

Greater Manchester Higher Education



Task 02

Assignment 02

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1. Introduction

The Greater Manchester Higher Education Analyzer stands at the forefront of technology, utilizing the latest UK Higher Education Graduate Outcomes Data to offer valuable insights into the educational landscape of Greater Manchester. Recognizing the pivotal role of higher education in shaping the futures of individuals and communities, this analyzer was developed to shed light on the impact and outcomes of higher education in the Greater Manchester region. Catering to a diverse audience, including students, educators, policymakers, and academics, the analyzer serves as a comprehensive resource. It delves deeply into the post-graduation experiences and accomplishments of Greater Manchester residents, empowering stakeholders to make well-informed decisions regarding education, career paths, and regional development through access to the most recent data. By providing a user-friendly interface, the Greater Manchester Higher Education Analyzer facilitates exploration of a variety of information about graduates from local universities and colleges. It offers a nuanced understanding of how higher education shapes the lives and future prospects of individuals in the Greater Manchester area, covering aspects such as employment rates, salaries, further education choices, and career destinations.

2. Exploring the Dataset

The provided link directs you to the "Higher Education Graduate Outcomes Data" available on the data.gov.uk website. This dataset serves as a valuable resource for investigating information pertaining to the post-graduation outcomes of higher education students in the UK.

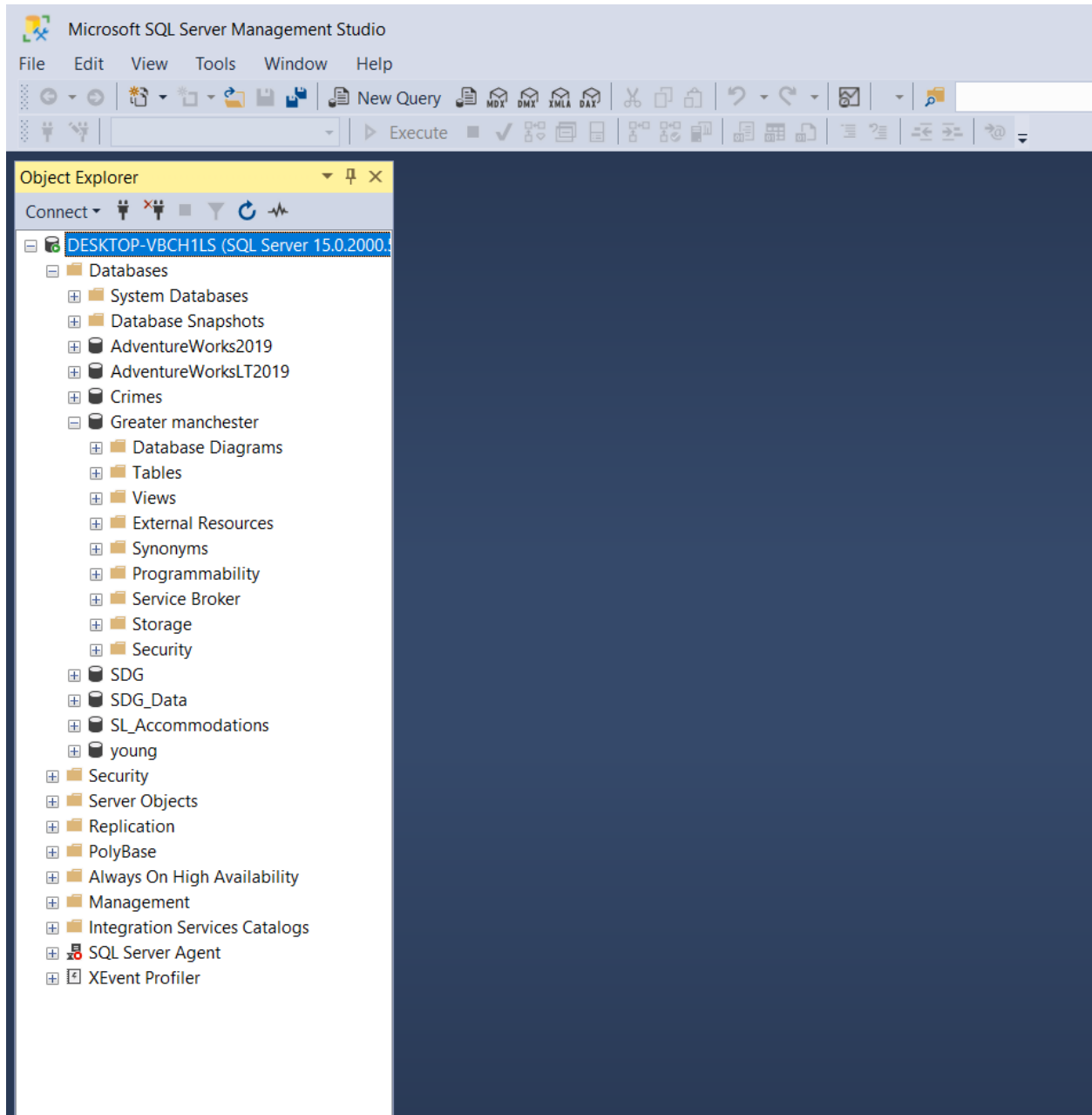
Table 10 - Graduate activities by level of qualification obtained and age group 2017/18 onward	CSV	17 July 2020	Preview
Table 9 - Graduate activities by level of qualification obtained and sex 2017/18 onward	CSV	17 July 2020	Preview
Table 8 - Graduate reflections by provider 2017/18 onward	CSV	17 July 2020	Preview
Table 7 - Standard occupational classification of graduates entering work in the UK by provider 2017/18	CSV	17 July 2020	Preview
Table 6 - Graduate activities by provider 2017/18 onward	CSV	17 July 2020	Preview
Table 5 - Response rates by provider 2017/18 onward	CSV	17 July 2020	Preview
Table 4 - UK domiciled graduate activities by provider and ethnicity 2017/18 onward	CSV	17 July 2020	Preview
Table 3 - Graduate activities by provider and disability 2017/18 onward	CSV	17 July 2020	Preview
Table 2 - Graduate activities by provider and age group 2017/18 onward	CSV	17 July 2020	Preview
Table 1 - Graduate activities by provider and sex 2017/18 onward	CSV	17 July 2020	Preview
Show less			

We selected the above three datasets, and we removed the irrelevant columns from the excel sheet. Then after changing the data types, we imported it into the SQL server. The datasets were downloaded via this link.

