Skills Analysis Report

A report prepared for
Sheffield City Region

By

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Glossary

AEB	Adult Education Budget
ALL	Advanced learner Loans
BAME	Black and Minority Ethnic
BRES	Business Register and Employment Survey
CL	Community Learning
DfE	Department for Education
ESS	Employer Skills Survey
FE	Further education
GBSLEP	Greater Birmingham and Solihull LEP
GVA	Gross Value Added
HE	Higher education
HECSU	Higher Education Careers Services Unit
HESA	Higher Education Statistical Agency
IB	Incapacity Benefits
IDBR	Inter Departmental Business Register
IMD	Indices of Multiple Deprivation
ILAs	Individualised Learning Accounts
ILR	Individual Learner Record
ILO	International Labour Organisation
JSA	Jobseeker's Allowance
KS4	Key stage 4
KS5	Key stage 5
LCR	Liverpool City Region
LEED	Local Employment and Economic Development
LEO	Longitudinal Education Outcomes
LEP	Local Enterprise Partnership

LSOAs	Lower-layer Super Output Areas
MCA	Mayoral Combined Authority
NEET	Not in Employment, Education or Training
ONS	Office for National Statistics
pp	Percentage point
SAN	Skills Advisory Network
SAP	Skills Advisory Panel
SCR	Sheffield City Region
SEND	Special educational needs and disability
SIC	Standard Industrial Classification
SMC	Social Mobility Commission
SMI	Social Mobility Index
SOC	Standard Occupational Classification
STEM	Science, Technology, Engineering and Mathematics
TVCA	Tees Valley Combined Authority
UP	Upskilling Pathway
WMCA	West Midlands Combined Authority

1. Introduction

1.1. Introduction

Warwick University Institute for Employment Research was commissioned by Sheffield City Region (SCR) in February 2021 to produce its first Local Skills Report.

Each Mayoral Combined Authority (MCA) and Local Enterprise Partnership area has been requested by the Department for Education (DfE) to establish a Skills Advisory Panel (SAP), and to develop a skills analysis to inform their future work. DfE has published guidance on the format the skills report and data analysis should take.[1]

1.2. SCR skills report

In SCR, the SAP is called the Skills Advisory Network (SAN) and this report will assist the SAN in developing the skills dimension of SCR's education, skills and employability strategy, and the role of skills in the City Region's economic development strategy, and steering the sub region out of the economic and social impact of the pandemic.

This report follows the structure of DfE's analytical toolkit methodology and suggested data sources. This report provides an extensive analysis on the variable sources of data on the City Region skills landscape – skills supply, demand, and areas of alignment and mismatch. A shorter summary of the full analysis is included as Annex XX in the Local Skills Report which SCR submits to DfE.

Where information is available, the report analyses data on 2019 as the last year before the impact of the pandemic. For each indicator, the analysis provides a time series from 2014 to show the direction of travel pre-pandemic. Where possible data is provided for each of the four SCR local authority districts – Barnsley, Doncaster, Rotherham and Sheffield[2] – and England (in some case Great Britain and the UK). Data permitting, there are also comparisons with benchmark MCA/LEP areas – Liverpool City Region (LCR), Tees Valley Combined Authority (TVCA), and the West Midlands Combined Authority (WMCA).[3]

The impact of COVID-19 has been profound. However, because of the high level of Government support for people in work and businesses the true impact will only be felt when these forms of Government support are withdrawn. Where possible, analysis is provided to identify changes pre- and post-COVID, but this will only provide a partial indication of impact and the situation will need to be closely monitored through the coming months as lockdown and support are eased.

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[1] See https://www.gov.uk/government/publications/skills-advisory-panels

[2] Most of the data for SCR equates to the sum of the four local authority areas. However, a small amount of data covers the four local authority areas and parts of Derbyshire, where this geography is used we refer to the area as SCR LEP.

[3] LEP and MCA areas are coterminous for LCR and TVCA. WMCA is not, it covers three LEP areas: the Black Country LEP; part of Coventry and Warwickshire LEP; and Greater Birmingham and Solihull LEP (GBSLEP). Where LEP only data is provided, the GBSLEP is used as the comparator area for WMCA.

1.3. Structure of the report

The report is organised into four further sections focusing on:

- **Local landscape.** This section provides a background and context to the City Region and the four local authorities presenting data on the population, economic activity, unemployment and levels of deprivation;
- **Skills demand.** Section 3 provides an analysis of the main determinants and indicators of skills demand including enterprise activity, sectoral and occupational structure, productivity, earnings, employer's training behaviour and future employment trends;
- **Skills supply.** Section 4 presents and analyses data on the qualifications and destinations of young people, provision in the higher education (HE) sector, and publicly funded provision in the further education (FE) sector, as well as international migration trends;
- **Conclusions.** Section 5 provides the main summary and conclusions from the full report identifying areas of alignment and mismatch.

2. Local landscape

2.1. Introduction

This section provides an overview of the economic, demographic and skills structure and direction of the SCR MCA. It presents data for the four local authorities against the benchmark of the country as a whole. Comparisons are also made with similar MCA areas – Liverpool City Region, Tees Valley Combined Authority and WMCA. For the most part data is presented for 2019 (where the data allows) as the final whole year before the COVID-19 pandemic struck. A direction of travel is provided for the period from 2014 (where data allows) and a longer term perspective is available from economic and labour market analyses that SCR has produced since its inception in 2014.

2.2. Population

Key points:

- In 2019, 1.4 million people lived in the four City Region local authorities. Two out of five lived in Sheffield and the remainder split almost equally across the three other local authorities.
- Sheffield student population temporarily increases the number of 20-24 year olds, but otherwise the age distribution is similar across the local authorities.
- Two thirds of the population are of working age, a proportion that will decline as the average age of the population increases.
- Between 2019 and 2043 there are forecast to be modest population changes (2% overall).
- However, around 27,500 will leave the workforce than enter it.

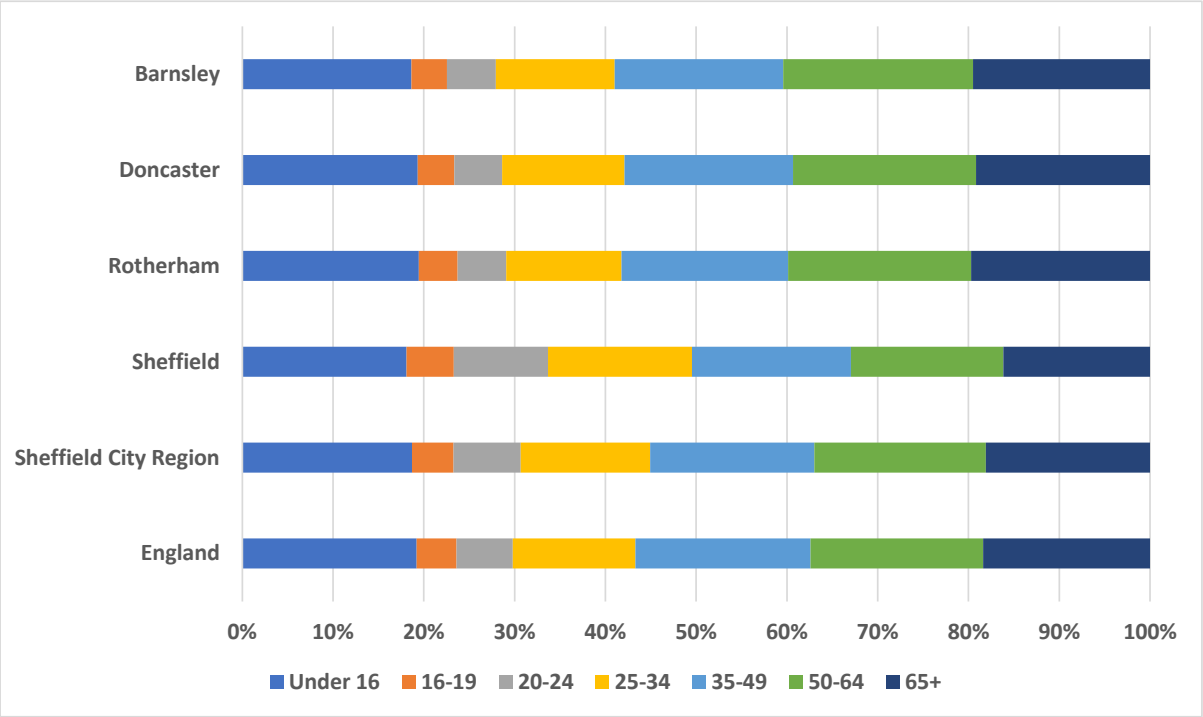
In 2019, there were just over 1.4 million people resident in the City Region.[4] The largest number lived in Sheffield (585,000 or 42%) with the remainder split almost equally between Doncaster (22%), Rotherham (19%) and Barnsley (18%). Just under two thirds (63%) of the City Region population is of working age (16-64), around one in five (19%) are aged under 16, and a similar proportion (18%) are aged 65 and over.

Figure 2 shows that the age structure of the population of the City Region and local authorities was similar. Sheffield had a higher proportion of people aged 16-64 (66%) compared to the other local authorities (62%), this was because Sheffield had a lower proportion of people aged 65 and over (16%) compared to the other districts (19%). The age profile of the City Region is almost identical to that of England.

Compared to the benchmark MCAs, the City Region is very similar to LCR and Tees Valley, whereas WMCA has a slightly younger population (21% are aged under 16) and fewer older people (17% are aged 65+).

[4] In the report we use City Region to refer to the SCR MCA geography which equates to the four local authority districts of Barnsley, Doncaster, Rotherham and Sheffield.

Figure 1: Population by age – the City Region, local authorities and England, 2019



Source: ONS Estimates of the population for the UK, England and Wales, Scotland and Northern Ireland 2020

Of the four districts, Doncaster is the most sparsely populated with 544 people per KM^2. Sheffield's population density was three times that of Doncaster (1,570 people per KM^2) with Barnsley (739) and Rotherham (919) in between. However, the City Region draws in a number of people from surrounding rural areas in Derbyshire within its broader travel-to-work area.[5]

The population of the City Region has risen over the past decade by 4% (2012-2018) and across all four districts. Barnsley saw the largest population increase (6%), and Doncaster and Rotherham the smallest (3%).

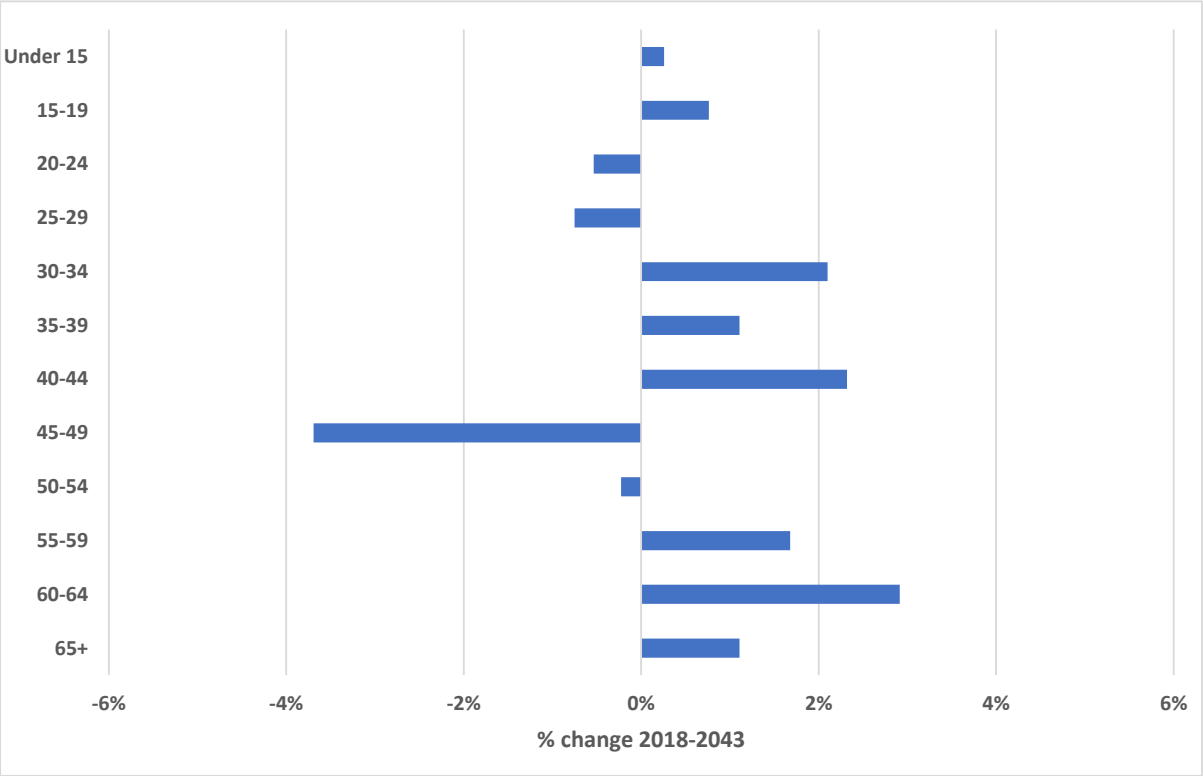
There are forecast to be modest population changes over the next 20 years (Figure 3), although population projections are likely to change in the wake of the pandemic. The total population of the City Region is expected to grow by less than 10,000 people to just under 1.5 million people by 2043, an increase of 2%.

Figure 3 shows that there are predicted to be changes in the age profile of the population. The number of older people (aged 65+) in the City Region is forecast to increase by only 0.5% and the number of children to increase by a similar amount (0.3%%). The number of people of working age is expected to increase by 0.5%.

The changing age structure has important implications for job opportunities for younger people. People leaving the workforce creates replacement demand for those entering the workforce (see Section 3.5). Over the next 20 years, more of the City Region population will leave the workforce than enter it, with an estimated net loss of 27,500 people of working age.

[5] Sheffield City Region (February 2016) European Structural & Investment Fund Strategy 2014-20.

Figure 2: Population forecasts – the City Region, 2019-2043



Source: ONS Population projections for local authorities: Table 2, March 2020

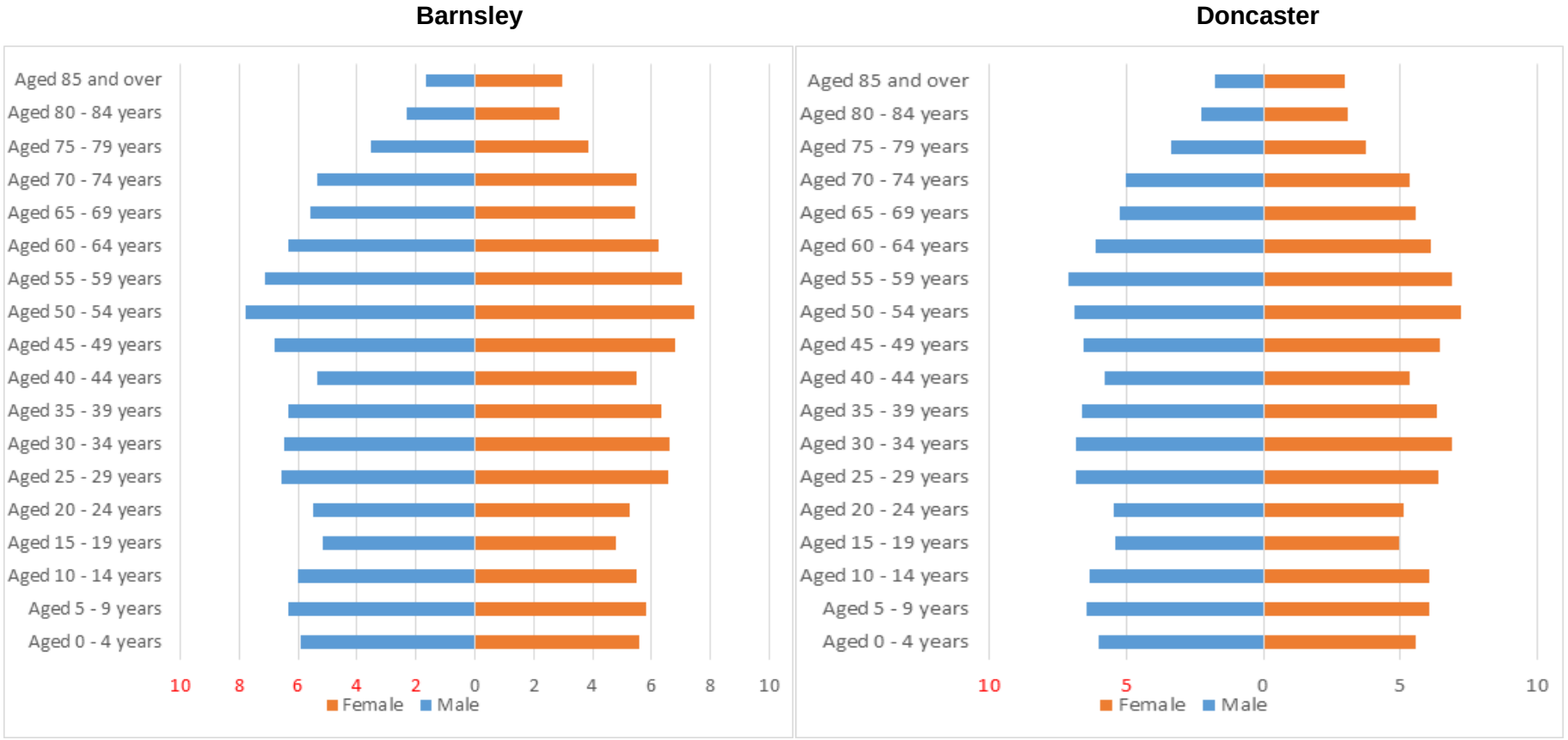
The ethnic composition of the population varies across the four local authority areas. Sheffield is closer to the England average in terms of the percentage of the population that is of White ethnic origin (84% and 85% respectively). In the other three local authority areas, more than nine in ten people are of White ethnic origin, with Barnsley having the highest proportion (98%).[6] The largest Black and Minority Ethnic (BAME) group is Asian/Asian British accounting for 8% of Sheffield's and 4% of Rotherham's population. In Sheffield 4% of the population is Black/African/ Caribbean/ Black British and 4% are 'other ethnic groups'. Elsewhere the other specific BAME groups represent less than 1% of the population.

Figure 4 shows the 'population pyramids' for the City Region, the four local authorities and England in 2018. The structure by age indicates how the workforce is likely to change in the future, as the various age group 'bulges' or 'constrictions' work through over time.

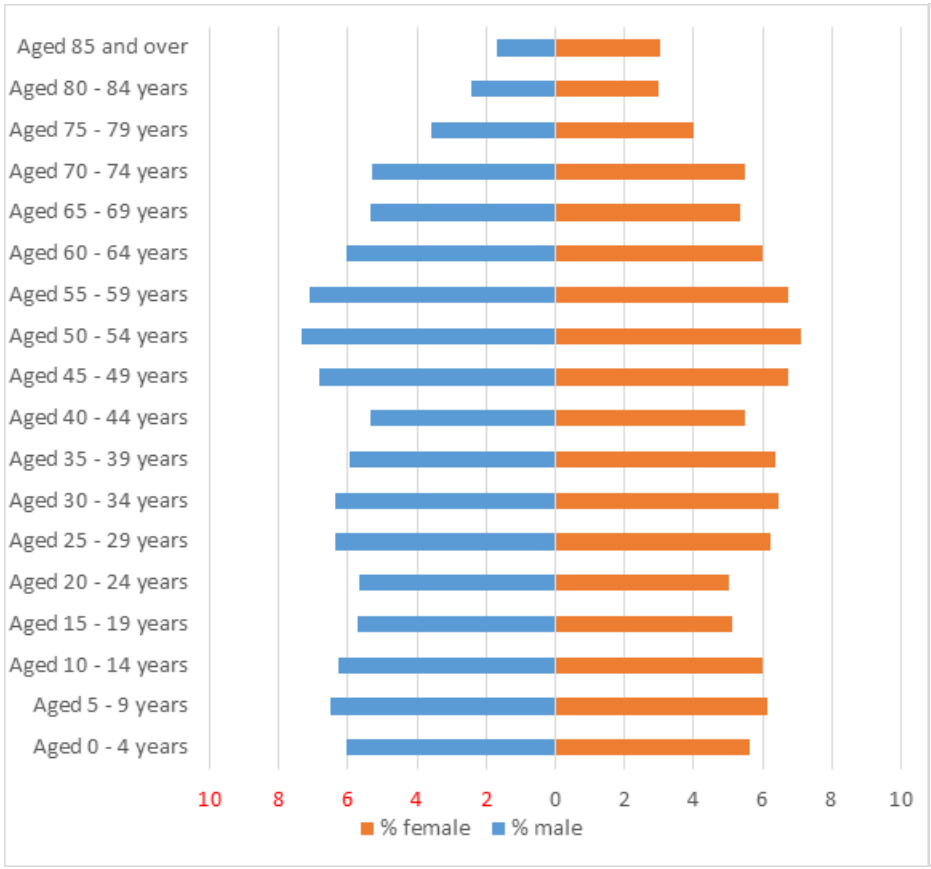
England has an ageing population, with a high percentage of older people and a narrower base. Such a pyramid is typical of a population with a low growth rate. The historical development of the population in terms of a series of 'baby booms' followed by 'baby busts' can be seen in the widening and narrowing of the pyramid with age. The post-war 'baby boom' accounts for the larger percentage of 70 to 74 year olds and the 'baby boom echo' of the 1960s is apparent in the higher percentage aged 50 to 54. The increasing number of children reflects low fertility in the noughties, followed by increasing birth rates.

[6] Ibid.

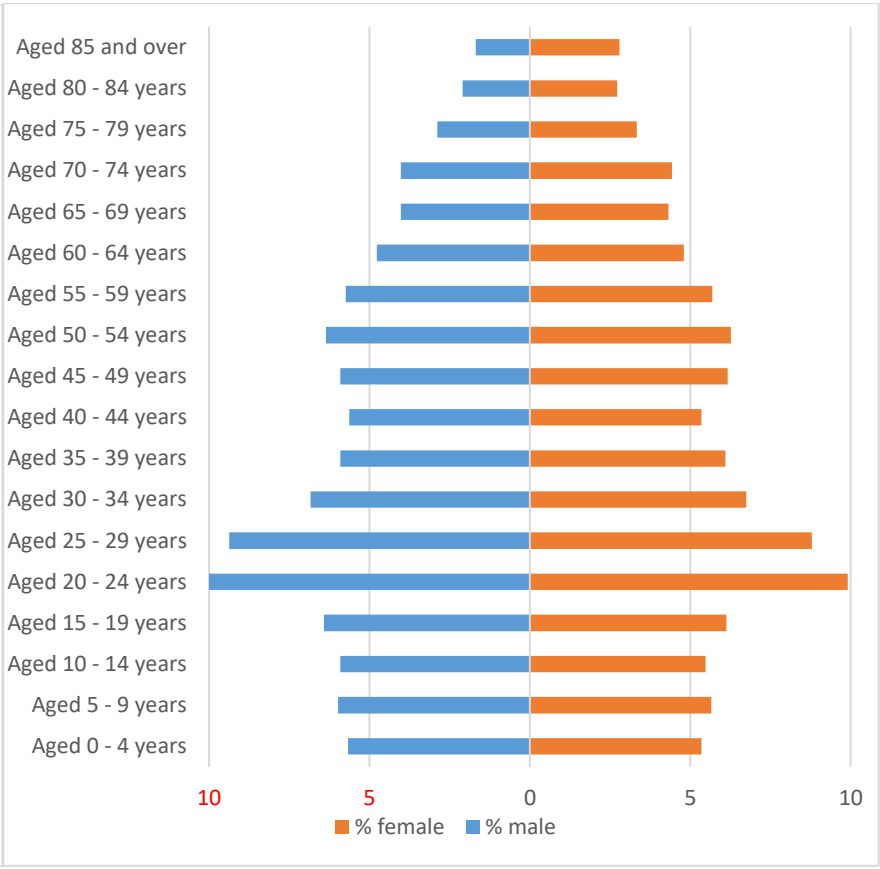
Figure 3: Population structure by age – the City Region, local authorities and England 2018



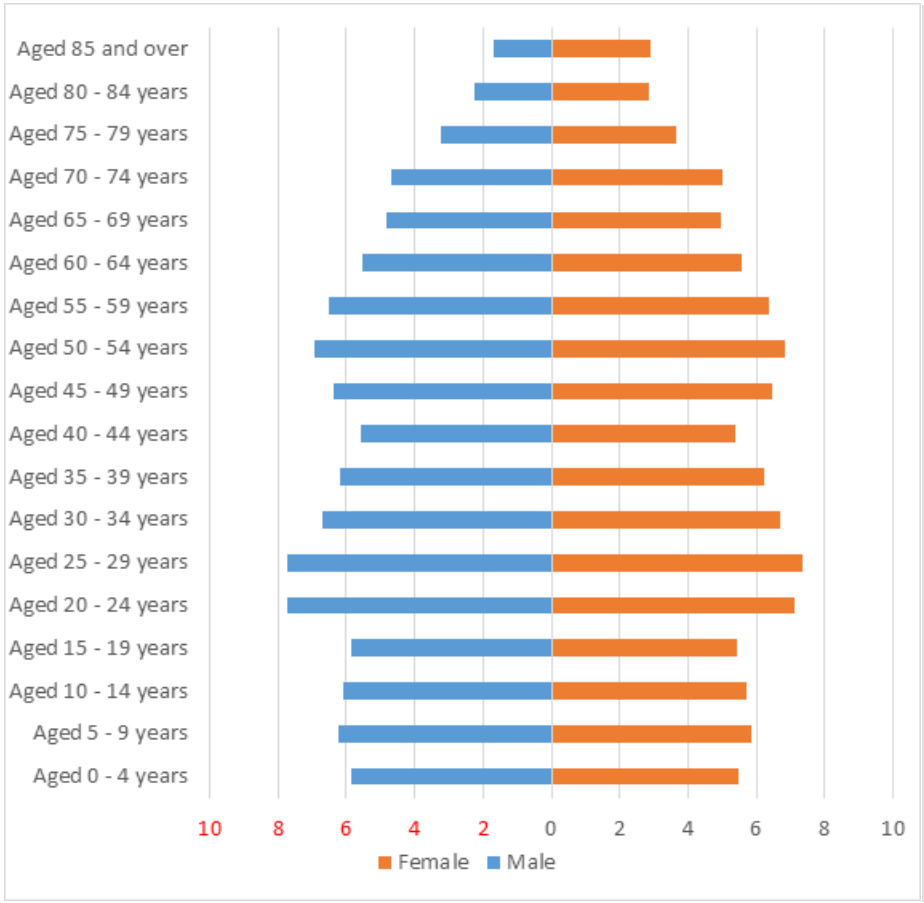
Rotherham



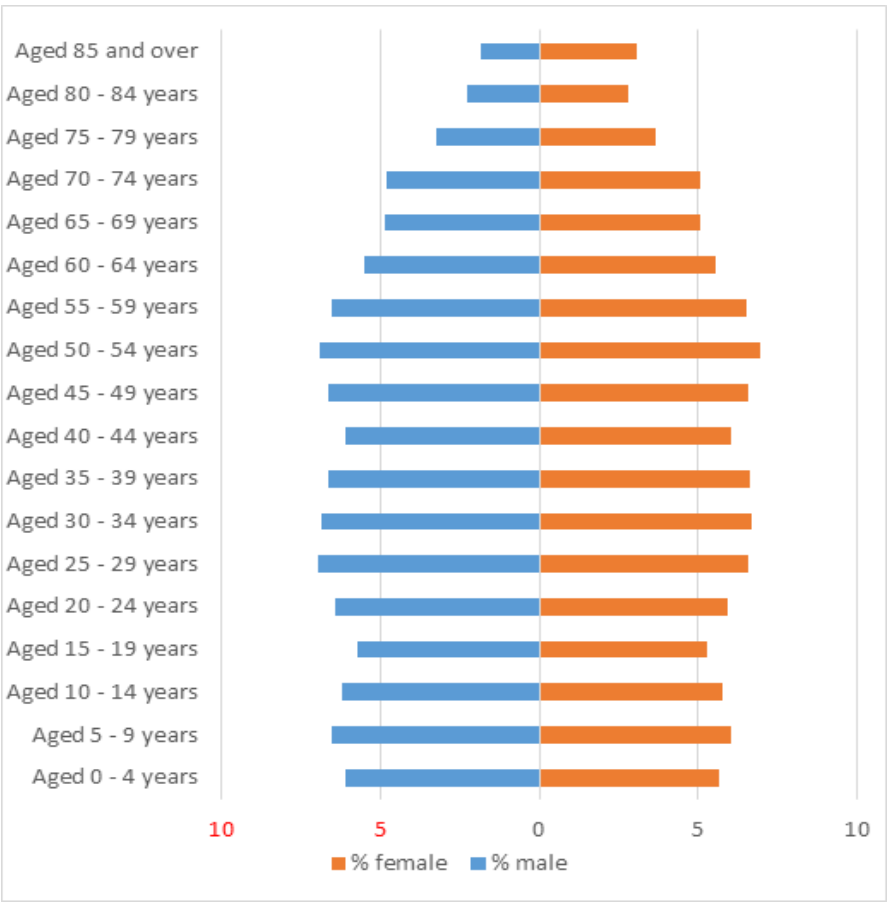
Sheffield



Sheffield City Region



England



In Figure 4, the overall shape of the pyramid for the City Region as a whole is similar to England, but the percentage of young adults is higher, and the base (0 to 4 year olds) is narrower than for England. The main factor underlying the difference is the much higher representation of young adults in the population of Sheffield. The unusually high percentage of both males and females aged 20 to 29 reflects the large number of university students living in the city. In contrast, there is a relative deficit of 15 to 24 year olds in the populations of Barnsley, Doncaster and Rotherham.

A common feature for the four local authorities is the relatively large percentage of people aged 50 to 59, outnumbering people aged in their sixties. Many people in these age groups will be moving into retirement during the period 2017 to 2027, which means that there will be an ongoing need for employers to recruit new workers over this period. The percentage of people above retirement age is slightly smaller than for England as a whole, which indicates relatively lower life expectancy in the City Region.

2.3. Economic activity and inactivity

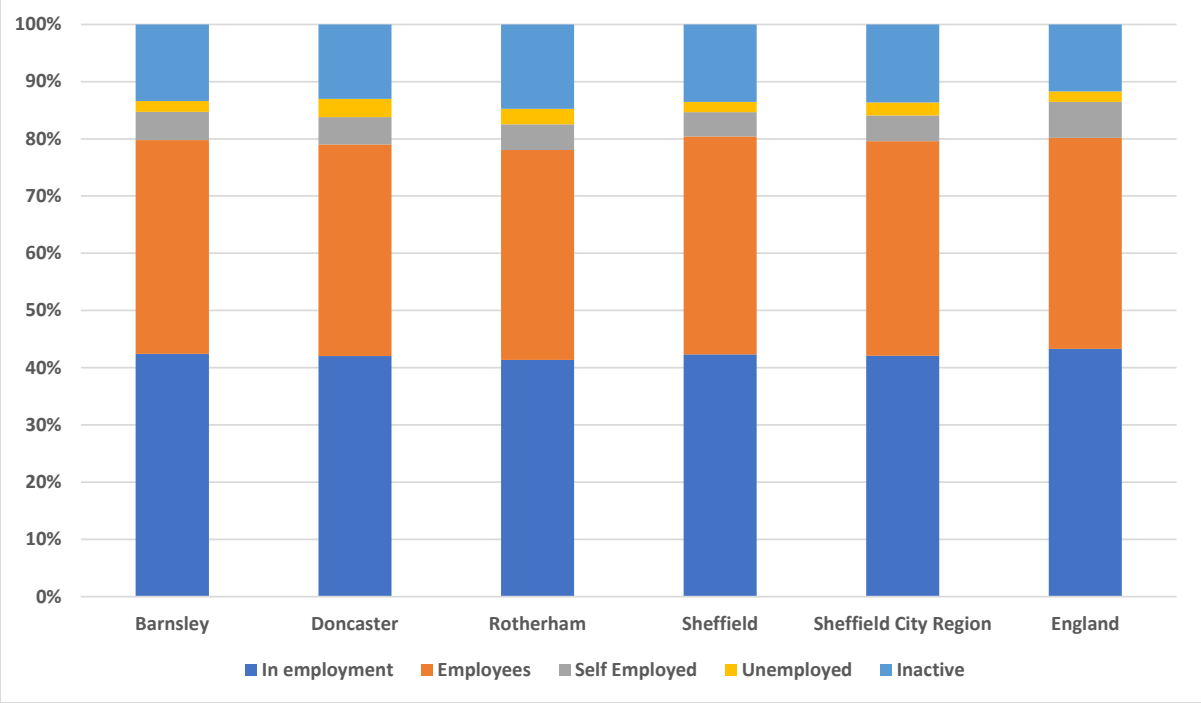
Key points:

- At 77%, the economic activity of the City Region working population is lower than that of England. All local authorities are below the national average.
- In part, the relatively high economic incativity rates are due to a higher incidence of people with long term health conditions (29% compared to 21% in England).
- Economic activity rates are lower for people of BAME origin and disabled people across England. This is also true for the City Region, but the gap between people of White ethnic origin and BAME people (17% in the City Region and 9% in England), and disabled and non-disabled people (25% and 21% respectively) is higher in the City Region than nationally.

In 2019/2020 (April 2019-March 2020) there were just under 900,000 people aged 16-64 in the City Region. Of these over three quarters (77%) were economically active (i.e. employed or unemployed) and 23% were economically inactive (e.g. students and retired people). Figure 5 shows the economic inactivity rate in the City Region ranged from 22% in Doncaster to 25% in Rotherham. All areas are above the economically inactive rate for England as a whole (21%).

Rotherham also has the lowest employment rate (70% compared to 73% in the City Region and 76% in England) and the highest unemployment rate (5%, 4% and 3% respectively).

Figure 4: Economic activity and inactivity – the City Region, local authorities and England, April 2019/March 2020



Source: IER analysis of NOMIS data based on the Annual Population Survey

The City Region has the tenth highest economic inactivity rate across all LEPs, with 23% of people aged 16 to 64 being economically inactive. This equates to around 266,500 individuals. The economic inactivity rate for the City Region has remained higher than the level for the UK since 2004 and the difference has been stable.[7]

The City Region has a high proportion of people who are economically inactive due to long-term health conditions (29% of economically inactive people) compared to 21%. The proportion is particularly high in Barnsley (31%) and Doncaster (33%), compared to Rotherham (26%) and Sheffield (24%). Another key difference is that a larger percentage of economically inactive people in the City Region want to work (31%) compared to England (22%).[8]

Economic inactivity is a significant and long term challenge with its roots in the areas industrial heritage, and underpins other economic indicators in this report especially levels of deprivation and poverty, and skill levels which tend to be clustered in particular communities.[9]

Economic activity and inactivity varies by population groups, as Figure 6 shows. In the City Region, the economic activity of people of White ethnic origin (78%) is higher than people of BAME origin (61%). Both of these figures are lower than the national average but the economic activity rate of people of BAME origin is much lower than the national average (61% in the City Region compared to 72% in England) compared to those of White ethnic origin

[7] Sheffield City Region (May 2019), Sheffield City Region Economic Evidence Base: Skills and Employment

[8] Ibid.

[9] Sheffield City Region (February 2016) European Structural & Investment Fund Strategy 2014-20.

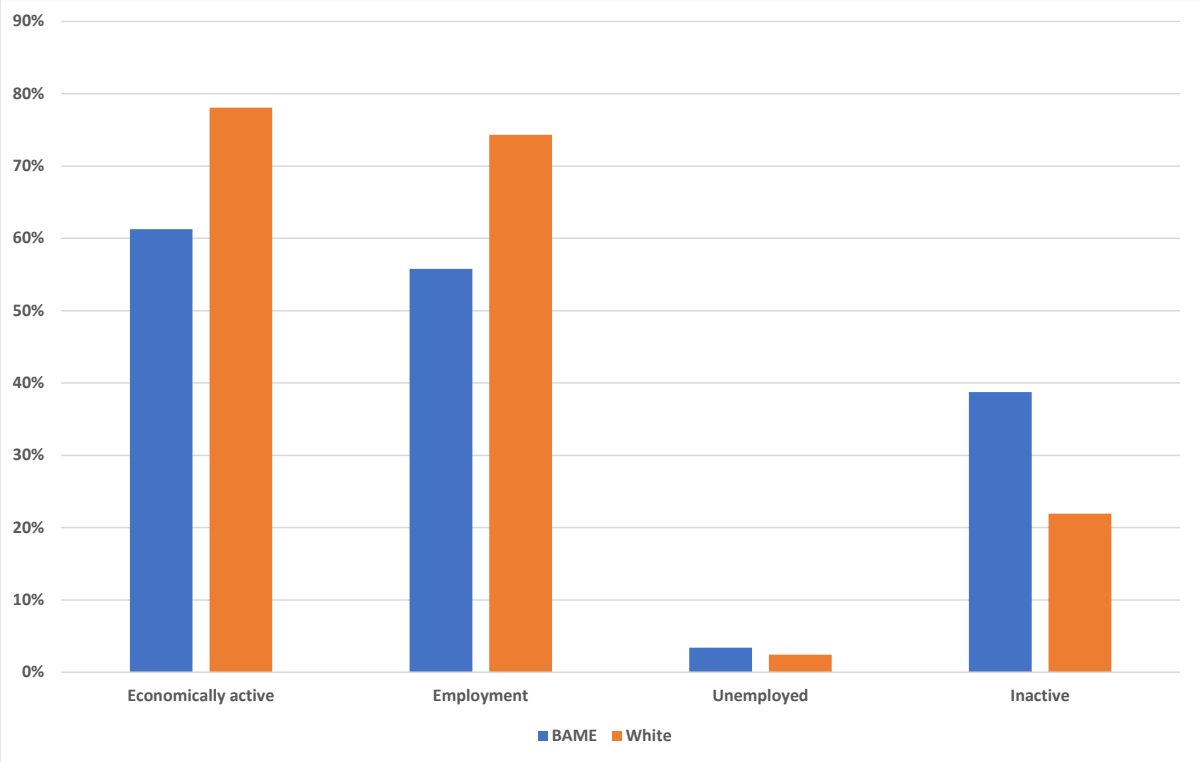
(78% and 81% respectively). Part of the reason may be that people of BAME origin are more likely to be students and caring for dependents.

Economic activity is related to age and qualification levels so some forms of inactivity (e.g. younger people who are more likely to be full-time students) will have longer term benefits whereas other types are more detrimental (such as inactivity related to health conditions more common amongst older people).[10][11] Rates of economic inactivity also vary significantly by gender across different ethnic groups. However, data is not available by specific age, ethnicity and gender groups.

There are similar discrepancies between different ethnic groups, and compared to England, for employment rates. In the City Region, employment rates are higher for those of White ethnic origin (74%) compared to those of BAME origin (56%). This is mostly due to higher economic inactivity rates rather than unemployment rates. The respective figures for England are 78% and 67%.

The unemployment rate for people of BAME, and White ethnic origin are very similar (3% and 2% respectively) and the same as the national average.

Figure 5: Economic activity and inactivity by broad ethnic group – the City Region April 2019/March 2020



Source: IER analysis of NOMIS data based on the Annual Population Survey

Disabled people[12] are much more likely to be disadvantaged in the labour market compared to non-disabled people as Figure 7 shows. In the City Region, disabled people are twice as

[10] Sheffield City Region (2016), LMI Report.

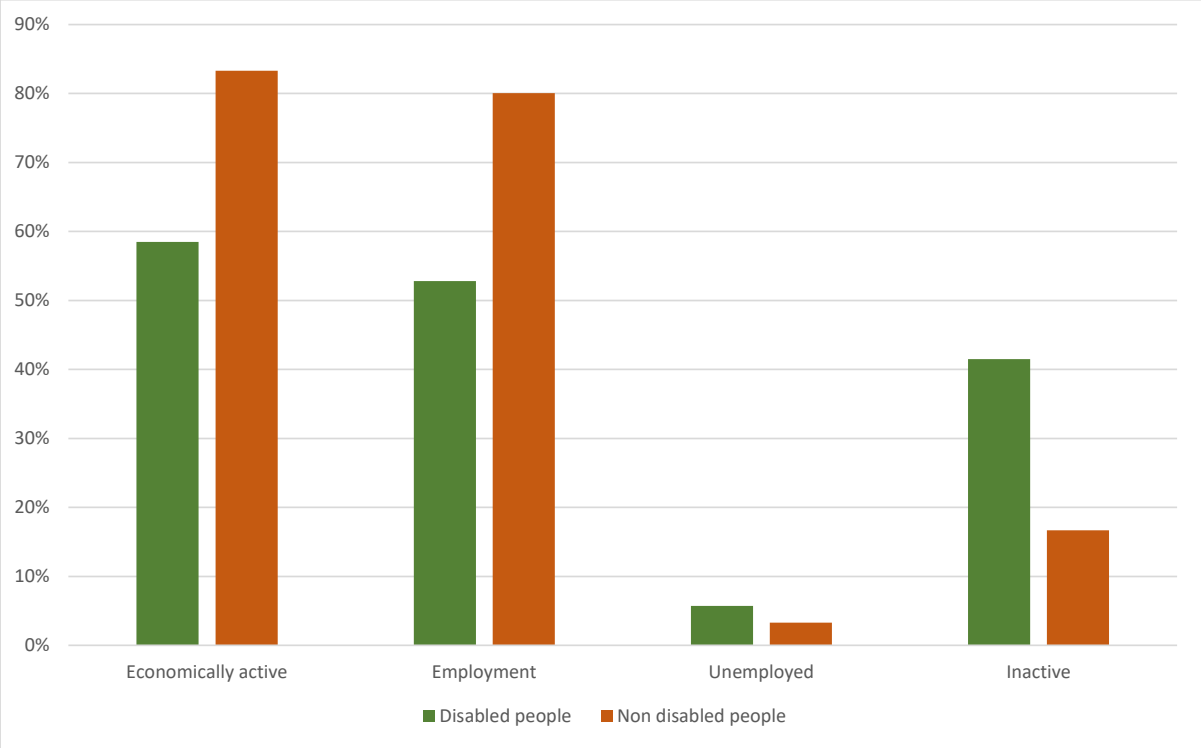
[11] Sheffield City Region (February 2016) European Structural & Investment Fund Strategy 2014-20.

[12] As defined by the Equality Act 2010 i.e. a physical or a mental condition which has a substantial and long-term impact on your ability to do normal day to day activities.

likely to be unemployed (6% compared to 3% for non-disabled people), economically inactive (41% compared to 17%), and much less likely to be in employment (53% compared to 80%).

Compared to England, disabled people in the City Region are more likely to be economically inactive (41% compared to 39% in England), less likely to be in employment (53% and 56%) and more likely to be unemployed (6% and 4%).

Figure 6: Economic activity and inactivity by disability – the City Region April 2019/March 2020



Source: IER analysis of NOMIS data based on the Annual Population Survey

2.4. Unemployment and deprivation

Key points:

- ILO measure of unemployment shows:
  - Higher levels of unemployment in the City Region (6.4%) when compared to Great Britain (4.7%) but decreasing more slowly, this is due to higher levels in Sheffield;
  - Young people's unemployment (20.3%) is much higher than other age groups (5.1%). The unemployment rate of 20-24 year olds in Doncaster (25.6%) and Rotherham (17.5%) is especially high;
  - Young people's unemployment not falling as fast as that in other age groups in most City Region areas;
  - The unemployment rates for people of BAME origin (9.1% and 4.8%) and disabled people (9.8% and 3.9%) are twice that of their comparator groups.
- Claimant count measure shows:

- A narrower unemployment range (3.4% to 4.0%) when across the local authorities when compared to England (4.0%) and falling faster in the City Region;
- Just under one third of the City Region households claim in-work benefits, higher than the national average especially in Doncaster;
- Higher levels of households claiming out of work benefits (10.7%) and higher than the national average (8.2%) , especially in Barnsley (11.9%).

- Deprivation and social mobility
  - Compared to the comparator LEP areas the City Region has lower levels of deprivation on the income and employment measures;
  - However, much higher levels of deprivation on the education, skills and training indicator, especially in Doncaster;
  - On the social mobility scores, there are a wide range of scores across the local authorities and LEP areas;
  - The City Region and the local authorities have lower rankings on the youth and adulthood indicators. Youth social mobility is particularly low in Barnsley and Doncaster.

