Using IT Tools to Produce Management Information

Unit 3, Assignment 3

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Contents

1 Sourcing Data **2**
1.1 What Are We Looking for? 2
1.2 Checking the Source 2
1.3 Downloading the Data 2

2 Creating a Spreadsheet **3**

3 Validity **5**
3.1 Valid 5
3.2 Accurate 5
3.3 Relevant 5

4 Justification **6**

1 Sourcing Data

To produce the management information that has been requested, it is important to select reliable sources of data that are relevant to the requirements.

1.1 What Are We Looking for?

In this case, we are looking to produce information regarding employment statistics in the UK. A number of sources are available, however the most prominent and reliable is the Office for National Statistics (ONS). The ONS is a government department that is responsible for producing official statistics on a wide range of topics, including employment metrics.

1.2 Checking the Source

The quality of the data produced by the ONS is high. They commit to following the UK Statistic Authority's Code of Practice, as well as the sixteen commitments set out by the European Statistical System. These commitments by the ONS provide assurance that the data is of a high quality and is reliable.

1.3 Downloading the Data

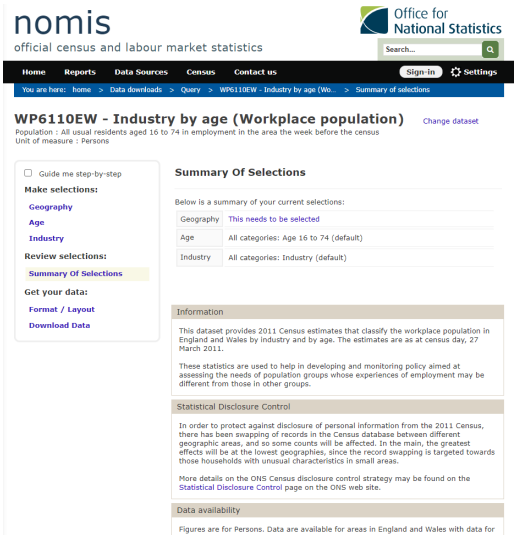

Figure 1: Querying a NOMIS dataset for download

Downloading the data we require is a simple process. The ONS provides a service called NOMIS, which allows users to view and download data regarding the national census and the labour market. In this case, we require a breakdown of occupation by age. We can find this by starting a query and selecting "Industry by Age." This is one very few datasets that also allows us to acquire a breakdown by region. Unfortunately, data regarding geographical areas smaller than these large regions is not easily available.

2 Creating a Spreadsheet

We can use spreadsheet software to analyse the data downloaded from NOMIS. Conveniently, NOMIS provides downloads in several common spreadsheet workbook formats, including Microsoft Excel. This means we do not have to apply any conversion steps before handling the data.

The content of the spreadsheet was split into individual areas. Each area had a table comprising the various age ranges and the number of them in different categories of employment.

Since the target demographic in this case is young professionals, rows referring to those over the age of 29 were removed, leaving only data for those 16–29. Figure 2 shows an example of how an area is represented in the NOMIS-generated spreadsheet, after adding an addition row for Totals.

WP6110EW - Industry by age (Workplace population)

ONS Crown Copyright Reserved [from Nomis on 25 January 2023]

population	All usual residents aged 16 to 74 in employment in the area the week before the census
units	Persons
date	2011
area type	regions
area name	East

Age	All categories: Industry	A, B, D, E Agriculture, energy and water	C Manufacturing	F Construction	G, I Distribution, hotels and restaurants	H, J Transport and communication	K, L, M, N Financial, Real Estate, Professional and Administrative activities	O, P, Q Public administration, education and health	R, S, T, U Other
Totals	619,075	11,278	42,694	51,593	204,827	49,043	92,930	132,067	44,333
Age 16 to 19	*111,995*	*1,511*	*4,360*	*6,314*	*62,308*	*3,766*	*9,495*	*13,316*	*11,915*
Age 20 to 24	*237,413*	*4,499*	*15,263*	*21,269*	*79,209*	*13,624*	*36,160*	*49,916*	*17,632*
Age 25 to 29	*269,667*	*5,358*	*22,381*	*24,979*	*63,310*	*22,653*	*47,365*	*68,835*	*15,686*

Figure 2: Employment by age in an area representing in the spreadsheet

Using these tables, we can create graphics such as charts to illustrate the data more clearly.