<https://www.data.gov.uk/dataset/37b401c3-1689-4f3c-bac4-b6cc39cdefa7/higher-education-graduate-outcomes-data>

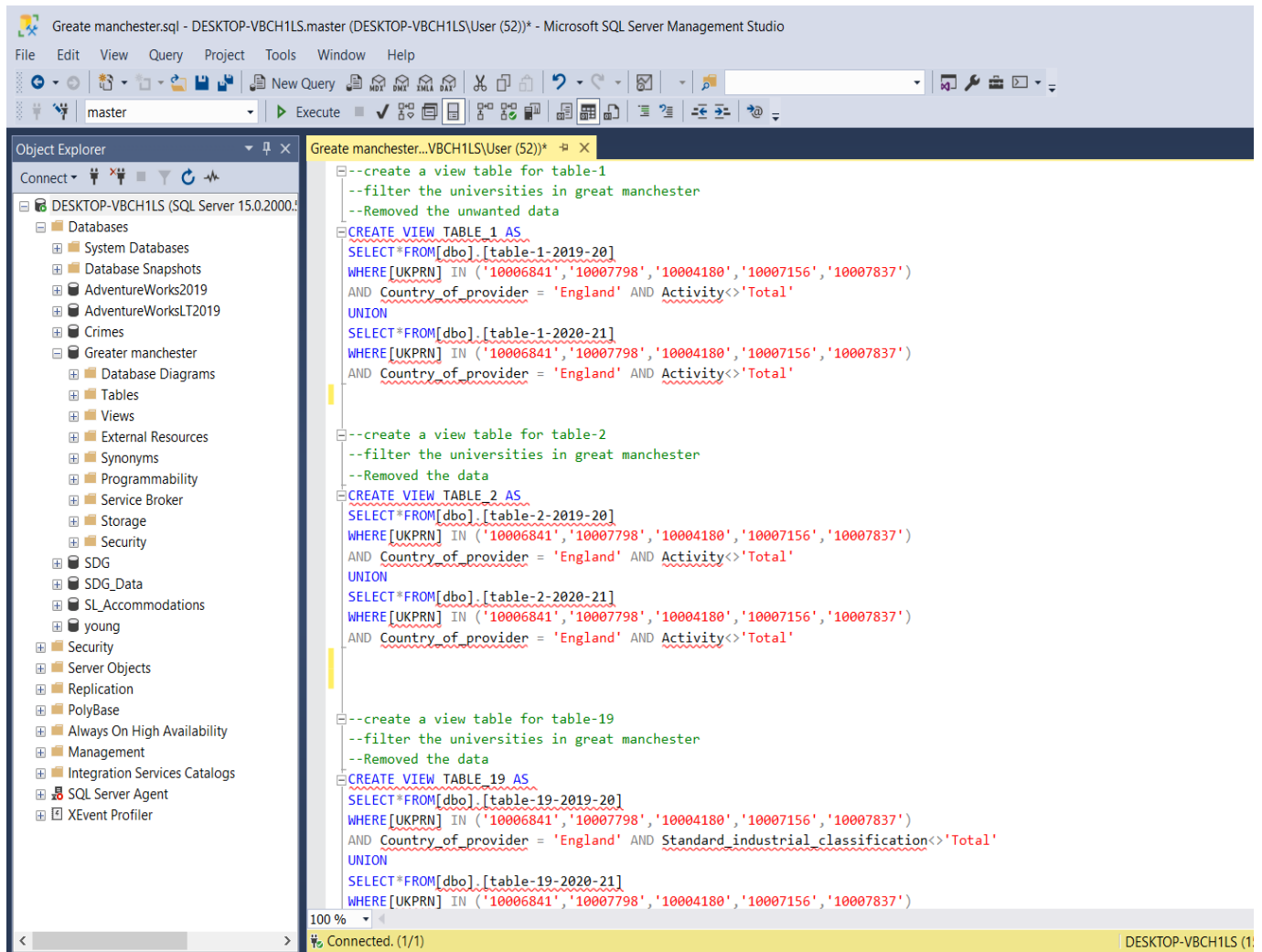
3. Create the Database and Implementation of SQL

We downloaded the dataset and saved it in the csv file format. Then we launched SQL Server Studio and created the database "Greater manchester."



Create a view.

A view is a fictitious table formed from the result set of a SQL query, consisting of rows and columns, and a group of views is created to generate the required datasets.



- SQL views, which are constructed by combining separate tables, filter the columns depending on the notion and delete null values.

4. Implementation in Microsoft PowerBI

4.1 INTRODUCTION

In this age of data-driven decision-making, insights gained from Higher Education Graduate Outcomes are invaluable. Educational institutions, policymakers, and students can all benefit greatly from data. This information is critical to understanding students' post-graduation trajectories, shedding light on employment, income, and career advancement.

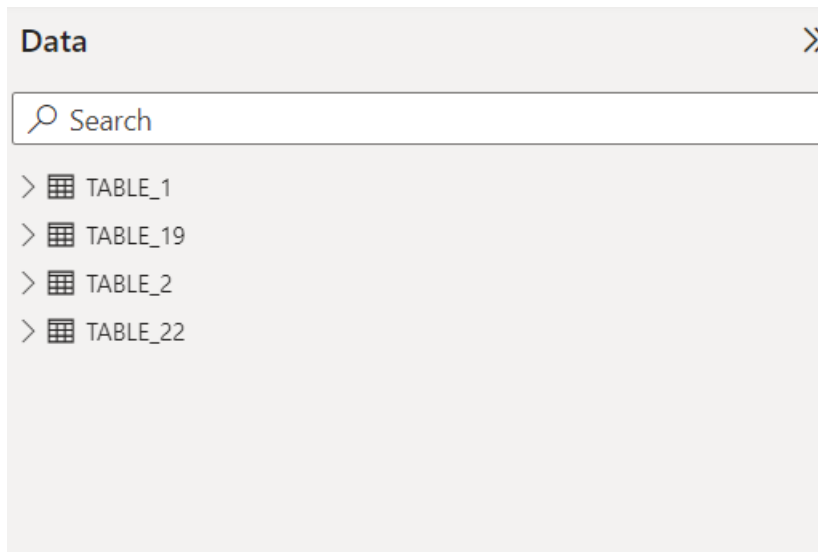
This Power BI dashboard, tailored for Greater Manchester, analyses the region's higher education landscape using the most recent UK Higher Education Graduate Outcomes Data. By showing this data, we intend to give various stakeholders with the resources they need to make informed decisions, plan for the future, and answer critical issues about education, workforce development, and economic growth.

Power BI Dashboard Key Features:

- **Demographic Overview:** The dashboard provides a demographic overview of Greater Manchester's higher education institutions, including gender and age data.
- **Course Analysis:** Gain insight into the most popular courses in the region and how they correlate with graduation outcomes, supporting students in making informed programme choices.
- **Employment Statistics:** Detailed breakdowns of employment rates, job types, and regions where graduates find work, useful for workforce planning.
- **Earnings Analysis:** Research graduates' earnings based on their degree, institution, and other factors, benefiting prospective students and employers.
- **Regional Comparison:** Compare Greater Manchester's higher education performance to that of other regions in the UK and throughout the world to identify strengths and areas for improvement.