There are two main measures of unemployment: the International Labour Organisation (ILO) definition[13]; and the claimant count. The introduction of Universal Credit has removed the distinction between benefits supporting who are not working but are seeking work, and those who are in receipt of benefits for some other reason, such as disability. Since the Financial Crisis, levels of unemployment initially rose but then fell due to an improving economy but also because of changes in the requirements and conditionality placed on claimants.[14]

2.4.1. Total unemployment

Table 1 presents unemployment data from the APS (according to the ILO definition) for the City Region using a two year average of the data (because of seasonal fluctuations). The two year average in the City Region was 42,100 people (16-64 year olds) or 6.4% of the economically active workforce. The unemployment rate varied across the City Region with Sheffield having the highest unemployment rate (6.6%) and Rotherham the lowest (5.9%). All the City Region local authority areas had unemployment rate higher than the average for Great Britain (4.7%).

All areas saw a significant decline in levels of unemployment as Table 1 shows. Doncaster and Rotherham both saw rates of decline higher than across Great Britain. Barnsley and Sheffield saw large falls but below the national average. Overall over the period, unemployment in the City Region fell by 52%.

[13] The LFS uses the International Labour Organisation's (ILO) definition of unemployment includes people not in employment who have been actively seeking work in the past four weeks and are available to start work in the next two weeks; or who have found a job and are waiting to start it in the next two weeks.

[14] Beatty, C. et al (April 2019), Embedding inclusive growth in the Sheffield City Region. Sheffield City Region.

Table 1: Unemployment rate and percentage change – the City Region, local authorities and Great Britain

	Average % 2016-18	% change 2010-2012 to 2016-18
Barnsley	6.3	-44%
Doncaster	6.4	-76%
Rotherham	5.9	-79%
Sheffield	6.6	-33%
City Region	6.4	-52%
Great Britain	4.7	-62%

Source: SCR Inclusive Growth Indicators based on the Annual Population Survey

A significant problem in the past has been the length of time people remained unemployed. In 2016, whilst 16% of unemployed people were unemployed for less than 6 months, almost one in five (18%) had been out of work for 2-5 years, and almost half (47%) had been unemployed for five or more years. The longer someone is unemployed the more difficult it is for them to re-enter the labour market.[15] Periods of very long term unemployment (2 years+) increase with age, especially for the over 45 age group.

2.4.2. Unemployment by demographic group

Table 2 shows the most recent unemployment data in the 12 months before the pandemic lockdown in April 2020. Across the City Region, the unemployment rate was 5.1% which is above the rate for Great Britain (4.0%) but a narrower gap than shown in Table 1 above. When compared to similar MCA areas, the City Region tends to sit just above LCR, but below Tees Valley and WMCA.

Table 2 also shows the unemployment rate by age group as a proportion of the 16-64 economically active population. Comparisons between the City Region and Great Britain show very similar unemployment rates with less than one percentage point (pp) difference for most age groups. The main exception is 20-24 year olds where the difference is 3.3pp.

There are significant differences within the City Region between the different local authorities. This data is based on a survey and so sampling error may account for some of the variation (although the APS is a large sample survey). Unemployment rates amongst 16-19 year olds in Barnsley and especially Rotherham are much higher than in other areas. In Doncaster and Rotherham, unemployment amongst 20-24 year olds is also much higher than in other areas, whilst in Barnsley and Sheffield it is lower than the national average. In Doncaster and Rotherham, 22% of 16-24 year olds are unemployed compared to 10% in Barnsley, and is almost double the Great Britain average (12%).

Young people's unemployment was a significant issue after the Financial Crisis, and evidence suggests that the COVID-19 pandemic will impact on the employment prospects of young people much greater than other age groups. In the period after the Financial Crisis the number of unemployed young people (18-24) more than doubled, and the unemployment rate for

[15] Sheffield City Region (2016), LMI Report

young people was twice that of older people[16]. Furthermore, in the post-Financial Crisis recession, young people found it difficult to establish themselves in the labour market, especially those with no or low level qualifications. This translated quite quickly into young people experiencing lengthy and lengthier periods of unemployment[17].

Table 2: Unemployment rate by age group – the City Region, local authorities and Great Britain April 2019 to March 2020

	Barnsley	Doncaster	Rotherham	Sheffield	City Region	Great Britain
16-19	20.6%	13.3%	35.3%	NA	20.3%	18.0%
20-24	5.2%	25.6%	17.5%	8.2%	12.6%	9.3%
25-34	3.5%	3.8%	#VALUE!	2.8%	3.0%	3.5%
35-49	4.1%	3.6%	4.1%	3.8%	3.8%	2.6%
50-64	NA	5.4%	3.3%	3.4%	3.5%	2.6%
Total 16-64	**4.2%**	**7.0%**	**6.1%**	**4.1%**	**5.1%**	**4.0%**

Source: IER analysis of NOMIS data based on the Annual Population Survey

Table 3 shows that there were double digit percentage declines in the number of unemployed people in most age groups in each of the areas. There were large increases in the number of unemployed people aged 50-64 years old in Doncaster (33%) and Rotherham (27%). Barnsley had an increase of 8% in 16-19 unemployed people, and Rotherham had an increase of 5% in the number of unemployed 20-24 year olds.

Table 3: Unemployment change by age group – the City Region, local authorities and Great Britain 2014/15 to 2019/20

Percent change 2014-2019	Barnsley	Doncaster	Rotherham	Sheffield	City Region	Great Britain
16-19	8%	-74%	-36%	-	-60%	-34%
20-24	-33%	-15%	5%	-62%	-35%	-30%
25-34	-47%	-56%	-	-47%	-54%	-34%
35-49	-58%	-39%	-35%	-10%	-33%	-37%
50-64	-	33%	27%	-25%	-9%	-23%
Total 16-64	**-43%**	**-33%**	**-28%**	**-49%**	**-40%**	**-32%**

Source: IER analysis of NOMIS data based on the Annual Population Survey

Table 4 shows unemployment by broad ethnic group an disability as a proportion of the 16+ economically active population:

- **Unemployment by broad ethnic group.** The unemployment rate for people of BAME origin (9.1%) is almost twice as high than for people of White ethnic origin (4.8%). Both rates are higher when compared to Great Britain but the gap is larger in the City Region.

[16] Sheffield City Region (February 2016), European Structural & Investment Fund Strategy 2014-20

[17] Ibid.

- **Unemployment by disability.** The unemployment rate for disabled people in the City Region (9.8%) is more than twice as high as the rate for non-disabled people 3.9%. The rate for disabled people in Great Britain is lower (7.2%) but the gap between disabled and non-disabled is very similar to the City Region. The gap between the unemployment rate for disabled people is greatest in Rotherham and Sheffield.

Higher unemployment rates for people of BAME origin and disabled people historically are higher than average, especially for the latter group.[18]

Table 4: Unemployment rate by ethnicity and disabled group – the City Region, local authorities and Great Britain April 2019 to March 2020

	Barnsley	Doncaster	Rotherham	Sheffield	City Region	Great Britain
BAME origin	-	-	-	-	9.1%	6.9%
White ethnic origin	-	-	-	3.2%	4.8%	3.4%
Disabled people	5.7%	11.7%	11.7%	9.4%	9.8%	7.2%
Non-disabled people	3.8%	5.5%	4.6%	2.9%	3.9%	3.4%
All 16+	4.2%	6.9%	6.1%	4.2%	5.1%	4.0%

Source: IER analysis of NOMIS data based on the Annual Population Survey

Table 5 shows that there have been increases in the number of unemployed disabled people in three of the City Region districts – Doncaster, Rotherham and Sheffield. In the City Region the number of unemployed disabled people rose by 2% which compares with a fall of 20% nationally, and a fall of 53% in the number of City Region non-disabled people. In all other categories, the number of unemployed people fell at a greater than in Great Britain.

Table 5: Unemployment change by ethnicity and disabled group – the City Region, local authorities and Great Britain 2014/15 to 2019/20

	Barnsley	Doncaster	Rotherham	Sheffield	City Region	Great Britain
BAME origin	-	-	-	-	-47%	-19%
White ethnic origin	-	-	-	-	-38%	-35%
Disabled people	-52%	27%	3%	15%	2%	-20%
Non-disabled people	-41%	-49%	-42%	-64%	-53%	-36%
All 16+	-43%	-33%	-28%	-49%	-40%	-32%

Source: IER analysis of NOMIS data based on the Annual Population Survey

2.4.3. Claimant count

The preceding sections are based on the ILO definition of unemployment, but other sources of data are available, for example, the claimant count. The claimant count used be based on the number of people claiming Jobseeker's Allowance (JSA) but with the introduction of

[18] Sheffield City Region (May 2019), Sheffield City Region Economic Evidence Base: Skills and Employment

Universal Credit the definition includes JSA claimants and those in the Universal Credit 'Searching for Work' conditionality group. The combined figure is known as the alternative claimant count.

In 2019 the alternative claimant count in the City Region numbered 31,735 (this is the average monthly total for the year), and this compared with 34,500 according to the ILO definition. The City Region percentage is only just below the figure for England (Table 6). Across the City Region, the alternative claimant count rate varies from 3.4% in Sheffield to 4.0% in Doncaster. The City Region has a lower level of the alternative claimant count compared to the three comparative MCA areas.

Similar to the ILO figure, the number of people in the alternative claimant count category fell significantly in the five years to 2019. In the City Region, the number fell by -34% compared to -24% for England. The decline in all the City Region local authorities was greater than the England average. The decline in the City Region was also larger than in the comparable MCA areas.

Table 6: Alternative claimant count precent and percentage change – the City Region, local authorities and Great Britain

	% 2019	% change 2014-15
Barnsley	3.7%	-30%
Doncaster	4.0%	-34%
Rotherham	3.8%	-37%
Sheffield	3.4%	-34%
City Region	3.7%	-34%
England	4.0%	-24%

Source: SCR Core Indicators Data, February 2021

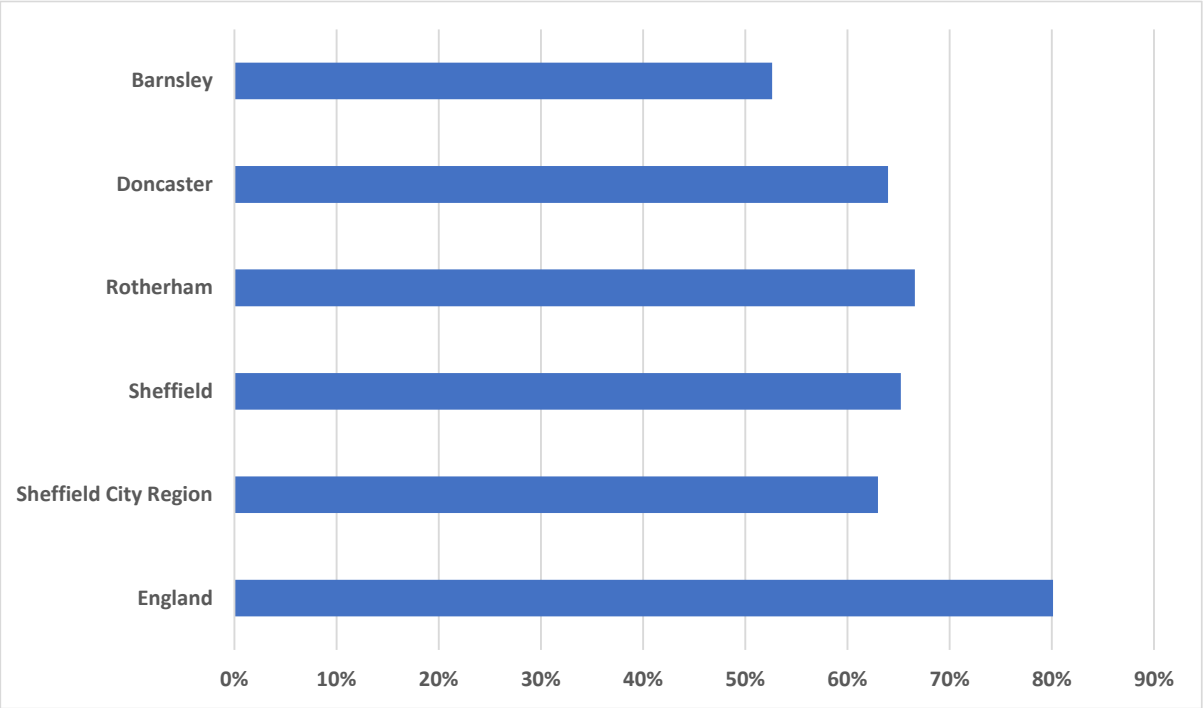
2.4.4. Alternative claimant count – impact of COVID-19

Data is available for the first 11 months of 2020. Allowing us to view the initial impact of COVID-19 on this measure of unemployment. It must be remembered that many people were furloughed and so this does not provide a complete picture of the impact of the pandemic.

In 2020, the alternative claimant count rate was 6.0% in the City Region which was lower than the figure for England (7.3%), and below that of the comparator MCA areas. The rate for each local authority was within 1pp of the City Region average.

Figure 8 shows that the alternative claimant count rose in every area by at least 50%. The City Region and its component local authorities saw significant increases but this was lower than in England. The increase in the City Region was the similar to the change in LCR but higher than in Tees Valley or WMCA.

Figure 7: Alternative claimant count – percentage change 2019-2020



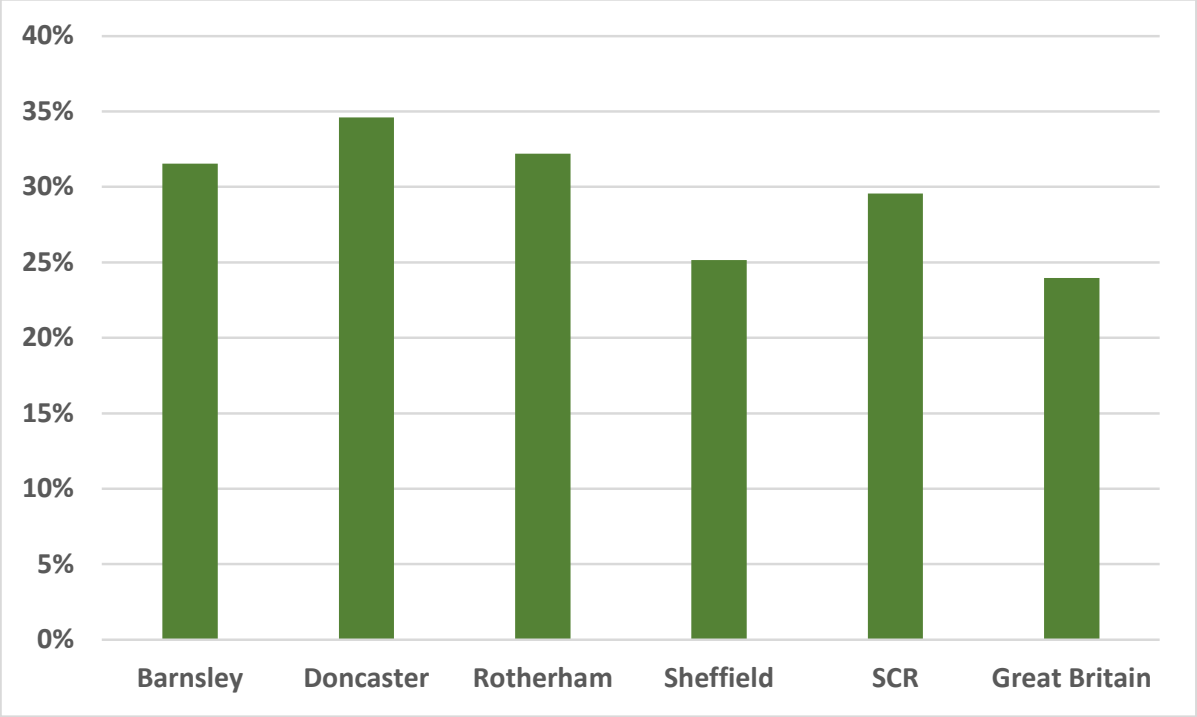
Source: SCR Core Indicators Data, February 2021

2.4.5. In-work benefit claimants

Whilst the unemployment and alternative claimant count and rates may be relatively low and falling, significant proportion of working households are dependent on benefits. The latest available data (see Figure 9) shows that in 2016/17, 30% of working household in the City Region were claiming in-work tax credits. This compares to 24% in Great Britain. Within the City Region, Sheffield (25%) has the lowest proportion of working household claiming in-work tax credits, whilst Doncaster had the highest (35%). The City Region is similar to the level for LCR (29%) but lower than both Tees Valley and WMCA.

The number of households in the City Region and each local authority claiming in-work tax credits fell by about 10% in the five years to 2016/17 (similar to Great Britain), but this may be as a result of changes to benefit rules and conditionality requirements rather than increases in household income.

Figure 8: Proportion of households claiming in-work tax credits – the City Region, local authorities and Great Britain 2016/17



Source: SCR Inclusive Growth Indicators

2.4.6. Out of work benefit claimants

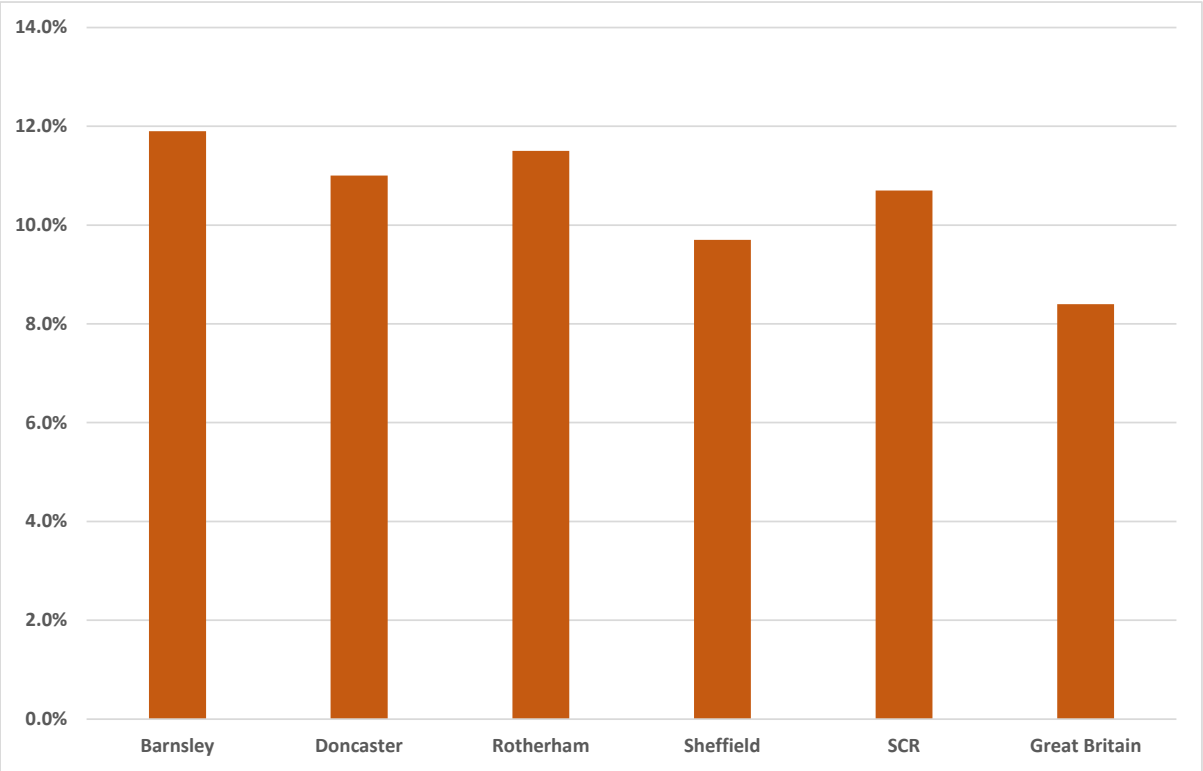
In 2016, just over one in ten (10.7%) of 16-64 year olds living in the City Region were claiming out of work benefits (Figure 10). Sheffield (9.7%) had the lowest proportion of people claiming out of work benefits and Barnsley the highest (11.9%). All City Region areas were above the figure for Great Britain (8.4%). The City Region's rate was below each of the comparator MCA areas.

In the five years to 2016, the number of the City Region residents on claiming out of work benefits fell by -25% which was just below the national average. Barnsley and Doncaster saw the largest falls (-27%) and Sheffield the smallest (-22%).

In 2014 (before the rollout of Universal Credit), 7.6% of the City Region working age population were on Incapacity Benefits (IB) compared to 6.3% in Great Britain.[19] But the proportion was lower than LCR (10.5%) and Tees Valley (8.3%) and only slightly higher than that in WMCA (7.5%). In Barnsley, the IB rate was 9.2% compared to 6.6% in Sheffield. Between 2010-14, the IB rate in the City Region fell at a faster rate than in Great Britain and the comparator MCA areas. The largest falls within the City Region were in Barnsley and Doncaster.

[19] Incapacity benefits includes: Employment and Support Allowance, Incapacity Benefit and Severe Disablement Allowance.

Figure 9: Proportion of households claiming out of work benefits – the City Region, local authorities and Great Britain 2016



Source: SCR Inclusive Growth Indicators

2.4.7. Deprivation and social mobility

Levels of deprivation in SCR LEP have been historically high and in the top quintile of LEP areas.[20] The way the data is constructed (area rankings) means that levels of deprivation are focused in specific communities i.e. pockets of high levels of deprivation. The data in this section is presented across three of the Indices of Multiple Deprivation (IMD) domains – income, employment, and education and training – and shows the proportion of Lower-layer Super Output Areas (LSOAs) in the 10% most deprived in England.

Figure 11 shows comparative IMDs for SCR LEP, its four local authorities and the comparator LEP areas in 2019. There is variation across the three domains:

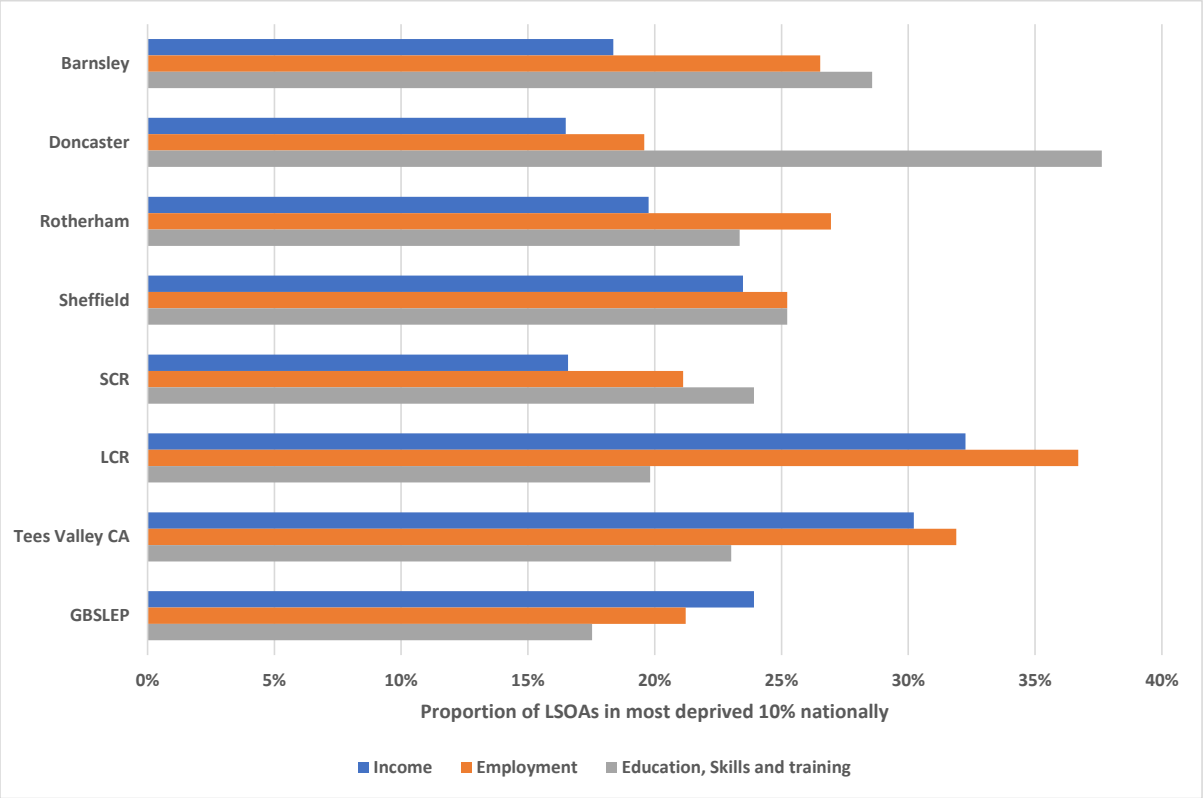
- **Income domain:** SCR LEP, and each of the four local authorities, has lower deprivation levels on the income domain compared to the three comparator MCA areas. Within the SCR LEP, Sheffield has the highest deprivation levels and Doncaster the lowest.
- **Employment domain:** SCR LEP has much lower levels of deprivation on the employment domain than LCR and Tees Valley, and the same as Greater Birmingham and Solihull LEP (GBSLEP) area.[21] Within the SCR LEP, Doncaster has the lowest deprivation levels, and Barnsley and Rotherham the highest.

[20] Sheffield City Region (2016), LMI Report.

[21] Data isn't available for the WMCA so the GBSLEP area is used instead.

- **Education and training domain:** on this measure, SCR LEP has much higher levels of deprivation than LCR and GBSLEP and marginally above Tees Valley. Doncaster has much higher levels of deprivation, as does Barnsley.

Figure 10: Indices of Multiple Deprivation – SCR LEP, local authorities and comparator LEPs, 2019



Source: SCR Core Indicators Data, February 2021

The Social Mobility Commission (SMC) publishes indices of social mobility (Social Mobility Index [SMI]), the latest available data is for 2017. The SMI produces several composite indicators based on a range of data.[22] There is an overall ranking for areas, as well as separate indicators for: early years; schools; youth; and adulthood. The analysis in this section focuses on youth and adulthood. Data is only available for local authority, not MCA, areas.

The social mobility scores are ranks out of 324 areas, with a rank of 324 designating the lowest social mobility score and 1 the highest:

- **Overall score:** there is a large range across the four City Region local authorities (Table 7). Barnsley and Doncaster have lower overall levels of social mobility than any other area. Rotherham and Sheffield have similar levels to Middlesbrough, lower than Liverpool but much higher than Birmingham.
- **Youth score:** every City Region local authority has a much higher SMI ranking than the three comparator areas indicating much lower levels of social mobility for young people. Within the City Region there is a wide range. Barnsley and Doncaster have

[22] For example, the SMI for youth is based on the attainment of young people eligible for FSM, and their entry rates to the most selective universities. See https://www.gov.uk/government/publications/social-mobility-index-2017-data

lower levels of youth social mobility than Rotherham. Sheffield is much lower than the other the City Region local authorities but still higher than the comparator areas.

- **Adulthood score:** there is great variation on the adulthood scores. Sheffield has the lowest ranking and therefore the highest levels of social mobility for adults compared to the other areas. Doncaster has the lowest levels of adult social mobility, just ahead of Middlesbrough. Levels of social mobility in Barnsley and Rotherham are much lower than in Sheffield.

Table 7: Social Mobility Index – the City Region, local authorities and comparator local authorities, 2017

Scores out of 324	Overall score	Youth	Adulthood
Barnsley	291	307	234
Doncaster	298	290	280
Rotherham	188	253	229
Sheffield	212	156	124
Liverpool	274	137	176
Middlesbrough	210	118	277
Birmingham	136	28	188

Source: IER analysis of SMI data

2.5. Summary

In 2019, 1.4 million people lived in the four City Region local authorities. Two out of five lived in Sheffield and the remainder split almost equally across the three other local authorities. Sheffield's student population inflates the number of 20-24 year olds, but otherwise the age distribution is similar across the local authorities. Two thirds of the population are of working age, a proportion that will decline as the average age of the population increases.

Between 2019 and 2043 there are forecast to be modest population changes. However, around 27,500 will leave the workforce than enter it.

At 77%, the economic activity of the City Region working population is lower than that of England, and all the local authorities are below the national average. In part, the relatively high economic inactivity rates are due to a higher incidence of people with long term health conditions.

Economic activity rates are lower for people of BAME origin and disabled people across England. This is true for the City Region, but the gap between people of BAME origin and disabled people relative to their comparator groups is higher in the City Region than nationally.

On the ILO definition of unemployment, there are higher levels of unemployment in the City Region than England. The unemployment rate is coming down more slowly in the City Region compared to England, this is due to higher levels of unemployment and a slower rate of decline in Sheffield.

The proportion of young people who are ILO unemployment is much higher than other age groups, especially the unemployment rate of 20-24 year olds in Doncaster and Rotherham. Young people's unemployment is also not falling as fast as that in other age groups in most

City Region areas. The ILO unemployment rates for people of BAME origin and disabled people are twice that of their comparator groups.

Unemployment measured by the claimant count shows a narrower range of unemployment across the City Region and the local authorities when compared to England. The claimant count unemployment rate is also falling faster in the City Region than nationally.

Just under third of City Region households claim in-work benefits which is higher than the national average especially in Doncaster. There are also higher levels of households claiming out of work benefits than the national average, especially in Barnsley.

Compared to the comparator LEP areas the City Region has lower levels of deprivation on the income and employment measures. However, the City Region and the local authorities have much higher levels of deprivation on the education, skills and training indicator, especially in Doncaster.

On social mobility scores, there are a wide range of scores across the local authorities and comparator LEP areas. The City Region and the local authorities have lower rankings on the youth and adulthood indicators. Youth social mobility is particularly low in Barnsley and Doncaster.

On a range of variables of economic disadvantage – economic inactivity, unemployment, benefit claimants, deprivation and social mobility - the City Region and its local authorities show relatively higher levels of disadvantage compared to England for: economic inactivity, unemployment, benefit claimants, deprivation and social mobility. However, on most of these measures the City Region and the local authorities are only a percentage point or two below the national average.

Comparing the local authority areas the findings are not unequivocal, with some local authority areas performing better on some measures than others.

Youth unemployment, education, skills and training deprivation and the social mobility of young people do appear to be the most significant issues.

3. Skills demand

3.1. Introduction

This section focuses on the main drivers of skills demand in the City Region: enterprise activity; productivity; present and forecast sectoral and occupational distribution; earnings; and vacancies.

3.2. Enterprise activity

Key points:

- Overall rates of enterprise activity in the City Region (4.4 births per 1,000 working age residents) are lower than nationally (6.8) i.e. number of businesses per head of population and the birth and death rate of enterprises. Doncaster has the highest measures on all of these indicators;
- Compared to England (1.9%) the City Region (2.3%) has higher levels of medium and larger businesses, except for Doncaster which has more micro businesses;
- The number of businesses grew at a faster rate in the City Region (24.5%) than in England 2014-19 (21.1%), especially micro and larger businesses;
- There were increases in all of the City Region sectors. Compared to England the number of businesses grew faster in construction and transport and storage, and not as much in professional, scientific and technical services;
- The City Region has a higher proportion of high growth businesses (10.5%) compared to the comparator LEP areas and the UK (8.0%).

3.2.1. Number of businesses

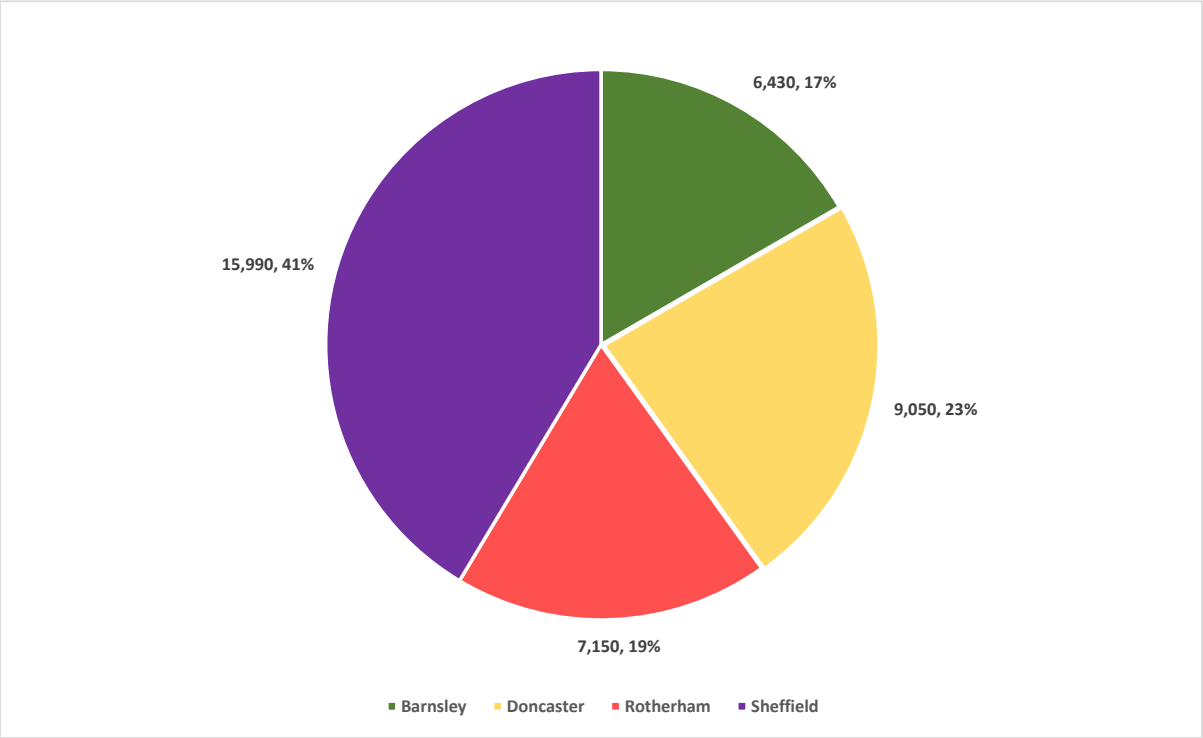
In 2019, there were just over 38,500 businesses in the City Region. It is difficult to assess what number of businesses is the 'right' level for an area. Business density is one measure (number of businesses per adult population), and on this measure the City Region's business density is low compared to most other areas.[23] The City Region also has a relatively low business start-up rate in the first half of the last decade, around two thirds of the national average (4.4 births per 1,000 working age residents in the City Region compared to 6.8 in England)[24], but seems to have improved (see below).

Figure 12 shows that 41% of the City Region businesses were located in Sheffield, around one quarter in Doncaster (23%), one in five in Rotherham (19%) and the remaining 17% in Barnsley.

[23] Sheffield City Region (February 2016), European Structural & Investment Fund Strategy 2014-20, page 81.

[24] Sheffield City Region (March 2014), Strategic Economic Plan: 2015 - 2025, page 21.

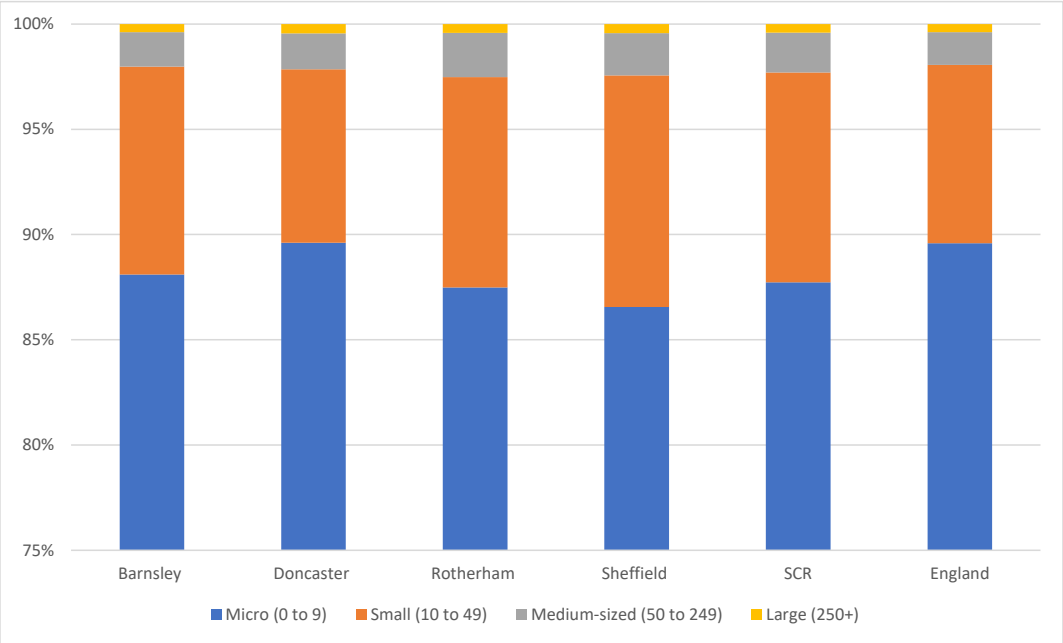
Figure 11: Number of enterprises – the City Region local authority 2019



Source: IER analysis NOMIS data based on UK Business Counts

The large majority of businesses in each area (about nine out of ten) are micro businesses employing up to nine people (Figure 13). Few enterprises are large businesses (less than 0.5%). Doncaster has an above average proportion of micro businesses but fewer small businesses. The percentage of medium and large businesses is similar across the areas.

Figure 12: Enterprises by size – the City Region, local authority and England 2019



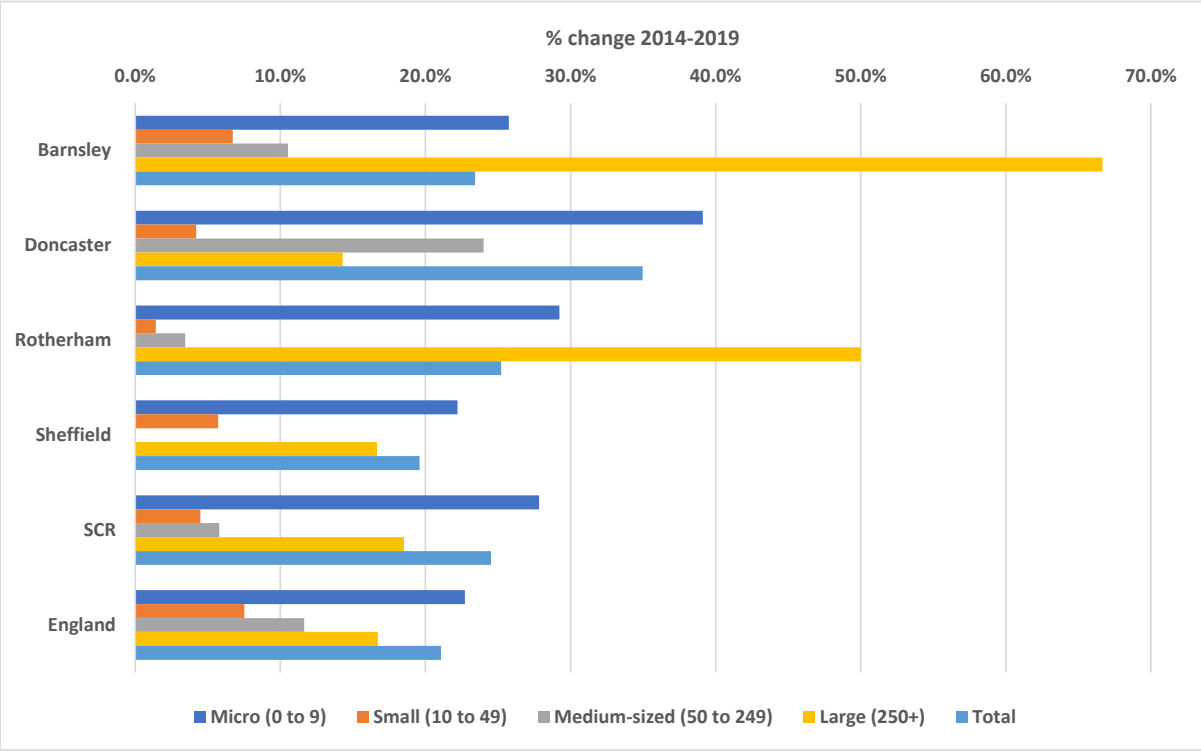
Source: IER analysis NOMIS data based on UK Business Counts

The number of businesses of all sizes grew in every area, as Figure 14 shows. In the City Region the total number of businesses increased by 25%, micro (28%) and large (18%) enterprises in particular. This was slightly above the national average for England (21%).

Within the City Region, Doncaster in particular (35%) and Rotherham (25%) were above the City Region average. In Barnsley and Doncaster there were big increases in the number large businesses, but this was from a numerically small base.

Compared to the comparator MCAs, LCR and WMCA had larger increases in the number of enterprises. LCR saw a big increase in the number of large businesses.

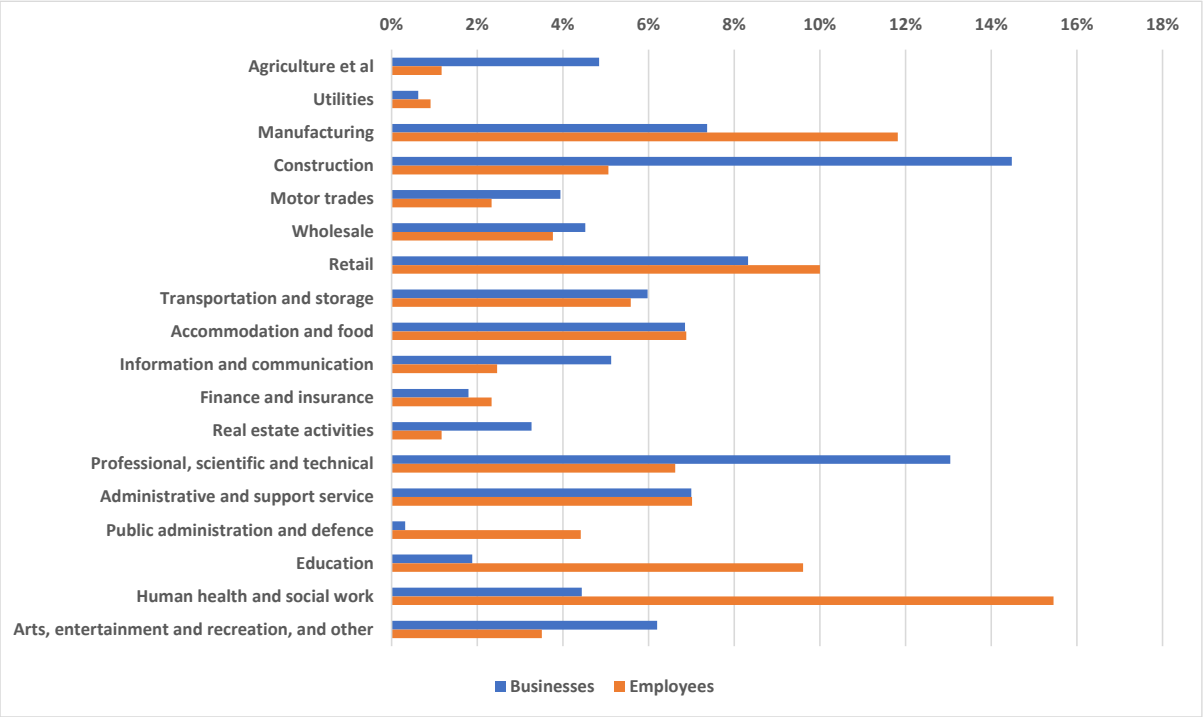
Figure 13: Enterprises by size – the City Region, local authority and England, percent change 2014-19



Source: IER analysis NOMIS data based on UK Business Counts

Figure 15 shows businesses by sector. In the City Region in 2019, the largest number of businesses were in construction (14%) and professional, scientific and technical services. Figure 15 also shows the distribution by employment. Some of the largest employment sectors – human health and social work, and education – have relatively few businesses.