Figures 4 through 13 show the results of charting this data. The pie charts show the percentage of 16-to-29-year-olds employed in each category.

To find the region with the highest percentage of young people in professional work, I calculated the percentages of those working in the following areas of work for each:

H, J Transport and communication

K, L, M, N Financial, Real Estate, Professional and Administrative activities

O, P, Q Public administration, education and health

Figure 3 shows the percentage of those employed in the above categories by region.

Using this data, we can see that Greater London, the North East and the South East are the regions with the highest levels of young professional employment.

It is important to note that regions refer to very large areas, however, covering diverse populations and containing many towns and cities. Therefore, targeting regions may be too broad of a suggestion.

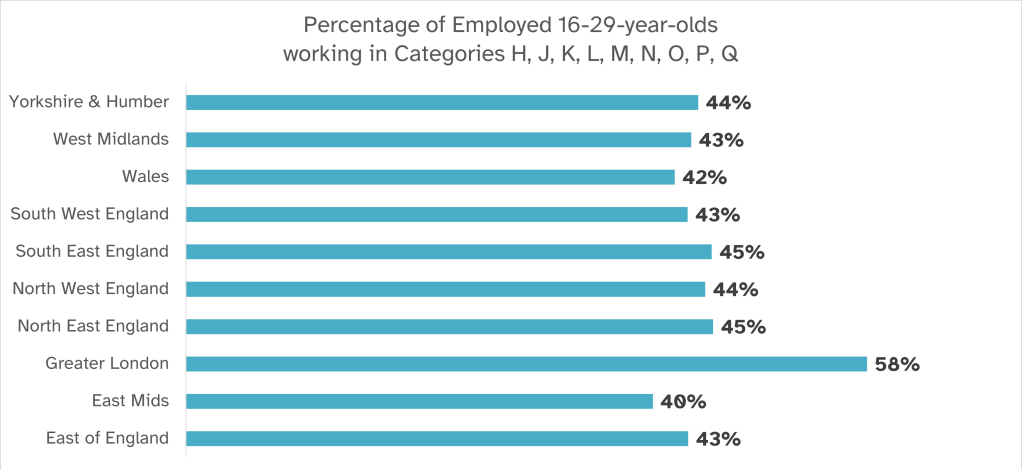

Figure 3: Percentage of employed 16–29-year-olds in professional work

3 Validity

The following section with analyse the validity, accuracy and relevancy of the management information created.

3.1 Valid

Nothing within the information appears to be unexpected. There are no unexplainable extreme figures or statistics presented, nor does the information differ from what was presumed. The largest effect on data validity would come from human error in modifying the data using spreadsheet software.

3.2 Accurate

The data comes from a trusted source, the Office of National Statistics, who abide by a rigorous set of commitments and standards. The dataset downloaded contains estimates which were made at the time of the 2011 Census.

3.3 Relevant

The requested information was the ideal locations within which to hold a roadshow aimed at young professionals. The dataset's information states that it could be used to "[assess] the needs of population groups whose experiences of employment may be different from those in other groups." This aligns with the goal here, where the aim was to locate areas with specific qualities.

4 Justification

This short report will justify the choice of source, dataset as well as the created management information. It will also discuss the relevancy to the goal of finding an appropriate location to hold the bank's roadshow.

The source of the data used to create the information is the Office of National Statistics. The ONS is a non-ministerial government department responsible for collecting statistics in the United Kingdom. They are most known for conducting the national Census every ten years. They are a source that can be trusted to provide valid information since they follow strict guidelines and codes of practice. For example, they have a continuous quality improvement strategy that states all the data they produce should be accurate and reliable. They commit to following the sixteen commitments of the European Statistical System as well as the Code of Practice for Statistics from the UK Government's Statistics Authority. Their data is used across many high-profile institutions, such as in other governmental departments, as well as in reports and newspapers.

The dataset chosen from the ONS is "Industry by Age (Workplace Population)." This dataset contains information about the number of people in each age group who are employed in different industries. This data can be broken down by region, allowing us to find the number of young people in professional employment across the country.