4.2 DASHBOARD DESIGN AND IMPLEMENTATION

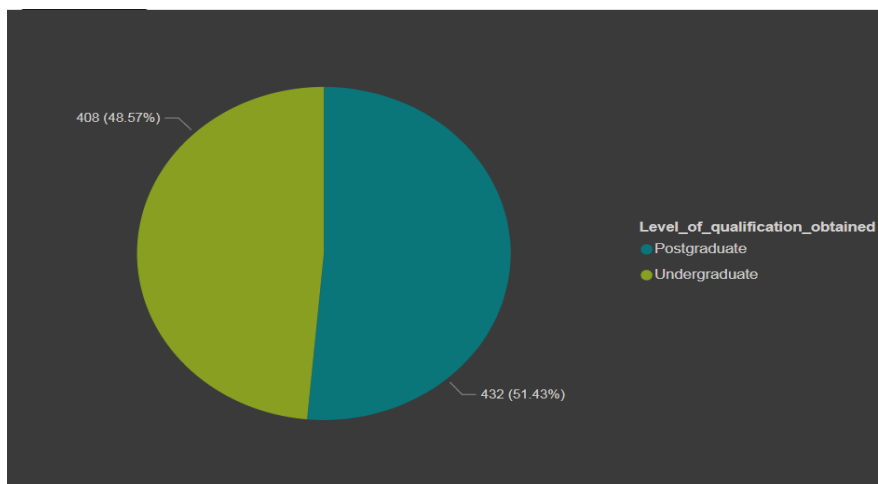
Preprocessing is an important process that involves cleaning, converting, and normalising data to ensure it is ready for analysis, as well as dealing with missing values, eliminating outliers, and normalising numerical values.