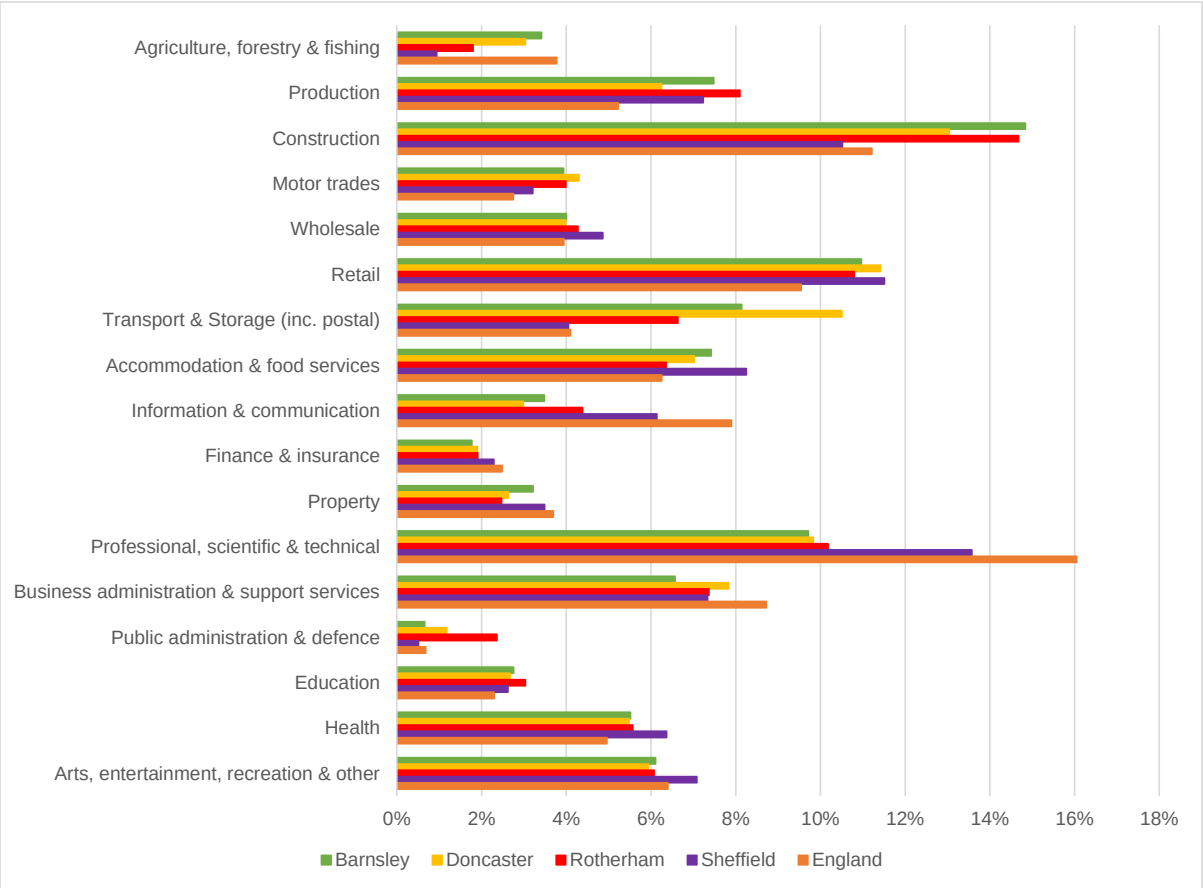
Figure 14: Enterprises and employment by sector – the City Region, 2019



Source: IER analysis NOMIS data based on UK Business Counts

Figure 16 shows the number of enterprises (based on VAT and/or PAYE data) in each area. The overall distribution in businesses by sector is broadly consistent across the areas. For example, construction, retail and professional, scientific and technical businesses are the largest sectors, each with double digit percentages in each area. There is less than three percentage point difference in the proportion of businesses across each area except for four sectors: construction (higher levels in Barnsley and Rotherham); transport and shortage (higher levels in Barnsley, Doncaster and Rotherham); information and communication (higher levels in Sheffield and England); and professional, scientific & technical (higher levels in Sheffield and England).

Figure 15: Enterprises by sector - the City Region, local authorities and Great Britain 2019



Source: UK business: activity, size and location. Office for National Statistics

3.2.2. Enterprise activity

Table 8 shows business births and deaths, and net change, for each area 2014-2019. There is a constant rotation in every area of businesses coming into being and ceasing to trade. In the City Region in 2019, 14% of the stock of businesses were created and 11% stopped trading, this is a similar proportion in each area. The turnover rate of business births and deaths is higher in Doncaster than any other area by about 3pp difference.

The turnover across business births and deaths has been fairly constant in each area, except for 2017 and 2018 when there was a reduction in the birth rate and an increase in the death rate in each of the areas. This can happen if there is a change in definition or a change in the VAT threshold rate for registering a business.

The number of business births was greater that of deaths meaning that the stock of businesses rose steadily in each area.

Table 8: Business births and deaths – the City Region, local authorities and Great Britain, 2014-2019

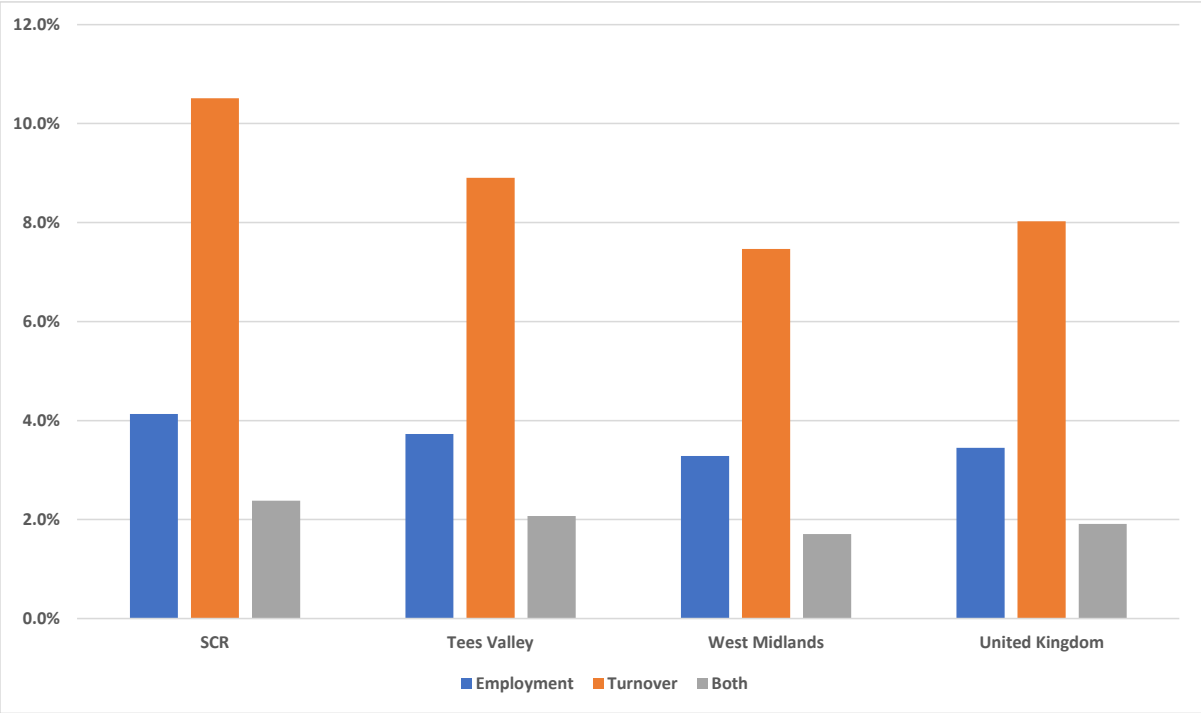
		2014	2015	2016	2017	2018	2019
Barnsley	**Births**	870	870	1,000	840	920	950
	Deaths	595	640	650	810	735	800
	Net change	275	230	350	30	185	150
Doncaster	**Births**	1,505	2,135	1,955	1,480	1,605	1,815
	Deaths	920	1,000	1,490	2,185	1,355	1,320
	Net change	585	1,135	465	-705	250	495
Rotherham	**Births**	985	1,110	1,220	950	955	1,185
	Deaths	695	750	725	950	850	890
	Net change	290	360	495	0	105	295
Sheffield	**Births**	2,225	2,285	2,525	2,200	2,155	2,315
	Deaths	1,780	1,940	1,855	2,080	1,830	2,080
	Net change	445	345	670	120	325	235
City Region	**Births**	5,585	6,400	6,700	5,470	5,635	6,265
	Deaths	3,990	4,330	4,720	6,025	4,770	5,090
	Net change	1,595	2,070	1,980	-555	865	1,175
England	**Births**	312,920	344,065	373,580	335,280	331,305	349,675
	Deaths	217,645	249,995	248,655	311,285	278,490	299,935
	Net change	95,275	94,070	124,925	23,995	52,815	49,740

Source: SCR Core Indicators Data, February 2021

Another measure of the economic health of a area is the proportion of high growth businesses[25]. Figure 17 shows that whether measured by employment, turnover or both, the City Region has a higher proportion of high growth businesses than comparable metropolitan authority areas. In 2018, 4.1% of the City Region businesses displayed 20% employment growth over a three year period compared to 3.4% in the UK. This is higher than the Tees Valley, and West Midlands metropolitan areas. When measured by turnover, more than one in ten (1.5%) of City Region businesses are high growth compared to 8.0% in the UK.

[25] A high growth business is an enterprise with average annualised growth greater than 20% per annum, over a three year period. Growth can be measured by the number of employees or by turnover.

Figure 16: High growth businesses – the City Region and Metropolitan County areas, 2018



Source: SCR Economic Evidence 2019

3.3. Productivity

Key points:

- Productivity in the City Region is 82% of the UK and lower than the comparator LEP areas. Sheffield's productivity rate is 95% and Barnsley, Doncaster and Rotherham is 78%;
- Growth in productivity since 2004 is the same as the UK's (41% and 42%) which means that the gap hasn't closed. There were larger than national increases in Doncaster (46%) and Rotherham (53%).
- The largest output sectors in the City Region, as measured by GVA, were manufacturing, wholesale and retail, health and social care, and education.

3.3.1. Gross Value Added (GVA)

Low levels of productivity is a national as well as a local concern. For a number of years the UK has lagged behind its main competitors. Throughout the 2000's the productivity gap with countries such as Germany and France was closed. However, in the 2010s UK productivity levels have been mostly static and the gap has again widened. Amongst OECD countries, only Hungary, Italy and Greece had lower productivity growth than the UK between 2010-15.[26]

Productivity is a key measure of how well local economies are performing. It is a measure of the effectiveness and efficiency of local economies, an indicator of future economic growth potential and is related to changes in real wages. The quality of labour (especially its skills)

[26] Sheffield City Region (2016), LMI Report

and the utilisation of labour (management approaches and business models) are important factors driving or holding back productivity.

Since the Financial Crisis, productivity in the City Region has increased. However, previous analyses of productivity in the City Region (using GVA per worker) concluded that in the first half of the 2010s, productivity levels were lower than the national average and the three comparator MCA regions. Between 2010-2016 the gap between Great Britain and the MCA comparators did not close and in some cases widened.[27] In 2012, productivity levels in each City Region sector was below the national average, including key growth sectors, such as finance and insurance and business services (around 35% lower).[28]

Productivity is measured by GVA of which there are several indicators.[29] The one used in the Table 9 and Figure 18 below is **GVA per hours** worked because it provides a direct comparison between the level of economic output and direct labour input.[30]

Table 9 shows that in 2004, GVA per hour in the City Region (£20.39) which was below the UK average (£24.73) and also below the three comparator MCA areas. Within the City Region, Rotherham had the lowest productivity level (£18.09). By 2018, GVA per hour in the City Region had risen to £28.68 which was still below the UK average (£35.03), but the gap with two of the three MCAs (LCR and Tees Valley) had narrowed slightly.

Table 9: Gross Value Added per hour – the City Region, local authorities and United Kingdom 2018

	GVA per hour	
	2004	2018
Barnsley	£20.87	£27.32
Doncaster	£18.60	£27.24
Rotherham	£18.09	£27.65
Sheffield	£21.38	£30.26
Sheffield City Region	£20.39	£28.68
United Kingdom	£24.73	£35.03
Liverpool City Region	£22.99	£32.11
Tees Valley	£23.10	£31.84
West Midlands	£21.70	£32.07

Source: SCR Core Indicators Data, February 2021

[27] Beatty, C. et al (April 2019), Embedding inclusive growth in the Sheffield City Region. Sheffield City Region

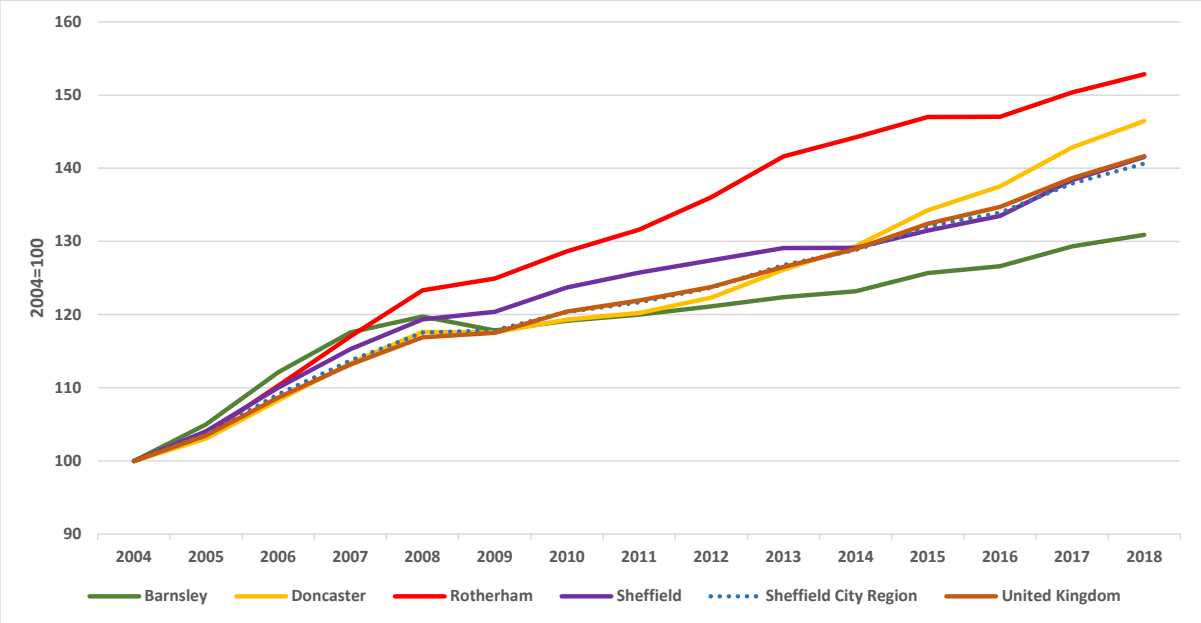
[28] Sheffield City Region (February 2016), European Structural & Investment Fund Strategy 2014-20.

[29] Research found that using different GVA measures, productivity in the City Region varied from 69% to 92% of the national average depending on the GVA indicator used. Beatty, C. and Fothergill, S. (May 2020), Productivity in Sheffield City Region. CRESR, Sheffield Hallam University.

[30] https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/labourproductivity/articles/regionalandsubregionalproductivityintheuk/february2020

Figure 18 shows that GVA per hour increased by around 40% in the City Region between 2004-2018. This was just below the UK average. The trajectory for productivity in the City Region and the UK was virtually identical over the 15 year period. Productivity in Rotherham outperformed all other areas, rising to £27.65 in 2018, an increase of 53%. Productivity in Barnsley, however, grew by a relatively modest 31% to £27.32.

Figure 17: Gross Value Added per hour – the City Region, local authorities and UK 2004-2018



Source: SCR Core Indicators Data, February 2021

Using GVA per hour worked provides a different conclusion to the relative performance of productivity in the City Region which appears in other SCR economic analysis documents. In the period before the Financial Crisis (2004-08), productivity in the City Region increased by 18%, which was higher than the UK average and two of the three comparator MCA areas (except for LCR). In the period after the Financial Crisis (2008-14) productivity in the City Region grew the same as the national rate, below that of Tees Valley and WMCA, but higher than LCR. Since 2014, the City Region's productivity grew at a similar rate to Tees Valley and the UK, but behind LCR and WMCA. Over the whole period (2004-18) the City Region's productivity increased at a rate similar to the national average (41% compared to 42%).

This does not obscure the fact that GVA per hour in the City Region is currently around four fifths of the national average, and nine tenths of the three comparator MCA areas. This gap has remained the same since 2004.

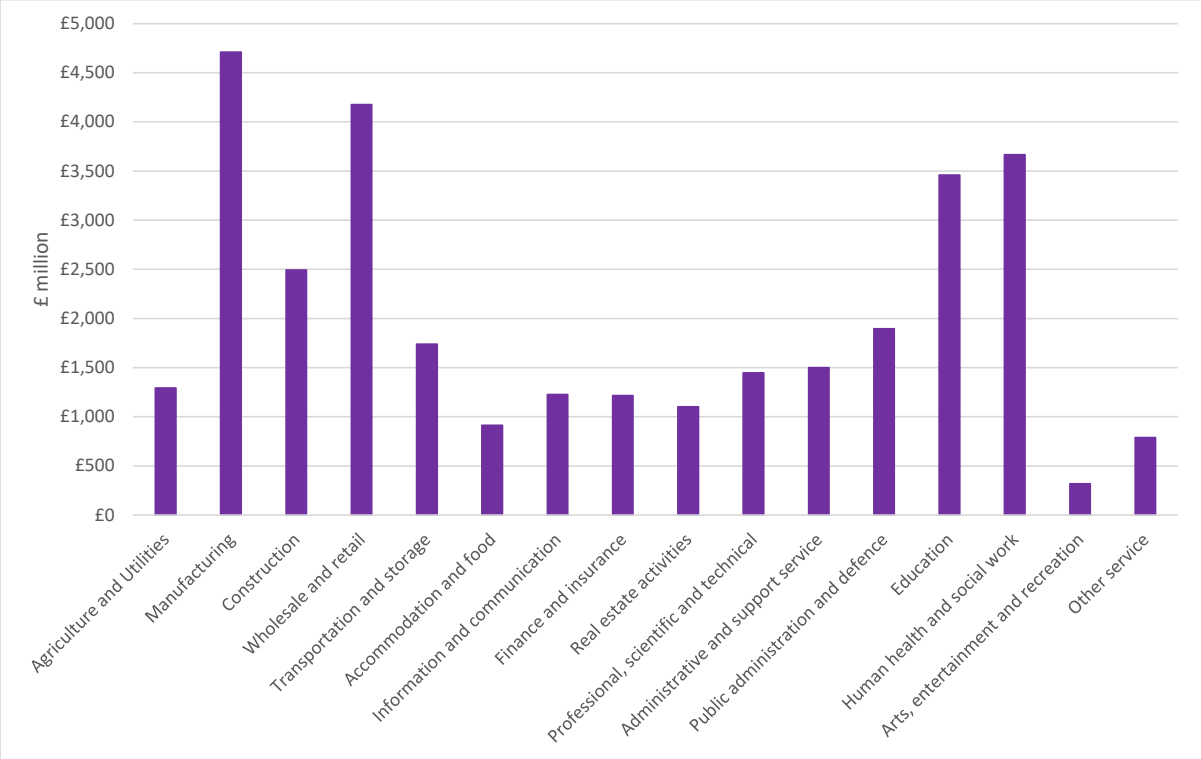
3.3.2. Regional GVA by sector

GVA by sector is not available as a relative measure i.e. either by hours worked or people employed. Because of this care must be taken in drawing conclusions from the analysis as a sector may have lower levels of GVA because fewer hours are worked or people are employed.

Figure 19 shows GVA by sector measured by the increase in the value of the economy due to the production of goods and services (i.e. outputs minus inputs, controlling for inflation).[31] By this measure, the GVA for the City Region in 2017 was £34,762 million.

Even though employing relatively few people, manufacturing is the largest contributor to the City Region GVA (£4,710 million) followed by wholesale and retail (£4,175 million), human health and social work (£3,666 million), and education (£3,458 million).

Figure 18: GVA by sector – the City Region 2017



Source: SCR Economic Evidence 2019

Figure 20 shows that, controlling for inflation, there was a fall in manufacturing GVA between 2004 and 2017 (-7%) compared to an overall increase in GVA of 14%. This is likely to be as a result of a small in the employment size of the sector.

The biggest contributors to GVA growth over the period were: administrative and support services (95%); wholesale and retail (35%); human health and social work (34%); information and communication (33%); and professional and scientific services.

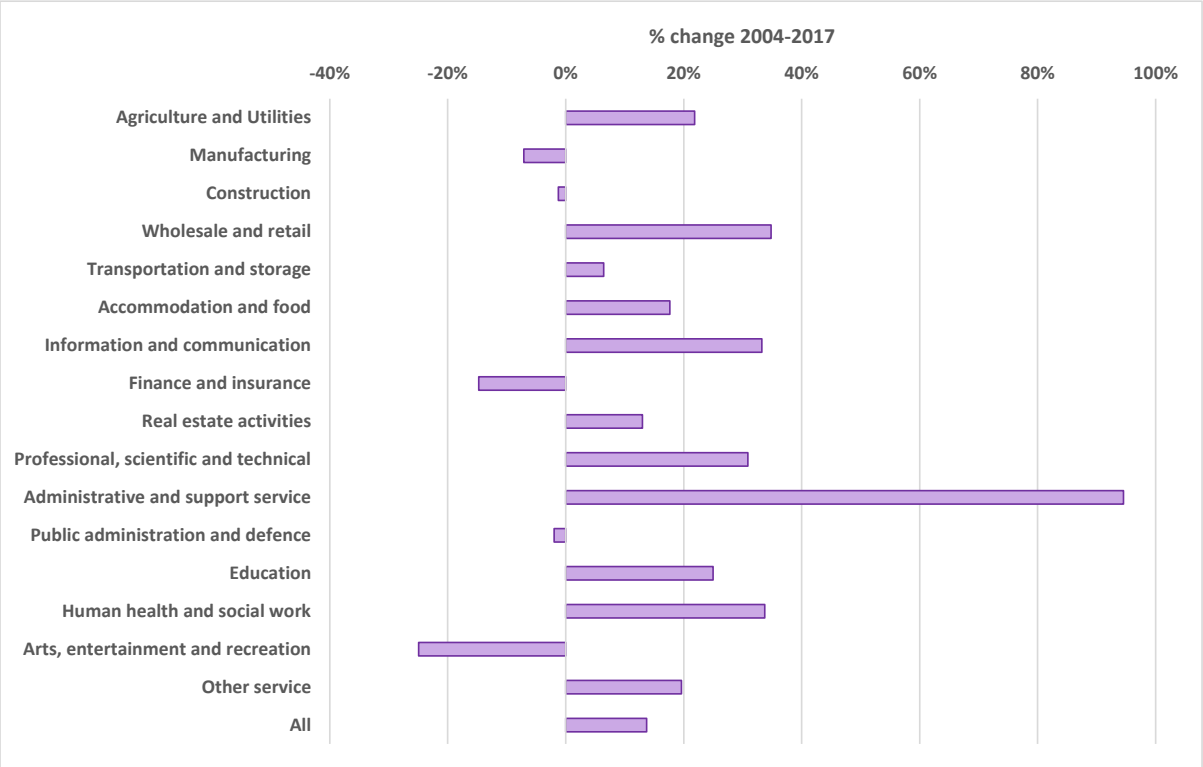
Within the City Region, Sheffield is the biggest contributor to GVA, followed by Doncaster, Rotherham and Barnsley.[32]

31

https://www.ons.gov.uk/economy/grossvalueaddedgva/bulletins/regionalgrossvalueaddedbalanceduk/1998to2017

32 Sheffield City Region (2016), LMI Report

Figure 19: GVA by sector – percentage change in the City Region 2004-2017



Source: SCR Economic Evidence 2019

3.4. Structure of employment

Key points:

- The City Region has a similar sectoral distribution to England except that the City Region has more public administration, education and health jobs and fewer in business, finance and insurance;
- Employment growth 2014-19 was 6% compared to 7% in England. The City Region had fewer growth sectors than England;
- In terms of the sectoral structure of employment, Sheffield is closer to the England average and Rotherham differs the most;
- SCR has three groups of priority sectors: big employment, sectors with potential, and growing sectors. All of these increased job levels in the City Region 2014-2019 (7.8%) compared to England (3.8%) and compared to non-priority sectors in the City Region (-2.2%).

3.4.1. Employment by sector

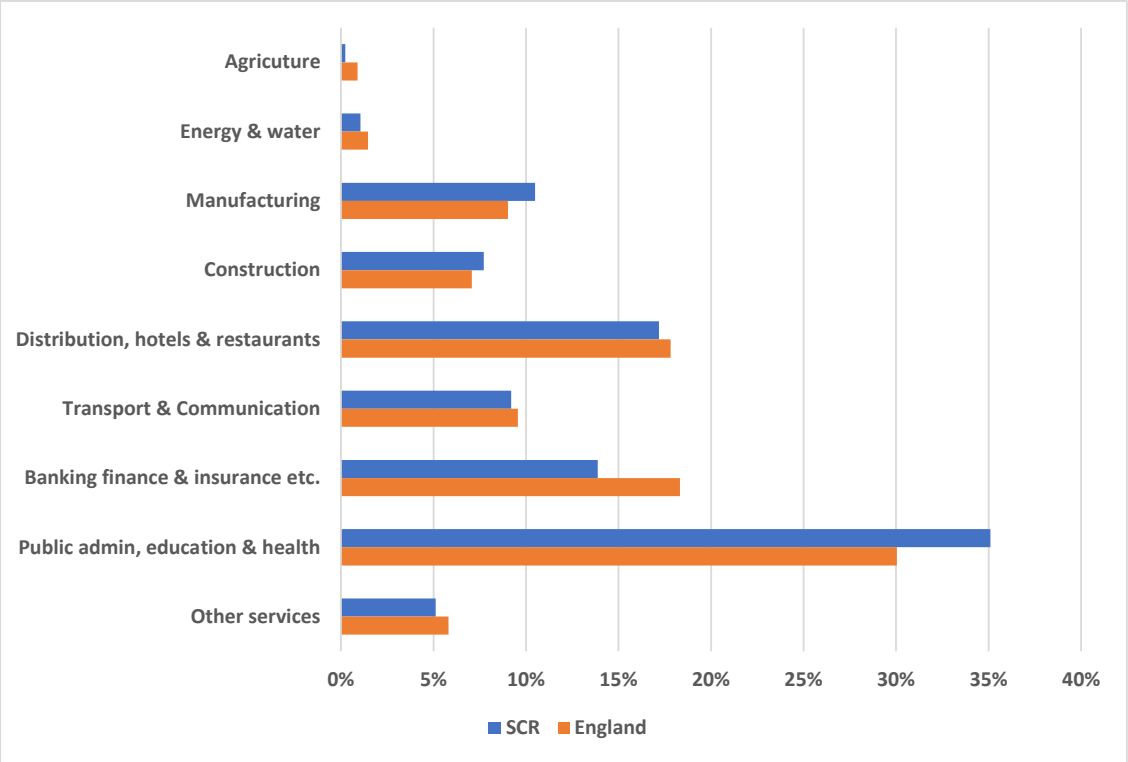
Employment in the City Region was greatly affected by the Financial Crisis in 2008. Whilst employment grew steadily over the past decade, much of this growth happened after 2013. In the first part of the 2010s employment fell, and the jobs that were created tended to be part-

time and lower paid.[33] Much of the reason for this was the reduction in public sector employment and an increase in private sector jobs.[34]

In 2019/20, in the 12 months before the lockdown started, there were just over 650,000 people employed in the City Region. Despite the large reduction in public sector jobs since 2008, Figure 21 shows that the largest sector for employment was public administration, education and health (35%), followed by distribution (17%), and then banking finance and insurance etc. (14%). Non service sectors accounted for 19% of all jobs, with manufacturing the largest non-service sector with one in ten of all jobs.

Comparing the sectoral composition of the City Region workforce with that of England shows two main differences. The public sector accounts for more jobs in the City Region than in England (35% compared to 30%) and fewer people work in banking finance and insurance etc. (14% and 18%).

Figure 20: Employment by sector – the City Region and England April 2019/March 2020



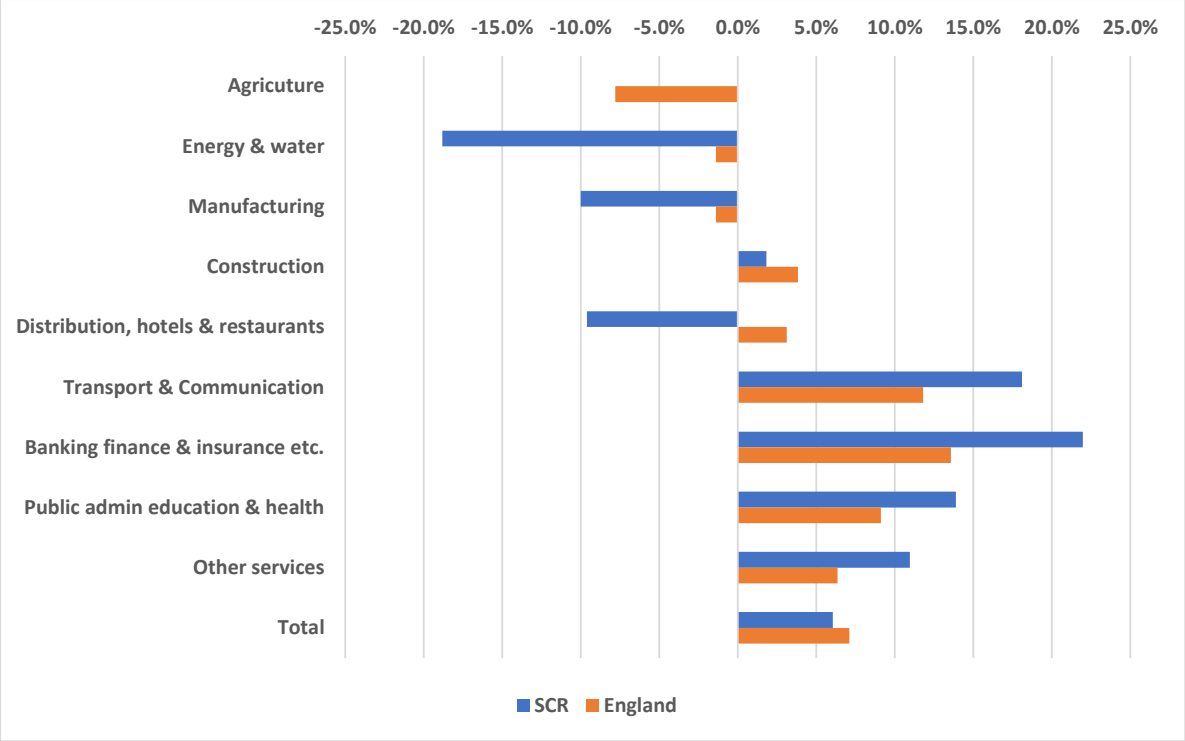
Source: IER analysis of NOMIS data based on the Annual Population Survey

Over the previous five years to 2019/20, total employment in the City Region grew by 6% which was one percentage point below England (7%). Figure 22 shows that in the City Region employment grew significantly in all service sectors except distribution, with growth exceeding more than 10%, higher than in England. However, employment in distribution fell by 10% in the City Region when it grew by 3% in England. Furthermore, the number of jobs in manufacturing, and energy and water fell by much more than in England. The construction workforce in the City Region grew by 2% which is half of the increase experienced in England.

[33] Sheffield City Region (May 2019), Sheffield City Region Economic Evidence Base: Skills and Employment

[34] Sheffield City Region (February 2016), European Structural & Investment Fund Strategy 2014-20

Figure 21: Employment change by sector – the City Region and England 2014/15-2019/20



Source: IER analysis of NOMIS data based on the Annual Population Survey

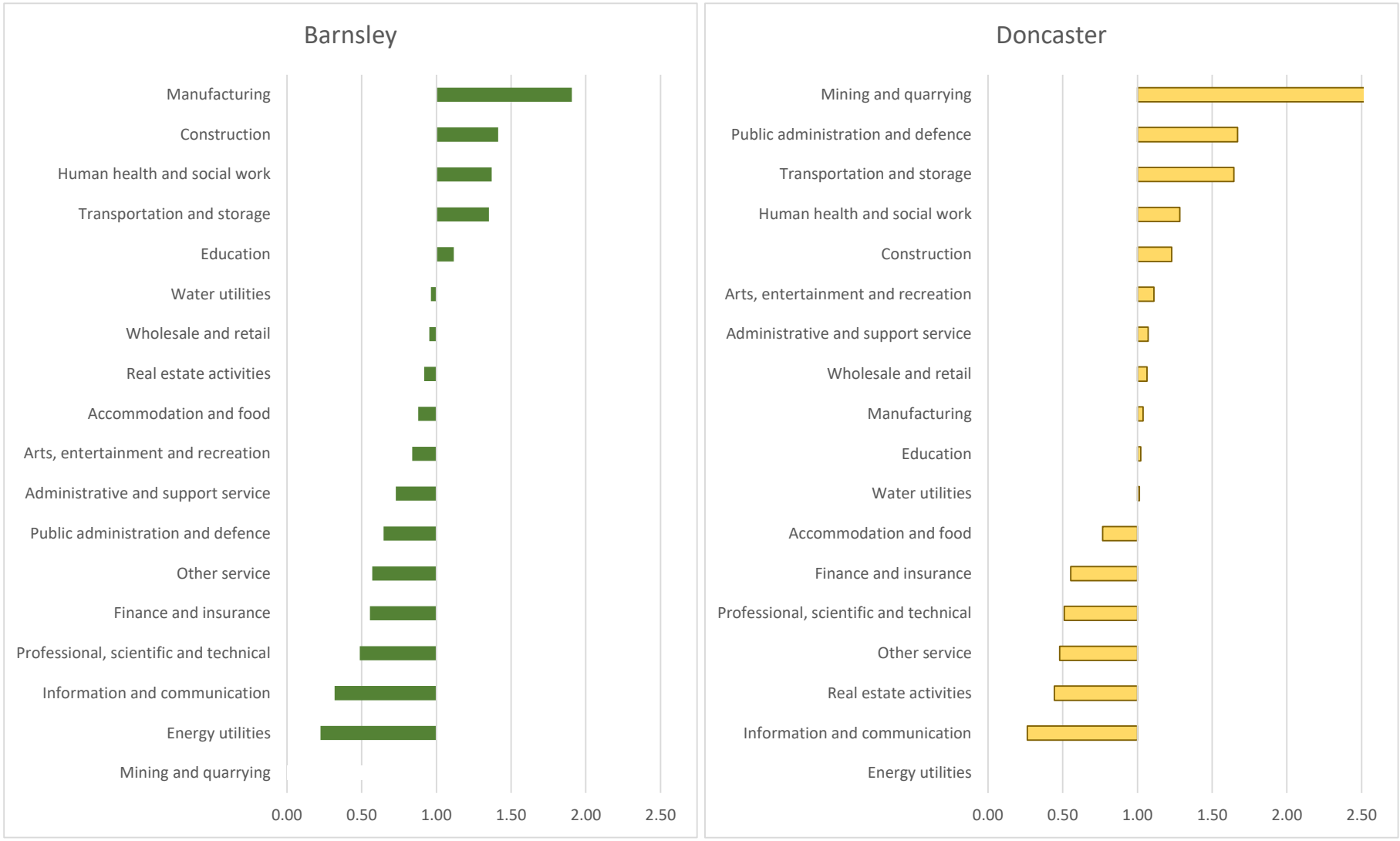
3.4.2. Industrial concentration

Location quotient measures the relative concentration of a sector within an area. Figure 23 and Figure 24 show the relative industrial concentration of employment in the four City Region local authorities compared to England in 2016. A number higher than 1 indicates that the area has a relatively higher concentration of employment compared to England, whereas a figure less than 1 shows that it is lower than the national average.

Figure 23 and Figure 24 show that Sheffield has a similar sectoral employment structure to England. Rotherham has the largest variation to the national average, especially in some large employment sectors such as public administration and defence, manufacturing, finance and insurance and professional, scientific and technical services.

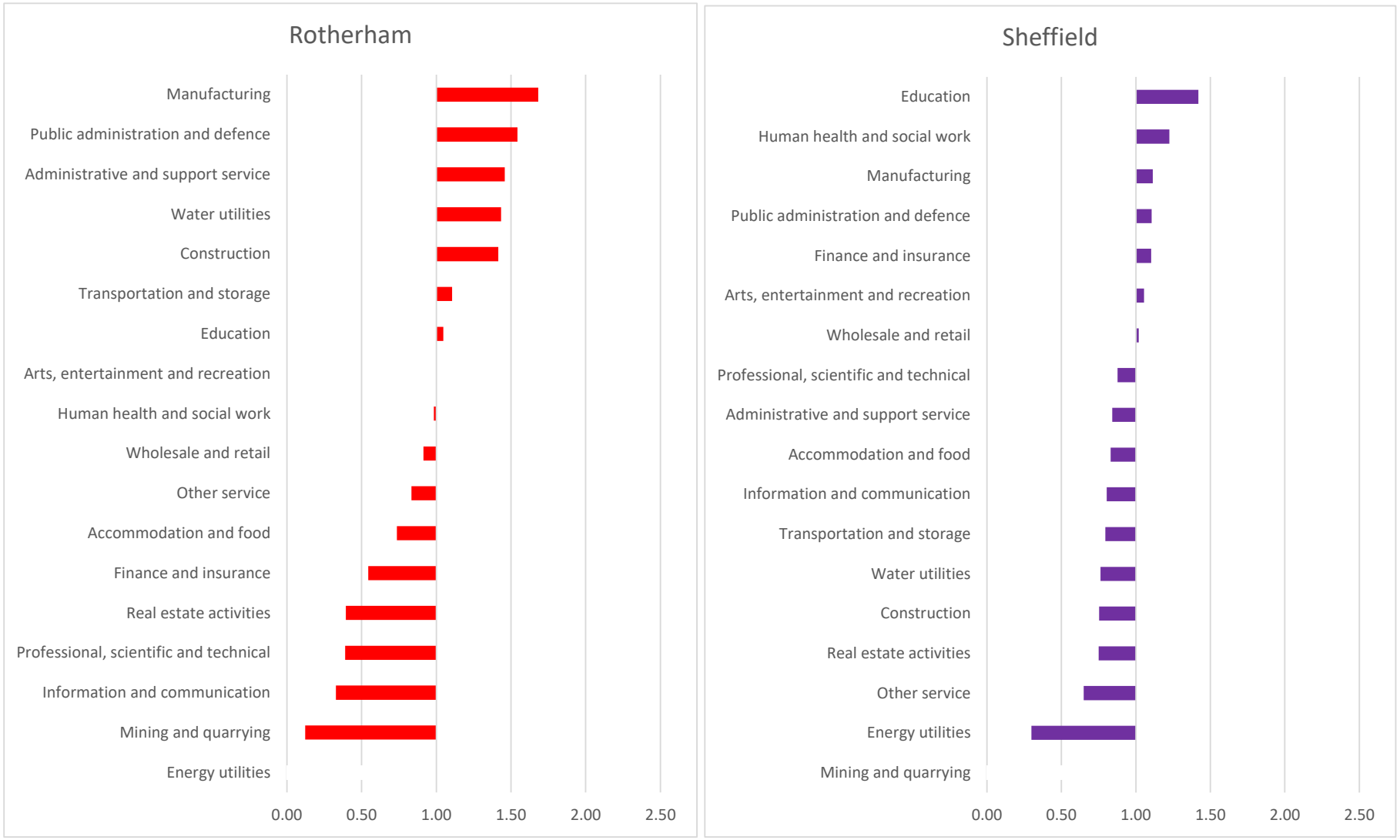
Barnsley and Doncaster fall in between the two extremes. Barnsley has much higher concentrations of employment in some large employment sectors such as manufacturing, construction, and human health and social work. Doncaster has relatively higher levels of jobs in large employment sectors such as public administration and defence, and transportation and storage. Both Barnsley and Doncaster have fewer jobs in information and communication, finance and insurance and professional, scientific and technical services.

Figure 22: Location quotients by sector – Barnsley and Doncaster 2016



Source: Business Register and Employment Survey 2016

Figure 23: Location quotients by sector – Rotherham and Sheffield 2016



Source: Business Register and Employment Survey 2016

3.4.3. Priority sectors

SCR has identified a number of priority sectors based on share of local employment; specialism; and growth potential. There are ten specific sectors grouped into three categories: 'big employment'[35]; 'sectors with potential'[36]; and 'growing sectors'.[37] [38] In this section, Healthcare is shown separately as it is both within big employment and sectors with potential.

Figure 25 shows the local authority employment distribution by priority sector in 2019. Barnsley has the highest proportion of its workforce working in these priority sectors (56%) the other three local authorities each has (53%). The 'big employment sector' (excluding healthcare) accounts for over one quarter (26%) of total employment in the City Region, this compares to 22% in England. 'Big employment sectors' comprise 29% of jobs in Barnsley compared to around a quarter of jobs in the other districts. 'Sectors with potential' (excluding healthcare) occupy a relatively small proportion of total employment in the City Region, one in ten. Doncaster has the highest concentration of 'sectors with potential' (10%), the remaining local authorities has slightly smaller proportions (9%). One in ten people in the City Region work in 'growing sectors' (excluding healthcare). Rotherham (12%) has the largest proportions working in these 'growing sectors'.

One in ten people work in healthcare in the City Region, ranging from 11% in Doncaster and Sheffield to 8% in Rotherham. If healthcare were included in 'big employment sectors' would account for over one third of all employment in the City Region (36%) and if it were included in 'sectors with potential' it would amount to one in five (19%).

The structure of employment within the different groupings also varies. For example, manufacturing makes up the largest share of 'big employment sectors' in Barnsley whereas in Doncaster and Rotherham it is retail, and education in Sheffield. Similarly, transport, storage and warehousing accounts for a large majority of jobs in 'sectors with potential' in Barnsley and Doncaster, whilst creative and digital make up most of the jobs in Rotherham and Sheffield. Specialised construction and infrastructure is the largest 'growing sector' in Barnsley and Doncaster whilst it is advanced manufacturing in Rotherham and Sheffield.

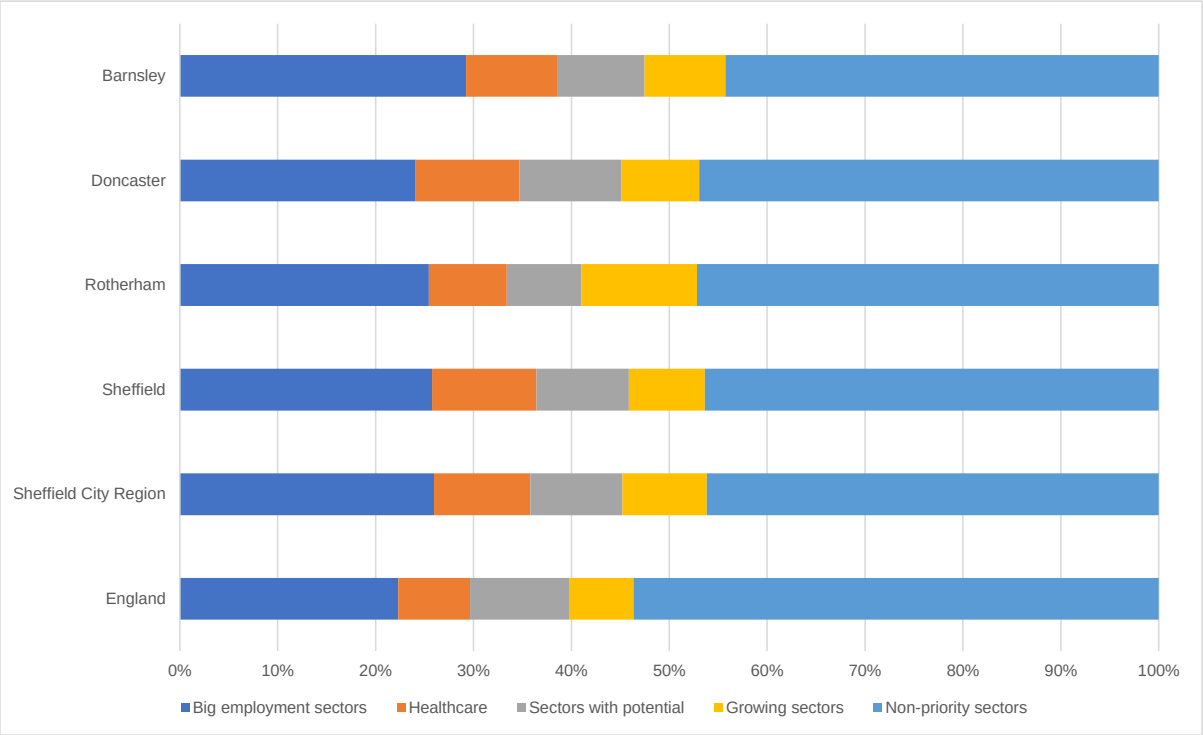
[35] Big employment: Healthcare (SIC 86), Retail (47), Manufacturing (10-32) and Education (85).

