	3 None	None	None
6	80 None	None		3	3 None	None	None
7	80 None	None		4	1 None	None	None
8	80 None	None		5	4 None	None	None
9	80 None	None		2	2 None	None	None
10	80 None		1	2	4	1	1 None
11	80 None		1	2	3	1 None	None
12	80 None		1	3	3	1 None	None
13	80 None		1	3	4	1 None	None
14	80 None		1	3	4	1 None	None
15	80 None		1	3	2	1 None	
16	80 None		1	4	3	1	1 None
17	80 None		1	5	4 None	None	None
18	80 None		1 None		4	1 None	None
19	80 None		1	2	3	1 None	None
20	80 None		1	2	3	1 None	None
21	80 None		1	5	3	1 None	
22	80 None		1	5	3	1 None	
23	80 None		2	2	2	2	
24	80 None		2	2	3	2	1
25	80 None		2	3	3	2	2 None
26	80 None		2	3	2	2	2 None
27	80 None		2	3	3	2	2 None
28	<						>

After:

= Table.ReplaceValue("#Replaced Value4", "None", 0, Replacer.ReplaceValue, {"StockOptionLevel", "TotalWorkingYears", "TrainingTimesLastYear", "WorkLifeBalance",									
	ABC 123 StockOptionLevel	ABC 123 TotalWorkingYears	ABC 123 TrainingTimesLastYear	1,2 WorkLifeBalance	ABC 123 YearsAtCompany	ABC 123 YearsInCurrentRole	ABC 123 YearsSinceLastPromotion		
1	80	0	0	0	3	0	0		
2	80	0	0	2	3	0	0		
3	80	0	0	2	4	0	0		
4	80	0	0	2	3	0	0		
5	80	0	0	2	3	0	0		
6	80	0	0	3	3	0	0		
7	80	0	0	4	1	0	0		
8	80	0	0	5	4	0	0		
9	80	0	0	2	2	0	0		
10	80	0	1	2	4	1	1		
11	80	0	1	2	3	1	0		
12	80	0	1	3	3	1	0		
13	80	0	1	3	4	1	0		
14	80	0	1	3	4	1	0		
15	80	0	1	3	2	1	0		
16	80	0	1	4	3	1	1		
17	80	0	1	5	4	0	0		
18	80	0	1	0	4	1	0		
19	80	0	1	2	3	1	0		
20	80	0	1	2	3	1	0		
21	80	0	1	5	3	1	0		
22	80	0	1	5	3	1	0		
23	80	0	2	2	2	2	2		
24	80	0	2	2	3	2	1		
25	80	0	2	3	3	2	2		
26	80	0	2	3	2	2	2		
27	80	0	2	3	3	2	2		



Dashboard creation:

During the dashboard creation phase, I designed six KPI cards to provide a real-time snapshot of key HR metrics. These cards display essential data points including attrition count, attrition rate, average age of current employees, average salary, and average years within the company. This clear, concise layout helps stakeholders quickly understand workforce trends and make informed decisions.

In this section of the dashboard, the header brings together the six KPI cards, a clear title, a treemap displaying attrition by gender, and a department filter (including Human Resources, Sales, and Research and Development). These elements work together to create an interactive interface that allows users to easily explore key workforce metrics.



The final screenshot integrates six distinct visualizations to offer a comprehensive analysis of workforce attrition. Two bar charts and one column chart reveal key metrics across salary, age and job role, while an area chart captures trends over time, in this case comparing years at the company vs amount of attrition. A donut chart breaks down attrition by education, and a table with conditional formatting highlights the job roles experiencing the highest attrition, compared to the satisfaction level employees reported. Together, these visualizations provide a detailed view of employee turnover broken down by different dimensions.