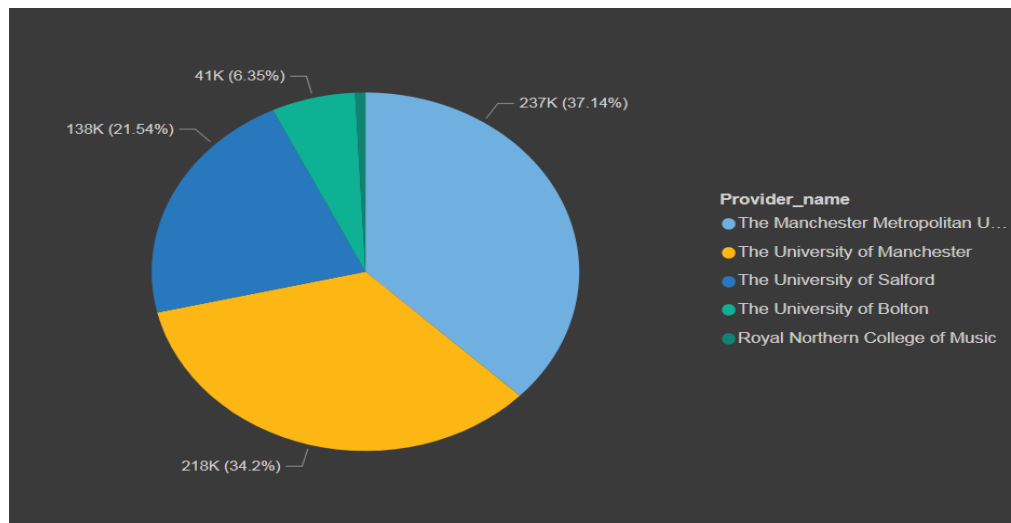
4.3 VISUAL IMPLEMENTATION

Pie Chart

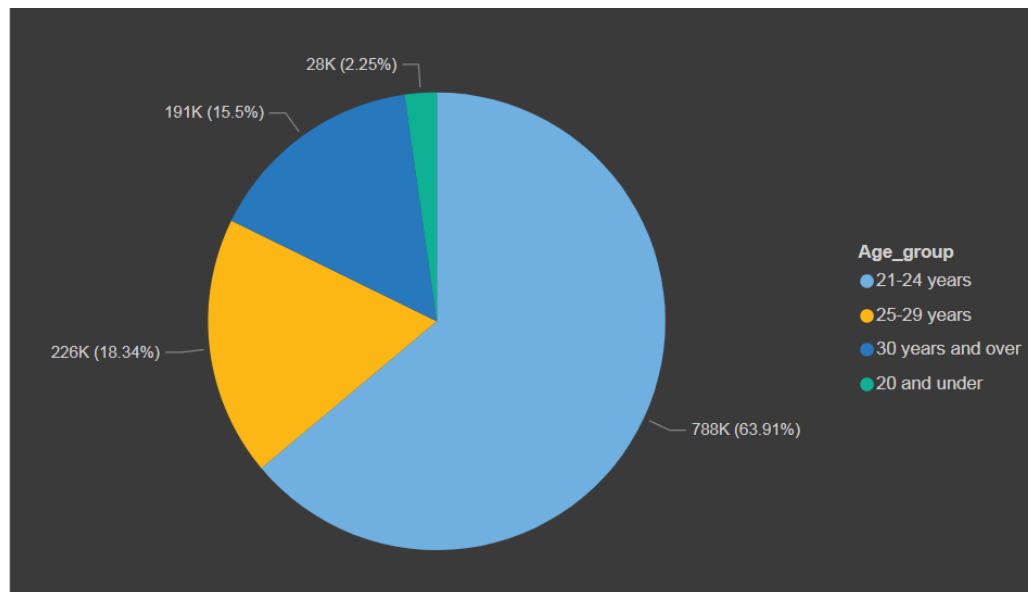
Level of qualification



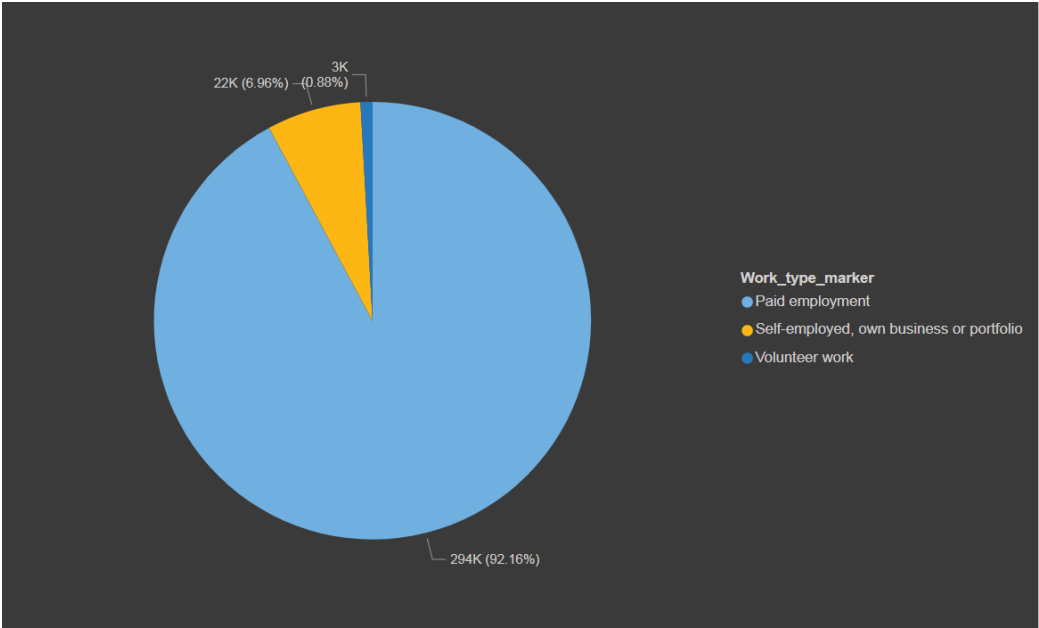
Total student in each university