[36] Sectors with potential: Transport, storage and warehousing (SIC 49-52), Healthcare (86), Insurance and pensions (65) and Creative and digital (26, 58, 59, 60, 61, 62, 63, 90, 91, 95).

[37] Growing sectors: Advanced manufacturing (SICs 24, 25, 26, 27, 28, 30, 72) and Specialised construction and infrastructure (42-43).

[38] To avoid double-counting, "Big employment" excludes SIC codes for "Advanced manufacturing" which is only included as a "Growing" sector. "Healthcare" is included separately as it is a sector in both "Big employment" and "Sectors with Potential".

Figure 24: Employment share in priority sectors 2019



Source: Business Register and Employment Survey (BRES). Office for National Statistics

Figure 26 shows the percentage change of employment by priority sector 2015-2019. As before, healthcare is included separately.

'Sectors with potential' have the largest employment increase over this period (36% in the City Region). Employment grew in every local authority district but this ranged from 16% in Doncaster to 46% in Sheffield. The other priority sector groups grew more modestly in the Coty region: 'big employment sectors' grew by 3%; 'growing sectors' by 3% and healthcare by 6%. All of the priority sector groups increased jobs much more than in England.

Employment in grew in every priority sector grouping in each district except for 'Big employment sectors' in Doncaster and Rotherham which fell by 2% and 1% respectively. 'Growing sectors' increased significantly in Doncaster (19%), and employment in healthcare rose the most in Barnsley and Doncaster (both 14%).

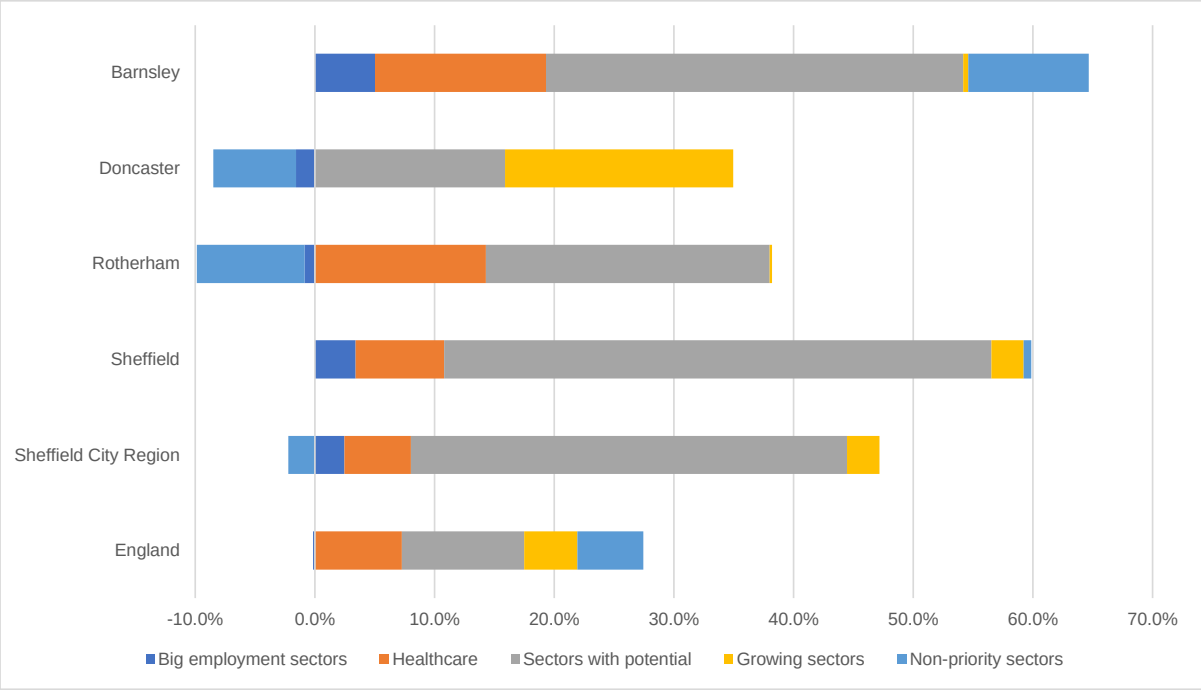
Within each sector grouping however, there were large changes within individual subsectors across the City Region and districts. For example, within 'big employment sectors' employment in retail saw large increases, employment in education fell and there was a small increase in manufacturing employment. Rotherham was the only district where manufacturing (excluding advanced manufacturing) employment fell.

In 'sectors with potential, there were large increases in each subsector. Rotherham was the only local authority where employment in a subsector fell, the number of jobs in transport, storage and warehousing fell by 18% whereas it had double digit increases in every other area.

Within 'growing sectors' employment in specialised construction rose in every area but fell in advanced manufacturing. And employment in healthcare increased in every area except Doncaster.

In general, Doncaster and Rotherham tended to perform below the City Region average within the individual subsectors which then led to below par employment change in the individual groupings. In non priority sectors, the number of jobs in Doncaster and Rotherham also fell whilst the number rose in Barnsley and Sheffield.

Figure 25: Percentage change of employment 2015 - 2019



Source: Business Register and Employment Survey (BRES). Office for National Statistics

3.4.4. Occupational structure of employment

Key points:

- As with the employment profile by sector, the distribution and recent change is very similar in the City Region and England. The City Region, however, has a lower proportion of high skilled jobs (44% compared to 48% in England) and the percentage of high skilled jobs is greatest in Sheffield (52%) and lowest on Doncaster (34%);
- Between 2014 and 2019 there was a large increase in the number of high skilled jobs in the City Region (23%), driven by change in Sheffield (31%);
- More occupations saw job increases in England than the City Region.

Occupation is closely related to wage levels, modes of working and qualification levels and so the occupational structure of an economy is an indicator of position and prospects of an area.

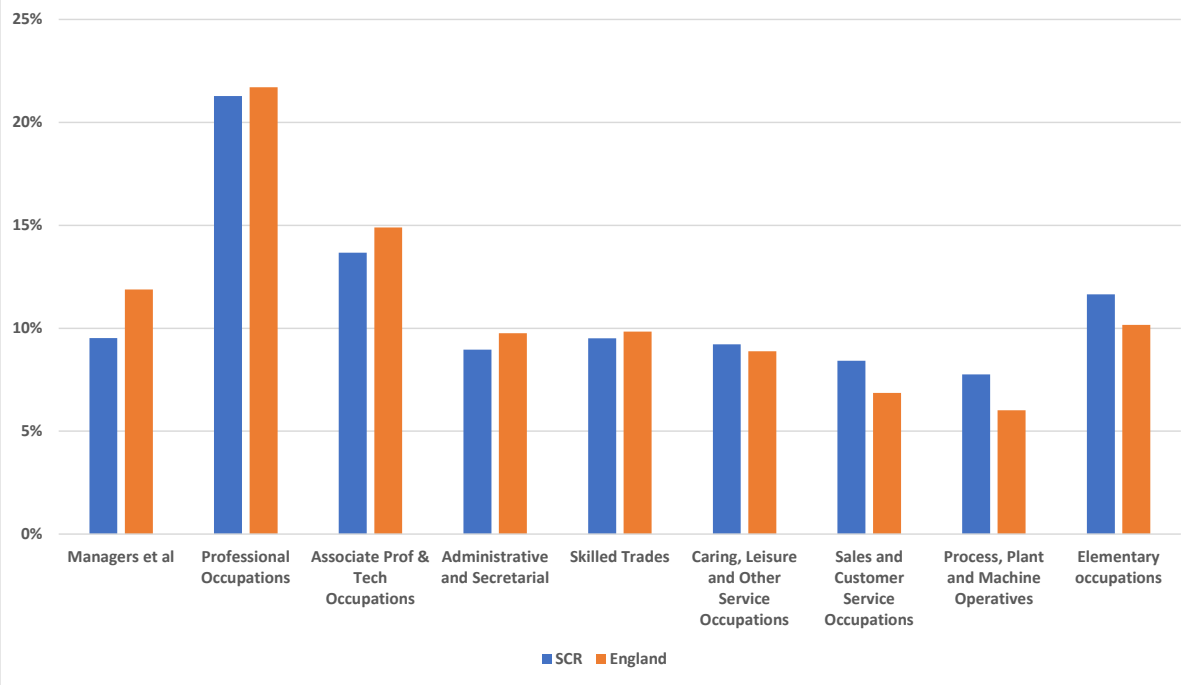
After the Financial Crisis, there were increases in some higher level occupational categories in the City Region, professional occupations in particular. Whilst there were also increases in managerial, and associate professional jobs growth was much lower than in the rest of the

country. There were also above national increases in lower skilled occupations such as sales and customer service, plant and machine operatives, and elementary occupations.[39]

In 2019/20, the overall distribution of employment by occupation in the City Region is not too dissimilar to that of England, as Figure 27 shows. In no occupation category is there more than two percentage points difference. However, grouping the occupations into high, medium and low skill level occupations shows that 44% of jobs in the City Region are in higher skill level occupations (i.e. managerial, professional and associate professional) compared to 48% across England, and 28% of City Region jobs are in lower skills occupations (i.e. sales and customer service, plant and machine operatives and elementary occupations) compared to 23% in England. If City Region jobs displayed the same occupational profile as England there would be around 31,500 people working in lower skilled occupations and 26,000 in higher skilled jobs.

The spread of jobs in medium skill level occupations (i.e. all other occupations) is almost identical in the City Region and England.

Figure 26: Employment by occupation – the City Region and England April 2019/March 2020



Source: IER analysis of NOMIS data based on the Annual Population Survey

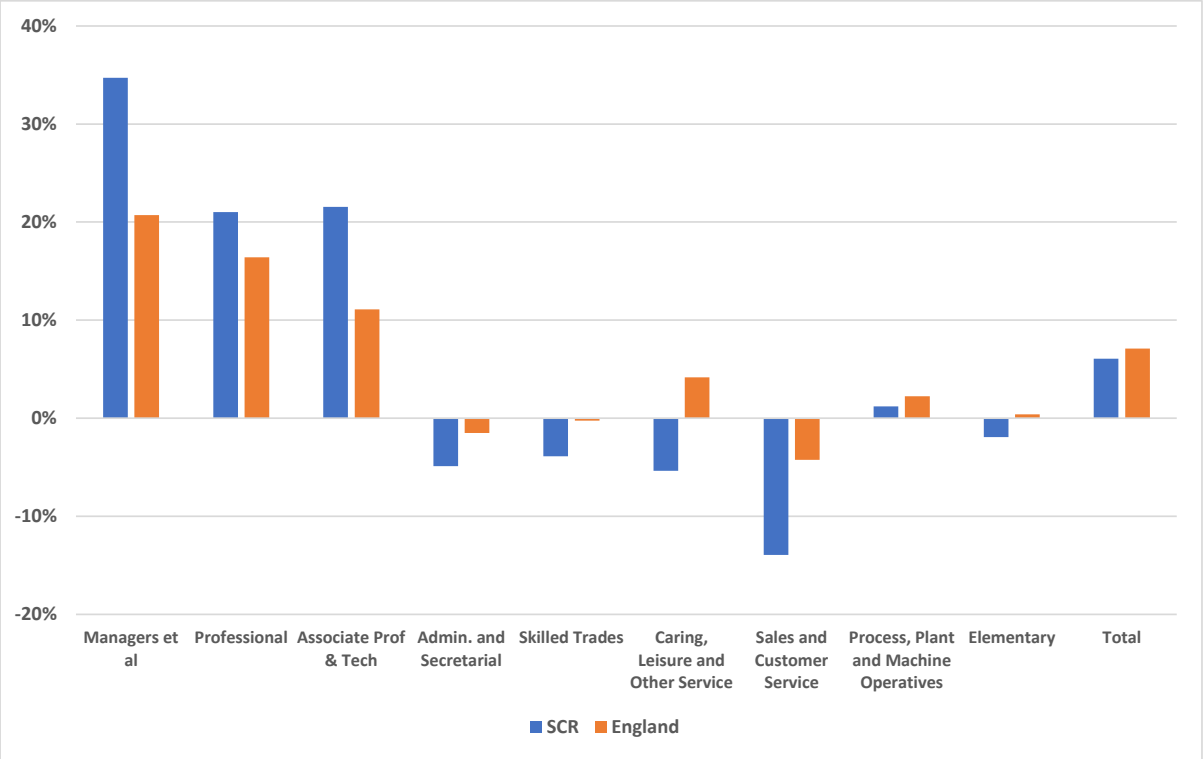
Figure 28 shows that the direction of change of jobs in the City Region has been towards higher level occupations. People employed in the higher level occupations increased in the five years to 2019/20 at a higher rate in the City Region than in England, especially managerial jobs. This builds on trends since 2007 but for the first time outstrips that of England.[40]

[39] Sheffield City Region (May 2019), Sheffield City Region Economic Evidence Base: Skills and Employment

[40] Ibid.

The number of jobs in medium skilled occupations has fallen in the City Region at a higher rate than in England. Lower skills sales jobs fell in both the City Region (-14%) and in England (-4%) with both areas seeing a slight increase in process, plant and machine operative jobs.

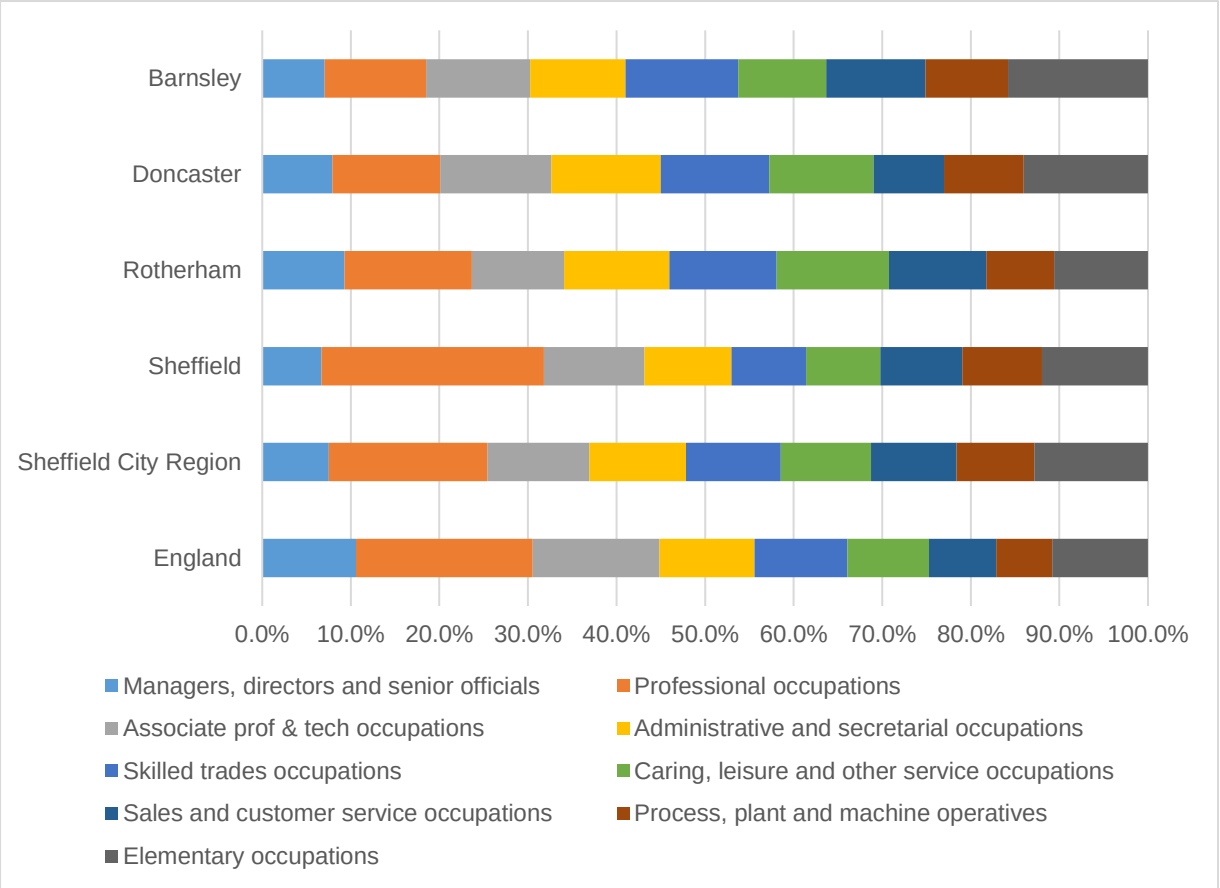
Figure 27: Employment change by occupation – the City Region and England 2014/15-2019/20



Source: IER analysis of NOMIS data based on the Annual Population Survey

Figure 29 shows the occupational employment structure in each local authority area in 2019. Across the City Region area, Sheffield has the highest levels of people working in high skill occupations (43%) which is a similar to England (45%). However, Sheffield also has higher levels of people working in low skills occupations (30%), compared to one quarter in England. Doncaster and Rotherham have the highest proportion of people working in medium level qualifications (36%), whilst Barnsley has the highest level of people in low skill jobs (36%).

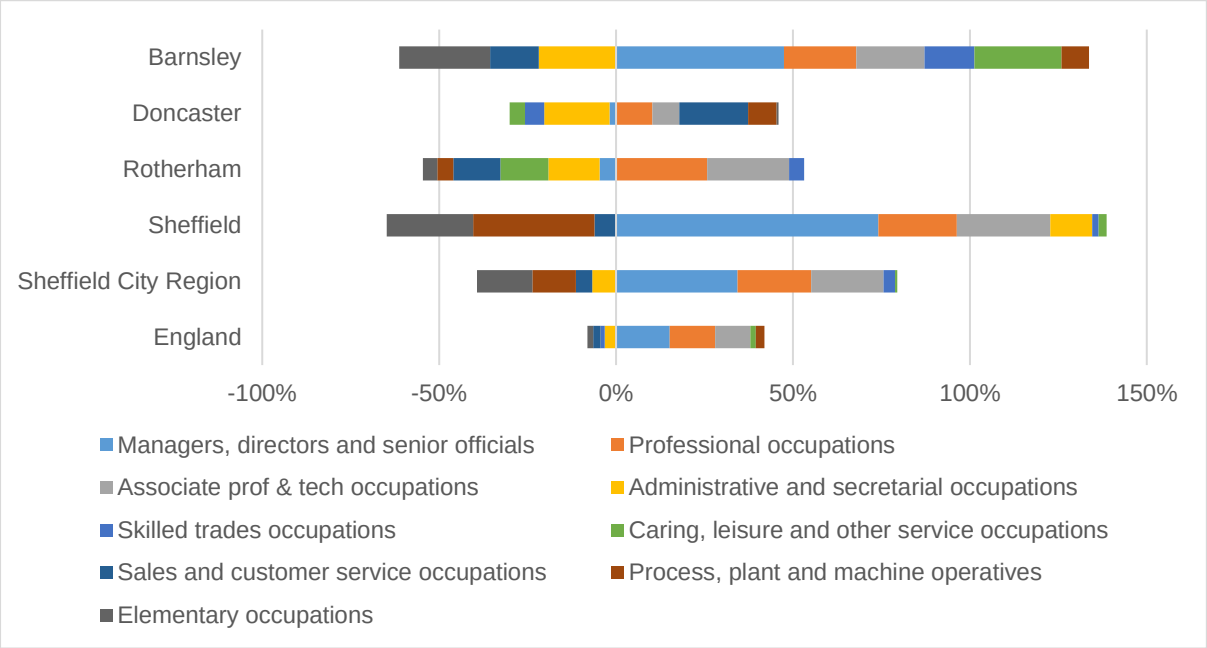
Figure 28: Occupational structure of employment – the City Region, local authorities and England 2019



Source: Annual Population Survey. Office for National Statistics

Figure 30 shows the percentage change of employment by occupation in each of the areas. In Barnsley (26%), Rotherham (17%) and Sheffield (31%), the percentage of people employed in high skill jobs increased significantly, at a faster rate than the national average (12%). The number of low skill jobs also fell in these local authority areas faster than the national average (-13%, -8% and -22% respectively compared to -1% in England). Doncaster had slower growth in high skilled jobs (6%) but also an increase in low skilled employment (8%). In Doncaster the fastest growing occupation 2014-2019 was sales and customer service, whereas in the other three local authorities it was managerial and professional occupations.

Figure 29: Percentage change of employment by occupation 2015-2019



Source: Annual Population Survey. Office for National Statistics

Table 10 shows the Top 10 occupations (at two-digit SOC) by employment for the City Region and England in 2019. Whilst there are differences in ranking and percentage change. Eight occupations are represented in both columns, suggesting that the occupational structure of areas is similar. To a lesser extent, the same applies across the City Region, with five of the occupations represented in every local authority area. Sheffield and Rotherham are more similar to England, with Barnsley and Doncaster having larger numbers of people working in specific skilled manual and process and machine operative occupations.

Between 2015 and 2019, the City Region saw declines in half its top ten occupations, and most of these were double digit falls. However, there were sizeable increases in large high skilled occupations, especially: corporate managers and directors (48.8%); health professionals (29.6%); and science, research, engineering and technology professionals (56.3%).

Table 10: Top 10 occupations with a higher number of workers 2019

City Region			England		
Occupation	2019	% growth 2015-19	Occupation	2019	% growth 2015-19
Elementary Admin. & Service	56,700	-16.9%	**Elementary Admin. & Service**	2,379,800	-0.5%
Administrative	52,300	-11.5%	**Corporate Managers & Directors**	2,289,600	20.3%
Caring Personal Service	51,700	-3.7%	**Business & Public Service Associate Professionals**	2,139,400	8.4%
Corporate Managers & Directors	47,900	48.8%	**Administrative Occupations**	2,134,900	-2.3%
Health Professionals	43,300	29.6%	**Caring Personal Service**	1,887,400	1.4%
Business & Public Service Associate Professionals	43,300	16.7%	**Science, Research, Engineering & Technology Professionals**	1,649,600	14.2%
Sales Occupations	40,200	-10.3%	**Business, Media & Public Service Professionals**	1,644,100	19.7%
Science, Research, Engineering & Technology Professionals	34,700	56.3%	**Sales**	1,424,000	-6.5%
Teaching & Educational Professionals	29,900	-15.3%	**Teaching & Educational Professionals**	1,354,100	3.9%
Skilled Metal, Electrical & Electronic Trades	29,900	22.0%	**Health Professionals**	1,232,700	13.2%

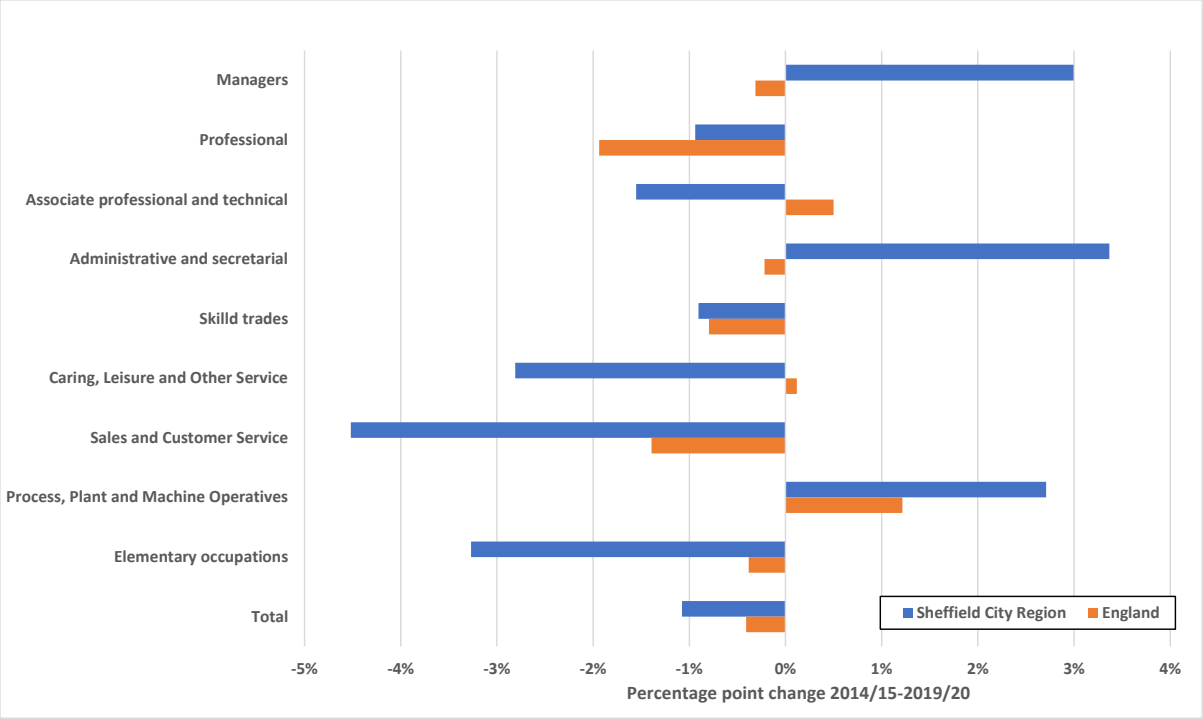
Source: Annual Population Survey. Office for National Statistics

Figure 31 shows the change in the proportion of people working flexibly (i.e. self-employed or on temporary contracts) in the City Region and England between 2014/15 and 2019/20. The figures presented are for percentage point change and therefore show relative change within each occupation group.

Overall there was a decline in flexible working across the City Region and England. In England, most of the changes were less than one percentage point (pp) showing that flexible working by occupation remained very similar over the period. There were larger changes in the City Region. Administrative and secretarial, and managers both showed shifts towards more flexible working whereas sales and customer service, and elementary occupations showed less. In most occupations, there was an increase in self-employment and a decrease in temporary working which is similar to the three comparators MCA areas.

Within the four local authorities there was a consistent pattern of an increase in self-employment and a fall in temporary employment.

Figure 30: Employment change by occupation and flexible working – Sheffield City and England 2014/15-2019/20



Source: IER analysis of NOMIS data based on the Annual Population Survey

3.5. Employment forecasts

Key points:

- The employment forecasts were published in January 2020, just before the impact of the pandemic was felt;
- There are forecast to be positive and negative changes by different sectors and occupations resulting from macroeconomic and sector changes. However, the net requirement on all sectors and occupations is likely to increase due to replacement demand (280,000) i.e. the need to replace older people as they leave the labour market;
- There is predicted to be a continuation of the trends from manufacturing and primary sector to service sector jobs; from manual to non manual; and from low to high skill employment;
- The skills needs of jobs overall, and in each sector and occupations is also forecast increase;
- Overall, there is expected to be a increased need for people with Level 4+ qualifications (23% compared to a decrease of -18% in lower level qualifications).

3.5.1. Industrial employment trends

This is a period of almost unprecedented uncertainty for the British economy, as it adjusts to leaving the European Union and experiences the unknown effects of the COVID-19 pandemic. Any projections of the future pattern of employment at this time must therefore be treated with

extra caution. The employment forecasts presented in this section are from the Working Futures 2017-2027 projections commissioned by the DfE.[41] They were created during Winter 2018/19 and published by DfE in early 2020, prior to the pandemic.

Working Futures projections are available for the City Region LEP area (as defined in 2017, which covers the City Region together with neighbouring parts of northern Derbyshire).

The tables and figures in this section provide two main components of change: net change[42] and replacement demand.[43] There is forecast to be an increase of 17,000 jobs due to net changes in the City Region and 280,000 because of replacement demand, this provides a total requirement (i.e. the number of jobs the economy needs over the period) of 297,000.

Table 11 shows that overall, employment is projected to grow more slowly over the ten year period 2017-2027, than it did 2007-2017.

Total employment in the SCR LEP, is projected to grow by 17,000 to 863,000 jobs by 2027, this is an increase of 2.0% compared with 2.8% for England as a whole.

This net change of 17,000 in employment represents the overall expansion of labour demand in industries located in the LEP over the period. Within this total, employment in manufacturing is forecast to decline (by 14% to 2027), but this will be offset by increases in jobs in non-marketed services (6.3%) and business and other services (5.7%). The rate of change in employment demand is slower than for England in all sectors except construction and non-marketed services.

Table 11: Projected employment change in the SCR LEP by industry sector, 2017-2027

	Employment (000s)			Change 2017-2027 (000s)		
	2007	2017	2027	Net change	Replacement Demand	Total change
Primary sector and utilities	15	13	12	-1	4	3
Manufacturing	98	85	74	-12	23	11
Construction	68	58	59	2	16	18
Trade, accomod. and transport	220	236	237	1	75	75
Business and other services	182	205	217	12	69	80
Non-marketed services	231	248	264	16	93	109
All industries	814	846	863	17	280	297

Source: DfE and IER Working Futures 2007-2017

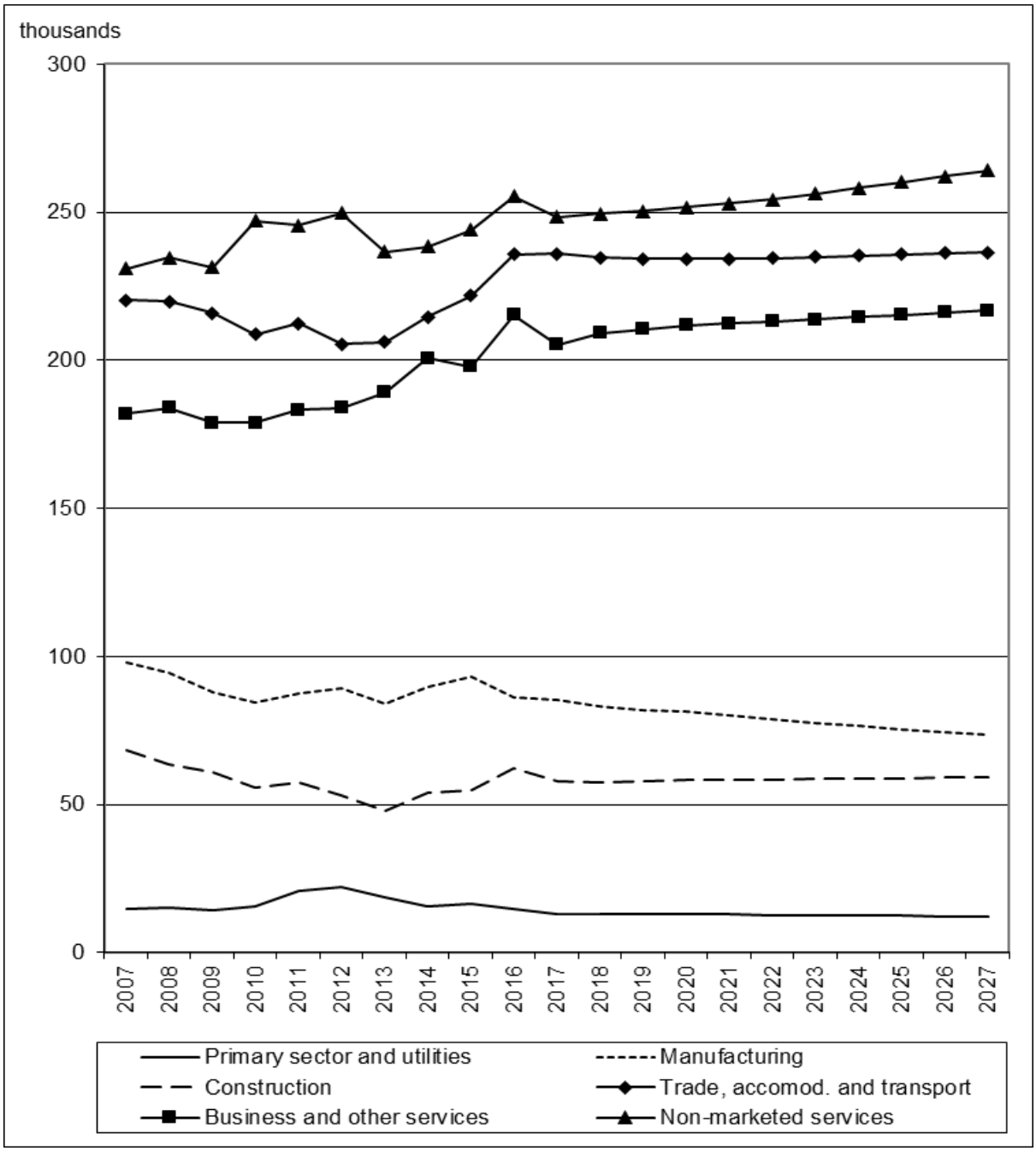
[41] These are based on the outputs of a multi sectoral macro-economic model of the economy which produces projections of output and employment which drive further models of employment by industry, occupation and educational qualifications.

[42] Net change is the overall change due to overall macroeconomic factors and specific sectoral impacts.

[43] Replacement demand are the jobs created due to people leaving the workforce e.g. due to retirement.

Figure 32 shows that established trends in each sector are mostly expected to continue from 2017-2027, with the construction and trade, accommodation and transport sectors being projected to maintain employment at best. However, the data does not take into account the impact of COVID-19 or Brexit and therefore present a best case scenario.

Figure 31: Projected change in employment for SCR LEP by industry sector



Source: DfE and IER Working Futures 2007-2017

The largest individual industries in the City Region in both 2017 and 2027 are projected to be health and social work, and wholesale and retail trades. The former is projected to grow strongly, while the latter is projected to stagnate over the ten year period. The share of individual manufacturing industries is projected to shrink, with a shift towards service sector industries. The highest rates of decline in employment are for the primary sector, food and drink and “the rest of manufacturing”, while a number of service sector industries are projected

to have relatively high rates of employment increase (arts and entertainment, professional services, support services and Information Technology). However, the number of jobs in the accommodation and food and education industries is projected to decline. Projected rate of employment change tend to be in the same direction as the average for England, but exaggerated.

However, employment change presented in Figure 32 above, and data for net change in the previous tables this does not represent all the job creation which will be necessary over this period. The biggest driver of employment change and job opportunities in the City Region is due to replacement demand, the need to replace those leaving the labour force primarily through retirement.

Replacement demand is likely to create a large number of job opportunities(280,000 in total) as the unusually large number of people born in the 1960s reach retirement age. Such replacement demand 2017 to 2017 is equivalent to 35% 2017 employment. Replacement demand is particularly high in non-marketed services (reflecting the older age structure of industries like education). There is replacement demand in all sectors, but it is least in declining sectors (such as manufacturing).

3.5.2. Occupational employment trends

Table 12 shows the occupational pattern of projected employment change for 2017 to 2027. The percentage of employment in managerial, and professional occupations (which includes teaching) is projected to increase from 27% in 2017 to 29% in 2027, with total labour requirement increasing by nearly half (49% and 47% respectively) in both of these occupations (due to replacement demand). The expected growth in employment in associate professional occupations (which includes nursing) is nearly as large (42%).

However, the fastest projected rate of increase is for caring, leisure and other service occupations (net change of 16% plus replacement demand of 41%) increasing the total labour requirement for this occupation by 57%.

In contrast, jobs in administrative occupations, skilled trades occupations, process, plant and machine operative, sales and customer service and elementary occupations are projected to decline. These trends reflect those for England as a whole, but the growth in caring, leisure and other services occupations is projected to be stronger, and the decline in skilled and semi-skilled manual occupations is projected to be faster than across the country. The projected net change percentage rate increase in managerial, and professional occupations is slower than across England.

Replacement demand, however, is significant in each occupation group more than outweighing any declines in employment due to net changes. For example, whilst there is forecast to be a fall (due to net changes) of 11% in skilled trades in the City Region, there is expected to be an increase of 26% due to replacement demand, leading to a total employment requirement increase of 15%.

These different factors have a varying effect on different occupation groups, but for each occupation there is a positive employment requirement by 2027.

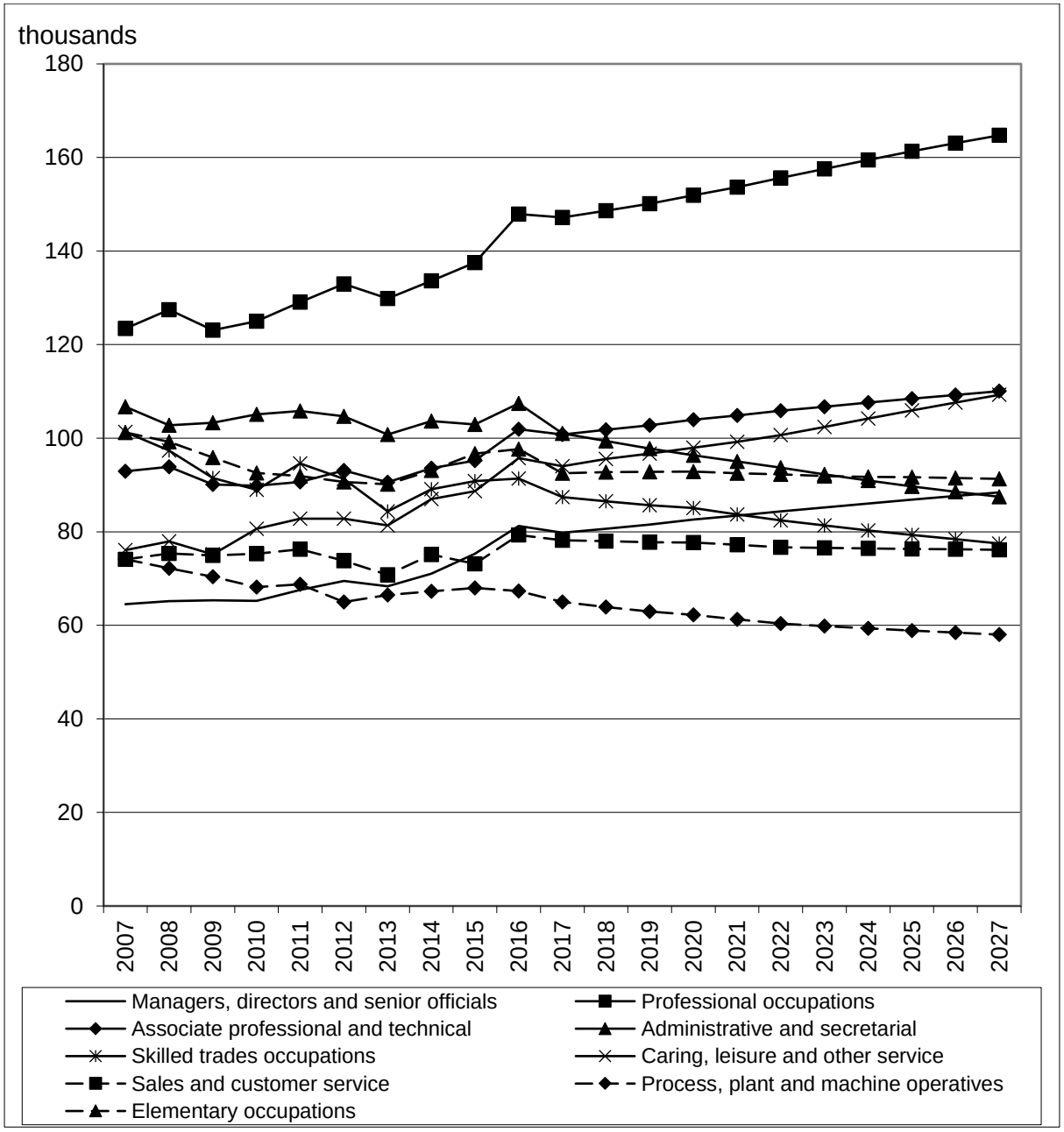
Table 12: Projected employment change by broad occupation in the SCR LEP, 2007-2027

SOC Major Group of occupation	Percentage of employment			% change 2017-2027			
	2007	2017	2027	Net change	Replacement demand	Total requirement	England net change
Managers, directors and senior officials	7.9	9.4	10.2	10.8	38.5	49.3	12.2
Professional occupations	15.2	17.4	19.1	11.9	35.0	47.0	11.8
Associate professional and technical	11.4	11.9	12.8	9.2	32.9	42.2	8.5
Administrative and secretarial	13.1	11.9	10.1	-13.4	31.3	17.9	-17.0
Skilled trades occupations	12.4	10.3	9.0	-11.4	26.1	14.7	-9.2
Caring, leisure and other service	9.3	11.1	12.7	16.2	41.0	57.2	13.9
Sales and customer service	9.1	9.2	8.8	-2.6	30.8	28.2	-1.6
Process, plant and machine operatives	9.1	7.7	6.7	-10.7	29.1	18.4	-9.4
Elementary occupations	12.4	10.9	10.6	-1.3	30.9	29.6	-0.4
All occupations	100.0	100.0	100.0	2.0	33.1	35.1	2.8

Source: DfE and IER Working Futures 2007-2017

Figure 33 provides an overview of occupation change (net change) in the SCR LEP area 2007-2027. It shows the consistent rise of professional, associate professional and technical, and caring, leisure and other service jobs over the 20 years from 2007. It also charts the fall in skilled and semi-skilled manual jobs (skilled trades and process, plant and machine operative) but also the fall in administrative and secretarial employment.

Figure 32: Projected employment change by occupation in the SCR LEP, 2007-2027



Source: DfE and IER Working Futures 2007-2017

3.5.3. Trends in job qualifications

Table 13 provides the implications of projected industrial and occupational trends in terms of the demand for workers by highest educational qualification levels. This reflects shifts towards higher skill occupations but also the increased demand for higher qualifications across all occupation groups.

In 2017, those with Level 2 (GCSE A to C) qualifications comprised the largest group within the City Region workforce (180,000 or 21%). People holding Level 3 (A level and equivalent) were the next largest category (175,000 and 21%).

However, between 2017 and 2027, there will be increase in qualification levels. By 2027, there will be an increase of over a third in the number with a first degree (37%), and an increase in nearly a quarter in the number with Higher Education below degree level (24%).

The numbers with each level of qualification above Level 2 is projected to increase, while the number with less than an A-level or equivalent as their highest qualification is projected to fall. The largest projected declines are for those with no qualifications (-32%) or Level 1 (-28%) as their highest qualification.

The rate of increase in those with higher qualifications is lower than the average for England, while the projected rate of decline in the least qualified is also lower than the England average. The percentage with highest educational qualification of Level 5 or above is projected to increase from 33% to 37%.