The created management information is in the form of tables, bar charts and pie charts. The tables provide a detailed breakdown of information by age and by area, with total persons employed in each category by age in each area. The bar charts provide a glanceable summary of the areas with the highest percentage of young workers in professional employment. The pie charts are useful for viewing a breakdown of the workforce in each specific area. These visual summaries of the data are useful pieces of information that can be used to determining an appropriate location to hold the roadshow event.

Appendix: Charts

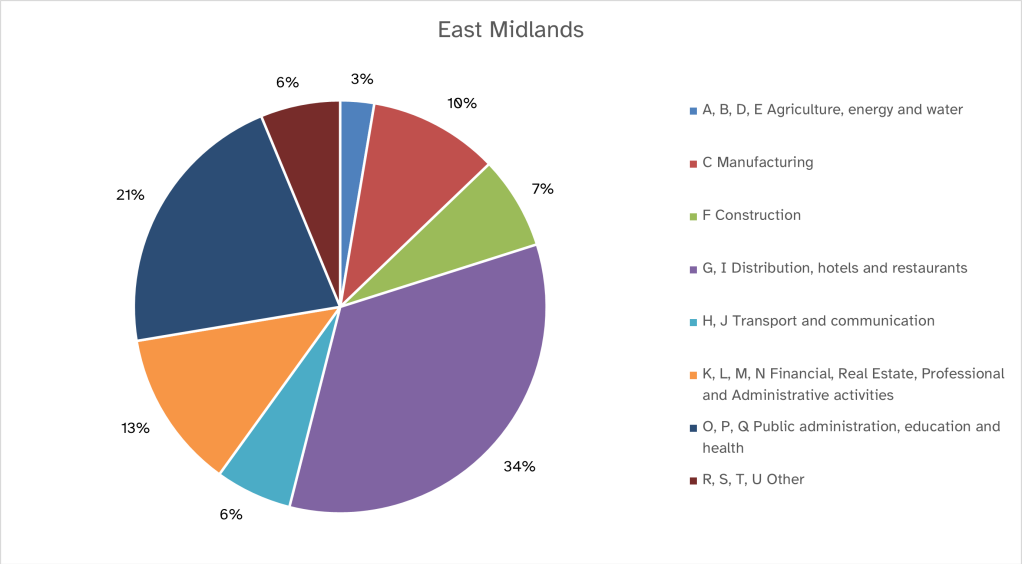

Figure 4: Employment categories of those in-work aged 16–29, in the East Midlands

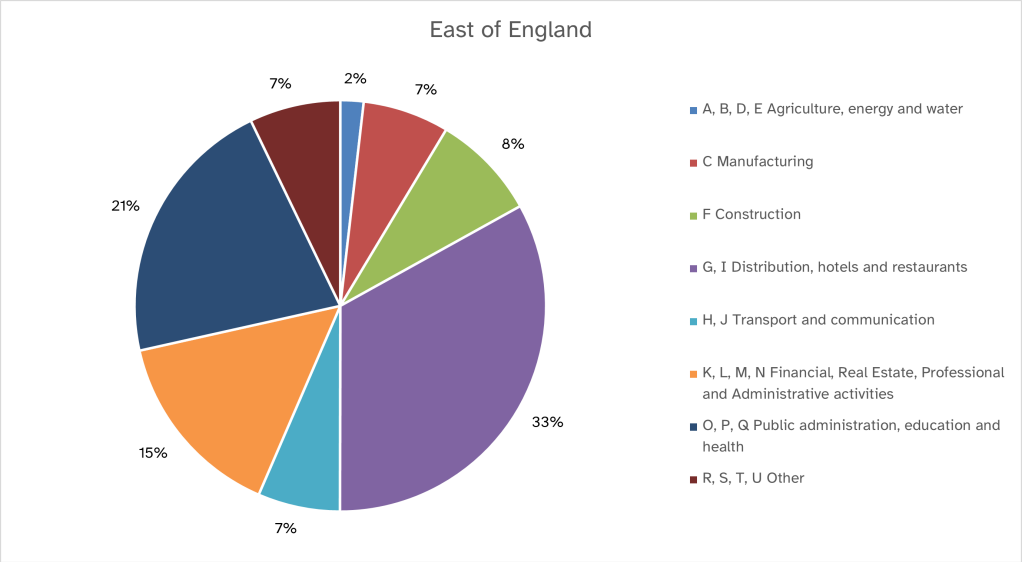

Figure 5: Employment categories of those in-work aged 16–29, in the East of England