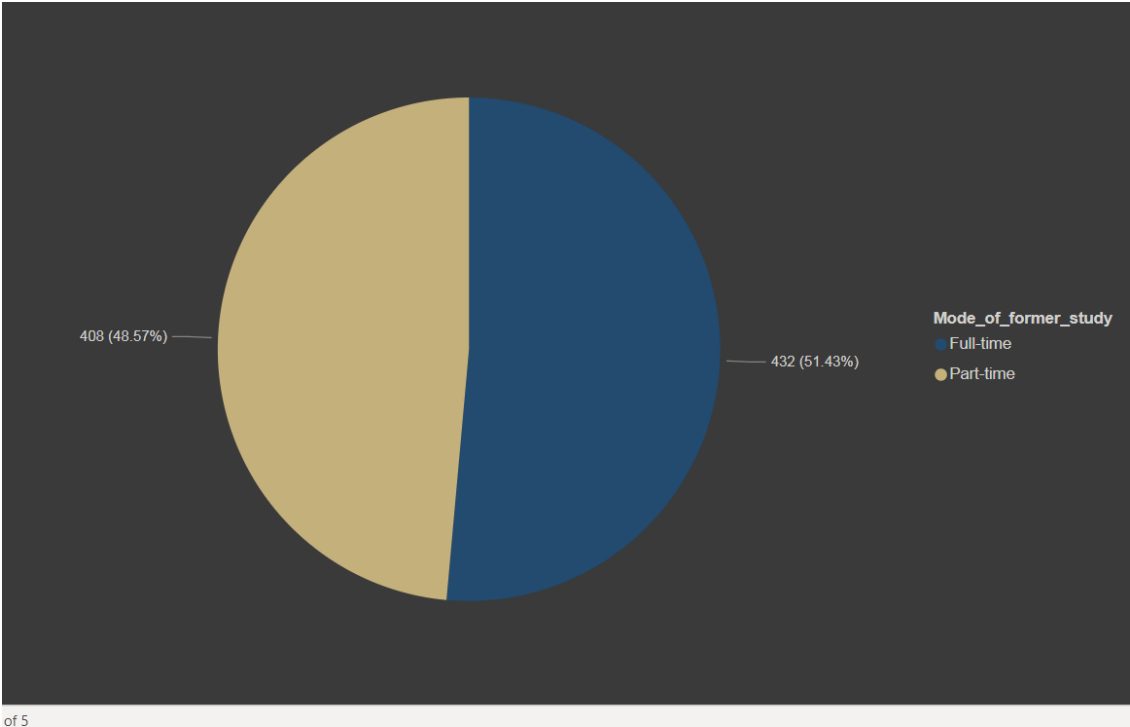
Age of student



Work type of market

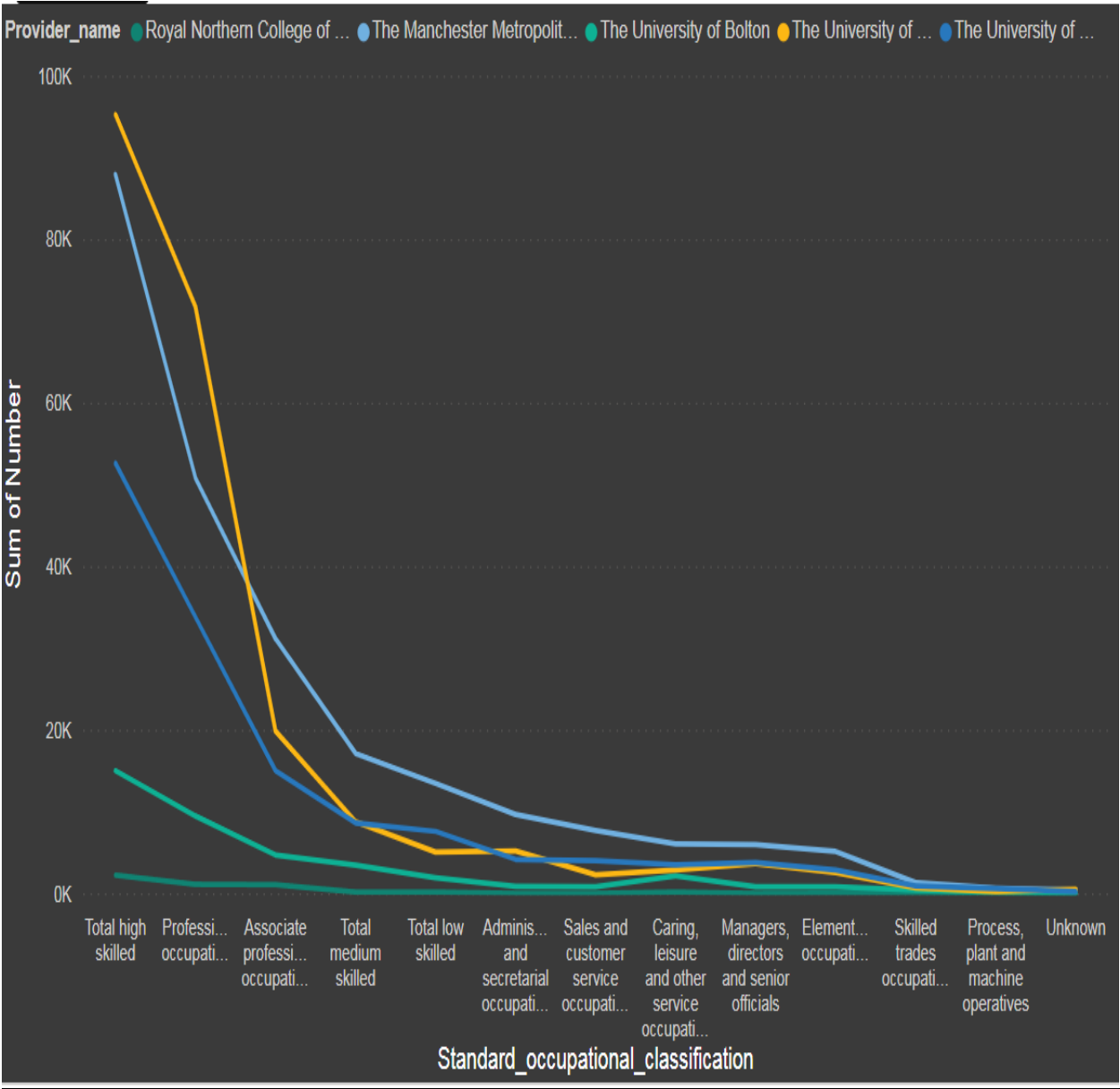


Mode of degree



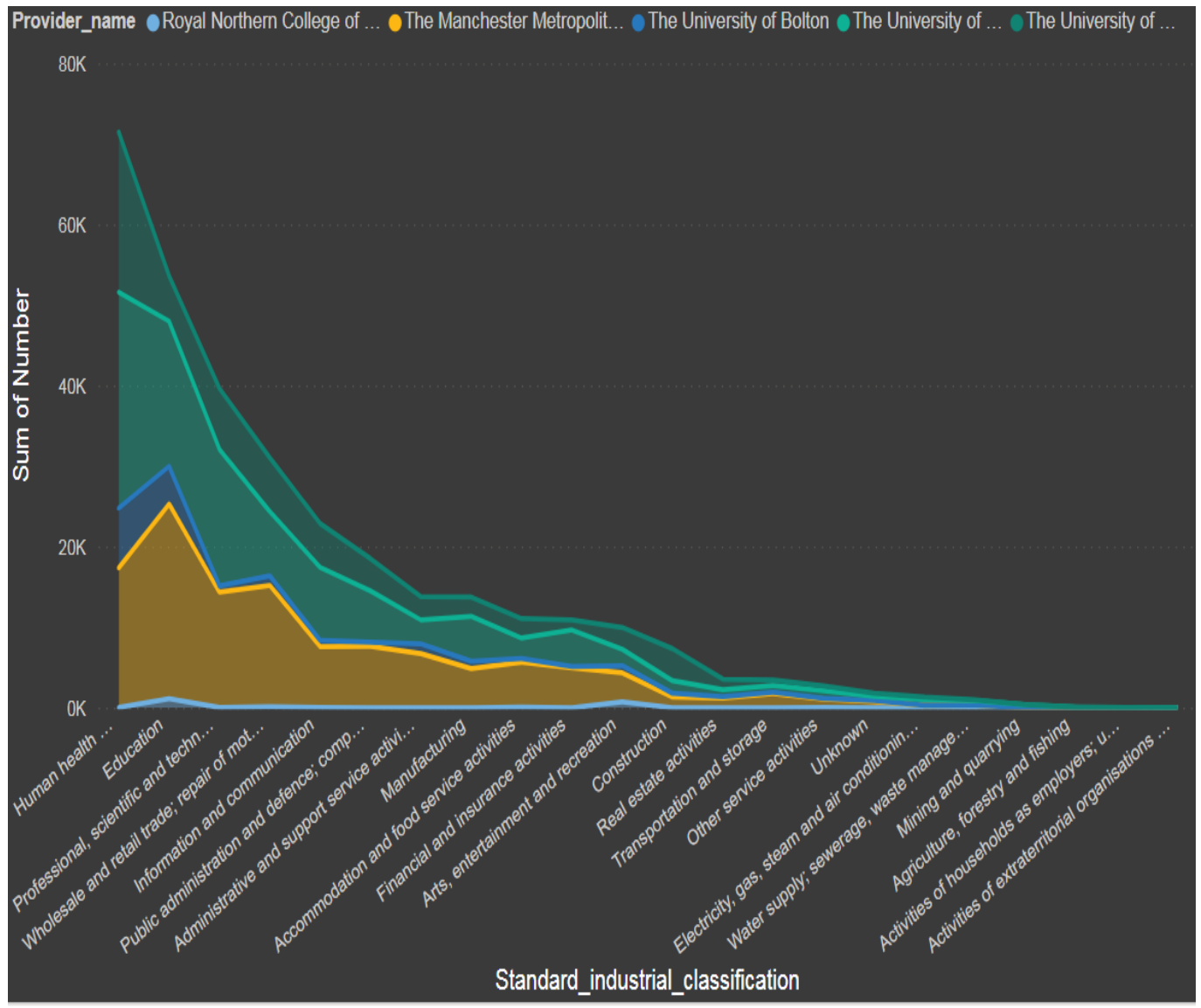
Line chart

Occupational category