Table 13: Projected employment by highest qualification in the SCR LEP, 2017 to 2027

Highest educational qualification RQF level	Employment (000s)		Share of employment (%)		Change, 2017-2027 (%)	
	2017	2027	2017	2027	City Region	England
Level 8 Doctorate	11.6	12.8	1.4	1.4	10.7	32.1
Level 7 Other higher degree	78.1	83.5	9.2	9.2	6.9	31.0
Level 6 First degree	145.0	198.0	17.1	20.5	36.6	34.4
Level 5 Foundation degree; Nursing; Teaching quals.	46.6	50.5	5.5	5.7	8.5	16.7
Level 4 HE below degree level	41.5	51.3	4.9	5.5	23.6	29.5
Level 3 A level & equiv.	174.6	182.4	20.6	21.1	4.5	-4.8
Level 2 GCSE(A-C) & equiv.	180.3	165.0	21.3	20.2	-8.5	-14.7
Level 1 GCSE(below C) & equiv.	126.3	90.8	14.9	12.4	-28.1	-35.3
No Qualification	41.9	28.5	5.0	4.0	-31.9	-47.3
All qualifications	845.8	862.9	100.0	100.0	2.0	2.8

Source: DfE and IER Working Futures 2007-2017

3.6. Earnings and hours

3.6.1. Earnings

Key points:

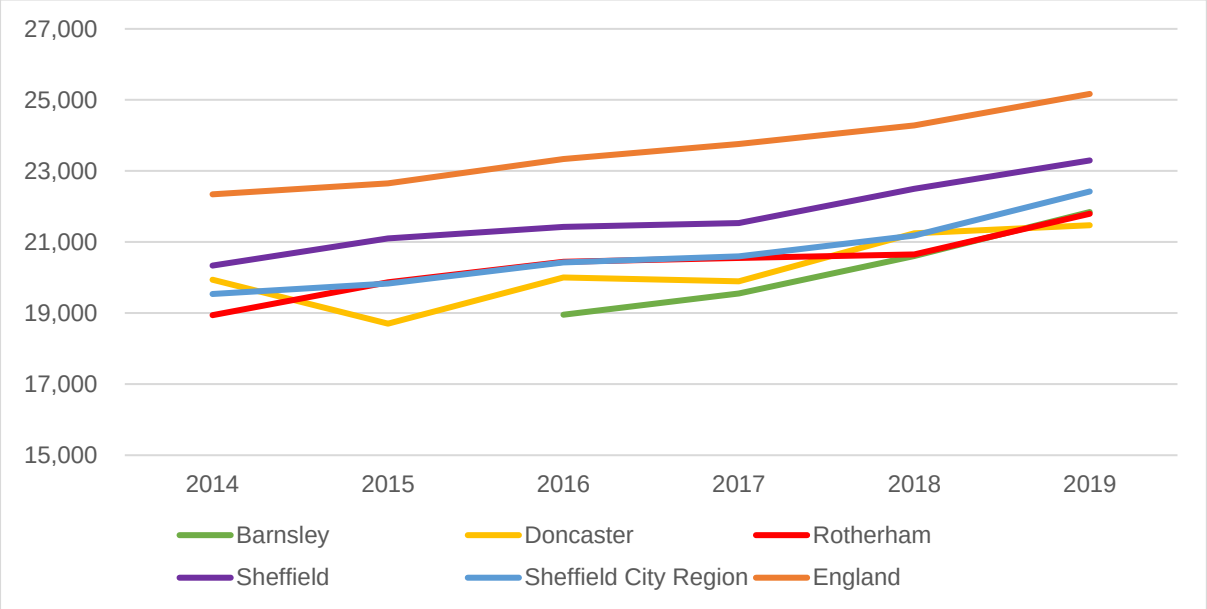
- Pay levels in the City Region are 90% of those in England. Pay levels have grown in both areas by the same amount so the same gap remains;
- Pay in Doncaster grew at a much slower rate than other areas;
- The gender pay gap in the City Region in 2016 was very similar to that in England. However, the City Region has narrowed that gap much more than in England.

Earnings levels and change provides an indication of labour demand in the local economy. In 2019, the workplace median annual gross pay of all employees in the City Region was £22,423, this is 89% of the corresponding figure for England (£25,169).

Figure 34 shows the change in employee median annual pay for the local authorities, the City Region and England between 2014-2019. The gap in median pay between the City Region and England increased by 6% over this period.

Within the City Region, Sheffield has the highest median pay levels (£23,297), followed by Barnsley (£21,271) and Rotherham (£22,183). The times series trend suggests that the median annual gross pay in Barnsley has grown relatively faster than the other local authority.

Figure 33: Median annual pay (Gross £) of all employees – the City Region, local authorities and England 2014-2019



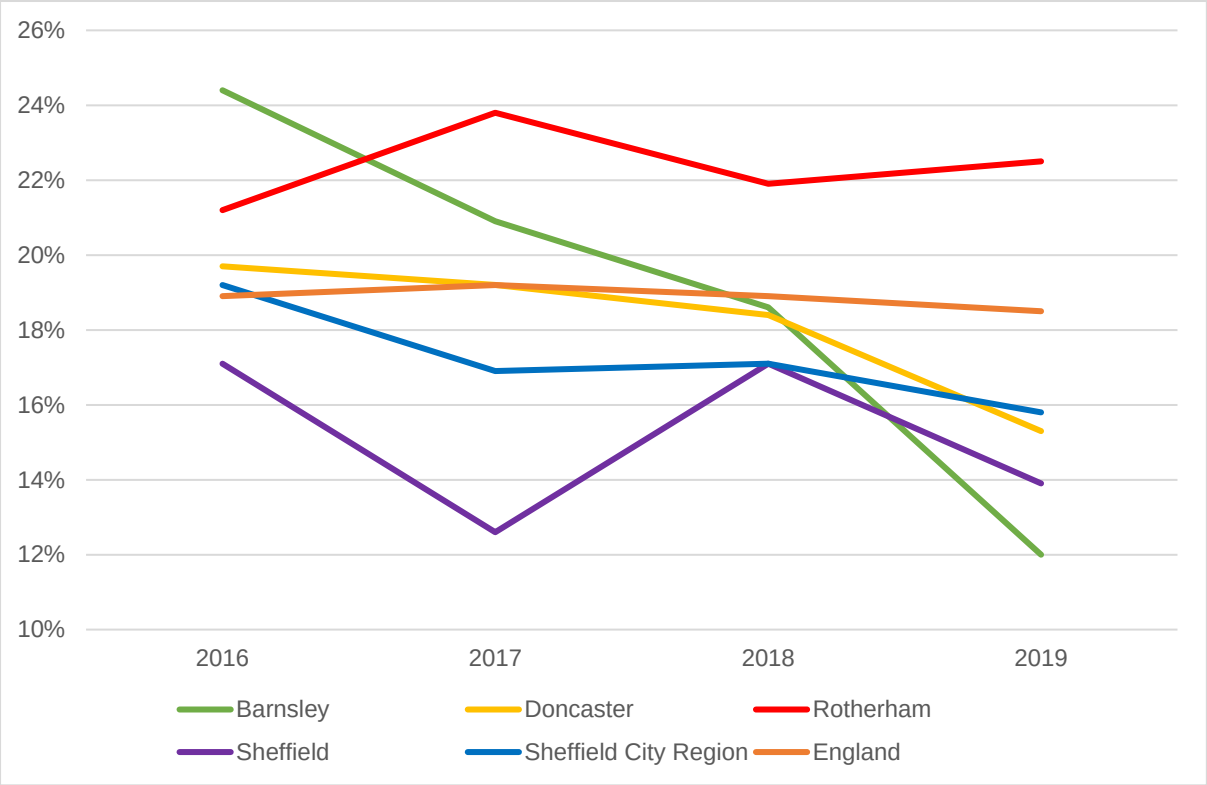
Source: Annual Survey of Hours and Earnings (ASHE). Office for National Statistics

There is a difference in the pay rates of men and women, referred to as the gender pay gap. Median hourly pay is used to reflect the fact that women are approximately three times more likely to be employed part-time than men in the City Region.[44]

Figure 35 shows that the hourly gender gap in the City Region is high (14% in 2019) but lower than the national average (19%). Only Rotherham has a higher gender pay gap than the national average. The gender pay gap has dropped significantly in all areas in the City Region faster than the national average between 2014-2019, with the exception of Rotherham which has had an increase.

[44] Sheffield City Region (February 2016) European Structural & Investment Fund Strategy 2014-20

Figure 34: Hourly pay gender gap – the City Region, local authorities and England 2016 - 2019

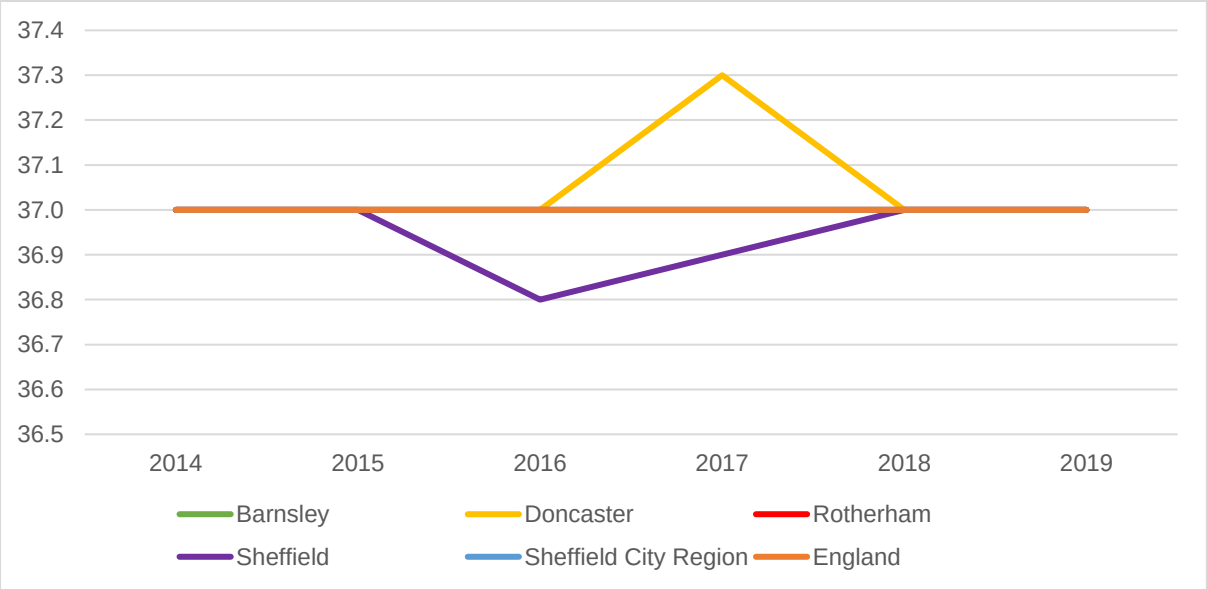


Source: Annual Survey of Hours and Earnings (ASHE). Office for National Statistics

3.6.2. Working hours

According to Figure 36, the median number of paid hours from 2014 to 2019 has been very consistent at an average of 37 hours per week for the City Region, the local authorities and England.

Figure 35: Median paid hours – the City Region, local authorities and England 2014 - 2020



Source: Annual Survey of Hours and Earnings (ASHE). Office for National Statistics

3.7. Labour and skills demand

Key points:

- Job postings trends pre-pandemic were similar in the City Region, England and the comparator LEP areas;
- Job postings were highest for professional, and associate professional jobs in all of these locations. They comprised a lower proportion in the City Region (52% compared to 61% in England), which had greater demand for administrative and secretarial (14% and 12%), and manual job postings (28% and 22%);
- Cross-sectoral skills (e.g. team working and communication) are mentioned the most in job postings. However, the ESS reported that employers found technical and practical skills (75% in the City Region), people and personal skills (76%), and self-management (61%) the hardest to find;
- The City Region has lower levels of skills shortage (6% of employers compared to 8% in England) and hard to fill vacancies (4%) and 6%). However, skills gaps (15%) and staff underutilisation (36%) are much more significant issues for employers in the City Region and elsewhere.

3.7.1. Main methods of recruitment

According to the 2016 Employer Perspectives Survey, vacancy levels in England and the comparator LEP areas were higher than in the City Region. Across England, 53% of all establishments had at least one vacancy in the past year compared to 46% in the City Region.

Table 14 shows the main recruitment methods used by employers. In 2016, word of mouth or personal recommendation was the most common method of advertising job vacancies in each area. City Region employers are less likely to use other methods except for Government recruitment channels and job websites/social media.

Table 14: Recruitment method used in last 12 months - the City Region, LEP areas and England 2016

	City Region	Liverpool City Region	Tees Valley	GBSLEP	England
Any vacancies	46%	58%	56%	53%	53%
Placed adverts on own website	25%	33%	42%	29%	29%
Placed adverts on social media	22%	26%	23%	21%	24%
Job advert website or social media	7%	6%	2%	5%	5%
Other form of paid recruitment service	18%	20%	17%	26%	24%
Government recruitment service/scheme	20%	26%	20%	21%	20%
School/college/HE job fairs or careers	10%	12%	11%	10%	10%
Word of mouth or personal	35%	47%	44%	41%	42%

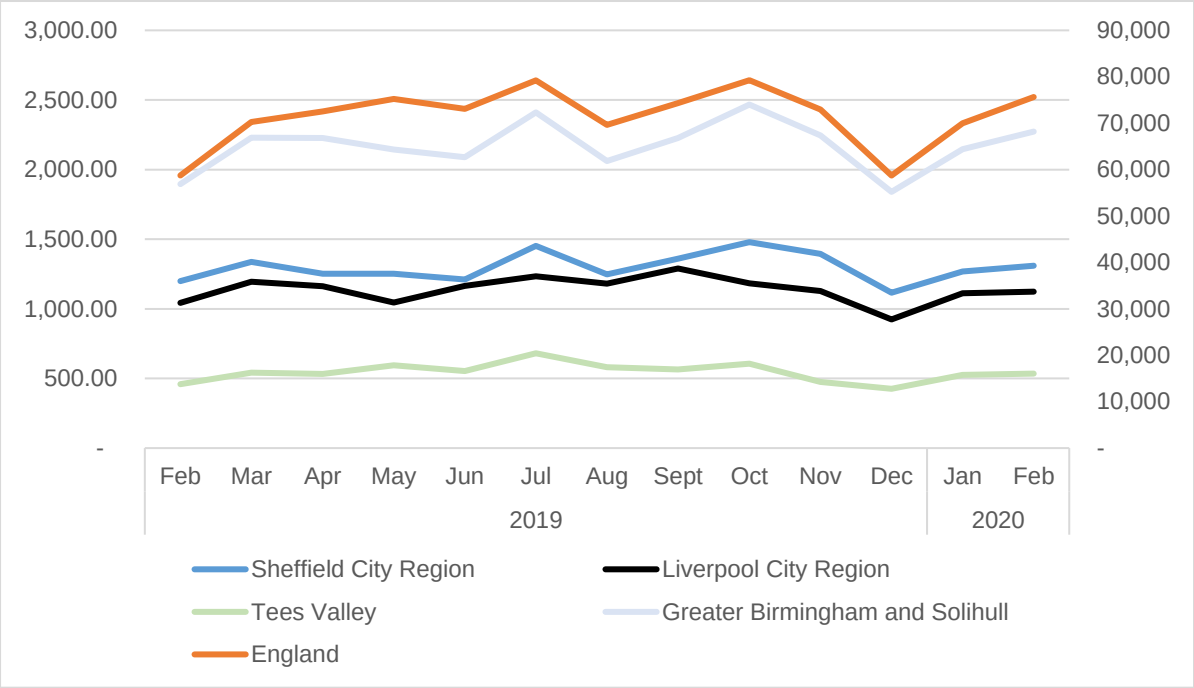
Source: Employer Perspectives Survey 2016. Office for National Statistics

3.7.2. Vacancies/job postings

LMI for All monitors job postings in the main recruitment websites. Figure 37 shows that the number of web based job vacancy postings remained relatively constant during 2019. The number of vacancies in England averaged 71,270 per month, and varied between 58,000 and 79,000. The City Region averaged 1,300 vacancies per month, ranging between 1,479 and 1,116.

Patterns of job postings followed a similar monthly trend across all of the LEP areas, suggesting common seasonality in employer recruitment activity.

Figure 36: Number of job vacancies - the City Region, LEP areas and England Feb 2019 – Feb 2020

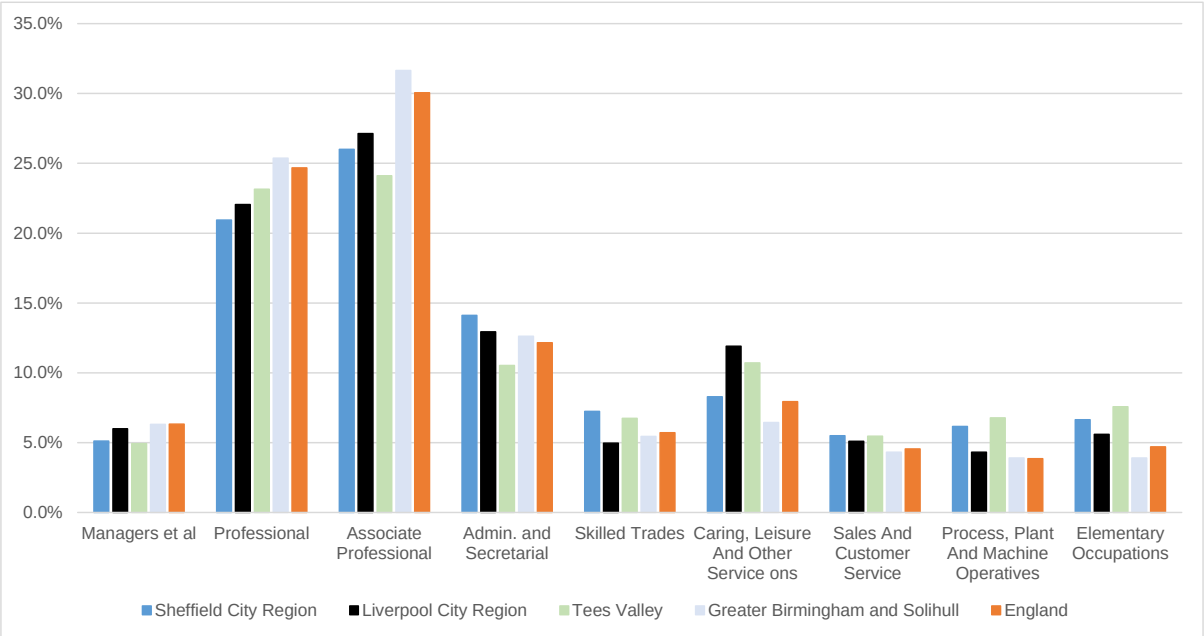


Source: LMI for All vacancy dataset

Figure 38 shows the distribution of job placements by occupation. The distribution by occupation is broadly similar with the highest number of job placements for professional, and associate professional occupations in each area, followed by administrative and secretarial.

Sheffield has relatively high levels of job postings for skilled trade, process, plant and machine operatives and elementary occupations.

Figure 37: Job placements by occupational group – the City Region, LEP areas and England 2019



Source: LMI for All vacancy dataset

Table 15 shows the top 15 skills most in demand in the City Region from internet job postings in 2019. Cross-sector skills such as 'work as a team" and 'communication' were most in demand followed by 'customer service'. Around 58% of vacancies require cross-sector skills[45], followed by sector-specific[46] (21.9%) and transversal skills[47] (19.7%).

Table 15: Top 15 skills most demanded in the City Region, job postings 2019

Ranking	Top 15 Skills demanded in the City Region	Skill type
1	work as a team	cross-sector
2	communication	cross-sector
3	customer service	sector-specific
4	provide information	cross-sector
5	manage a team	cross-sector
6	lead a team	cross-sector
7	work in teams	transversal
8	support colleagues	transversal
9	process data	cross-sector
10	manage time	transversal
11	financial management	cross-sector
12	business processes	cross-sector
13	work with nursing staff	sector-specific
14	focus on service	cross-sector
15	project management	sector-specific

Source: LMI for All vacancy dataset

3.7.3. Hard to fill and skill shortage vacancies

Labour and skills demand is also measured by the level of hard to fill, and skill shortage vacancies. According to the ESS, in 2019 the City Region had vacancy levels just below the national average. In the City Region, 15% of all employers had at least one vacancy compared to 17% in England. The number of vacancies corresponds to 2.8% of the City Region workforce compared to 3.2% of the national workforce.

The number of employers reporting a hard to fill vacancy was the same (8%) in the City Region and England. The number of hard to fill vacancies represents 0.9% of the City Region and 1.1% of England's workforce. Just over one third (36%) of all vacancies in the City Region and England are hard to fill vacancies.

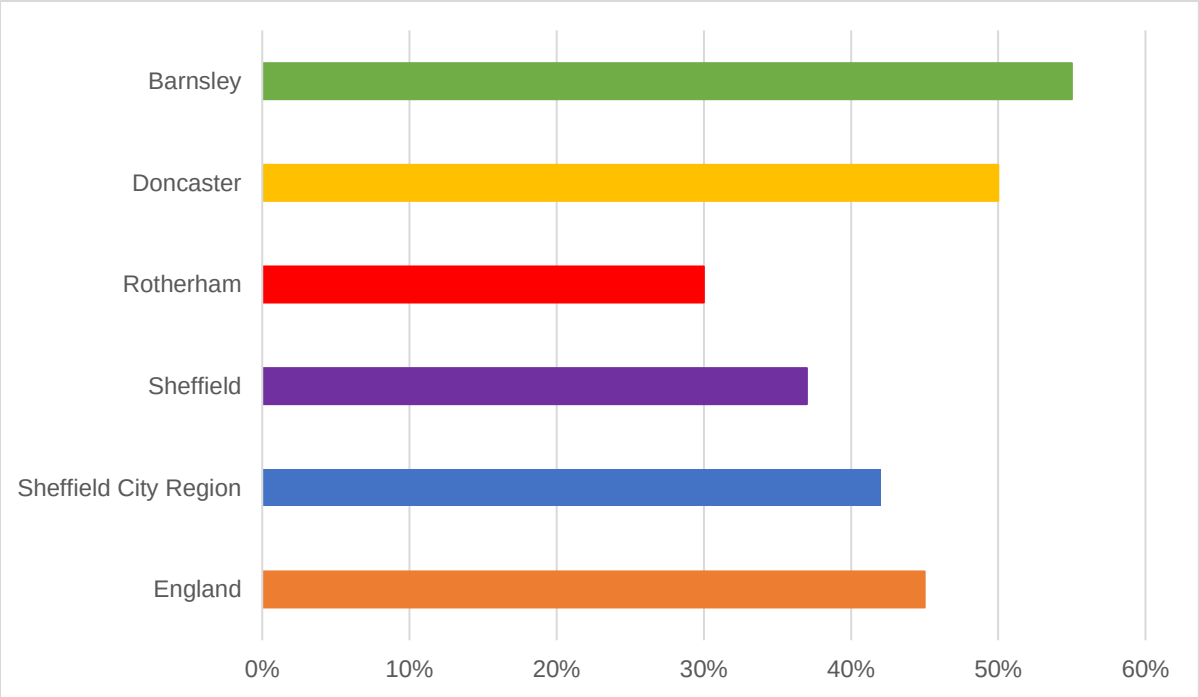
Figure 39 shows that City Region employers reporting a vacancy, 45% said that it was hard to fill. Employers reporting a hard to fill vacancy is higher in Barnsley (55%) and Doncaster (50%) than the City Region and the national average. Rotherham has much lower levels of hard to fill vacancies than the other areas (30%).

[45] Skills that are necessary for different sectors. (ESCO, 2017, p.6).

[46] Skills that are relevant for one sector but required in different occupations e.g. 'sales activities'.

[47] Skills relevant to a range of occupations and sectors e.g. social interaction and critical thinking.

Figure 38: Incidence of hard-to-fill vacancies - the City Region, local authorities and England 2019

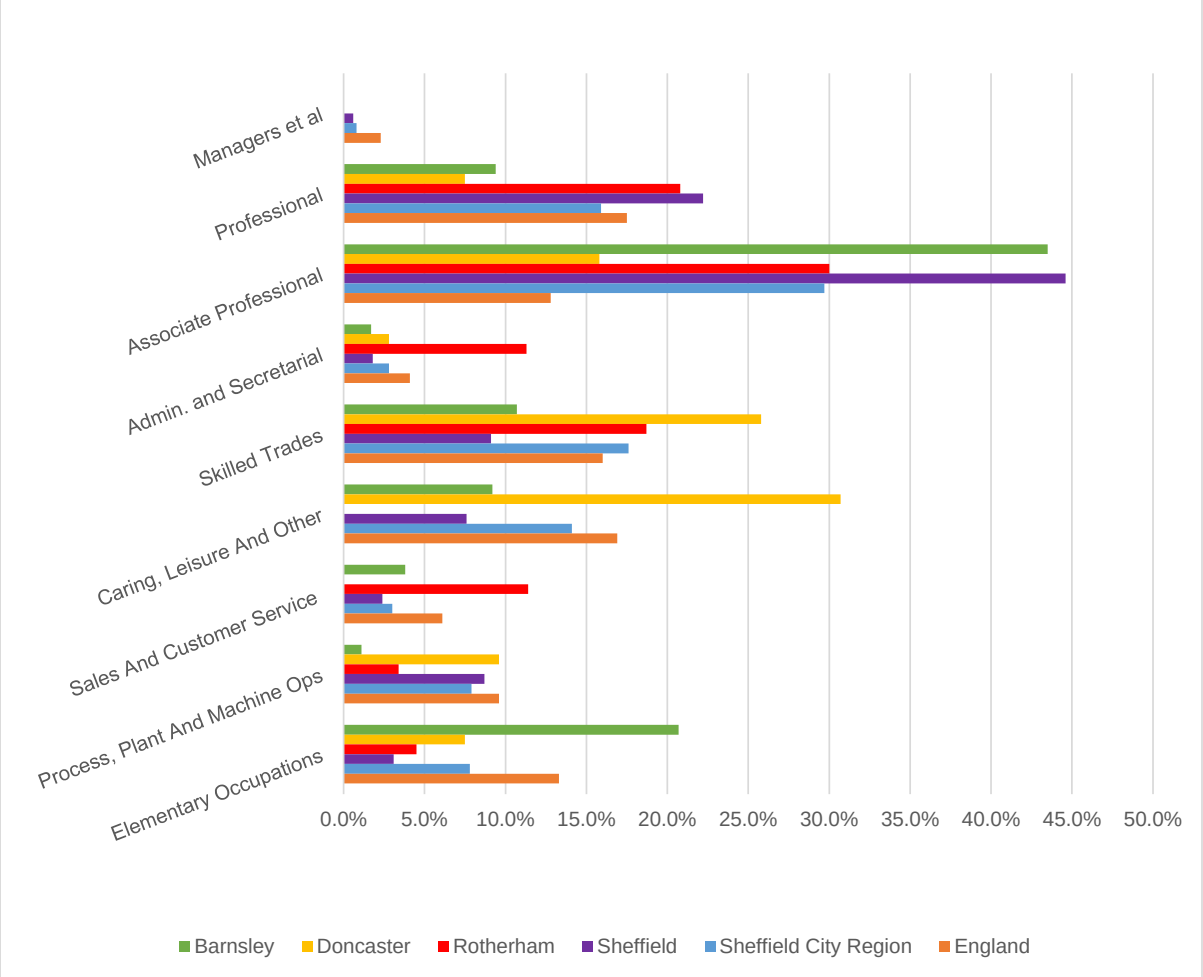


Source: Employer skills survey (ESS) 2019

Figure 40 shows that the occupation with most hard to fill vacancies across the City Region were associate professional and technical, these vacancies were hardest to fill in each local authority except for Doncaster. Skilled craft trades (18%) and professional occupations (16%) and caring, leisure and other service occupations (14%) were also hard to fill across the City Region but their levels varied between the four local authorities.

Compared to England, the City Region has higher levels of hard to fill vacancies for high skill occupations (46% and 33% respectively), similar levels of medium skill hard-to-fill vacancies (35% and 37%) and much lower levels of low skill hard-to-fill vacancies (19% and 29%).

Figure 39: Hard-to-fill vacancies by occupation - the City Region, local authorities and England 2019



Source: Employer skills survey (ESS) 2019

Vacancies can be hard to fill for a variety of reasons: lack of suitable applicants; few applicants; and the location, pay and conditions of the job.

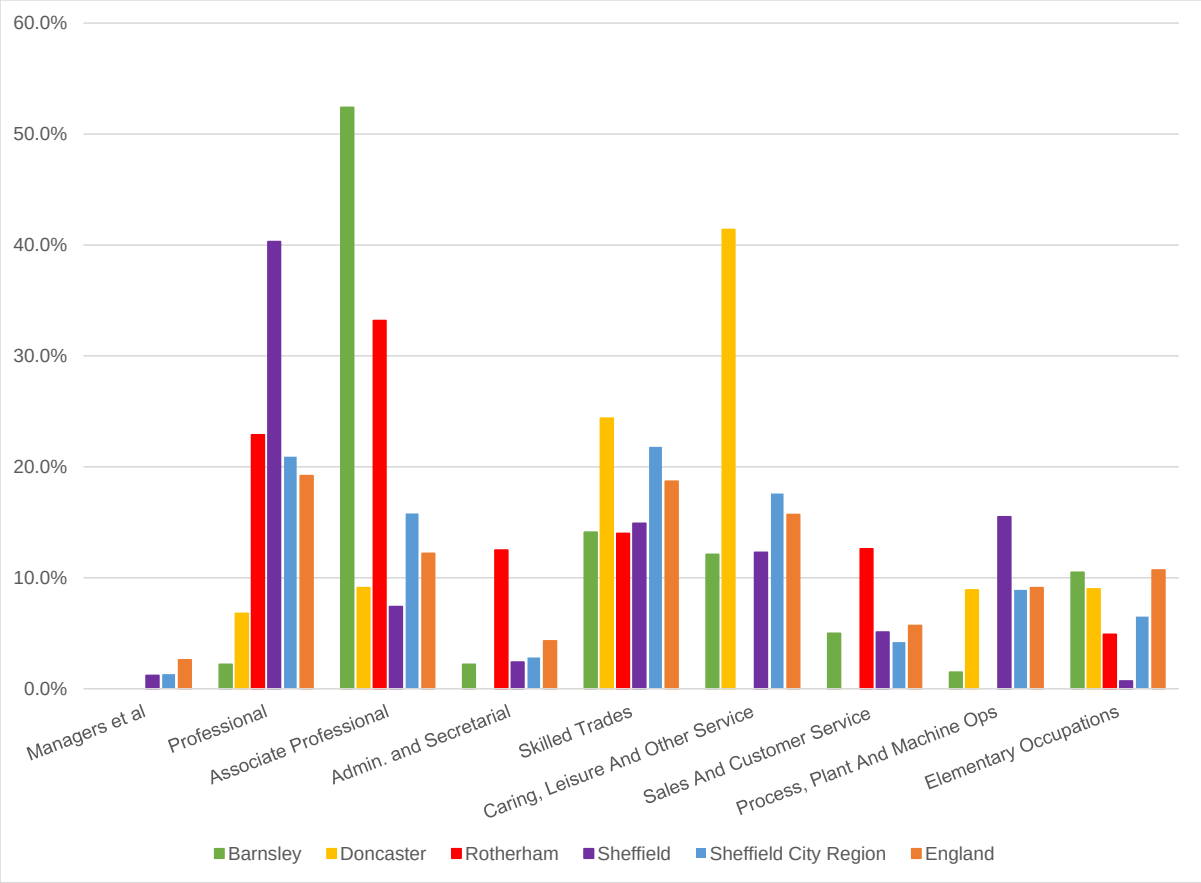
The ESS reports on those vacancies that are difficult to fill because of skill shortages. The level of skill shortage vacancies is lower in the City Region than England. In the City Region 4% of employers reported a skill shortage vacancy representing 0.5% of employment. The respective figures for England were 6% and 0.8%. In the City Region one in five (21%) vacancies is a skill shortage vacancy compared to 25% in England.

Figure 41 shows that across the City Region skilled craft trades (22%), professional occupations (21%) and caring, leisure and other service occupations (18%) comprised the largest skill shortage vacancies. Levels varied significantly across the four local authorities. In Barnsley and Rotherham, associate professional and technical occupations were the largest skill shortage vacancy occupations (52% and 33% respectively); in Doncaster it was caring, leisure and other service occupations (41%); and professional occupations in Sheffield (40%).

Compared to England, the City Region had higher levels of high skill occupation skill shortage vacancies (38% and 34% respectively); higher medium occupation skill shortage vacancies

(42% and 39%); and lower levels of skill shortage vacancies for low skilled occupations (20% and 26%).

Figure 40: Profile of skill-shortage vacancies by occupation - the City Region, local authorities and England 2019



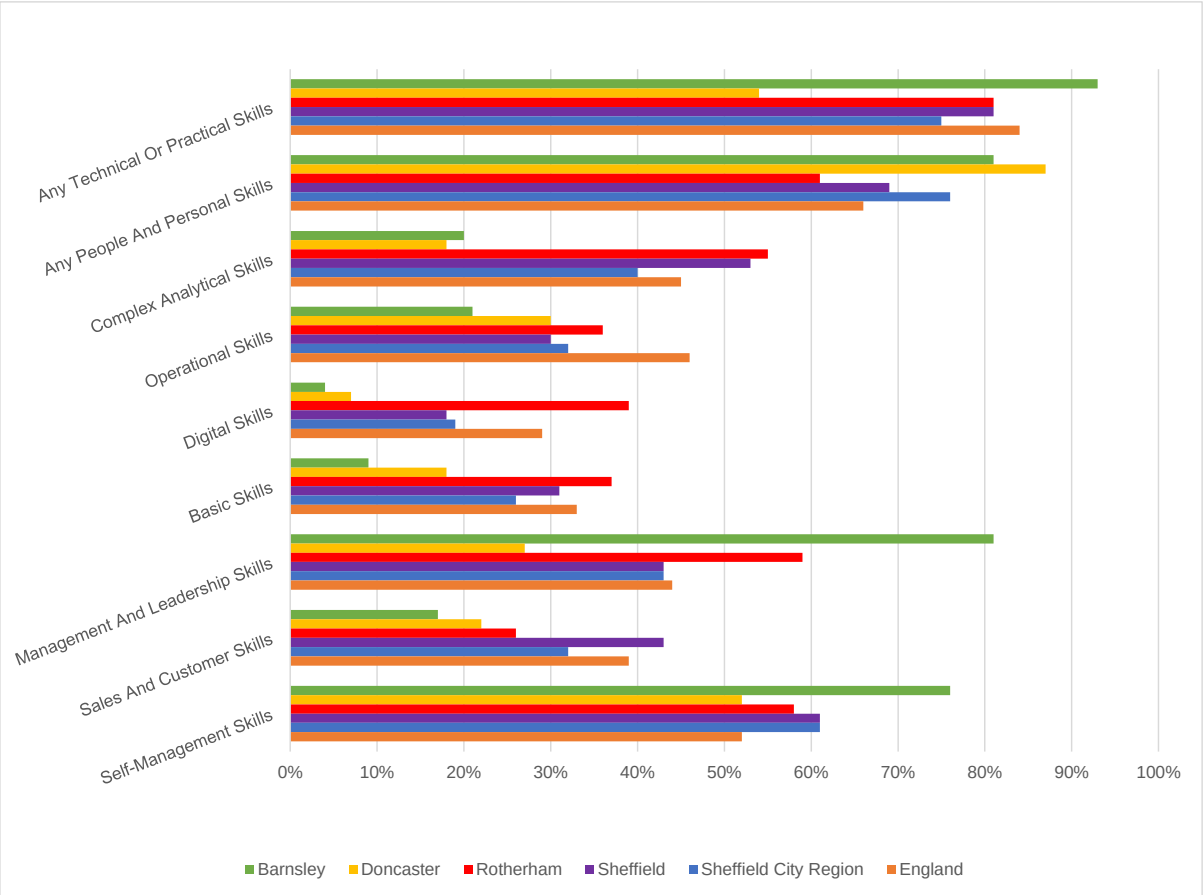
Source: Employer skills survey (ESS) 2019

Figure 42 shows that in the City Region the main reasons for skill shortage vacancies were: the lack of "any technical or practical skills"[48] (75% of employers with a skill shortage vacancy gave this reason) and "any people and personal skills"[49] (76%). These two skills along with self-management skills were the most prevalent reasons across each of the local authorities. Rotherham and Barnsley (in particular) had high levels of skill shortages due to a lack of management and leadership skills (59% and 81% respectively).

[48] Technical or practical skills refers to "specific skills required to perform the specific functions of a job role" (ESS, 2019).

[49] These skills are defined as "the 'softer', less tangible skills required to manage oneself and interact with others in the workplace" (ESS, 2019).

Figure 41: Skills found difficult to obtain from applicants - the City Region, local authorities and England 2019



Source: Employer skills survey (ESS) 2019

3.7.4. Skills gaps and skills utilisation

Table 16 shows that there are a variety of recruitment and skills issues facing employers. It shows the total number of vacancies (as a proportion of jobs and number of employers), hard to fill vacancies, skill shortage vacancies, skills gaps, and staff underutilisation.[50]

Across all areas, the total number of vacancies is less than 4% of total jobs and represents less than one in five employers (who have at least one vacancy). The level of hard to fill vacancies is even lower, less than 1.5% of jobs and affecting fewer than one in ten employers. Skills shortage vacancies are less than 1% of employment and affect less than 7% of employers in any of the areas. By contrast, skills gaps represent between 3%-6% of all jobs, and are experienced by more than one in ten employers (12%-16%). Staff underutilisation affects around one third of employers in each area. Furthermore, skills gaps and staff underutilisation are more likely to affect City Region employers compared to England.

Hard to fill and skills shortage vacancies represent a relatively small proportion of recruitment and skills issues than skills gaps and underutilisation.

[50] Skills gaps refers to the number of staff who are not fully proficient in their jobs. Staff underutilisation are those staff that have both qualifications and skills that are more advanced than required for their current job role.

Table 16: Vacancies skills gaps and underutilisation - the City Region, local authorities and England 2019

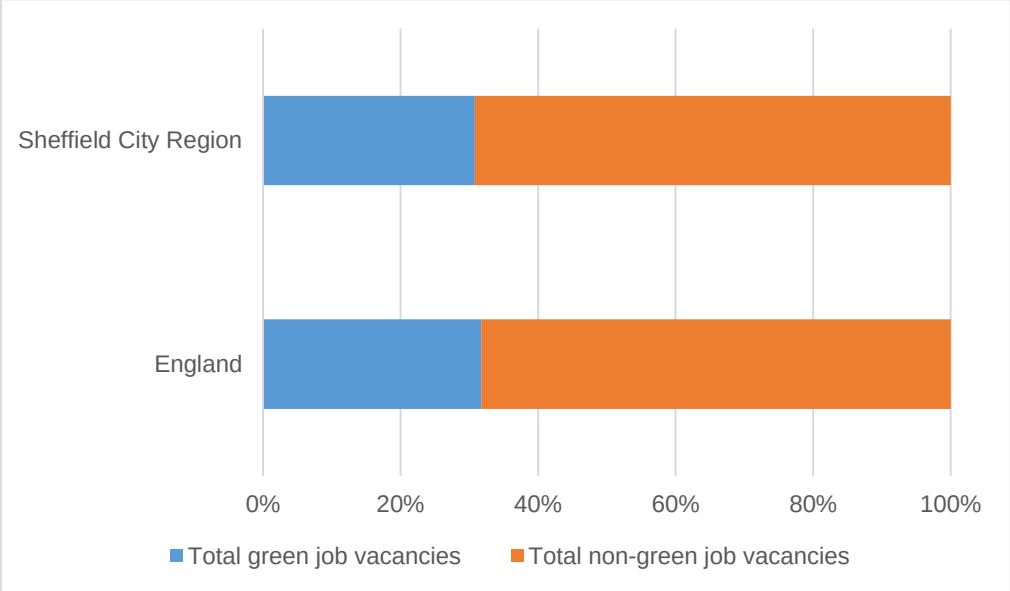
		Barnsley	Doncaster	Rotherham	Sheffield	City Region	England
Total vacancies	% jobs	1.4%	3.2%	2.0%	3.5%	2.8%	3.2%
	% employers	14%	18%	14%	15%	15%	17%
Hard to fill vacancies	% jobs	0.6%	1.2%	0.5%	1.1%	0.9%	1.1%
	% employers	8%	9%	4%	6%	6%	8%
Skill shortage vacancies	% jobs	0.5%	0.9%	0.4%	0.5%	0.5%	0.8%
	% employers	3%	5%	4%	4%	4%	6%
Skills gaps	% jobs	3.3%	3.6%	5.5%	3.8%	4.2%	4.6%
	% employers	12%	15%	13%	16%	15%	13%
Staff underutilisation	% jobs	-	-	-	-	-	-
	% employers	39%	32%	32%	34%	36%	34%

Source: Employer skills survey (ESS) 2019

3.7.5. Vacancies for green jobs

'Green jobs'[51] are a priority at both the national[52] and subregional level.[53] How green jobs is defined is in Annex A. Figure 43 shows that 31% of vacancies in the City Region (8,212 in total) were green job vacancies. This is slightly below the national average (32%).

Figure 42: Percentage of green job vacancies in the City Region 2019 - 2020



Source: LMI for All vacancy dataset

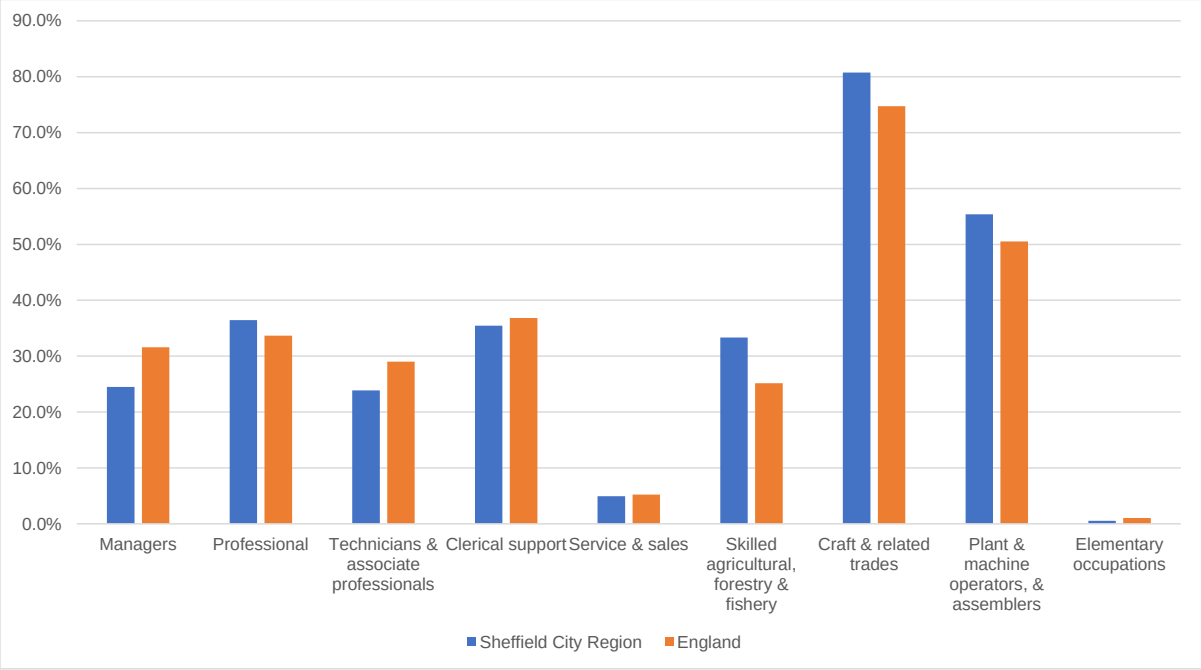
[51] Green occupations "refer to the extent to which green economy activities and technologies increase the demand for existing occupations, shape the work and worker requirements needed for occupational performance, or generate unique work and worker requirements" (Dierdorff et al. 2009, p.4).

[52] HM Government. (2011) Enabling the transition to a green economy: government and business working together

[53] Sheffield City Region (January 2021) Our Strategic Economic Plan 2021-2041

Figure 44 shows the occupation of green job vacancies. The occupational distribution is similar between the City Region and England. In both areas, more than two-thirds of craft and related workers job postings are for green jobs, and around half for plant and machine operators, and assemblers. The share of green job vacancies in elementary, and service and sales occupations is less than 5% in the City Region and England.

Figure 43: Percentage of green job vacancies by occupational groups in the City Region



Source: LMI for All vacancy dataset

At the occupational level, Table 17 shows that the green occupations in most demanded are accountants (10.4%), software developers (6.9%) and enquiry clerks (6.5%). These top 20 of occupations account for two thirds of the total green job vacancies in the City Region.

Table 17: Top 20 in most demand green occupations in the City Region (Feb 2019 - Dec 2020)

Green occupations	City Region
Accountants	10.4%
Software developers	6.9%
Enquiry clerks	6.5%
Sales and marketing managers	3.4%
ICT user support technicians	4.5%
Engineering professionals not elsewhere classified	3.5%
Financial and investment advisers	3.0%
Research and development managers	1.8%
Lawyers	3.0%
Agricultural and industrial machinery mechanics and repairers	4.0%
Physical and engineering science technicians nec	2.9%
Real estate agents and property managers	1.5%
Social work and counselling professionals	2.1%
Chefs	0.8%
Motor vehicle mechanics and repairers	2.5%
Biologists, botanists, zoologists and related professionals	1.0%
Receptionists (general)	1.5%
Systems analysts	1.2%
Heavy truck and lorry drivers	4.1%
Mechanical engineers	1.4%

Source: LMI for All vacancy dataset

In summary, the vacancy data show that there is a relatively high demand for high and middle-skilled and non-green occupations. Recruitment to the City Region jobs tends to be based more on applicants having prior cross-sector skills.