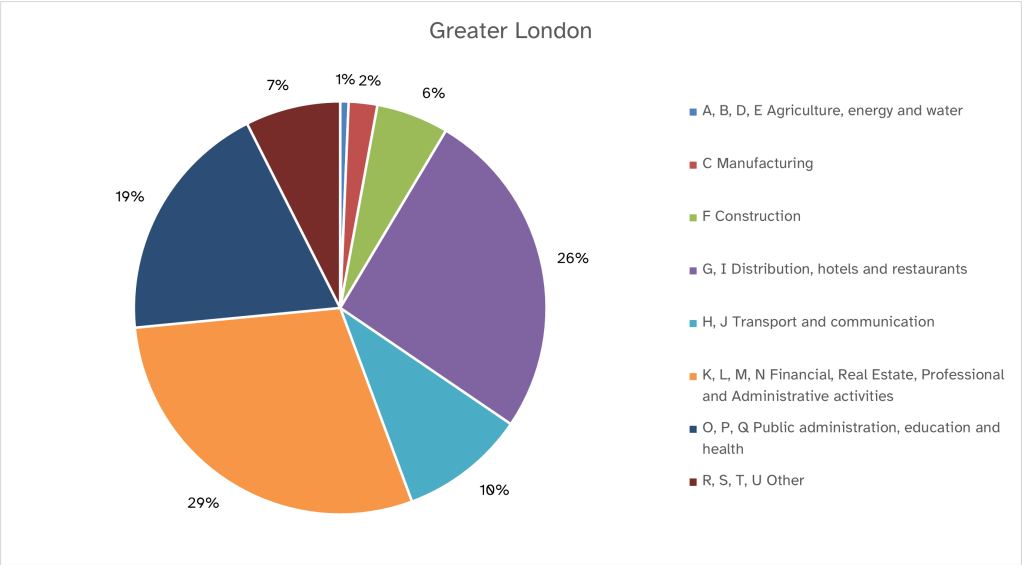

Figure 6: Employment categories of those in-work aged 16–29, in Greater London

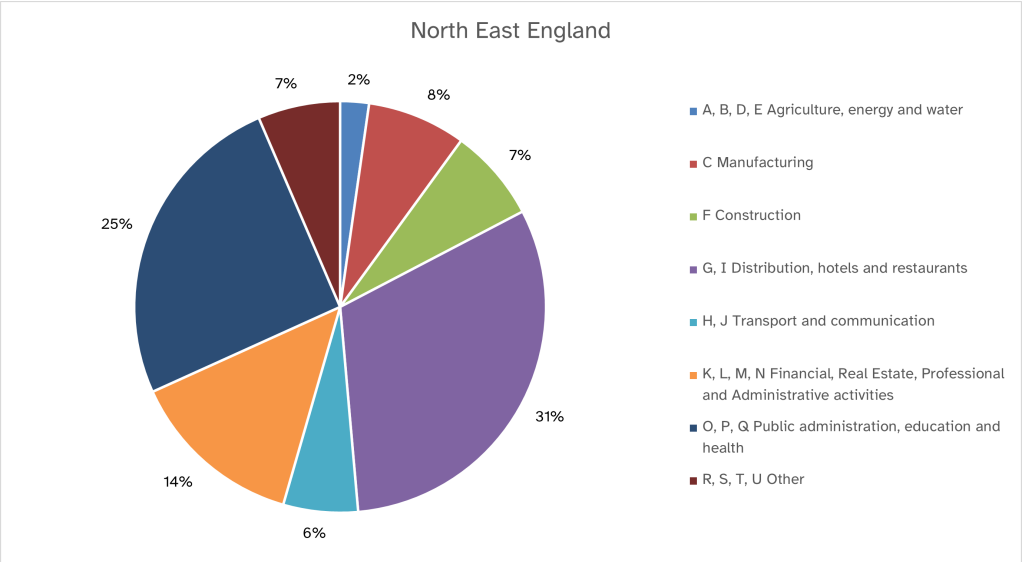

Figure 7: Employment categories of those in-work aged 16–29, in North East England