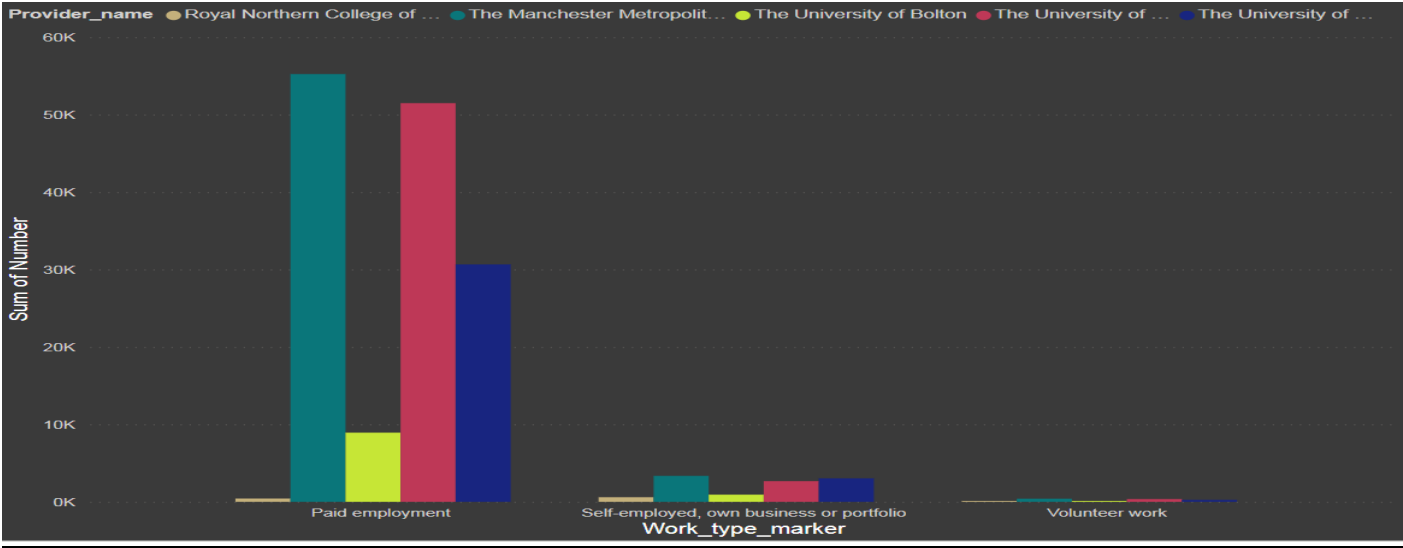
Stacked Area Chart

Industrial Job Type

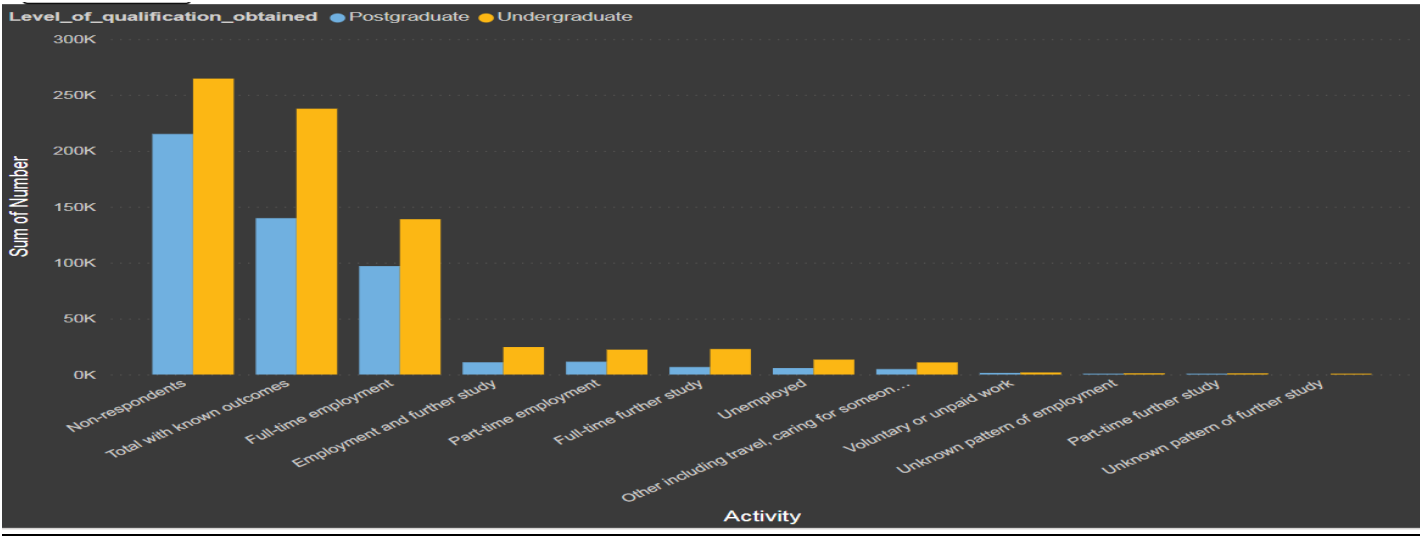


Clustered column Chart

Work type of market

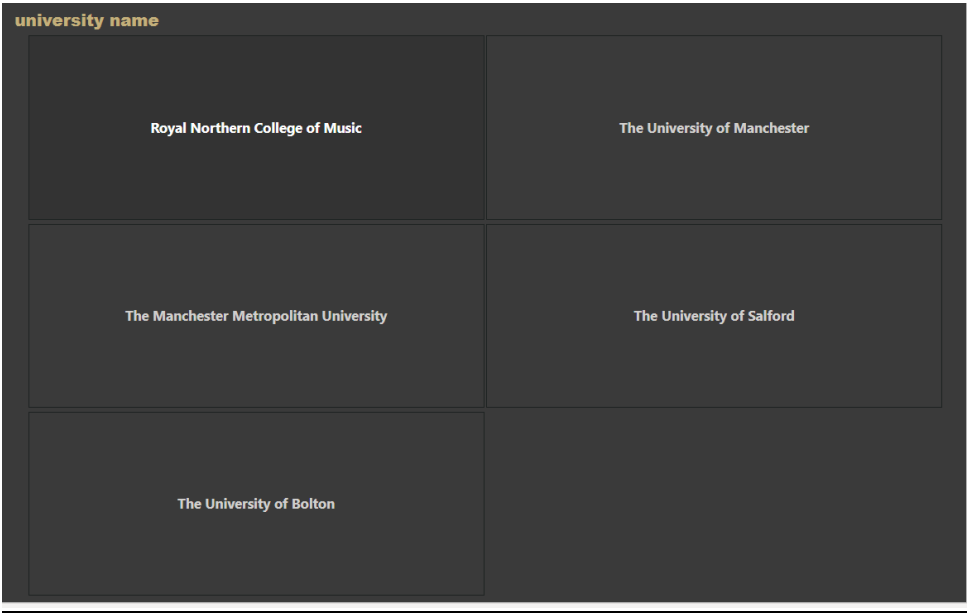