3.8. Employer training behaviour

Key points:

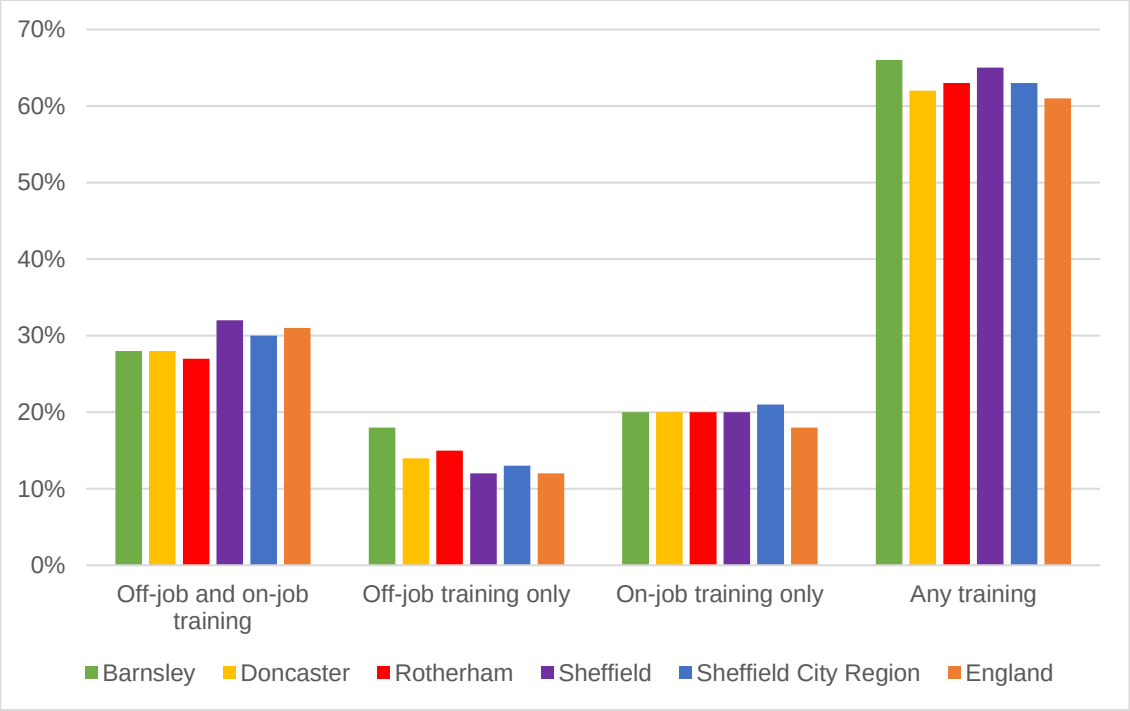
- 63% of employers in the City Region provide some form of staff training, this is higher than in England;
- Different measures of training behaviour provide different rankings in the level of training by area;
- Most training is job specific (86% of City Region employers undertake this training) but a high proportion is health and safety (71%) and basic induction (59%);
- Of those employers who do not train, more than 80% say that their staff are fully proficient and so there is no need to train;
- For those employers who do train, the main reasons they do not increase their levels of training are because of the costs associated with losing staff whilst they train (49%

of City Region employers providing training), and the actual costs of funding the training (49%).

This section reports on employer training activities from the ESS 2019. Figure 45 shows that overall levels of training are higher in the City Region than England. In the City Region 63% of employers provide some training for their staff compared to 61% in England. Levels of on- and off-the-job training are similar between the City Region and England.

Across the four local authorities, employers are more likely to train in Barnsley (66%) and Sheffield (65%) compared to Doncaster (62%) and Rotherham (63%). Barnsley employers are also more likely to provide off-the-job training.

Figure 44: Levels of training in the past year - the City Region, local authorities and England 2019



Source: Employer skills survey (ESS) 2019

However, when measured by the average number of days training per member of staff, Barnsley (4.3 days) and Doncaster (4.0 days) has the highest incidence of training (Figure 46). Therefore, whilst fewer employers in Doncaster train their staff, those that do provide more days of training for them, Barnsley employers do both.

On this indicator, the City Region and England have the same levels of training (3.6 days).

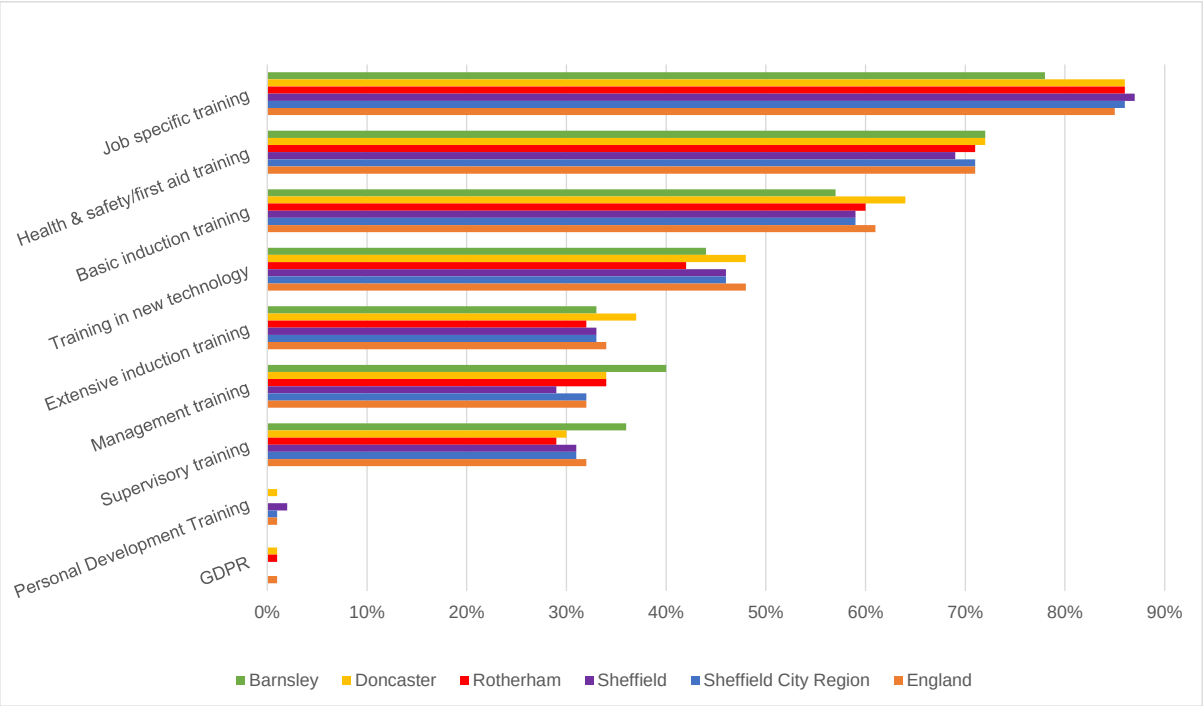
Figure 45: Average number of days training per staff member - the City Region, local authorities and England 2019

Source: Employer skills survey (ESS) 2019

Figure 47 shows the types of training provided by those employers who train their staff. Most training in all areas is job specific training, 80% of employers who train provide this form of training in each area (except Barnsley, 78%). Over 40% of employers who train provide training in new technology in each area. However, a significant proportion of training is health and safety, first aid, and/or basic induction training.

The profile of training in the City Region is similar to that of England.

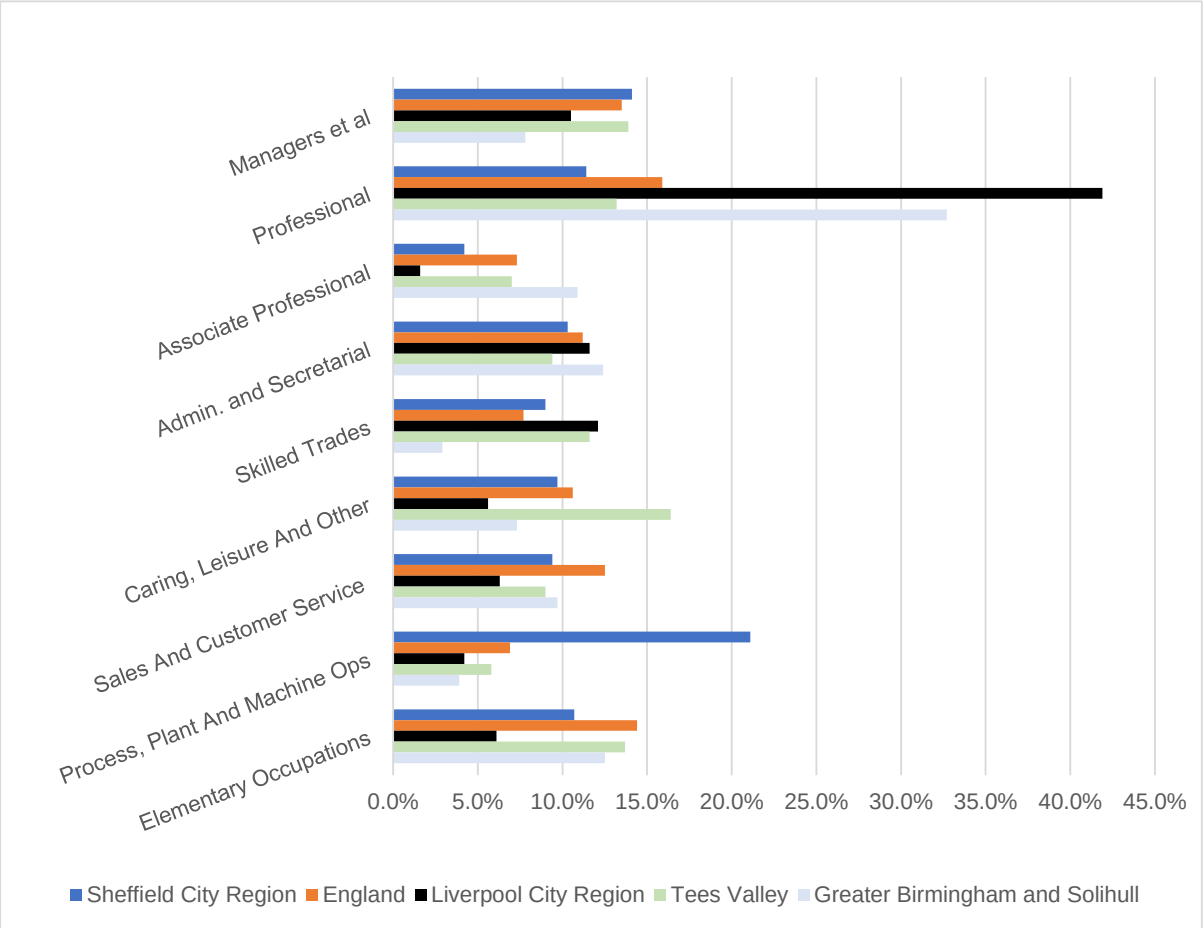
Figure 46: Types of training funded or arranged for employees - the City Region, local authorities and England 2019



Source: Employer skills survey (ESS) 2019

The profile of training by occupation is similar between the City Region and England as Figure 48 shows. The main difference is that process, plant and machine operatives receive more training compared to England. Profiling training by occupation skill level shows that high skill occupations receive less training in the City Region (30% of employers who provide training train these occupations) than England (38%). High skill occupations in the City Region also receive lower levels of training than the comparator LEP areas.

Figure 47: Profile of training by occupation - the City Region, LEPs and England 2019



Source: Employer skills survey (ESS) 2019

Table 18 provides responses form employers as to why they do not train more than they do. For employers who not train any of their staff, the preponderant reason across all areas is that their staff are fully proficient and/or staff do not need any training. This accounts for around three quarters of no training employers in the City Region (74%) and 70% in England).

For those employers who do train their staff, the two main reasons in the City Region, England and each local authority area concerns the costs of training, either in terms of not having staff available because they are training and/or paying the costs of any training. Around half of employers in the City Region and England, and most local authority areas, give these reasons.

Table 18: Reasons for not training/undertaking more training - the City Region, LEPs and England 2019

	Barnsley	Doncaster	Rotherham	Sheffield	City Region	England
Employers who do not train – reasons for not training						
Staff fully proficient/no need for training	82%	74%	71%	75%	74%	70%
Employers who train – why not do more training						
Can't spare more staff time	25%	55%	49%	50%	49%	49%
Lack of funds for training / training expensive	47%	48%	46%	51%	49%	48%
Hard to find the time to organise training	19%	19%	14%	14%	13%	15%
Staff not keen	12%	4%	7%	9%	7%	4%
Staff now fully proficient / don't need it	7%	1%	4%	7%	4%	4%
Don't know	15%	2%	5%	2%	4%	2%

Source: Employer skills survey (ESS) 2019

3.9. Impact of COVID-19 on skills demand

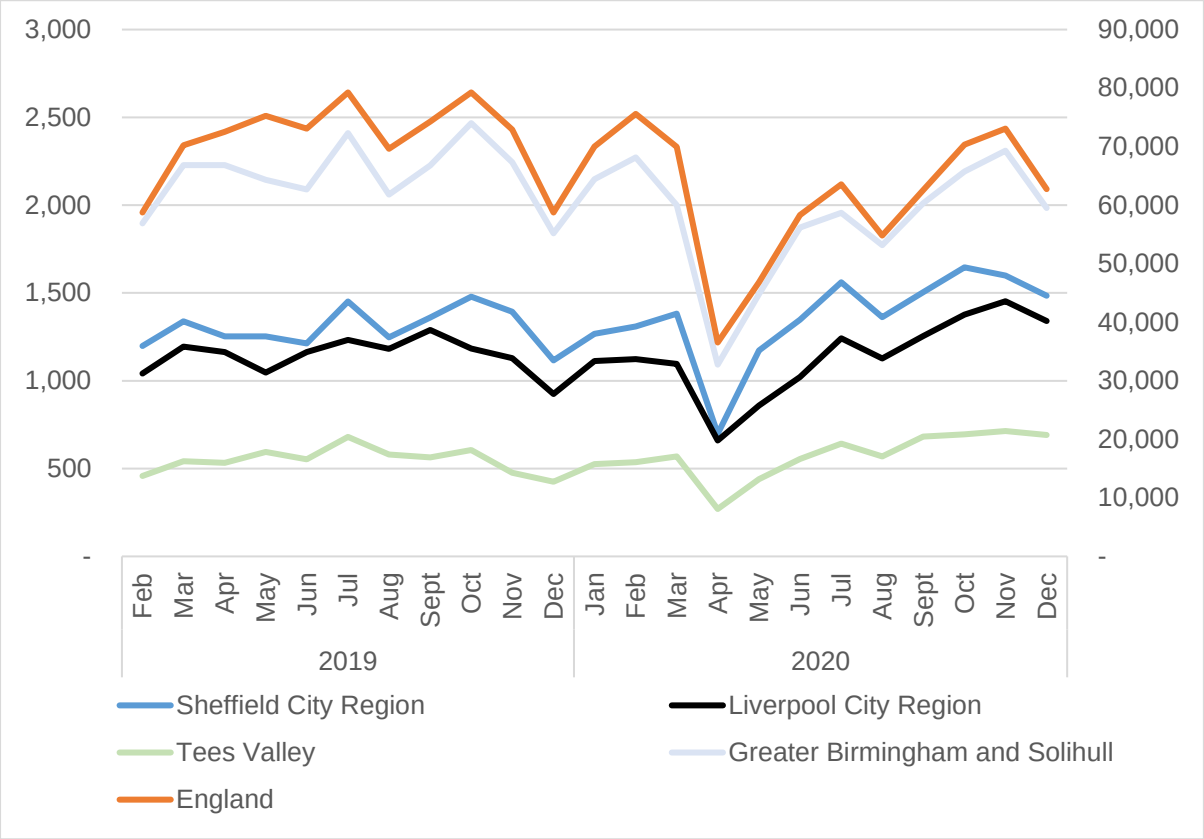
Key points:

- Due to Government support for people and individuals the full impact of COVID-19 on the demand for skills has not yet materialised and is unlikely to until the support and lockdown are lifted;
- The data available suggests that, due to Government support, the impact to date of COVID-19 on jobs has been relatively small (job numbers in the City Region rose by 4,600 2019-2020);
- Levels of job postings were initially hit hard by the lockdown in March 2020 (-50% in the City Region and -48% in England), but recovered quite quickly by the summer;
- Employment and enterprise data show minimal changes overall, and by sector and occupation.

This section provides an analysis of data relating to skills demand, and the impact that COVID-19 has had. Where possible we present data for the four local authorities, the City Region and England (and in some cases the comparator MCAs/LEPs) covering the after lockdown in March/April 2020.

Figure 49 presents the jobs posting data for 2019 and 2020 for the City Region, the comparator LEP areas and England. The impact of the lockdown is clear. The number of job postings fell by the largest amount in GBSLEP and the City Region, but the City Region rebounded back more quickly and by the summer 2020 had surpassed per-COVID 19 levels.

Figure 48: Job postings – the City Region comparator LEPs and England, 2019-2020



Source: LMI for All vacancy dataset

3.9.1. Impact of COVID on employment in sector and occupation

Table 19 shows percentage point and numerical change in employment share in the City Region, the local authorities and England 2019-2020. In England and the City Region, there were overall increases in employment thanks to a large increase in public sector jobs. In the City Region this was accompanied by job increases in construction and other services which offset falls in the other sectors.

Showing percentage point change controls for overall employment changes caused by the pandemic. It shows that across England as a whole there was very little change in the distribution of jobs by sector. This is largely due to government policies so that relatively few people became unemployed i.e. even though people were furloughed they were still employed.

The employment share increased mainly in pubic sector jobs (including health and education) in the City Region and most of the local authorities. There has been 3-percentage point increase in employment share of pubic sector jobs in the City Region along with an increase in other service and construction jobs. Banking and finance was most affected across the City Region with a 2 percentage point fall in its share of employment.

There are outliers within the City Region, for example, the 7% increase in the share of distribution and hospitality jobs in Doncaster which also was the only area to have a relative fall in public sector jobs.

Table 19: Employment (percentage point) change by sector – the City Region, local authorities and England 2019-2020

Percentage point and numerical change 2019-2020	Barnsley	Doncaster	Rotherham	Sheffield	City Region	England
Agriculture et al	0%	0%	-	-	0%	0%
Number	-100	100	-	-	400	-23100
Utilities	1%	-1%	-1%	0%	0%	0%
Number	1400	-1300	-1200	-1000	-2100	-9800
Manufacturing	0%	-3%	-3%	1%	-1%	0%
Number	0	-3900	-3300	2700	-4400	-26900
Construction	-1%	3%	-3%	2%	1%	0%
Number	-1400	4200	-3000	4700	4500	-106800
Distribution, hospitality	-2%	7%	-2%	-3%	-1%	-1%
Number	-2400	9700	-2200	-8200	-3100	-129600
Transport and communications	0%	-2%	0%	-2%	-1%	0%
Number	-400	-2800	200	-5000	-8000	27000
Banking and finance	-2%	-2%	2%	-3%	-2%	0%
Number	-2400	-2400	2700	-9900	-12000	83500
Public sector incl. health and educ.	5%	-2%	3%	5%	3%	1%
Number	5200	-1600	4600	13700	21800	285400
Other services	-2%	1%	4%	1%	1%	0%
Number	-2000	900	4900	3600	7500	-6400
Total change (number)	**-2100**	**2900**	**2700**	**600**	**4600**	**93300**

Source: ONS Annual Population Survey; numbers are rounded to nearest hundred

Table 20 shows the impact of the pandemic on the numerical and occupational share of employment over the same period. In the City Region, job falls in administrative and secretarial, skilled trades and sales and customer services occupations were offset by increases in all other occupations. Across England, job falls occurred in all semi- and unskilled occupations as well as skilled trades. Within the districts there was wide variation in the changes. For example, in Doncaster employment declined in caring, leisure and other service occupations but rose in the other areas.

In the City Region, the proportion of jobs increased in professional, associate professional and elementary occupations. However, none of the changes in the City Region nor England were significant. There were larger changes within the local authority areas, for example, there was a 4 percentage point increase in caring, leisure and other service occupations and a concomitant level of decrease in skilled trades.

Table 20: Employment change (percentage point) in occupations between 2019 and 2020

Percentage point and numerical change 2019-2020	Barnsley	Doncaster	Rotherham	Sheffield	City Region	England
Managers et al	0%	0%	2%	-1%	0%	0%
Number	-100	400	2900	-1800	1500	81900
Professional	2%	0%	2%	1%	1%	1%
Number	2300	400	3700	2000	8400	312900
Associate prof & tech	1%	0%	0%	1%	1%	0%
Number	900	-100	1000	3100	4800	129300
Administrative and secretarial	2%	-3%	-1%	-2%	-1%	0%
Number	2500	-4000	-500	-5800	-7900	56000
Skilled trades	-2%	0%	-4%	-1%	-1%	0%
Number	-3200	0	-3900	-1400	-8600	-108900
Caring, leisure and other service	0%	-2%	4%	0%	0%	0%
Number	100	-2500	4700	1100	3500	2500
Sales and customer service	0%	1%	-1%	-2%	-1%	0%
Number	-800	1000	-1300	-5800	-6900	-90300
Process, plant and machine operatives	-4%	2%	-1%	2%	0%	-1%
Number	-4300	2400	-400	4700	2600	-157600
Elementary	0%	3%	-2%	2%	1%	0%
Number	0	4900	-2300	4500	7200	-124800
Total change (number)[54]	-2600	2500	3900	600	4600	101000

Source: ONS Annual Population Survey; numbers are rounded to nearest hundred

3.9.2. Impact of COVID on business numbers

Table 21, shows the changes in local enterprises by sector across the local authorities before and after COVID. The distribution of enterprises by sector was relatively small overall with no change greater than one percentage point (except for transport and storage).

There was a shift towards more transport and storage enterprises in each local authority, as well as (perhaps surprisingly) accommodation and food services.

[54] Totals in this table differ slightly from those in Table 19 due to rounding.

Table 21: Changes in number of enterprises - local authorities and England 2019-2020

Percentage point change 2019-2020	Barnsley	Doncaster	Rotherham	Sheffield	England
Agriculture et al	-0.05	-0.17	-0.05	-0.01	-0.05
Production	-0.05	-0.18	-0.24	0.06	-0.04
Construction	0.04	-0.20	0.11	-0.31	0.15
Motor trades	-0.06	-0.30	-0.17	0.03	-0.04
Wholesale	-0.06	-0.16	-0.13	-0.15	-0.09
Retail	-0.10	-0.15	-0.54	-0.22	-0.08
Transport & storage	0.72	1.59	1.01	0.48	0.36
Accommodation & food services	0.41	0.15	0.74	0.28	0.16
Information & communication	-0.12	0.00	-0.07	-0.01	-0.11
Finance & insurance	0.04	-0.10	0.00	-0.06	-0.01
Property	-0.05	0.14	-0.24	0.06	0.00
Professional, scientific & technical	0.18	-0.24	0.14	-0.35	-0.30
Business administration & support	-0.55	-0.22	0.11	0.36	0.10
Public administration & defence	-0.07	0.10	-0.23	0.07	-0.01
Education	-0.11	0.10	-0.20	-0.07	0.00
Health	-0.21	-0.20	-0.16	-0.19	-0.01
Arts, recreation & other	0.04	-0.17	-0.07	0.01	-0.03
Total	-0.05	-0.17	-0.05	-0.01	-0.05

Source: Inter Departmental Business Register (IDBR)

3.10. Summary

On a large number of key variables, the structure and performance of the City Region economy is similar to that of England. There are key differences but there do not appear to be fundamental weaknesses in the City Region economy. On enterprise and employment growth, the City Region performs less well than England but not a great degree. The main gaps when compared to England are in levels of productivity and wages.

Overall rates of enterprise activity in the City Region are lower than in England as measured by the number of businesses per head of population and the birth and death rate of enterprises. Doncaster has the highest measures on all of these indicators showing a relatively vibrant business base.

Compared to England the City Region has higher levels of medium and larger businesses, except for Doncaster which has more micro businesses. The number of businesses grew at a faster rate than in England 2014-19, especially micro and larger businesses.

There were increases in the number of enterprises in all the City Region sectors. Compared to England the number of businesses grew faster in construction and transport and storage, but not as fast in professional, scientific and technical services.

The City Region has a higher proportion of high growth businesses compared to the comparator LEP areas and the UK.

Productivity in the City Region is 82% of the UK and lower than the comparator LEP areas. Sheffield's productivity rate is 95% and Barnsley, Doncaster and Rotherham is 78%. The City Region's growth in productivity since 2004 is the same as the UK's but this means that the gap hasn't closed. There were larger than national increases in Doncaster and Rotherham so that by 2018 productivity levels in these two local authorities and Barnsley were very similar.

The largest output sectors in the City Region, as measured by GVA, were manufacturing, wholesale and retail, health and social care, and education.

There is a similar sectoral employment distribution to England except that the City Region has more public administration, education and health jobs and fewer business, finance and insurance jobs. Employment growth 2014-19 was 6% compared to 7% in England. The City Region had fewer growth sectors than England. In terms of the sectoral structure of employment, Sheffield is closer to the England average and Rotherham differs the most.

The City Region has three groups of priority sectors: big employment; sectors with potential, and growing sectors. All of these increased job levels 2014-2019.

As with the employment profile by sector, the distribution and recent change by occupation is very similar in the City Region and England. The City Region, however, has a lower proportion of high skilled jobs and the percentage is lowest in Barnsley. Between 2014 and 2019 there was a large increase in the number of high skilled jobs in the City Region, driven by change in Sheffield. More occupations saw job increases in England than the City Region.

The employment forecasts were published in January 2020, just before the impact of the pandemic was felt. Bearing this in mind, there are expected to be positive and negative changes by different sectors and occupations resulting from macroeconomic and sector changes. However, the net requirements on all sectors and occupations will increase due to replacement demand i.e. the need to replace older people as they leave the labour market.

There is expected to be a continuation of the trends from manufacturing and primary to service sector jobs; from manual to non manual occupations; and from low to high skill employment.

The skills needs of jobs overall, and in each sector and occupations is also forecast to. Overall, there is expected to be an increased need for people with Level 4+ qualifications.

Pay levels in the City Region are 90% of those in England. Pay levels have grown in both areas by the same amount so the same gap remains. Pay in Doncaster grew at a much slower rate than other areas.

The gender pay gap in the City Region in 2016 was very similar to that in England. However, in the intervening years the City Region has narrowed that gap compared to England.

Job postings trends pre-pandemic were similar in the City Region, England and the comparator LEP areas. They were highest for professional, and associate professional jobs in all locations. They comprised a lower proportion in the City Region, which had greater demand for administrative and secretarial, and manual job postings;

Cross-sectoral skills (e.g. team working and communication) are mentioned the most in job postings. However, the ESS found that employers found technical and practical skills, people and personal skills, and complex analytical skills the hardest to find.

The City Region has lower levels of skills shortage and hard to fill vacancies. However, skills gaps and staff underutilisation are much more significant issues for employers in all areas.

Just under one third (63%) of employers in the City Region provide some form of staff training, this is higher than in England. However, different measures of training behaviour provide different rankings in the level of training by area. Most training is job specific but a high proportion is health and safety and basic induction.

Of those employers who do not train, more than 80% say that their staff are fully proficient and so there is no need to train. For those employers who do train, the main reasons they do not

increase their levels of training are because of the costs associated with losing staff whilst they train, and the actual costs of funding the training.

Due to Government support for people and individuals the full impact of COVID-19 on the demand for skills has not yet materialised and is unlikely to be until the support and lockdown are lifted. The data available suggests that, due to Government support, the impact to date has been relatively small. Levels of job postings were initially hit hard by the lockdown in March 2020, but recovered quite quickly by the summer. Employment and enterprise data show minimal changes overall and by sector and occupation.

4. Skills supply

4.1. Introduction

This section provides an analysis of data relating to skills supply. It presents data on the attainment and destinations of young people; publicly funded post-19 FE provision; HE delivery and destinations; qualifications in the wider population; population migration; and the impact of COVID-19 on skills supply.

4.2. Young people

Key points:

- Key Stage 4 (KS4):
  - Overall the City Region has a lower Attainment 8 score (ranging from 46.1 to 48.1) than England (50.2), but in Rotherham (48.1) and Sheffield (47.7) it is closer to the national average;
  - The City Region also has lower Progress 8 scores but Sheffield is the same as the national average;
  - There are high levels of positive destinations in the City Region (94%), slightly lower than in England (95%);
  - In the City Region KS4 young people are more likely to enter apprenticeships (6%) and employment (4%) than in England (4% and 3%), and less likely to go into further education (83%) than England (86%);
  - Young people of BAME origin and women (one percentage point more) are slightly more likely to enter further education and training than their comparator groups, however, SEND young people have a significantly lower rate (four percentage points less).
- Key Stage 5 (KS5):
  - At KS5 attainment levels in Rotherham and Sheffield are similar to the national average, but lower in Barnsley and Doncaster;
  - 18-24 year olds in the City Region have higher unemployment rates than nationally, and are less likely to enter full-time education;
  - Barnsley had higher NEET rates through the last decade. There appear to be high levels of 18-24 year old unemployment in Doncaster, but the data needs to be investigated more.

4.2.1. Key stage 4

In 2019/20, the average Attainment 8 score in Barnsley (46.1), Doncaster (46.8), Rotherham (48.1) and Sheffield (47.7) were all lower than England (50.2) reflecting the higher levels of deprivation and disadvantage in the City Region area.

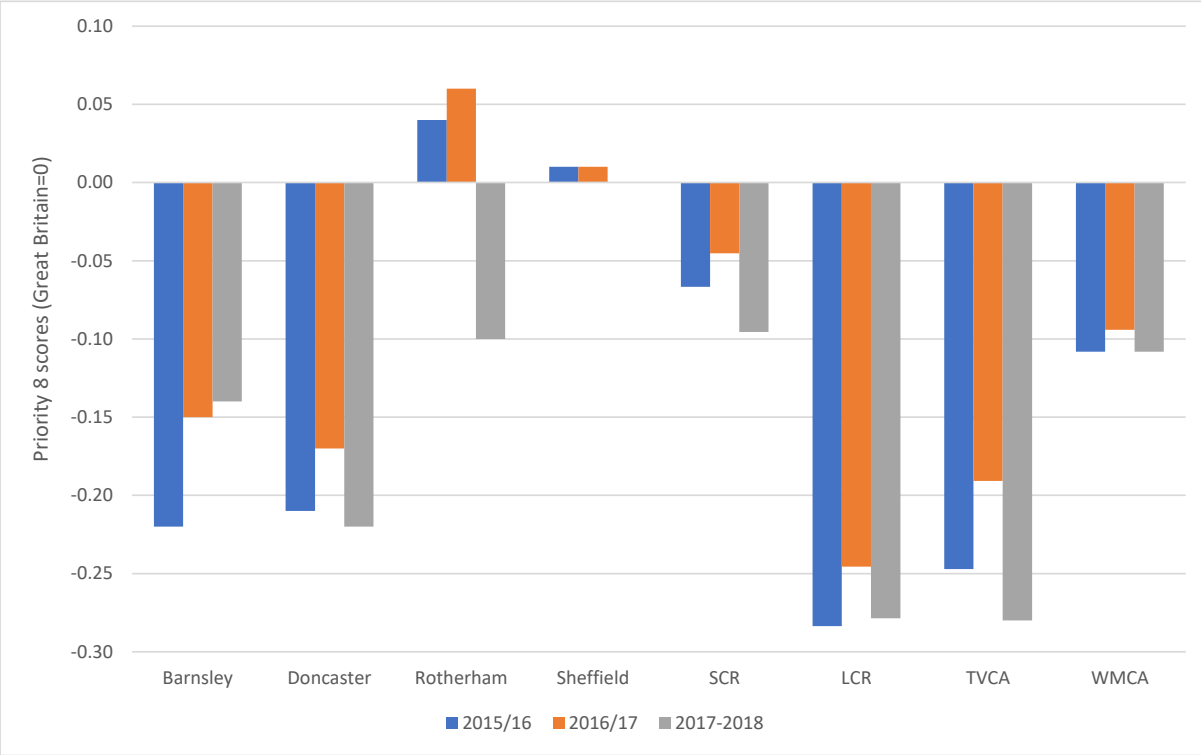
Figure 49 shows the average Progress 8 scores for the City Region and the local authorities. This is a comparative measure where Great Britain equals zero and for this reason the comparator MCA areas are included.[55] In 2017/18, all of the local authority districts were

[55] A Progress 8 score of 0.0 means pupils in the group make on average the same progress than the national average. A Progress 8 score of 1.0 means pupils in the group make on average a grade more

below the national average with the exception of Sheffield which was the same as the GB average. Barnsley and Doncaster had negative average scores for each of the three years indicating that progress was below the national average. Sheffield had positive scores until 2017/18, and Rotherham fell below the national average only in the final year.

However, the City Region performed relatively better than the comparator MCA areas. LCR and TVCA had much lower average Progress 8 scores, whilst WMCA was more similar to the City Region, especially in 2017/18.

Figure 49: Average Progress 8 scores – the City Region, local authorities and comparator areas 2015/16-2017/18



Source: Department for Education GCSE (Key Stage 4) Statistics

Table 22 shows the sustained destinations (remaining in that destination for at least two terms) of KS4 graduates in the City Region. The level of overall sustained destinations is similar for the City Region (94%) compared to England (95%). However, there are differences in the types of destinations with more City Region pupils likely to enter apprenticeships than in England (6% compared to 4% respectively) and fewer entering further education (83% and 86%).

Across the City Region 83% of pupils entered further education (FE, School Sixth Form or Sixth Form College). This varied between 81% on Rotherham to 85% in Sheffield. Barnsley had the highest proportion entering apprenticeships. Across the City Region, two thirds of KS4 apprentices entered Intermediate apprenticeships but this varied from 62% in Rotherham and Sheffield to 79% in Barnsley. Rotherham had the highest proportion without a sustained destination.

progress than the national average; a score of -0.5 means they make on average approximately half a grade less progress than average.

Table 22: Key Stage 4 destinations – the City Region, local authorities and England, 2018/19

Measure	Barnsley	Doncaster	Rotherham	Sheffield	City Region	England
Size of cohort	1975	2855	3091	4896	12817	533839
Pupils acheiving a sustained destination	1845	2648	2843	4592	11928	498863
Percentage by destination						
All education	81.6	81.6	81.3	84.9	82.8	86.1
Sustained apprenticeships	7.1	6.0	5.6	5.7	6.0	4.0
Sustained employment	4.8	5.2	5.1	3.2	4.3	3.3
Not recorded as a sustained destination	5.7	6.2	7.0	5.6	6.1	5.5
Specific FE and apprenticeship destinations						
Further education	71.2	34.1	34.3	38.3	41.5	34.7
School Sixth Form	6.9	30.4	28.3	37.3	28.9	36.2
Sixth Form College	3.3	16.1	18.1	8.5	11.7	13.0
Advanced and Higher apprenticeships	1.5	1.8	2.1	2.1	2.0	1.3
Intermediate apprenticeships	5.6	4.2	3.5	3.6	4.0	2.8

Source: Department for Education.

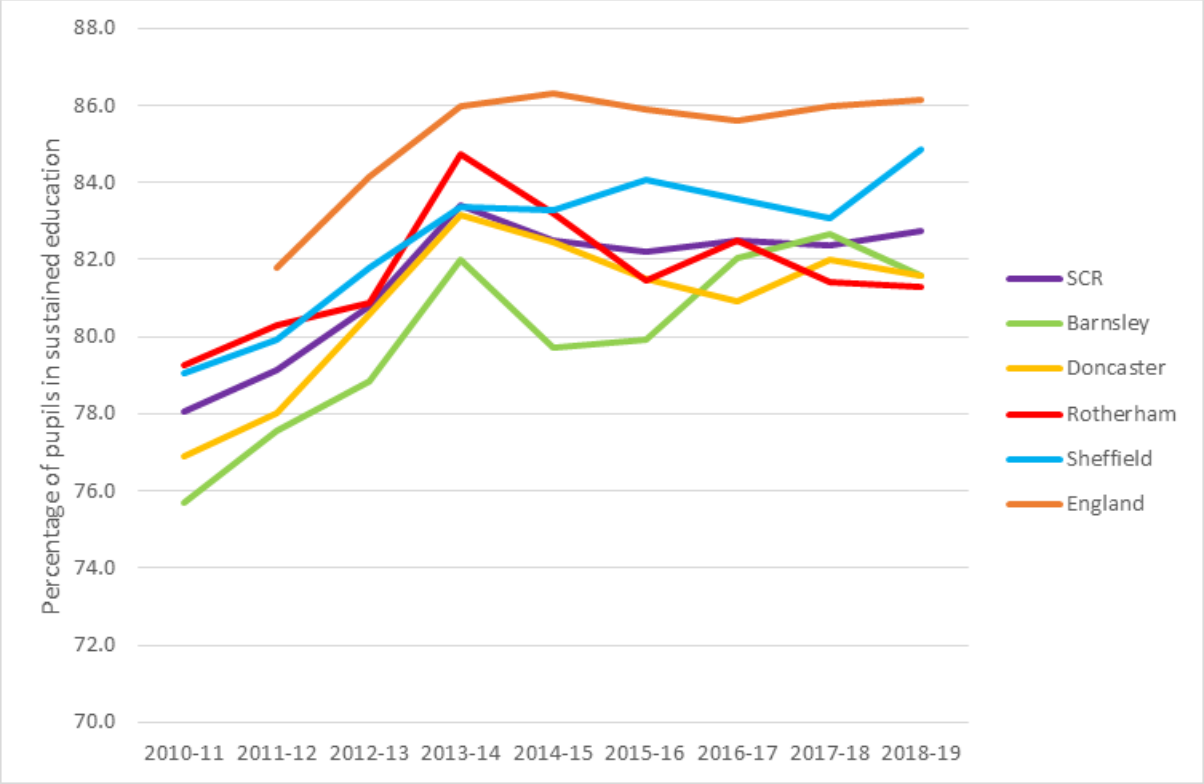
The percentage of BAME young people engaged in education and training is slightly higher than White young people in all areas except for Barnsley. Rotherham (97%) and Doncaster (96%) have very high levels of BAME young people engaging in education and training.

In Barnsley, Doncaster and England SEND young people aged 16-17 are less likely than non-SEND young people to participate in education and training. The largest difference is in Doncaster where SEND young people are 6pp less likely to participate in education and training (88% compared to 94%). In Rotherham and Sheffield, however, SEND young people are more likely to participate in education and training.

At 16 years of age the proportion of males and females engaged in education and training was very similar across all of the areas. At age 17, however, females are 2pp more likely to be engaged in education and training compared to males.

Figure 50 shows there was a sustained increase in the proportion of KS4 pupils entering sustained education throughout the last decade. Across the City Region it rose from 78% on 2010/11 to 83% in 2018/19. The largest increase in all areas came before 2013/14, after which there was a levelling off. The City Region gap to England has remained constant.

Figure 50: Percentage of pupils achieving Key Stage 4 in sustained education, 2010/11 to 2018/19



Source: Department for Education

4.2.2. Key stage 5

At Key Stage 5 (KS5) the proportion of young people in the cohort achieving at least 2 substantial Level 3 qualifications is lower in Barnsley (76%), Doncaster (84%), Rotherham (76%), and Sheffield (84%) than in England (86%).

Throughout the first half of the previous decade the level of Not in Employment, Education or Training (NEET) in the City Region and each local authority fell, as it did across England. In this period, Barnsley had the highest level of NEET within the City Region and Rotherham the lowest. Another consistent trend is that the level of NEETs rises as young people get older so that the NEET rate for 18 year olds is much higher than that for 16 and 17 year olds (this is a result of raising of the participation age but this occurred before the leaving age was raised).[56]

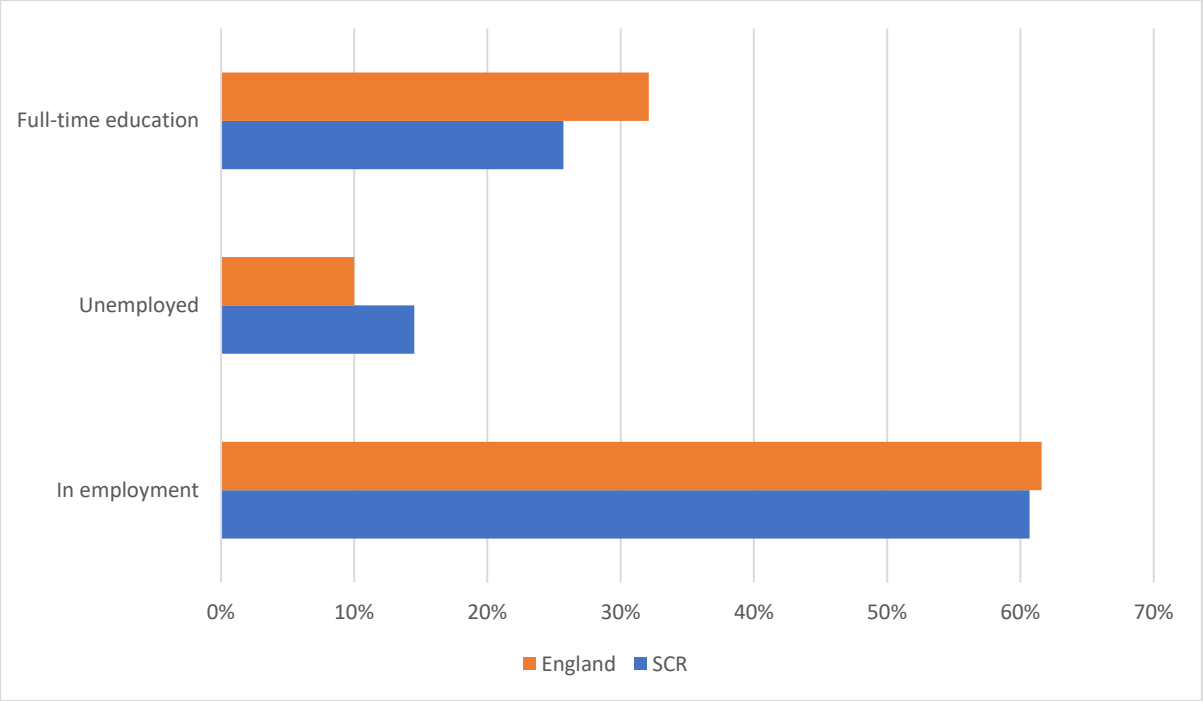
In the absence of destination data for KS4 students, the APS provides information on the economic activity rates of young people aged 18-24. However, because of rounding the data is only valid for the City Region and England. Figure 51 shows that in 2019/20, 61% of 18-24 year olds in the City Region were in employment, 26% were in full-time education and 15% were unemployed. Compared to England, similar proportions were in employment (62% in England) but fewer were in full-time education (32%) and more were unemployed (10%).

As was mentioned above the local authority data is affected by the rounding of the information presented. However, there does appear to be a significantly higher level of 18-24 years olds

[56] Sheffield City Region (2016), LMI Report

in Doncaster who are unemployed which is twice the City Region average, this should be explored more fully.