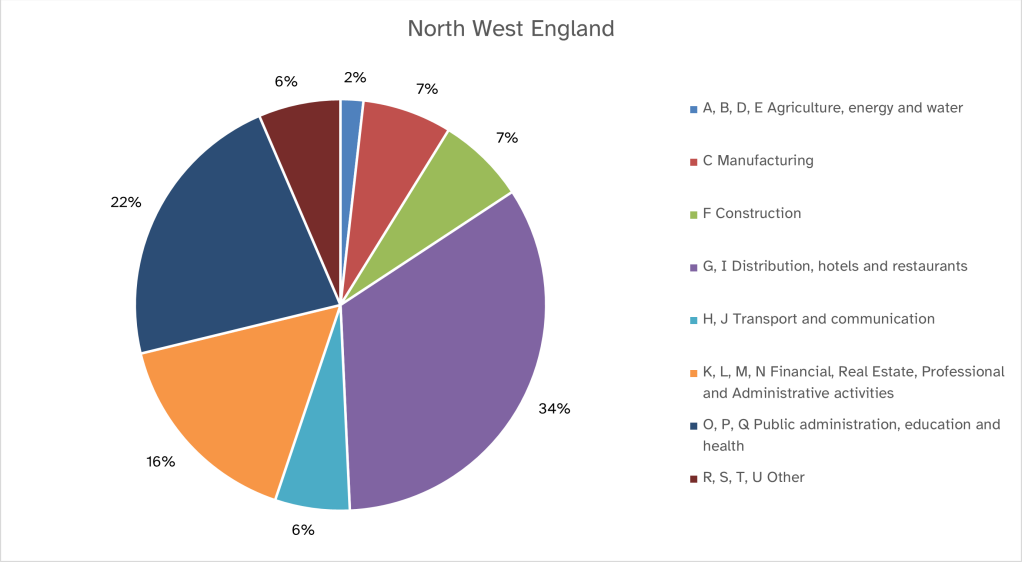

Figure 8: Employment categories of those in-work aged 16–29, in North West England

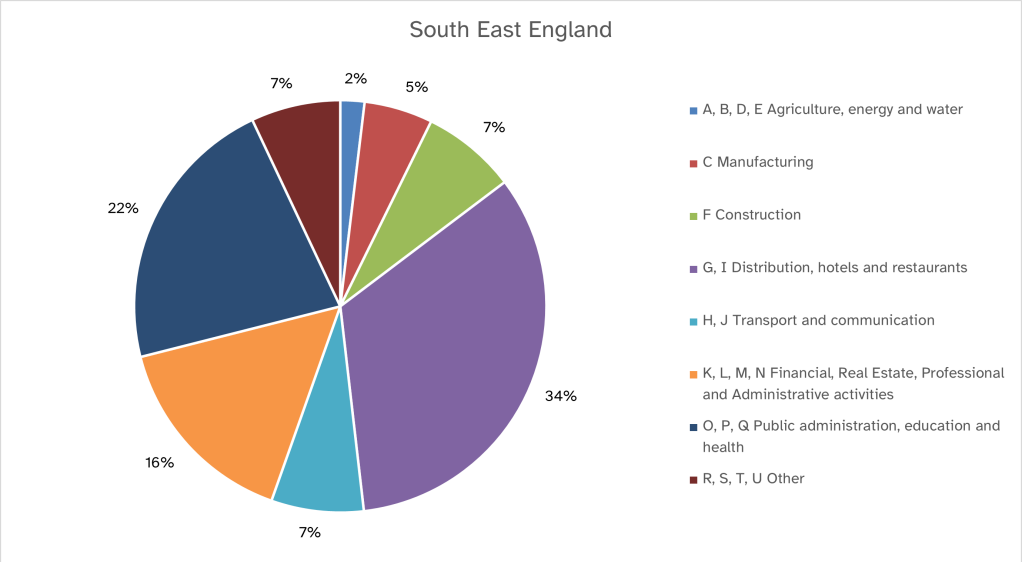

Figure 9: Employment categories of those in-work aged 16–29, in South East England