Student activity

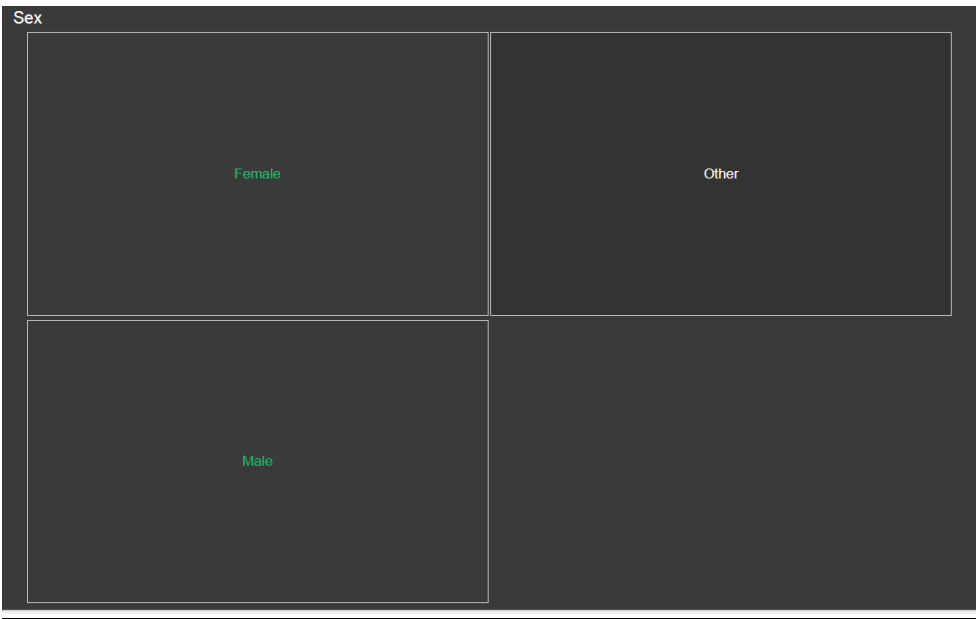


Slicer

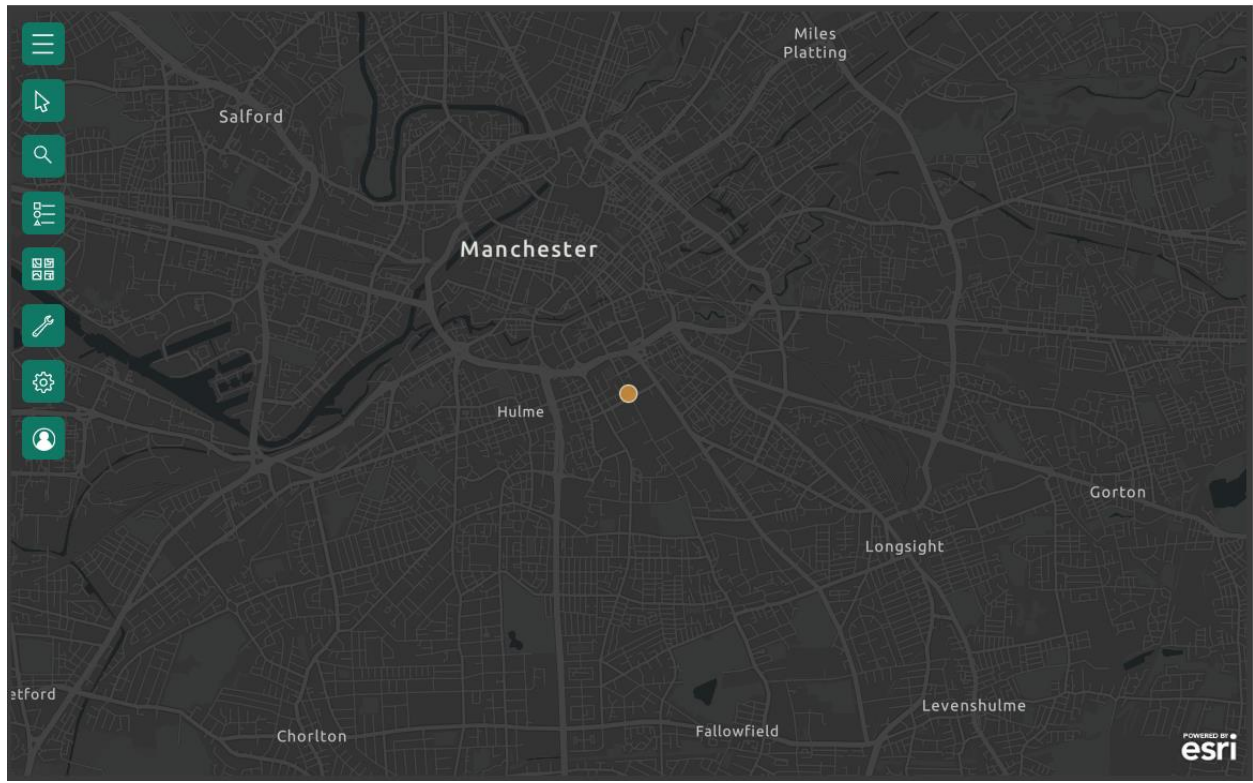
Select university



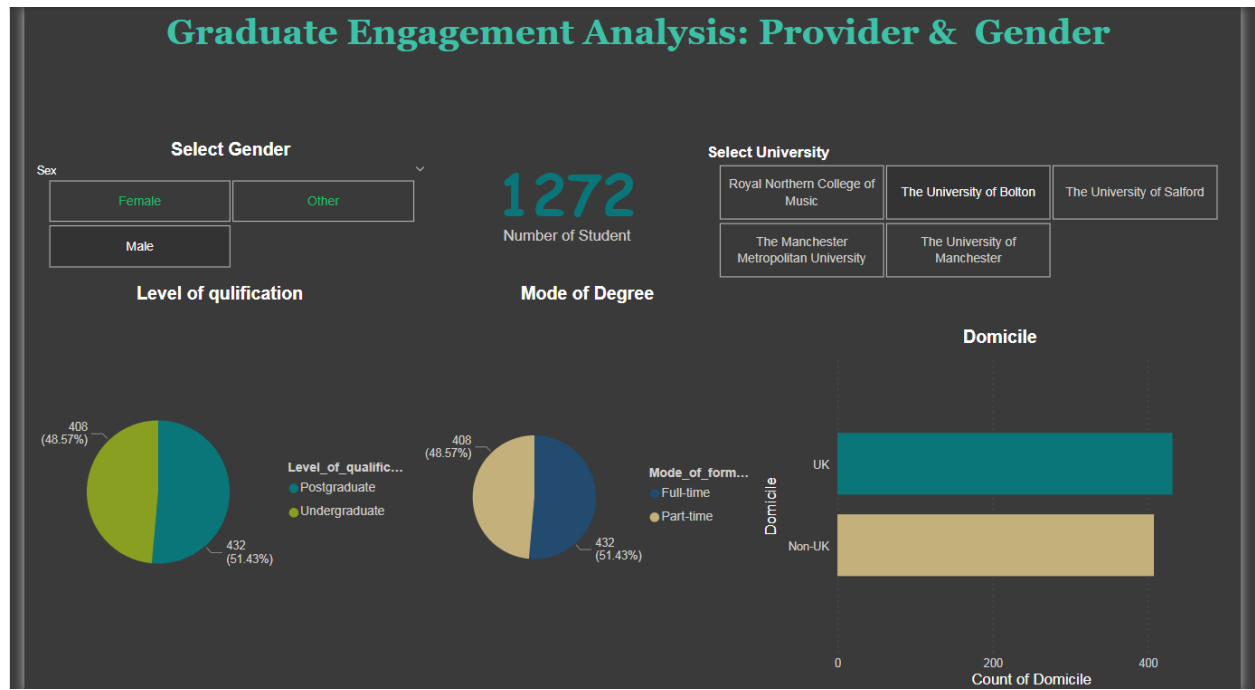
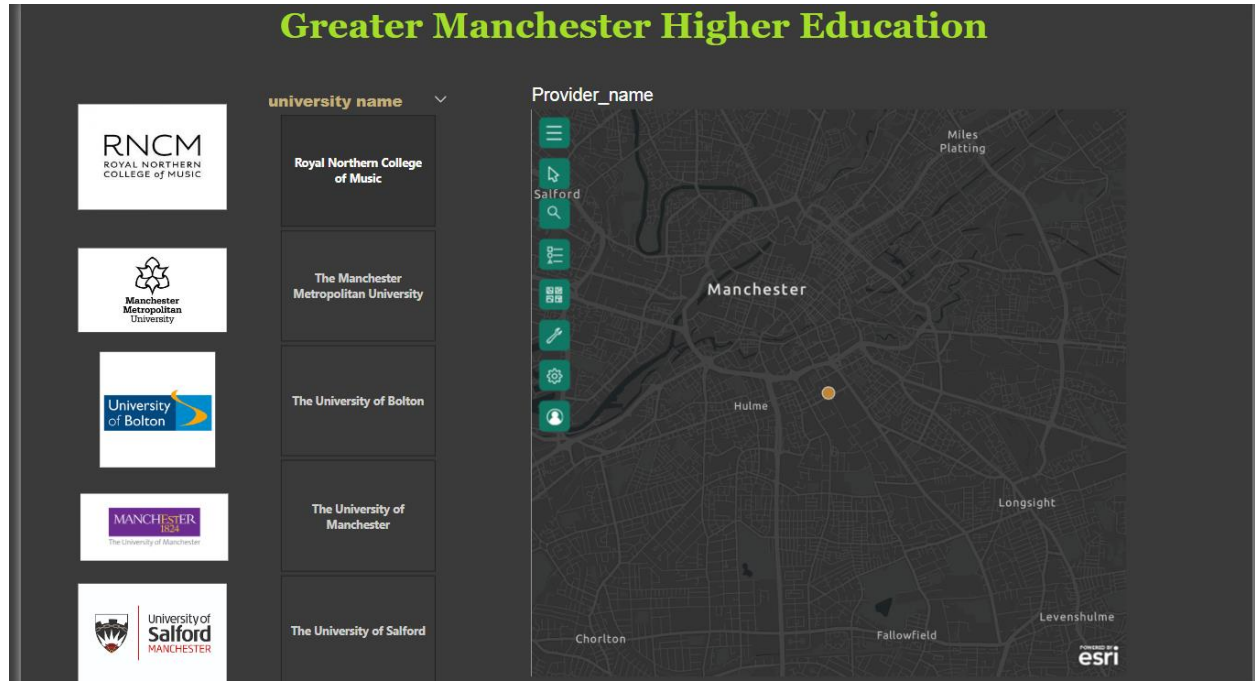
Select Gender