Figure 51: Economic activity of 18-2 year olds – the City Region, local authorities and England April 2019-March 2020



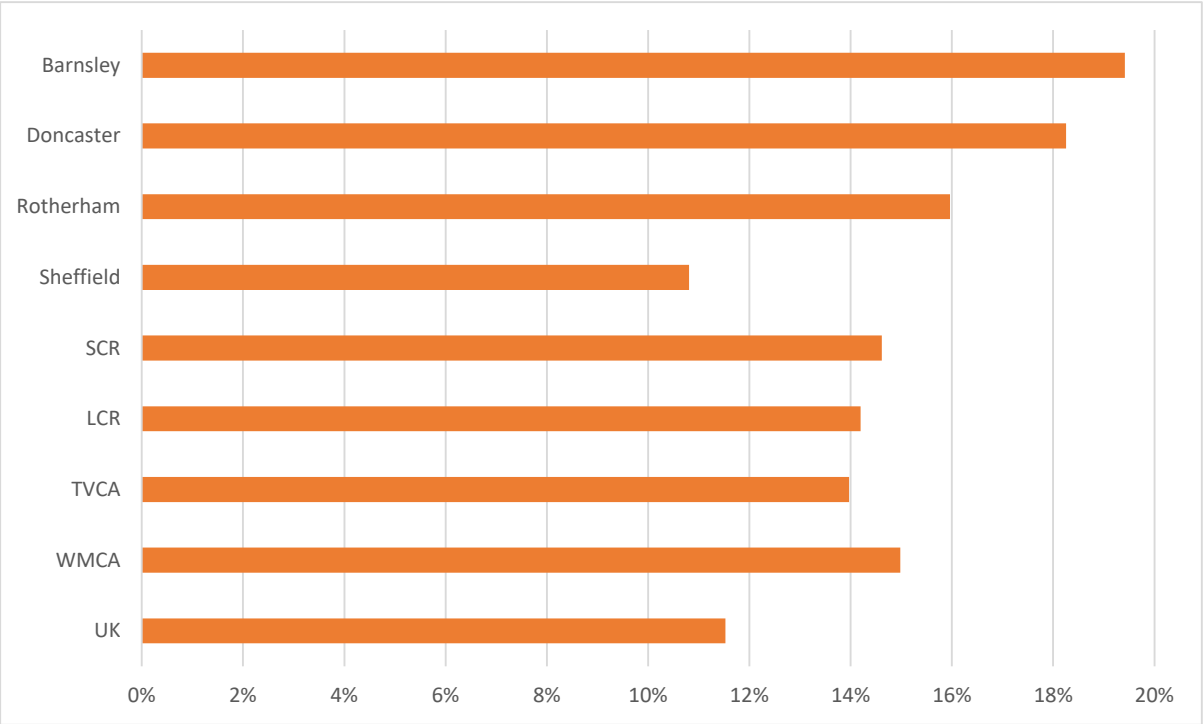
Source: IER analysis of NOMIS data based on the Annual Population Survey

4.2.3. 16-24 year old NEET

Figure 52 shows that in the 2017/2019 period, on average 15% of the 16-24 year old population in the City Region were not in work or education and training. This equates to just under 25,000 people. This is below the UK average of 12% but a similar level to the comparator MCA areas. Across the City Region, NEET levels ranged significantly from a high of 19% in Barnsley to 11% (below the national average) in Sheffield.

Across the UK, and in the City Region, levels of female NEET are higher than that for males. However, this gender difference is much greater in the City Region than the UK or comparator areas. In the City Region, females are 7 percentage points more likely to be NEET than males, but this is only 1 percentage point in the UK.

Figure 52: 16-24 year old NEET – the City Region, local authorities and comparator MCA areas – average 2017-2019



Source: Annual Population Survey

4.3. FE funded post-18 learning provision

Key points:

- 19+ FE budgets funded 77,000 learning aim starts in 2018/19. These are delivered by a large number of providers, 624 in total. Apprenticeships are delivered by 462 providers, of which 232 deliver fewer than five learning aim starts;
- The budgets appear to be funding provision in-line with their aims and objectives, for example, apprenticeships fund predominantly younger learners, and CL older learners;
- This extends to level of provision. 60% of AEB learning aim starts are at Entry or Level 1, and 61 apprenticeship starts are at Level 3+;
- Around half of learners undertake provision that is at a higher level than the learner's prior level of attainment;
- The programme of provision seems to be in line with SCR sectoral priorities, for example, funding much provision in STEM, health and social care, construction, transport, storage and warehousing, and business administration;
- In addition, there is much provision at Entry and Level 1 (38%) to support those with no or low qualifications.

This section analyses data from the Individual Learner Record (ILR) on FE funded learning provision in the City Region. It reports on four streams of funding: Adult Education Budget (AEB), Advanced learner Loans (ALL), Community Learning (CL), and Apprenticeships. Data

is provided for the period July 2018 to August 2019 which is the full year pre-COVID. All data, except for apprenticeships, is for learners aged 19 and over.

4.3.1. Overview of FE provision

In 2018/19, there were over 77,000 FE learning aim starts, the large majority of which were funded through the AEB (57%) and just over a quarter (28%) were funded through CL.

Table 23 shows that there is a large amount of skills provision across the City Region.[57] There are a large number of providers delivering most types of provision. Overall, there are 624 providers delivering at least one learning start in the four funding programmes. Apprenticeships, in particular, has a large number of providers with a total of 462 across the City Region, 232 of whom deliver fewer than 5 learning aim starts.

The distribution of learners across the four local authorities is similar. The main differences are that Barnsley has a relatively low proportion of CL learners (13%) and Rotherham a relatively high level (28%) compared to other types of provision. Doncaster has a relatively high number of ALL learners (27%) whilst Sheffield has a relatively low number of apprentices (34%).

Table 23: Economic activity of young people – the City Region, local authorities and England April 2019-March 2020

		Barnsley	Doncaster	Rotherham	Sheffield	City Region
AEB	Providers	128	143	132	156	-
	Learners	4717	5541	3902	8801	22961
	% learners	21%	24%	17%	38%	100%
	Learning aims	7938	11648	6832	16817	43235
ALL	Providers	38	42	38	58	-
	Learners	324	493	355	655	1827
	% learners	18%	27%	19%	36%	100%
	Learning aims	349	517	375	709	1950
Apprentice	Providers	255	289	265	300	-
	Learners	1932	2449	2081	3399	9861
	% learners	20%	25%	21%	34%	100%
	Learning aims	-	-	-	-	-
CL	Providers	11	21	15	27	-
	Learners	1500	2713	3219	4105	11537
	% learners	13%	24%	28%	36%	100%
	Learning aims	3469	4045	5966	7707	21187

Source: SCR ILR data 2018/19

[57] There is likely to be a high level of double counting of providers by local authority, the provider numbers should not be totalled across districts nor across different funding programmes. There is also likely to be double counting of learners across local authorities and funding programmes, but this is likely to be much less numerous. There is no double counting of learning aims.

Table 24 shows that around four out of five AEB and CL funded learners (82% and 79%) are aged 25-64. Younger learners are more likely to be funded through apprenticeships (57% 16-24) and ALL (30% 19-24).

AEB learners and apprentices are split almost 50:50 between men and women. However, ALL and CL learners are more likely to be female (71% and 76%). There is a higher proportion of BAME learners in AEB (28%), ALL (14%) and CL (21%) funded provision compared to the proportion of BAME people in the 19-24 population (9%). However, there are fewer BAME apprentices (6%) than is found in the 16-64 wider population (9%). Disabled learner comprise 41% of CL funded learners, one in five AEB learners, one in ten apprentices (11%) and 16% of ALL learners.

Table 24: FE funded provision - the City Region 2018/19

Starts – learning aims	AEB (N=43,235)	ALL (N=1,950)	Apprentice (N=9,857)	CL (N=21,187)
16-18	0%	0%	30%	0%
19-24	18%	30%	27%	4%
25-64	82%	70%	43%	79%
65+	1%	0%	0%	17%
Total	100%	100%	100%	100%

Source: SCR ILR data 2018/19

Table 25 shows that the level of learning varies by funding stream in 2018/19. Almost one third (60%) of AEB learning supports provision at Entry and Level 1, whereas nine out of ten ALL starts are at Level 3 (89%). This reflects the strategic aims, priorities and restrictions around the different budgets. Around two out of five apprenticeships are at Level 2 (39%) with a similar proportion at Level 3 (41%), and one in five at Level 4 and above. Most CL provision is not assigned a NVQ level (84%).

Table 25: FE funded provision by level - the City Region 2018/19

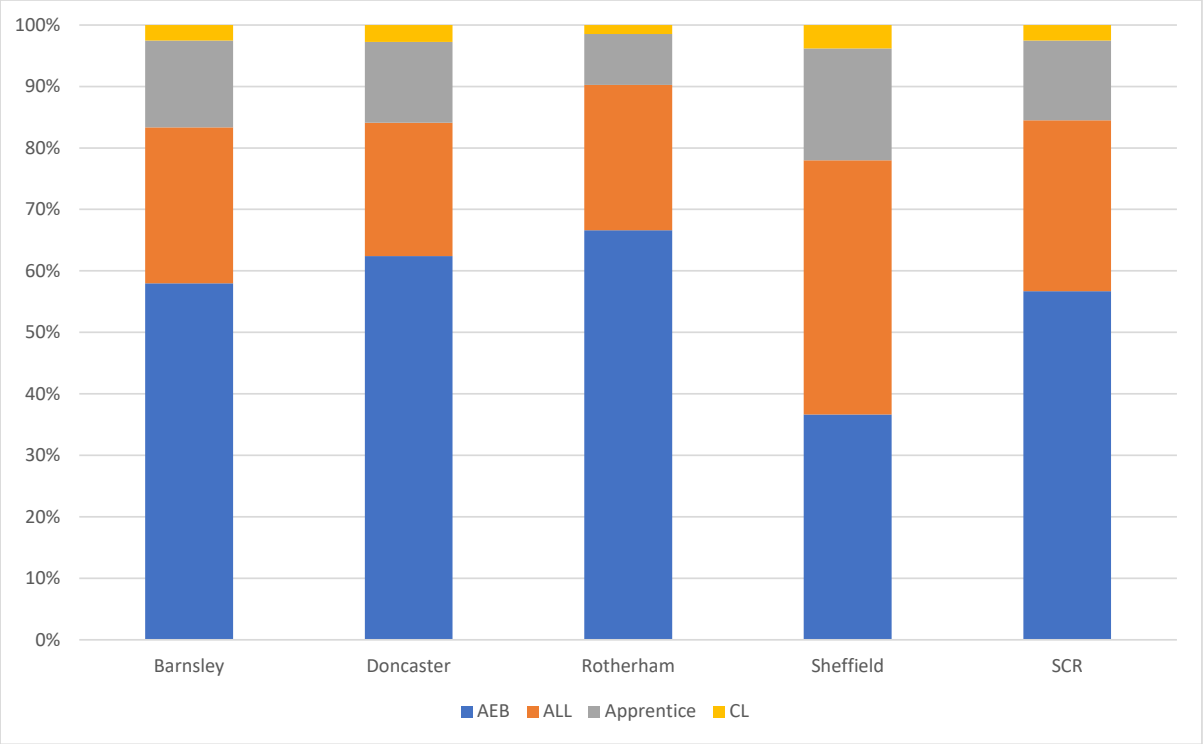
Starts – learning aims	AEB N=43,235	ALL N=1,950	Apprentice N=9,857	CL N=21,187
Entry level	26%	0%	0%	7%
Level 1	34%	1%	0%	8%
Level 2	39%	2%	39%	1%
Level 3	1%	89%	41%	0%
Level 4	0%	8%	20%	0%
Level 5	0%	0%	0%	0%
Not Applicable/Known	0%	0%	0%	84%
Total	100%	100%	100%	100%

Source: SCR ILR data 2018/19

Figure 52 shows provision by funding programme in the four local authorities and the City Region in 2018/19. The different programmes account for varying levels of provision in the four areas. In Rotherham two thirds (67%) of leaning aim starts are funded through AEB

compared to just over one third (37%) in Sheffield. Sheffield has by far the largest level of ALL funded provision with 41% of learning aim starts funded this way, as well as the largest incidence of apprenticeship funding.

Figure 53: Provision by programme – local authorities and the City Region 2018/19



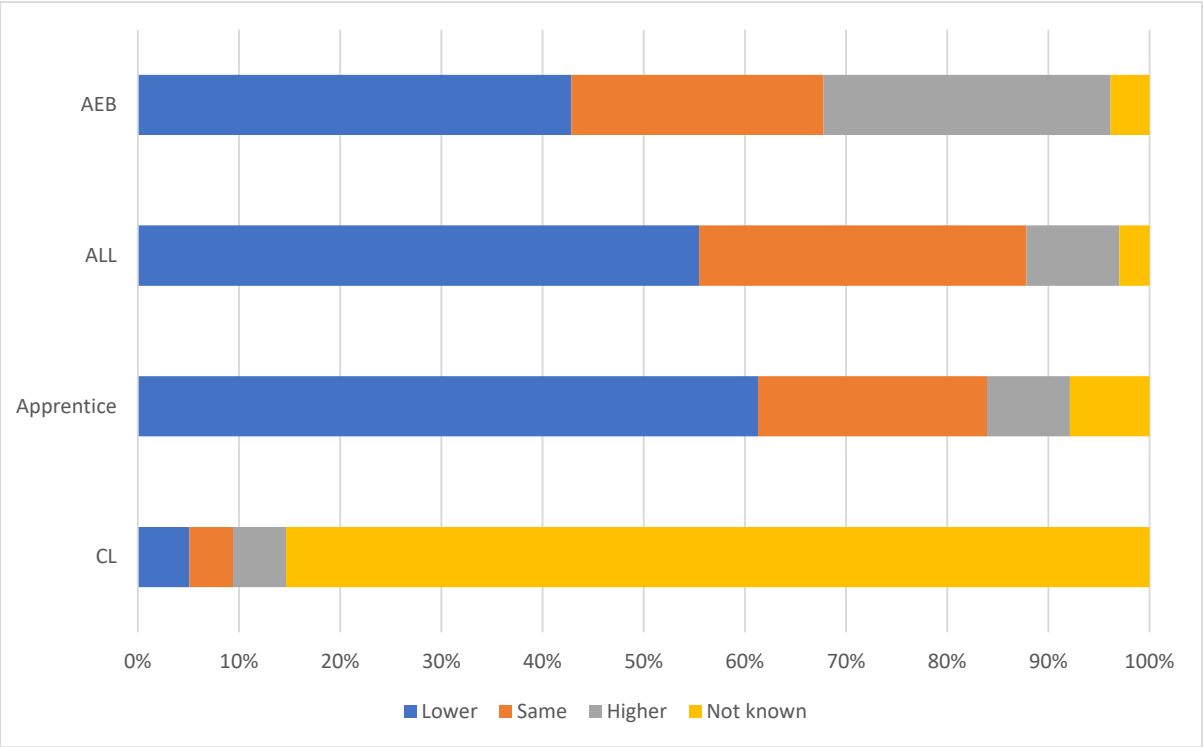
Source: SCR ILR data 2018/19

Figure 53 shows the learners level of prior attainment compared to the level of the provision they are starting. For example, someone in the 'lower' category would have prior attainment that was at a lower level than their current level of highest qualification (e.g. someone with an existing Level 2 qualification starting an Advanced Level 3) apprenticeship.

Around half of learners are funded to undertake provision which is above their prior qualification level. For apprenticeships, 61% of starts are for levels of provision which are higher than the learner's current highest qualification. For ALL the figure is 55% and for AEB is 43%.

About one quarter of learners are on provision which is the same level as their highest qualification. For AEB the proportion is 25%, 32% for ALL and 24% for apprenticeships. One in ten ALL (9%) and apprentice (8%) learners are on provision at a lower level than their highest qualification, and this rises to 38% for AEB learners.

Figure 54: Level of prior attainment compared to level of provision – the City Region 2018/19



Source: SCR ILR data 2018/19

Table 26 shows the subject areas by different funding pots. Just over half of all AEB learners (51%) are undertaking Preparation for Life courses which can include basic skills, work preparation and independent living support (most is at Entry and Level 1). Around one third of the remaining provision is in three subject areas and most at Level 2: health public services and care (14%); business, administration and law (9%); and retail and commercial (8%). These three subjects are also the largest ALL subjects accounting for 57% of learners, although the proportions are different (31%, 9% and 17% respectively.

Four apprenticeship subject areas account for over four fifths of all apprentices (83%): business, administration and law (31%); health public services and care (21%); engineering and manufacturing (18%); and retail and commercial (13%). Construction, one of the priority sectors (accounts for almost one in ten apprenticeships (8%).

The subject profile of provision does appear to be in line with the profile of the local workforce and priority sectors. Compared to the priority sectors digital (ICT 4% of apprenticeships) and cultural and creative (arts and media 0% of apprenticeships) are underrepresented in the FE data.

Table 26: FE funded provision by subject - the City Region 2018/19:

Starts – learning aims	AEB	ALL	Apprentice	CL
Agriculture et al	1%	4%	1%	3%
Arts and Media	0%	4%	0%	32%
Business, Administration and Law	9%	9%	31%	2%
Construction	2%	2%	8%	0%
Education and Training	1%	7%	2%	0%
Engineering and Manufacturing Technologies	3%	6%	18%	0%
Health, Public Services and Care	14%	31%	21%	4%
History, Philosophy and Theology	0%	0%	0%	2%
ICT	3%	2%	4%	8%
Languages and Literature	2%	0%	0%	4%
Leisure, Travel and Tourism	1%	9%	1%	5%
Preparation for Life and Work	51%	0%	0%	35%
Retail and Commercial Enterprise	8%	17%	13%	4%
Science and Mathematics	3%	4%	0%	0%
Social Sciences	0%	5%	0%	0%
Total	100%	100%	100%	100%

Source: SCR ILR data 2018/19

Table 27 shows the top ten detailed subject areas (learning aim starts) for the four main funding streams. There is wide variation in the subjects. The only consistent pattern is that, apart from apprenticeships, the top three subjects account for a significant proportion of funded provision, 63% for AEB, 52% for ALL, and 68% for CL. The subject spread is much broader for apprenticeships with the top three subjects only account for 18% of learning aim starts.

Table 27: Top 20 detailed subjects by funding stream - the City Region 2018/19 (learning aim starts)

AEB (N=43,235)		ALL (N=1,950)		Apprentice (N=9,857)		CL (N=21,187)	
Foundations for Learning/Life	35%	Health & Social Care	27%	Business Administration	7%	Foundations for Learning/Life	32%
Preparation for Work	17%	Service Enterprises	16%	Team Leader or Supervisor	6%	Crafts, Creative Arts & Design	29%
Health & Social Care	12%	Sport, Leisure & Recreation	9%	Construction Skills	5%	ICT for Users	6%
Administration	5%	Engineering	5%	Children's Care Learning & Development	4%	Sport, Leisure & Recreation	5%
Warehousing & Distribution	3%	Direct Learning Support	5%	Adult Care Worker	4%	Hospitality & Catering	4%
ICT for Users	3%	Accounting & Finance	5%	Operations/Departmental Manager	4%	Health & Social Care	4%
Business Management	3%	Social Sciences	4%	Lead Adult Care Worker	3%	Preparation for Work	3%
Mathematics & Statistics	2%	Science	3%	Customer Service Practitione	3%	Other Languages, Literature & Culture	3%
Building & Construction	2%	Business Management	3%	Industrial Applications	2%	History	2%
Languages, Literature & Culture of British Isles	2%	Animal Care & Veterinary Science	3%	Business Administrator	2%	Performing Arts	2%
Hospitality & Catering	2%	Crafts, Creative Arts & Design	3%	Engineering Technician	2%	Marketing & Sales	2%
Service Enterprises	2%	Child Development & Well Being	2%	Care Leadership & Management	2%	Environmental Conservation	2%
Public Services	2%	Teaching & Lecturing	2%	Nursing Associate	2%	ICT Practitioners	1%
Transportation Ops & Mainten	1%	Building & Construction	2%	Hair Professional	2%	Horticulture & Forestry	1%
Retailing & Wholesaling	1%	ICT Practitioners	2%	MES Plumbing	2%	Linguistics	1%
Sport, Leisure & Recreation	1%	Law & Legal Services	1%	Installation Electrician & Maintenance Electrician	1%	Child Development & Well Being	1%
Engineering	1%	Nursing & Vocations Allied to Medicine	1%	Engineering	1%	Manufacturing Technologies	0.4%
Accounting & Finance	1%	Horticulture & Forestry	1%	Management	1%	Teaching & Lecturing	0.3%
Direct Learning Support	1%	Hospitality & Catering	1%	Retailer	1%	Business Management	0.1%

Source: SCR ILR data 2018/19

It is difficult to assess the quality and responsiveness of FE provision in the City Region based on the ILR data. In 2016 an area review was undertaken of FE colleges in the City Region but did not include other types of FE providers.[58] Overall the review concluded that quality of provision (based on Ofsted reports) was good and providers were responsive to the needs of local learners and employers. According to the most recent inspection reports on Ofsted's website, four out of five FE providers (79%) in the City Region are 'good' or 'outstanding', and a further 3% are 'satisfactory'. However, 13% 'required improvement' and 5% were 'inadequate'.

4.4. Apprenticeships

Key points:

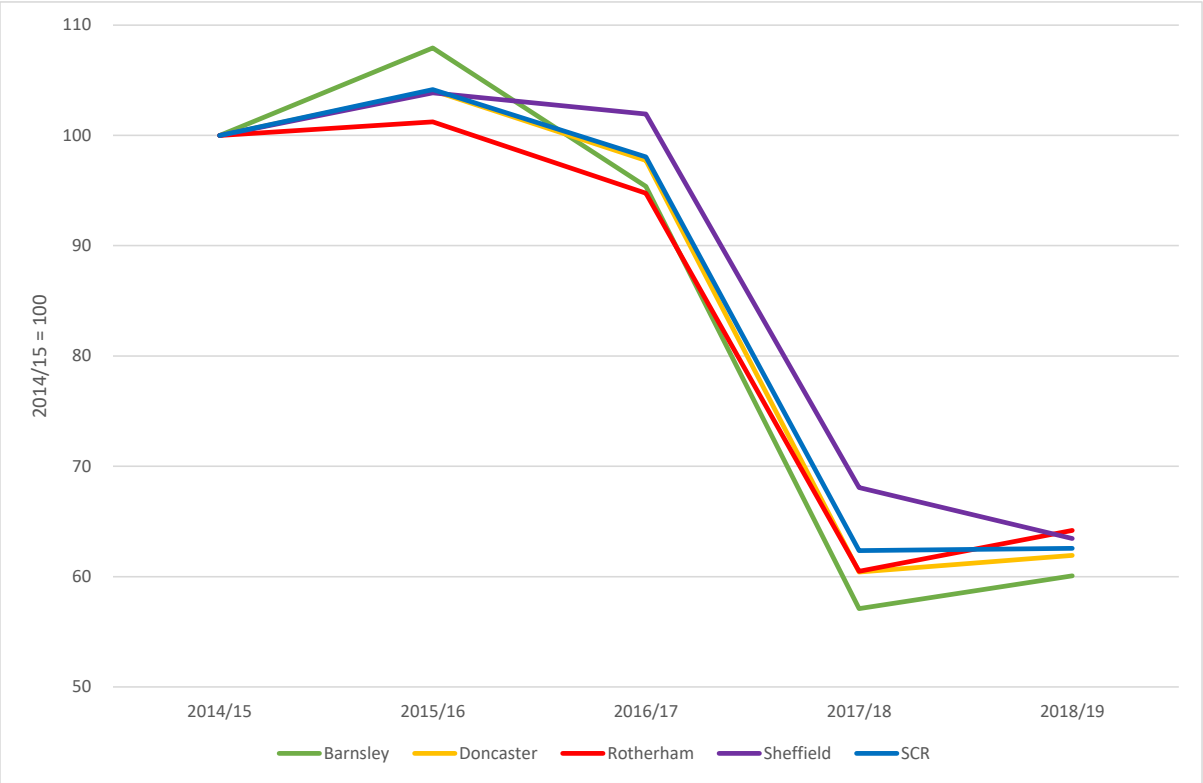
- The number of apprentices fell by 36% in the year after the apprenticeship levy and other reforms were introduced in Spring 2017;
- The decline affected all ages of apprentices;
- However, whilst intermediate (-57%) and advanced (-31%) apprentice numbers fell between 2014/15 and 2018/19, the number of higher level apprenticeships rose considerably by over 300%;
- In the five largest subject areas in the City Region, only construction apprenticeships increased between 2014/15 and 2018/19.

The data in this section comes from DfE published apprenticeship statistics and plots changes in apprenticeships from 2014/15 training provider 2018/19 and is based on ILR data.

In Spring 2017 a number of reforms were introduced, most notably the apprenticeship levy. As Figure 54 shows they had a significant negative impact on apprenticeship numbers. Throughout the last decade, until the reforms were introduced, apprenticeship starts had been on an upward trajectory. In 2016/17 (which covers Spring 2017) apprenticeship starts began to fall, and this decline accelerated in the following year. Since 2017/18 numbers began to increase slightly except for Sheffield. The impact of the apprenticeship reforms was similar in all four districts ranging from -40% in Barnsley to -36% in Rotherham. In numerical terms there were almost 6,000 fewer apprentices in 2018/19 compared to 2014/15.

[58] DfE (November 2016) Sheffield City Region Area Review: Final report

Figure 55: Apprenticeship starts in the City Region and local authorities – 2014/15 to 2018/19 (2014/15-100)

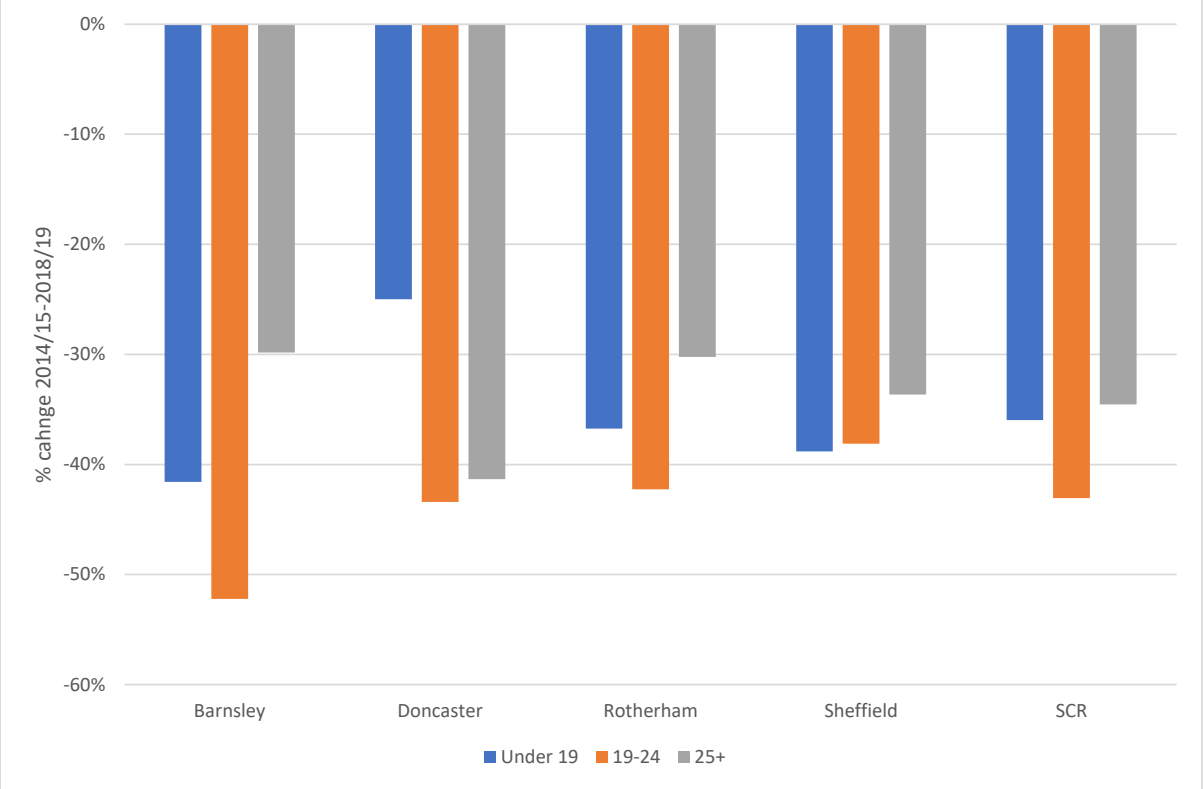


Source: Department for Education Apprenticeship Data Pack

One was reason for the increase in the number of apprentices up to 2015/16 was an increase in the number of older apprentices aged 25+. Figure 55 shows that across the City Region the apprenticeship starts of 19-24 year olds declined the most (-43%) with under 19s (-36%) and over 25s (-35%) falling by similar amounts. At a district level, 19-24 ear olds starts fell the most (except in Sheffield). However, Barnsley, Rotherham and Sheffield, the starts of under 19s fell greater than those aged 25+. The exception was in Doncaster where there was a much larger decline in 25+ starts.

It is important to note that the above trends mostly occurred between 2014/15 and 2017/18. Since the number of apprentice starts have begun to rise again, this is due to a significant increase in 25+ apprenticeship starts across the City Region (11%). There has been a small increase in the number of 19-24 starts (2%) but a large decrease in under 19 starts.

Figure 56: Apprenticeship starts in the City Region and local authorities by age – 2014/15 to 2018/19

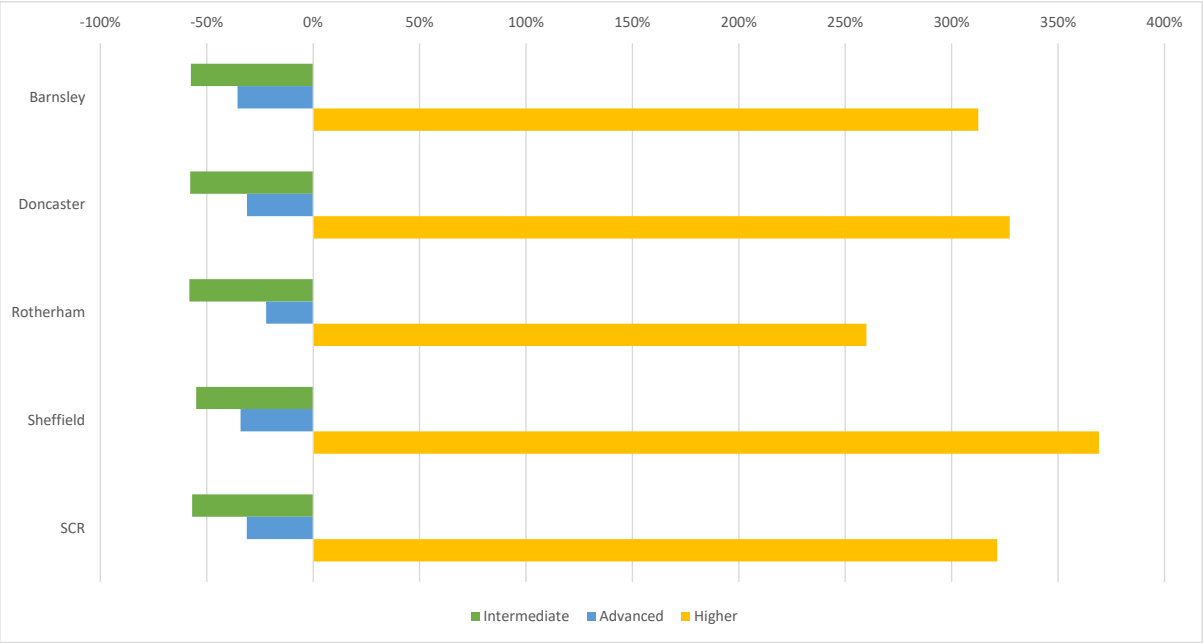


Source: Department for Education Apprenticeship Data Pack

Another key trend of the past decade has been the increase in higher level apprenticeships. Figure 56 shows that there was a sizeable shift to higher level apprenticeships in the City Region. In the five years to 2018/19, the number of higher level apprenticeships rose by 321% across the City Region, and this large increase happened in each district. In part this was because the number of higher level apprenticeships was relatively small in 2014/15. In this year only 3% of apprenticeship starts were at this level, however, by 2018/19 this had risen to 18%.

The number of intermediate apprenticeships fell by the greatest amount, by more than half in the City Region (-57%) and each district. The number of advanced apprenticeships declined by around one third (-31%) in the City Region but there was much more variation across the local authority areas. Advanced apprenticeship starts fell by 36% in Barnsley and by 22% in Rotherham.

Figure 57: Apprenticeship starts in the City Region and local authorities by level – 2014/15 to 2018/19



Source: Department for Education Apprenticeship Data Pack

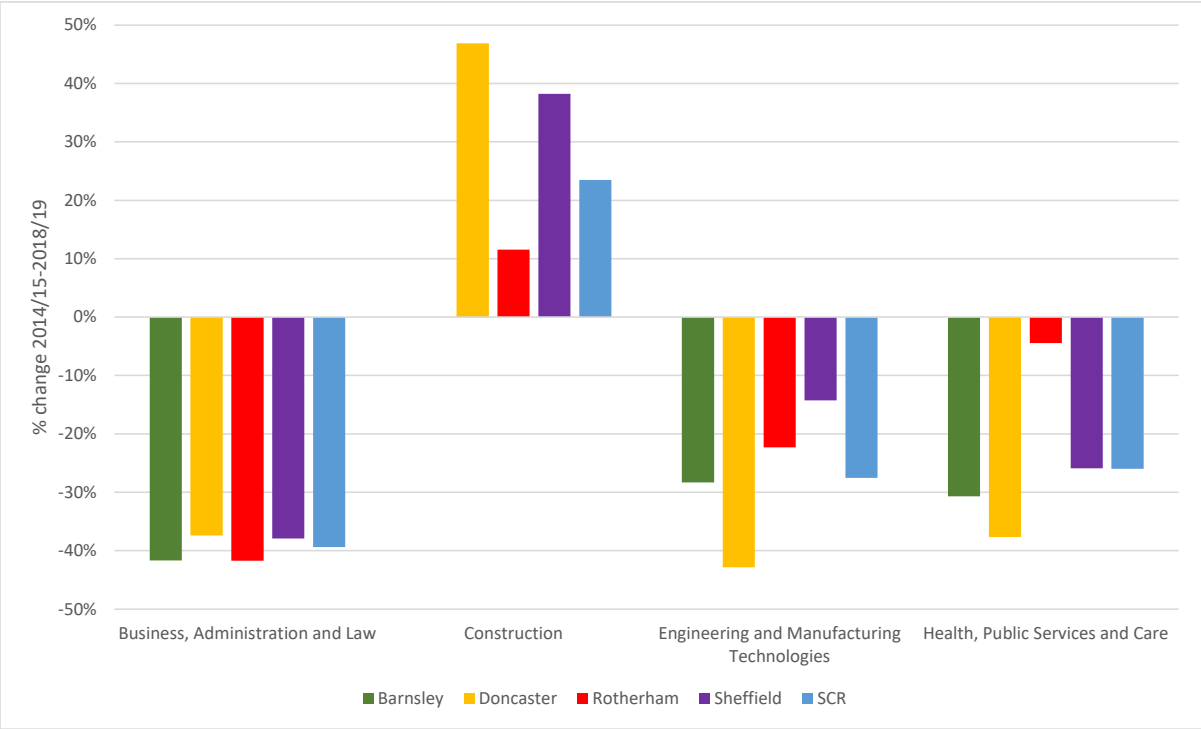
Changes in apprenticeship subjects is more complicated to analyse because some subject areas are quite small (e.g. education and training) and small changes can have large percentage changes. In 2014/15 there were five subjects which accounted for more than 2% of apprenticeship starts in the City Region and each local authority district.[59] Limiting the analysis to these five subjects, Figure 57 shows that the number of apprentice starts fell in each subject area in each district with the exception of construction which increased in every area. However, the numbers in each subject area and in each district all fell from 2014/15 to 2017/18, with the exception of construction in Barnsley, Doncaster and Sheffield.

Between 2017/18 and 2018/19, apprenticeship starts rose in each subject area across the City Region with the exception of retail which fell by -7%.

In general, the increase higher level apprenticeships failed to offset falls in intermediate and advanced starts. Within each subject area, (with the exception of construction where numbers rose for each level) the number of higher level apprenticeship starts increased but the number of intermediate and advanced apprenticeships fell across the City Region. In each subject in each district, there was a fall in the number of intermediate apprentice starts (with the exception of construction) and an increase in higher level apprenticeships. Although there were some exceptions (mostly construction and engineering), the number of advanced apprenticeship starts also fell in each subject in each local authority area.

[59] These were: Business, Administration and Law; Construction, Planning and the Built Environment; Engineering and Manufacturing Technologies; Health, Public Services and Care; and Retail and Commercial Enterprise

Figure 58: Apprenticeship starts in the City Region and local authorities by largest five subjects – 2014/15 to 2018/19



Source: Department for Education Apprenticeship Data Pack

4.5. Higher Education

Key points:

- HE in the City Region is delivered by two universities and five FE colleges. However, HESA data only includes students at Sheffield Hallam University and the University of Sheffield;
- The two universities accommodated almost 61,000 HE learners, a significant proportion of whom were studying STEM subjects;
- Very high levels of HE students enter positive destinations with only 4% becoming unemployed.
-

Across the City Region, higher education (HE) provision is delivered primarily through the two universities based in Sheffield - Sheffield University and Sheffield Hallam University. Each of the five City Region FE colleges – Barnsley College, Dearne Valley College, Doncaster College, Rotherham College and Sheffield College – also offer HE provision, but this is not included in the Higher Education Statistical Agency (HESA) data that follows.

Table 28 shows that in 2019/20 there were 61,100 HE students at the two universities. Most (69%) were undergraduates and almost one quarter (23%) were on postgraduate taught courses. Four out of five students were from the UK, 3% from EU countries and 17% from non-EU countries. Overseas students are much more likely to be undertaking postgraduate courses, comprising 42% of postgraduate students compared to 12% of undergraduates.

Table 28: Higher education (university) students in the City Region - 2019/20

	UK	EU	Non-EU	All
Postgraduate (research)	1700	345	1060	3105
Postgraduate (taught)	8070	425	5385	13880
All postgraduate	**9765**	**770**	**6445**	**16980**
First degree	36965	1250	3785	42000
Other undergraduate	1850	25	60	1935
All undergraduate	**38810**	**1275**	**3845**	**43930**
All	48580	2040	10290	60910

Source: HESA 2021

Table 29 provides data on the subjects studied by City Region university students, ranked in descending order of the total number of students studying each subject. The largest subjects are: subjects allied to medicine (14%), engineering and technology (13%), business and management (13%) and social sciences (11%).

Almost half of the subjects (48%) in Table 29 are Science, Technology, Engineering and Mathematics (STEM) subjects.

Table 29: Subjects studied by university students in the City Region - 2019/20

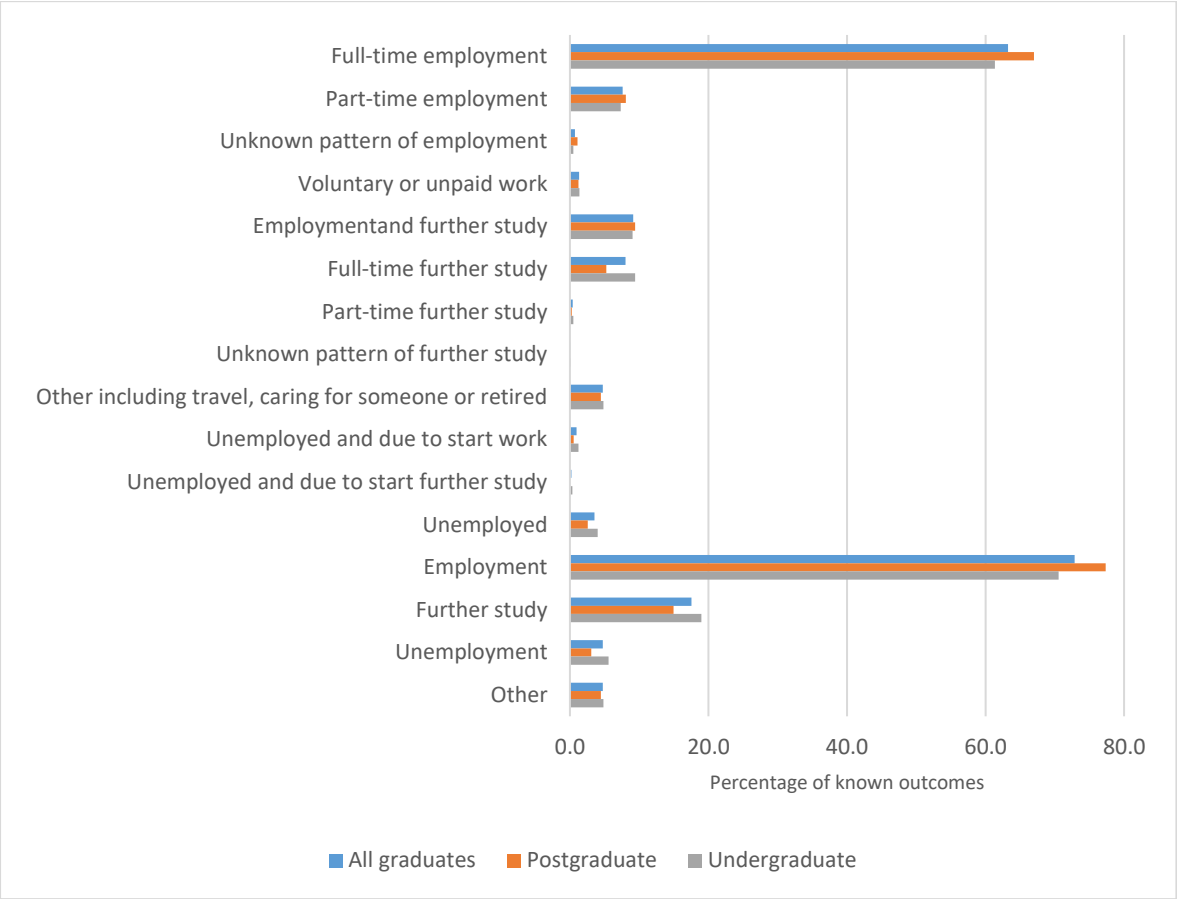
Subject area	Undergraduate		Postgraduate		All students	
	No.	%	No.	%	No.	%
02 Subjects allied to medicine	5355	12.5	3215	18.3	8570	14.1
10 Engineering and technology	6010	14.0	1950	11.1	7960	13.1
17 Business and management	5090	11.8	2660	15.1	7750	12.8
15 Social sciences	5180	12.1	1305	7.4	6485	10.7
22 Education and teaching	1025	2.4	2065	11.7	3090	5.1
11 Computing	2350	5.5	710	4.0	3060	5.1
13 Architecture, building and planning	2040	4.7	895	5.1	2935	4.8
03 Biological and sport sciences	2345	5.5	550	3.1	2895	4.8
19 Language and area studies	2050	4.8	480	2.7	2530	4.2
21 Creative arts and design	2040	4.7	345	2.0	2385	3.9
04 Psychology	1700	4.0	655	3.7	2355	3.9
01 Medicine and dentistry	1740	4.0	340	1.9	2080	3.4
18 Communications and media	925	2.2	960	5.5	1885	3.1
16 Law	1425	3.3	455	2.6	1880	3.1
20 Historical, philosophical, religious studies	1275	3.0	340	1.9	1615	2.7
07 Physical sciences	1025	2.4	315	1.8	1340	2.2
09 Mathematical sciences	830	1.9	245	1.4	1075	1.8
12 Geographical and environmental studies (natural sciences)	470	1.1	75	0.4	545	0.9
06 Agriculture, food and related studies	95	0.2	30	0.2	125	0.2
23 Combined and general studies	10	0.0	5	0.0	15	0.0
All subjects	42980	100.0	17595	100.0	60575	100.0

Source: HESA 2019/20.

The HESA Graduate Outcomes Survey monitors the labour market outcomes of students three years after graduation. Figure 54 shows the labour market situation of Sheffield university graduates in 2020, three years after they graduated in 2017/18. Of those whose

labour market situation is known, 70% were in work, predominantly full-time employment. 15% of graduates went on to further study and less than 4% of graduates were unemployed.

Figure 59: Labour market outcomes of 2017/18 Sheffield graduates in 2020.



Source: HESA Graduate Outcomes.

There is no available data which shows how many of the City Region's graduates remain in the area to live and work. Local level analysis has been undertaken which suggests that around one third of the City Region's undergraduates remain after graduation.[60] However, there is no comparable data which can be used to determine whether this is a low or high level of retention nor what the current position is.

HECSU reported that the 5 largest professional occupations for Sheffield university graduates were nurses, primary and nursery education teaching professionals, medical practitioners, marketing associate professionals, and general office jobs. The 5 largest employing organisations were: hospital activities, primary education, government, aerospace and general secondary education.

4.6. Qualifications in the population

Key points:

- The proportion of people in the City Region (19%) with no or low qualifications (below Level 3) is not dissimilar to the national average (18%). The main difference is that

[60] Guest, J. and Gelder, H. (2018) Report on the scale and nature of Sheffield City Region's graduate retention problem, SNC-Avelin and Atkins.

people in the City Region are more likely to hold Level 3 qualifications and less likely to be qualified at Level 4+;

- Within the City Region, Doncaster has the largest proportion of people with no or Level 1 qualifications (25%) and fewer at Level 3+ (43% compared to 55% in the City Region).