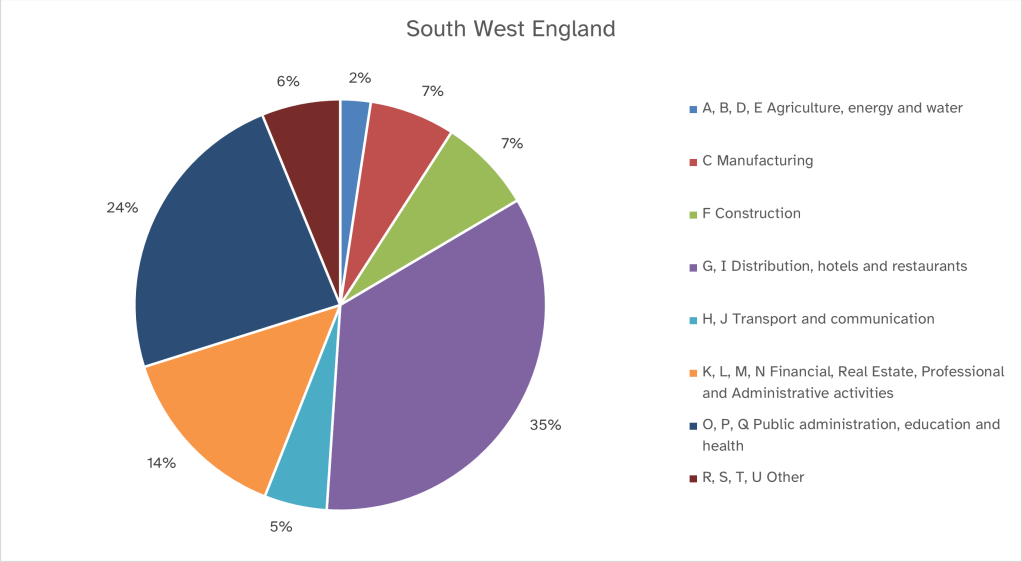

Figure 10: Employment categories of those in-work aged 16–29, in South West England