Map

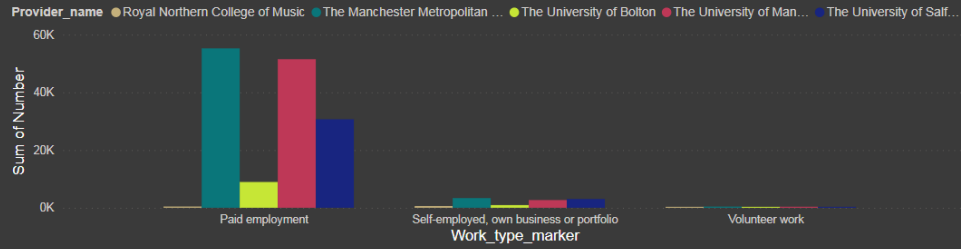


FINAL DASHBOARD

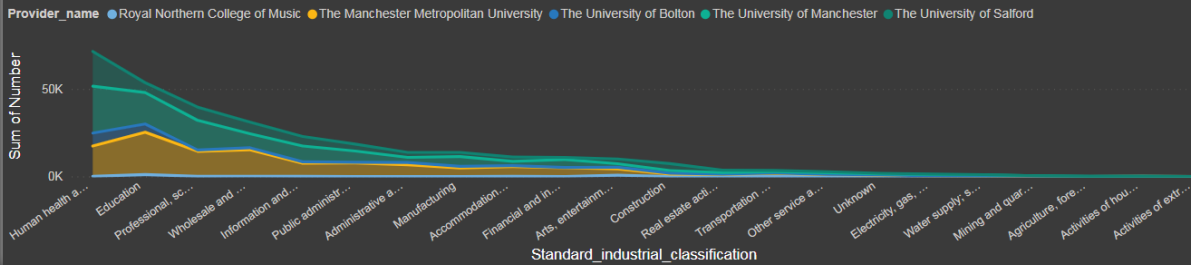


Industry-wise Analysis of Graduates in the UK Workforce

Work Type

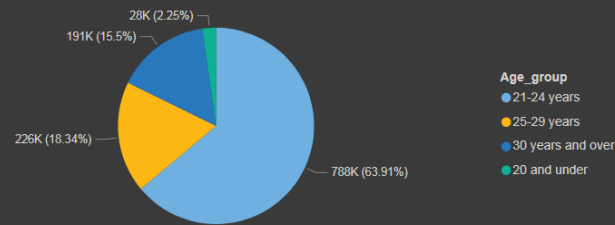


Industrial Jobs Type

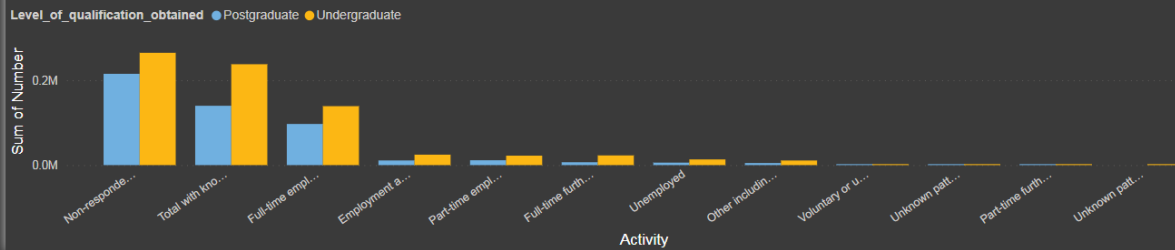


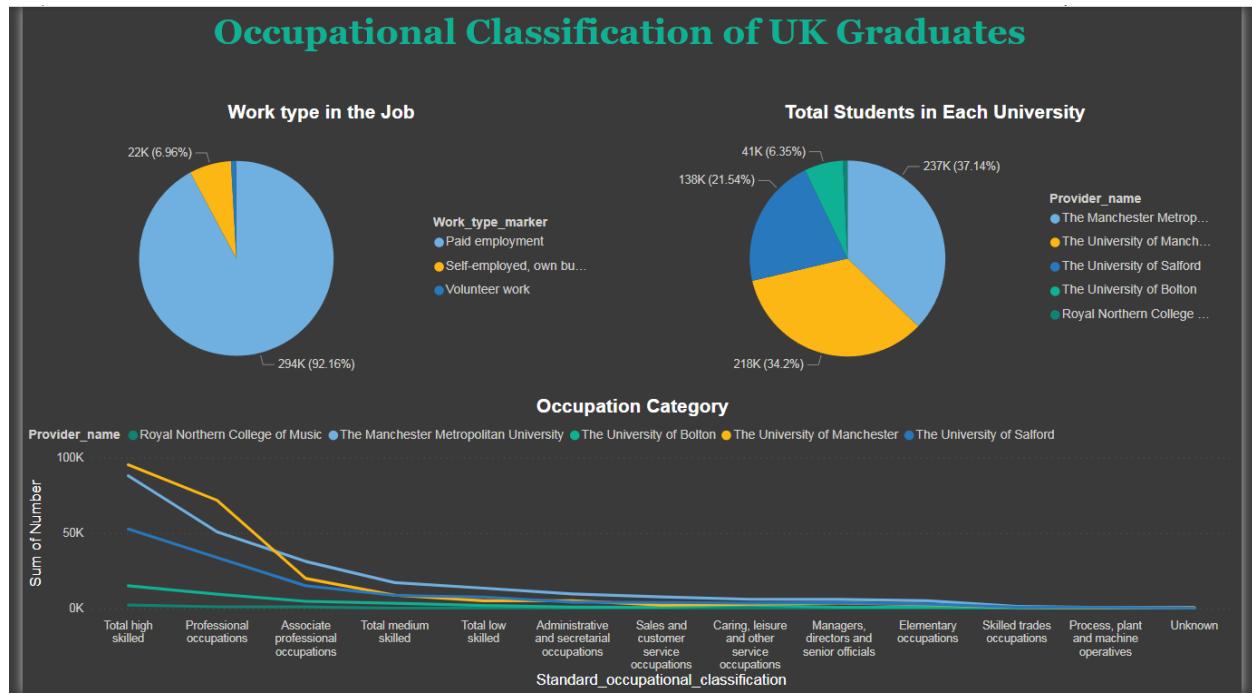
Age Group Distribution of Graduate Activities

Age



Students Activity





5.CONCLUSION

This dashboard analysis, based on the most recent UK Higher Education data, provides a comprehensive and analytical view of Higher Education Graduate Outcomes in Greater Manchester. The visualisations and slicers provide an excellent tool for analysing and making decisions in multiple dimensions. The following are the key findings and conclusions:

- Gender Perspectives
- Provider Analysis
- Age Group Perspective
- Work Type Exploration
- Temporal Analysis
- SIC Category Summation

This dashboard report provides users with valuable insights into gender diversity, institutional performance, demographic patterns, workforce trends, and industry outcomes, allowing them to make informed decisions and improve educational strategies and employment opportunities in Greater Manchester.

6. REFERENCES

<https://www.studyinmanchester.com/universities>

<https://www.data.gov.uk/dataset/37b401c3-1689-4f3c-bac4-b6cc39cdefa7/higher-education-graduate-outcomes-data>