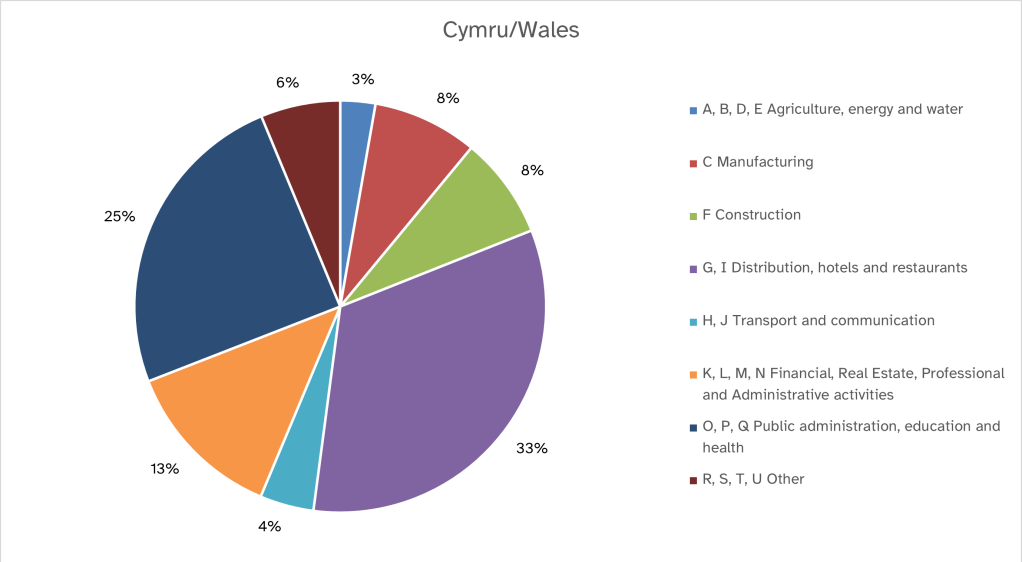

Figure 11: Employment categories of those in-work aged 16–29, in Wales

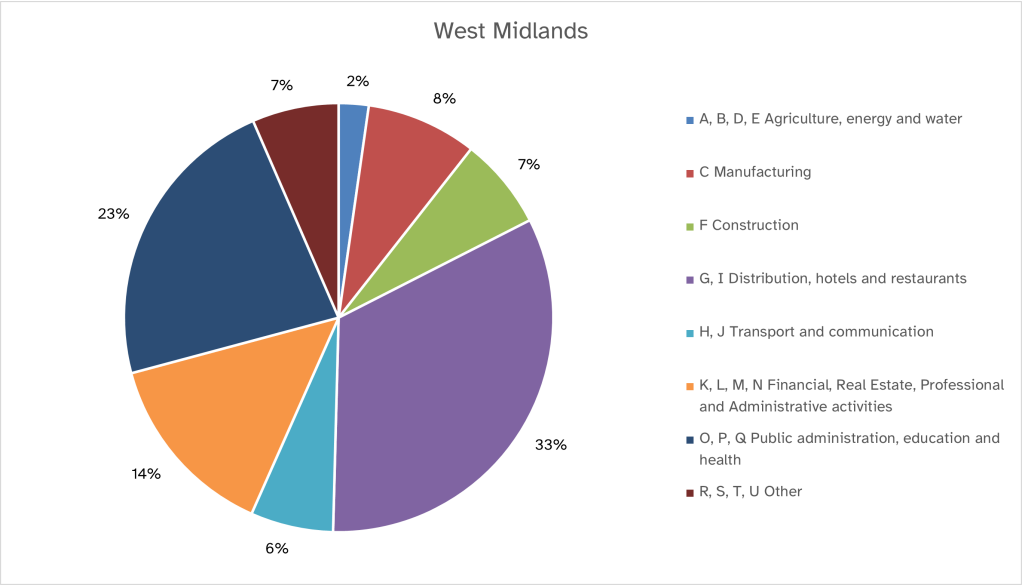

Figure 12: Employment categories of those in-work aged 16–29, in the West Midlands

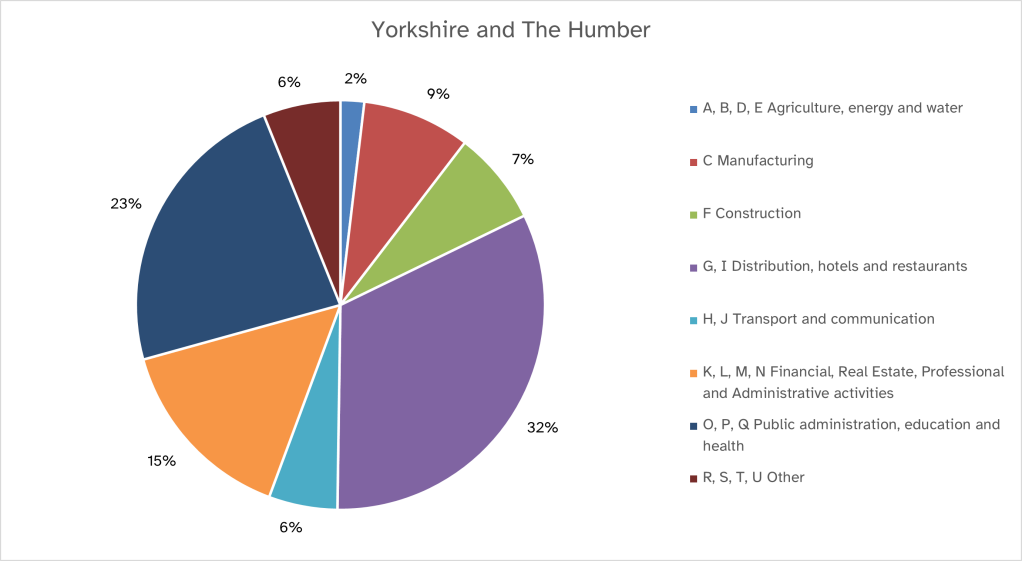

Figure 13: Employment categories of those in-work aged 16–29, in Yorkshire & The Humber