Table 30 shows that the proportion of the City Region working age population (16-64) with no qualifications is almost identical to England (7.5% and 8.2% respectively). However, people in England are qualified to higher levels. Similar proportions of the City Region and England populations hold qualifications below Level 3, but people in England are more likely to hold Level 4+ qualifications whereas people in the City Region are more likely to hold Level 3 qualifications.

Within the City Region, there are large differences between Sheffield and the three other local authorities. Almost half of the working age population of Sheffield is qualified to Level 4+ (47%) compared to around one quarter in the three other local authorities. One quarter of Doncaster's working age population hold no or a Level 1 qualification which is the highest proportion in the City Region.

Compared to the comparator MCA areas, the City Region population is better qualified and more likely to hold a Level 4+ qualification. There has been a similar rate of growth in the proportion of the working age population holding a Level 4+ qualification in the City Region, England and the comparator MCA areas of 15 percentage points since 2004.

Table 30: Highest qualification working age population – the City Region, local authorities and England, 2019

	Percentage of people aged 16 to 64with highest qualification						
	No qualifications	NVQ Level 1	NVQ Level 2	NVQ Level 3	NVQ Level 4+	Trade apprenticeships	Other qualifications
Barnsley	9.3	9.1	18.0	22.8	26.6	4.5	9.7
Doncaster	10.9	13.6	19.5	19.3	23.7	4.0	9.0
Rotherham	7.5	12.1	18.9	23.5	27.3	3.6	7.2
Sheffield	6.7	8.4	13.1	17.6	47.2	2.7	4.3
City Region	8.2	10.3	16.3	19.9	35.0	3.4	6.8
England	7.5	10.1	15.9	17.1	40.0	2.7	6.7

Source: ONS Annual Population Survey, January to December 2019

4.7. Population migration

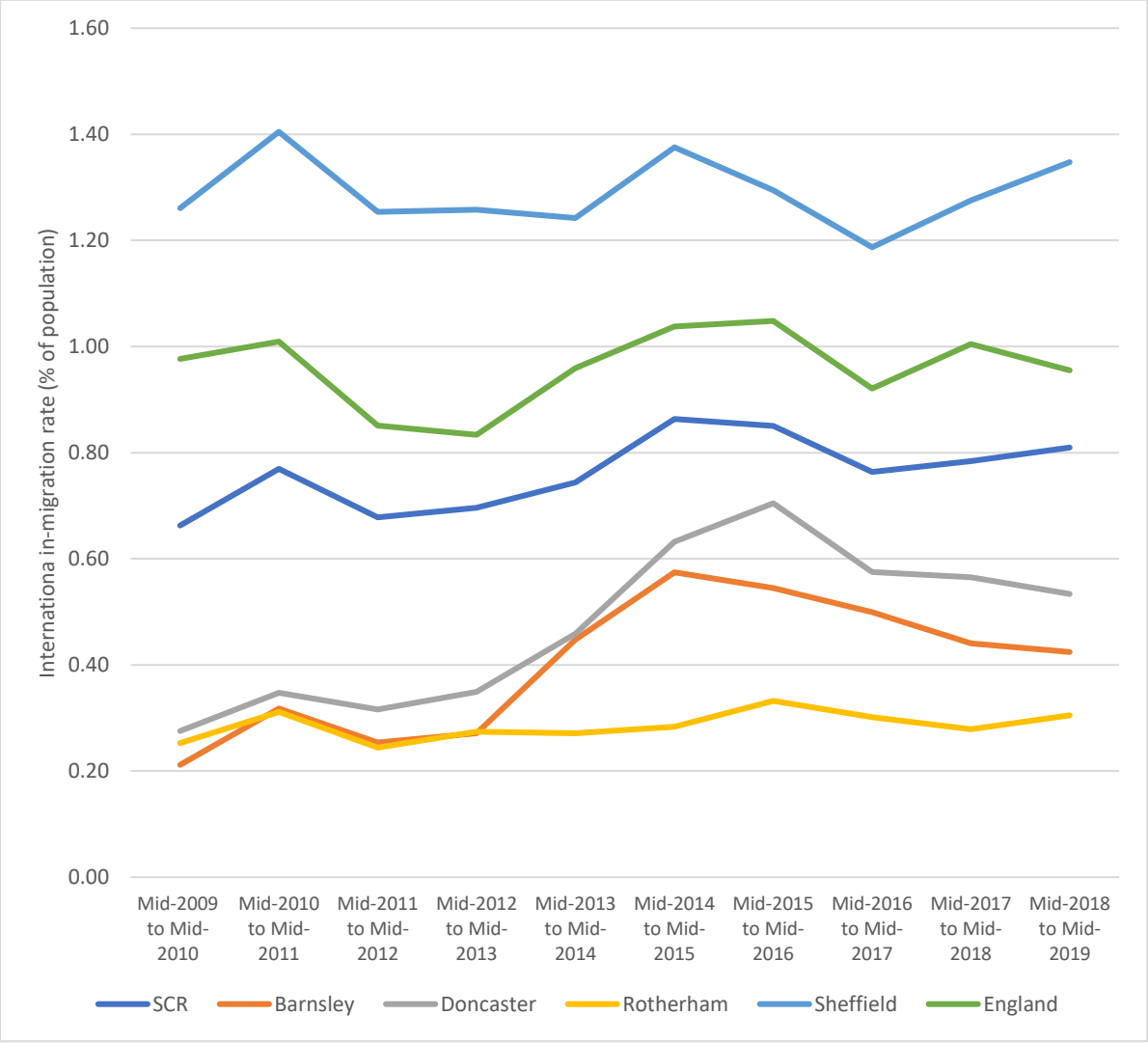
Key points:

- Levels of international in-migration are heavily influenced by the presence of the two universities in Sheffield;
- Net international in-migration rose in all local authorities in the first half of the last decade (33% across the City Region) but then fell after 2015/16 (3%).

The high number of university students in the population is one of the factors underlying the relatively high rate of net international migration (a change of country of residence lasting at least 12 months) into Sheffield which is higher than the England average (Figure 55).

Following the 2008/9 Financial Crisis, in-migration fell. Since 2010, in-migration in the City Region and England has fluctuated from year to year, with the City Region having an international in-migration rate lower than England. The presence of the two universities means that Sheffield has an international in-migration rate four times that of the other local authorities.

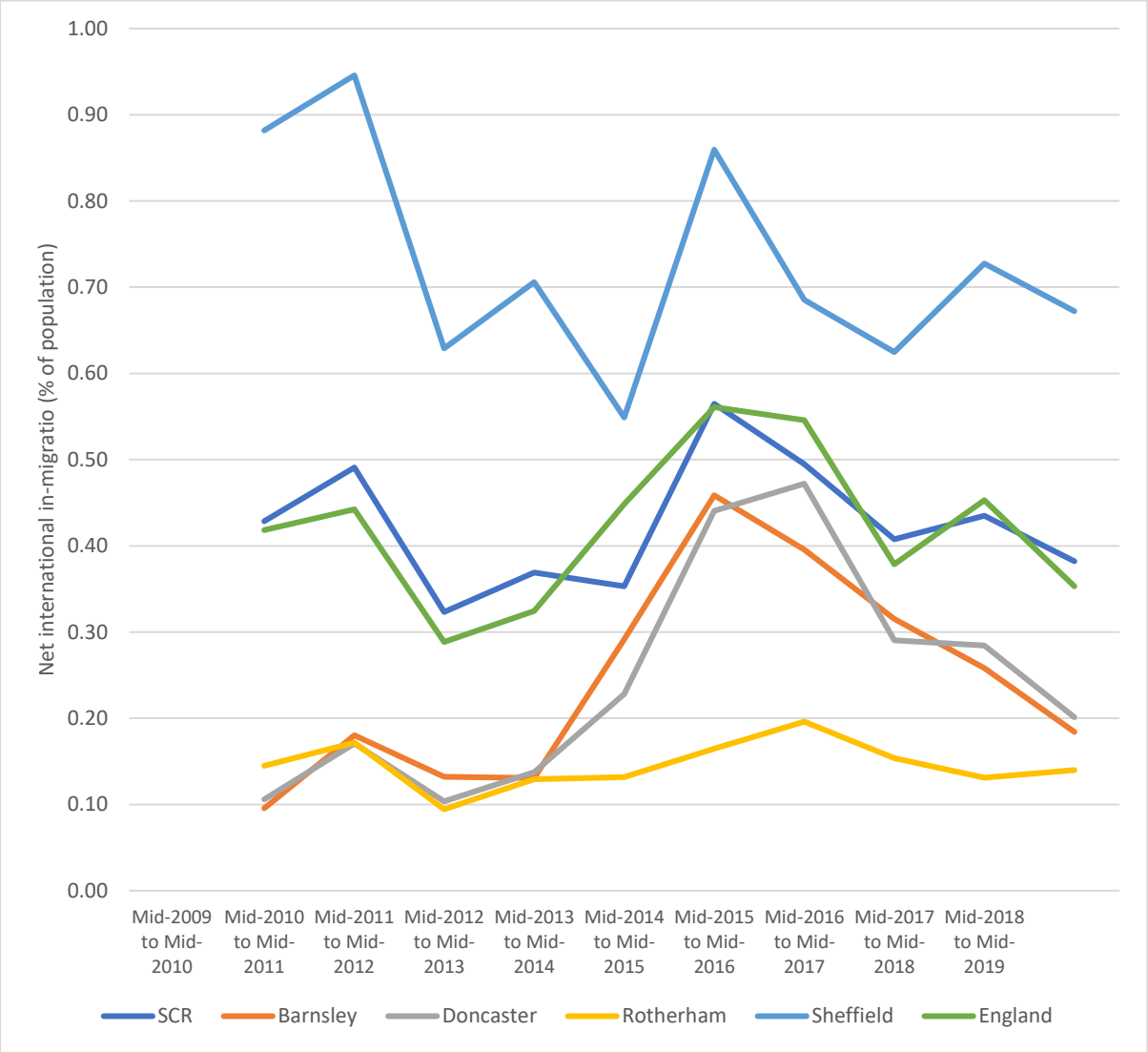
Figure 60: International in-migration the City Region, local authorities and England, 2010-2019



Source: ONS long-term international migration estimates

Net international migration (the difference between in- and out-migration) has been positive in all parts of the City Region since 2010 (Figure 56). Sheffield again has much higher rates than England and the other three the City Region local authorities. Net in-migration peaked in 2011/12 and 2015/16 in most areas, but then declined after the Brexit vote.

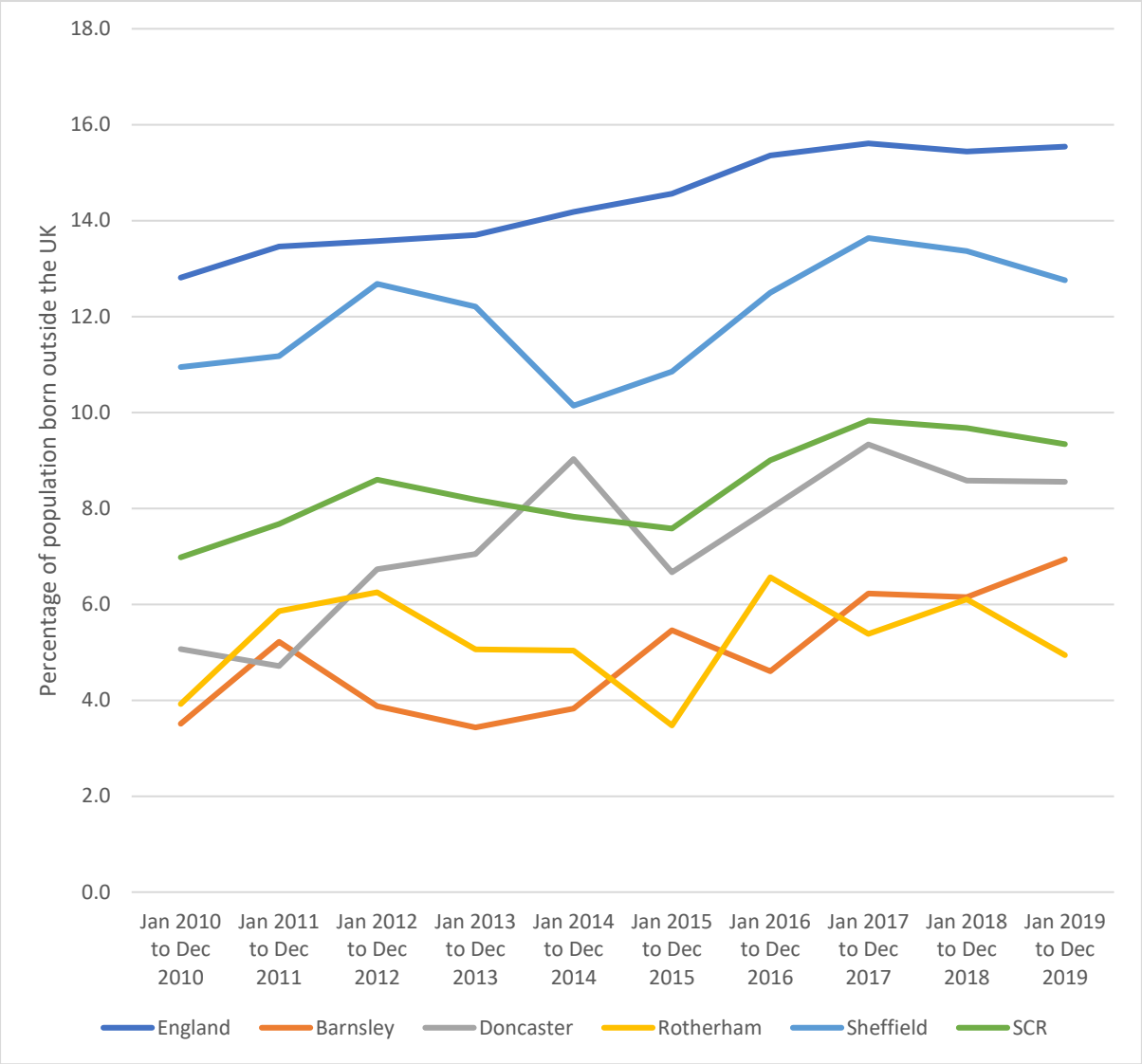
Figure 61: Net international in-migration – the City Region, local authorities and England, 2010-2019



Source: ONS long-term international migration estimates

As a result of sustained net international in-migration, the proportion of the population of the City Region born outside the UK increased over the past decade (see Figure 57). In England as a whole, the percentage of the population born outside the UK increased steadily training provider 16% by 2019, whilst in the City Region the percentage rose to 9%. At 13%, Sheffield's population born overseas was twice as high as the other local authorities by 2019.

Figure 62: Growth of population born outside the UK – the City Region, local authorities and England, 2010-2019



Source: ONS long-term international migration estimates

It is difficult to predict the impact of Brexit on migration patterns in the City Region. This is because the pandemic is severely restricting the movement of people, and because the trade deal has yet to take full effect (for example, it does not include services). The new points based immigration system restricts the in-migration of both EU and non-EU citizens to work in the UK. Overall, in order to work in the UK, migrant workers will require an offer of a job paying £25,600 and English language skills. The salary threshold could affect the employment of migrant workers in low paying sectors such as the care and hospitality sectors.

Overseas students make up a significant proportion of university students at the two City Region universities (see Section 4.5). Most of these are non-EU residents. Student numbers are sensitive to changes in immigration policy. The Home Office introduced restrictions in 2010/11 which subsequently led to a decline overseas student numbers in the UK.[61] Whilst

[61] See https://migrationobservatory.ox.ac.uk/resources/briefings/international-student-migration-to-the-uk/

the number of international students to the UK continues to rise the UK's share of international HE students continues to fall from the point when these restrictions were introduced.

4.8. Impact of COVID-19 on labour supply in the City Region

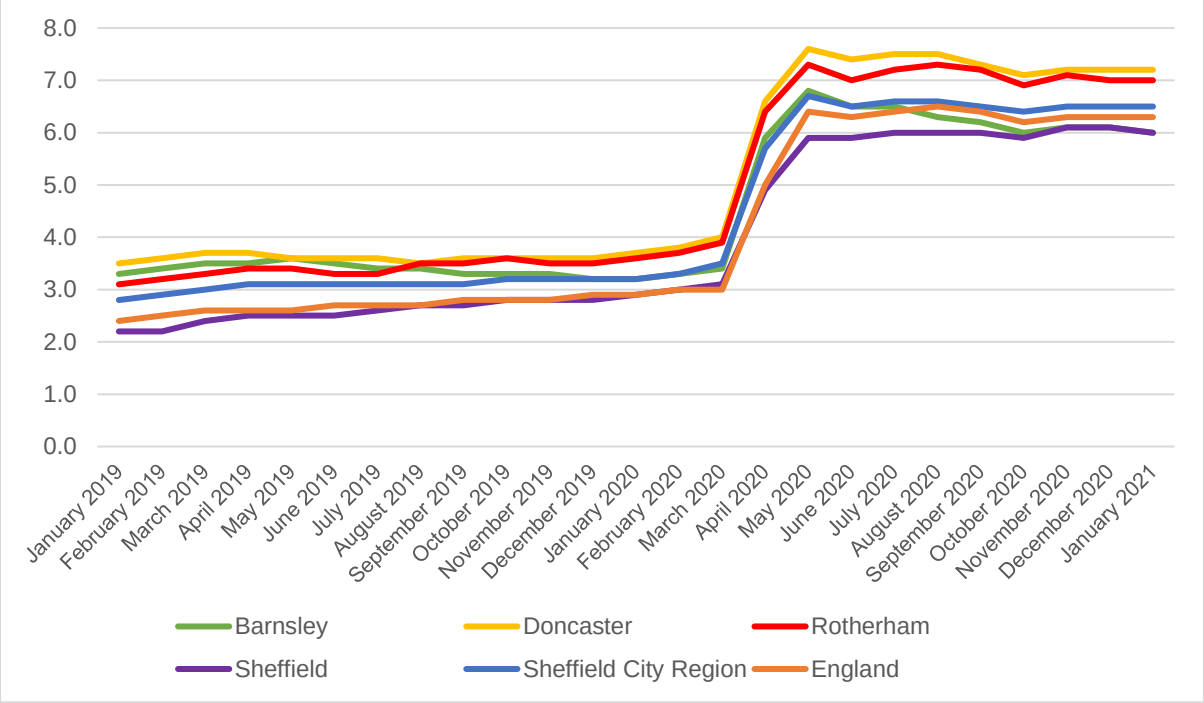
Key points:

- A step change in the claimant count rate followed the implementation of the lockdown in March 2020 (3.0% to 6.4% in the City Region). However, it appears to have affected all areas, age groups and genders equally;
- Even though the full impact of the pandemic came halfway through the 2019/20 academic year, there were significant falls in the learning aims starts in all of the funding programmes (-26% across the City Region) except for ALL (-5%).

4.8.1. Impact on unemployment (claimant count)

Figure 58 shows that there was a step change in the claimant count as the lockdown was implemented, more than doubling the rate. However, the impact was very similar in each of the areas. Two months after the lockdown was implemented the claimant count rate plateaued.

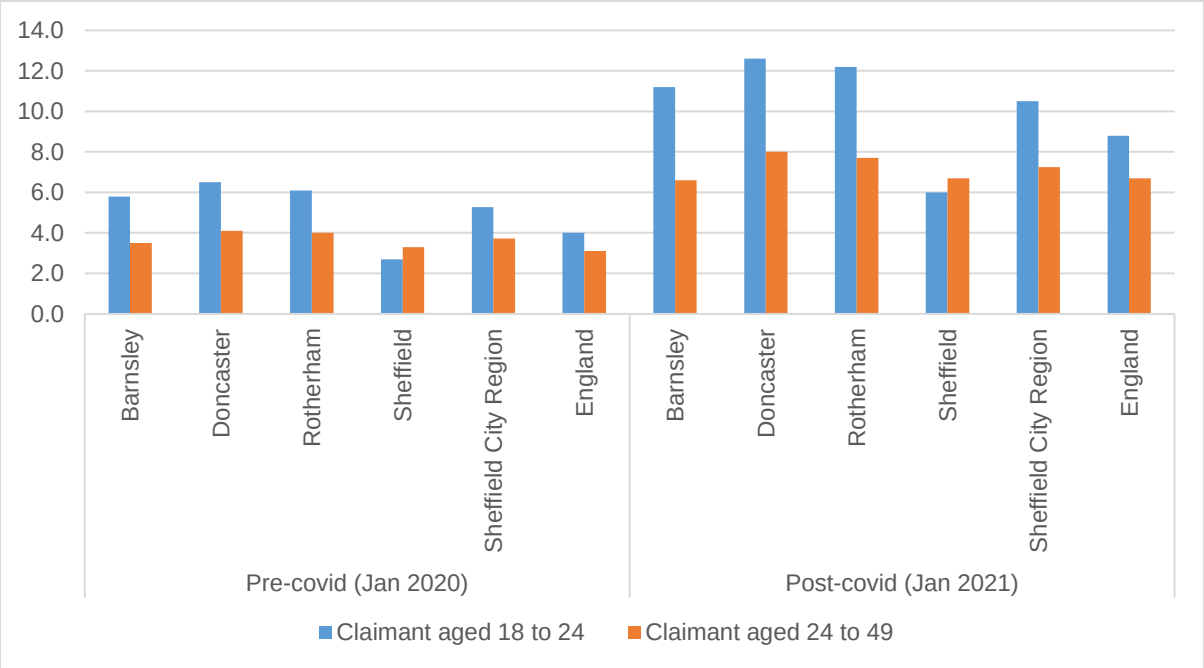
Figure 63: Claimant count rate – the City Region, local authorities and England, January 2019-January 2021



Source: Office for National Statistics from NOMIS

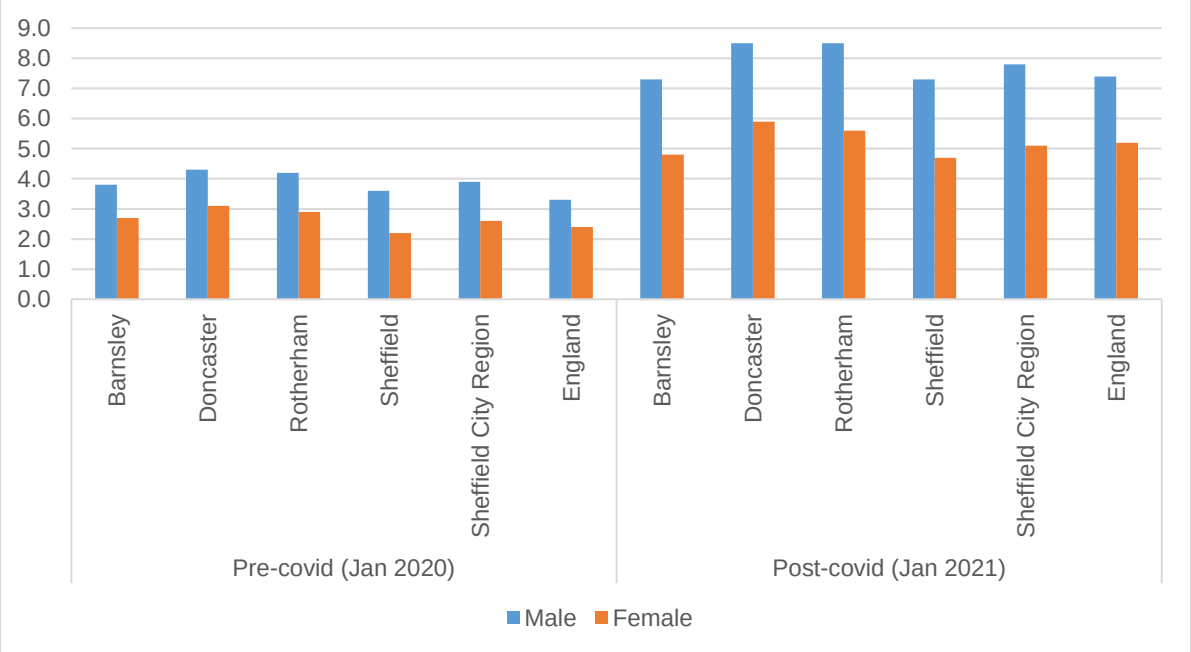
Figure 59 and 60 show a similar story of the impact of the pandemic on the claimant count rate by age group and gender. There was an initial step change, but the increase affected all groups, and by a similar amount

Figure 64: Claimant count rate by age group – the City Region, local authorities and England, January 2020-January 2021



Source: Office for National Statistics from NOMIS

Figure 65: Claimant count rate by gender – the City Region, local authorities and England, January 2020-January 2021



Source: Office for National Statistics from NOMIS

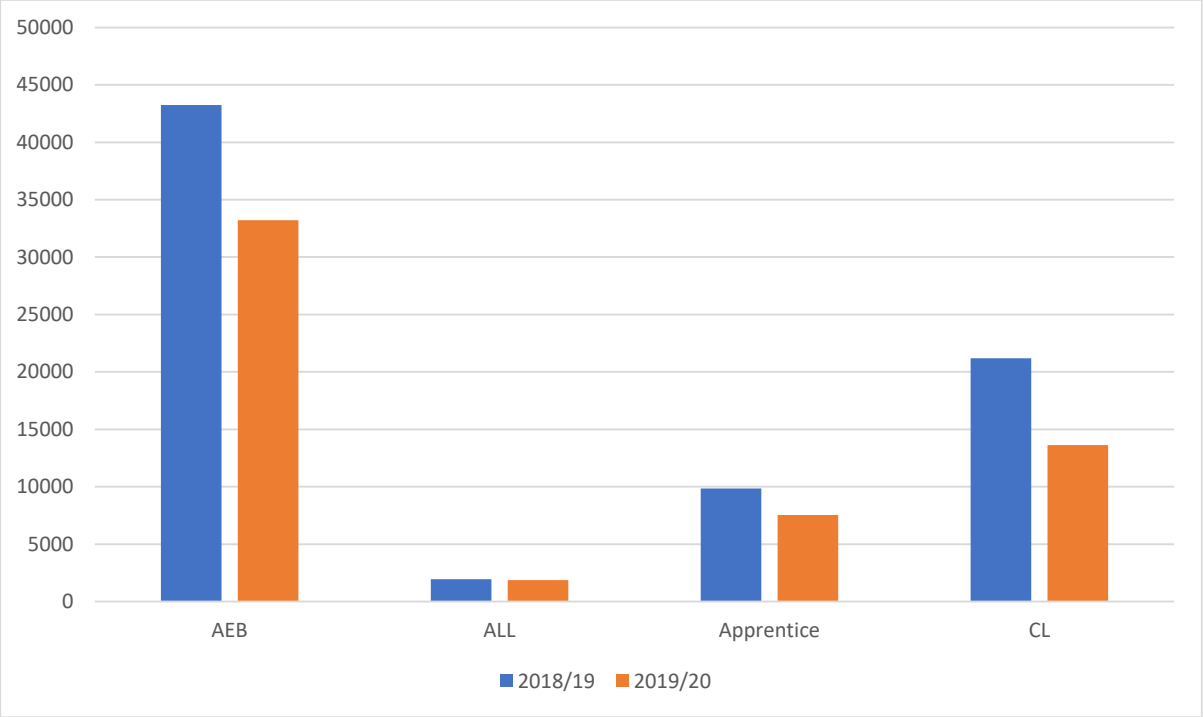
4.8.2. Impact on learning behaviour

The pandemic struck around half way into the 2019/20 academic year, and so many learners would have enrolled on their courses completely unaware of what was going to happen. Therefore Figure 61 only provides a partial picture of COVID-19's impact. There was a

reduction in the number of learning starts across the four funding programmes of almost 20,000 between 2018/19 and 2019/20, a fall of 26%.

The largest decline was in the number of CL learning starts (which decreased by 36%), but there were also falls of around a quarter in AEB funded (-23%) learning starts and apprenticeships (-24%) ALL was little affected.

Figure 66: Learning aim starts by funding programme – the City Region, 2018/19-2019/20



Source: SCR ILR data 2018/19

4.9. Summary

In general, the picture for young people is that across the City Region on the various indicators, the City Region falls below the national average, but the extent of this (and the variation across the City Region local authorities) varies. However, unlike the indicators of skills demand, the City Region tends to fall bellow the national average on almost all measures.

For young people at KS4, the City Region has a lower Attainment 8 score than England, but in Rotherham and Sheffield it is closer to the national average. Progress 8 scores are also lower, except in Sheffield which is the same as England. There are high levels of positive destinations in the City Region, slightly lower than in England. At KS4, young people in the City Region are more likely to enter apprenticeships and employment, than further education. Young people of BAME origin and women are slightly more likely to enter further education and training than their comparator groups, however, SEND young people have a significantly lower rate.

At KS5, attainment levels of young people in Rotherham and Sheffield are similar to the national average, but lower in Barnsley and Doncaster. 18-24 year olds in the City Region have higher unemployment rates than nationally, and are less likely to enter full-time education. Barnsley and Doncaster appear to have higher NEET rates. Barnsley had higher

NEET rates consistently throughout the last decade. There appear to be high levels of 18-24 year old unemployment in Doncaster, but the data needs to be investigated more.

19+ FE budgets – AEB, ALL, apprenticeships and CL - funded 77,000 learning aim starts in 2018/19. These are delivered by a large number of providers, 624 in total. Apprenticeships are delivered by 462 providers, of which 232 deliver fewer than five learning aim starts. The budgets appear to be funding provision in-line with their aims and objectives, for example, apprenticeships fund predominantly younger learners, and CL older learners. This extends to level of provision: 60% of AEB learning aim starts are at Entry or Level 1; and 61 apprenticeship starts are at Level 3+. The programme of provision seems to be in line with SCR sectoral priorities, for example, funding much provision in STEM, health and social care, construction, transport, storage and warehousing, and business administration. In addition, there is much provision at Entry and Level 1 to support those with no or low qualifications.

Around half of learners undertake provision that is at a higher level than the learner's prior level of attainment.

The number of apprentices fell by 36% in the year after the apprenticeship levy and other reforms were introduced in Spring 2017. The decline affected all ages of apprentices. However, whilst intermediate (-57%) and advanced (-31%) apprentice numbers fell between 2014/15 and 2018/19, the number of higher level apprenticeships rose considerably by over 300%. In the five largest subject areas in the City Region, only construction apprenticeships increased between 2014/15 and 2018/19.

HE in the City Region is delivered by two universities and five FE colleges. However, HESA data only includes students at Sheffield Hallam University and the University of Sheffield. These two universities accommodated almost 61,000 HE learners, a significant proportion of whom were studying STEM subjects. Very high levels of HE students enter positive destinations with only 4% becoming unemployed.

The proportion of people in the City Region with no or low qualifications (below Level 3) is not dissimilar to the national average. The main difference is that people in the City Region are more likely to hold Level 3 qualifications and less likely to be qualified at Level 4+. Within the City Region, Doncaster has the largest proportion of people with no or Level 1 qualifications and fewer at Level 3+.

Levels of international in-migration are heavily influenced by the presence of the two universities in Sheffield. Net international in-migration rose in all local authorities in the first half of the last decade but then fell after 2015/16.

A step change in the claimant count rate followed the implementation of the lockdown in March 2020. However, it appears to have affected all areas, age groups and genders equally. Even though the full impact of the pandemic came halfway through the 2019/20 academic year, there were significant falls in the learning aims starts in all of the funding programmes except for ALL.

5. Conclusions

5.1. Introduction

This data analysis and assessment produced for SCR provides an overview of the demand for, and supply of skills, and the extent of any skill mismatches and in so doing provides a snapshot of the current position and, where time-series data allow, the direction of travel to the current position. Any pathway to improving the current situation will need to be undertaken in a manner which is consistent with current national skills policy but in a way that responds to local circumstances and needs.

5.2. Overview

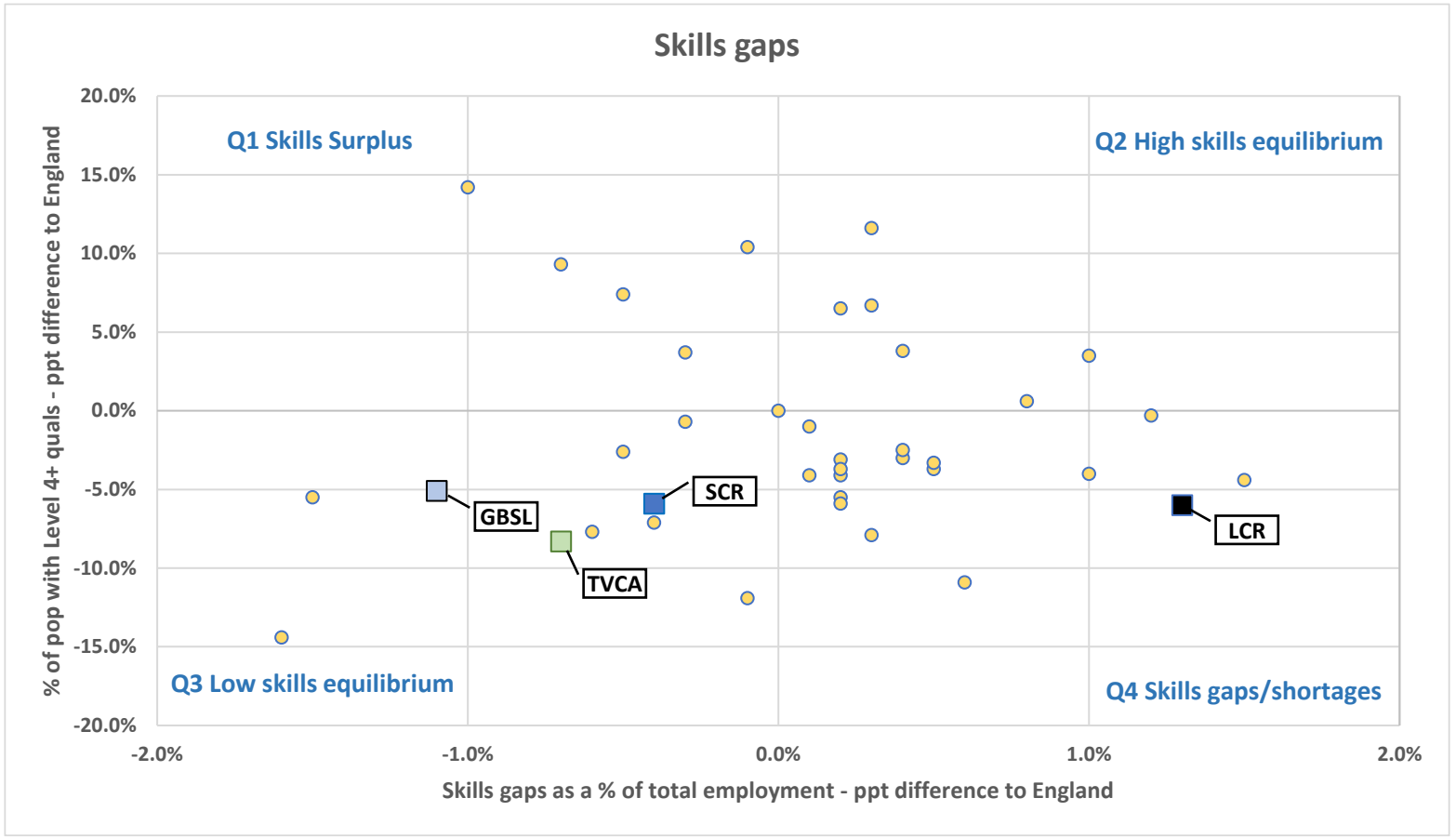
The report has analysed a wide variety of data on the background characteristics, skills demand and skill supply of the City Region and its four composite local authorities. This analysis has shown that on most measures of skills demand and supply the City Region is below the national average. On indicators of skills demand, the picture varies depending on the variables under analysis with the City Region performing better on some indicators. The skills supply data is less equivocal, with the City Region underperforming the national average on most indicators. The direction of travel also varies, the City Region performs better over the latter half of the past decade on some indices but not others.

Within the City Region, especially on skills supply, Sheffield and Rotherham generally perform better than Barnsley and Doncaster. The latter in particular appears to have relatively low qualification levels and there is a potential issue over youth unemployment which needs exploring in more detail. People of BAME origin and disabled people are also tend to score low on a variety of indicators in relation to their comparator groups.

On skills demand, the City Region has much lower productivity rates than England and comparator MCAs. Earnings levels are also significantly lower. Both have improved but at similar rates to England so the gap persists. There is a gender pay gap in the City Region and England., although the gap has narrowed in the City Region much more than nationally.

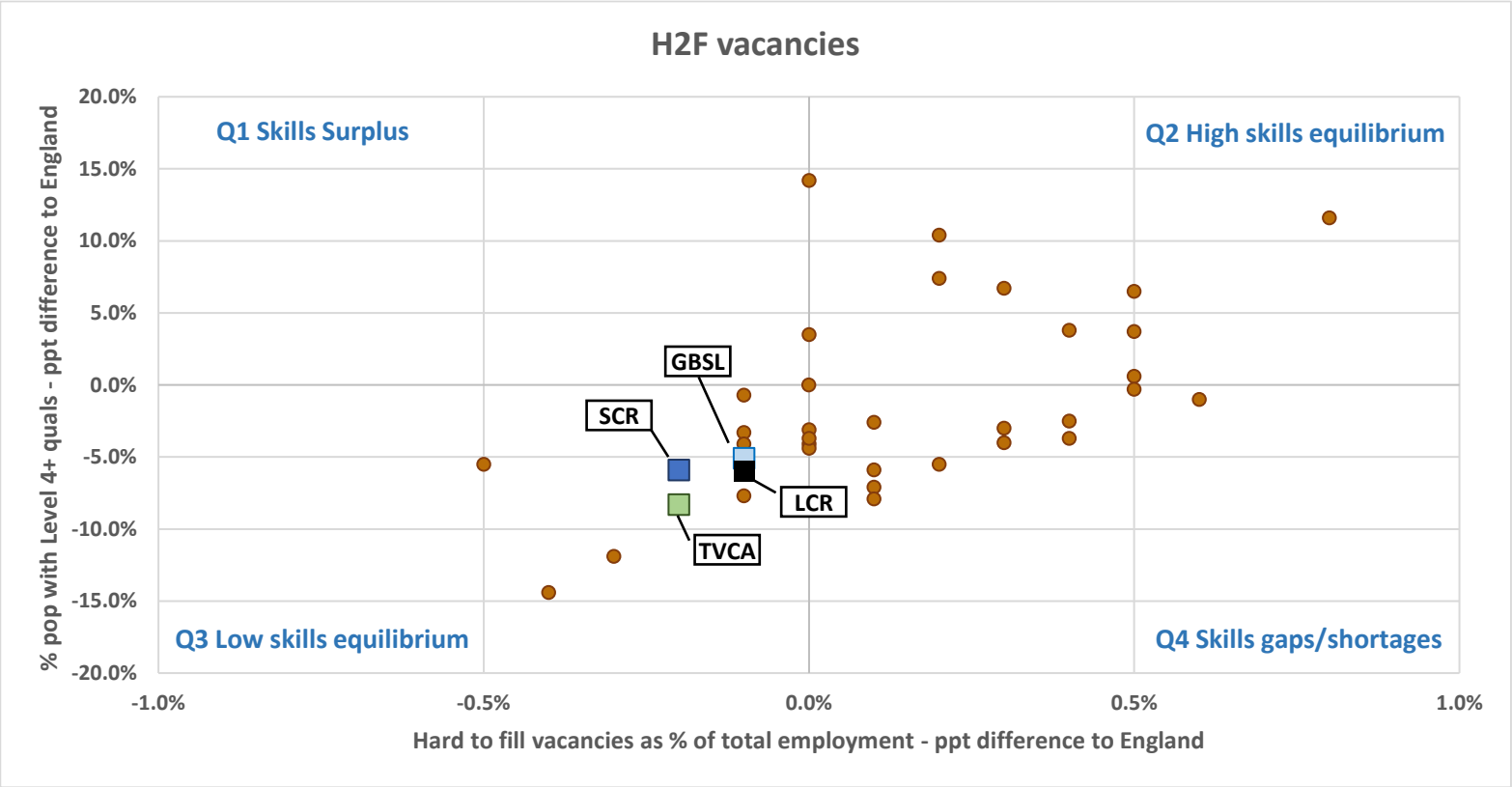
This skills report has analysed a large amount of skills, employment and other data. However, data gaps remain. A key area is employer data from the ILR. At the moment it is not possible for SCR (or anyone else) to identify which employers in which sectors and locations are being supported through the SCR's skills budget or, more importantly, those who are not. Another important area of omission is the lack of information on HE in FE provision. FE providers are increasingly delivering HE provision and to important groups in the population who do not usually go to university. Furthermore, little is known about the retention of graduate skills in the local labour market. Sheffield is home to two renowned universities which attract a large number of qualified people from other parts of the UK and internationally. It is not known how many of these people remain once they have graduated and can contribute to the City Region economy. Finally, data is not available at the local level on wage rates by sector and occupation. Wage levels are an indication of skill level, employer demand and productive contribution, and changes over time can be used to identify changing business demand for certain types of occupation and skill.

Figure 67a: OECD skills quadrant – skills gaps and Level 4+ qualifications by LEP areas, 2019



Source: Employer Skills Survey (ESS), 2019; and APS accessed via NOMIS, 2019

Figure 62b: OECD skills quadrant – hard to fill vacancies and Level 4+ qualifications by LEP areas, 2019



Source: Employer Skills Survey (ESS), 2019; and APS accessed via NOMIS, 2019

5.3. Conclusions

5.3.1. Position of the City Region in the skills quadrant

Figure 62 above employs a conceptual framework used by the OECD's Local Employment and Economic Development (LEED) Programme on Skills for Competitiveness.[62] It provides a simple typology designed to help understand the main relationships between skills supply and demand at local (or regional) level. The vertical axis is the percentage of the population qualified to at least NVQ Level 4, and the horizontal axes are measure of labour or skills demand measured by the level of hard to fill vacancies (as an indicator of skills demand in the wider labour market) and skills gaps (which indicates internal skills demand within employers).

Figure 62a and 62b present data points for each English LEP area. The values are relative to the national average so that on each axis England is 0%. A positive figure means that a value is greater than the average for England e.g. more people in the local population holding an NVQ Level 4 qualification. The charts are divided into four quadrants, where local labour markets are categorised as one of four types:

1. Skills surplus – a situation of high supply and low demand for skills;
2. High skills equilibrium – a situation of high supply and high demand for skills;
3. Low skills equilibrium – a situation of low supply of and low demand for skills;
4. Skills gaps and shortages – a situation of low supply and high demand for skills.

The City Region, on these measures, rests in the third quadrant - low skills equilibrium. It is similar to the position in the comparator LEP areas, with the exception of LCR which has higher levels of skills gaps.

A low skills equilibrium is where an economy is based on low value added, low skilled and low wage jobs. Employment levels may be high but there is an increasing reliance on low skilled and low paid jobs and results in the out-migration of skilled workers due to the lack of higher skilled jobs. Both demand- and supply side initiatives are required. Supply side interventions raise the skill levels of the population (e.g. through training programmes) but on their own are not sufficient. Demand-side interventions are required which increase the demand for, and utilisation of, higher level skills, for example, through improving company's product market and competitiveness strategies so they move into higher value added product and service markets, increasing the levels of skills that they require, and the extent to which they use these skills.[63]

These graphs are indicative (the range in the proportion of skills gaps and hard to fill vacancies compared to England is narrow) but provide a conceptualisation of the relative position of the City Region labour market. However, the relatively low levels of productivity and earnings in the City Region would support the conclusion of a low skills equilibrium. An important additional point is that relative to its main competitors, the UK would also appear in the third

[62] Green, A. (May 2012) Skills for Competitiveness Country Report for United Kingdom. OECD.

[63] Green, A. (September 2016) Low skill traps in sectors and geographies: underlying factors and means of escape. Institute for Employment Research, University of Warwick.

quadrant because levels of qualifications and training in the UK are relatively low, as are productivity and earnings.

In terms of the implications for supporting local people and employers and taking forward the local skills agenda and strategy, consideration needs to be given to:

- what can be reasonably expected from skills policy;
- the constraints and opportunities afforded by skills national policy;
- how to activate demand from employers and individuals;
- developing the supply-side and skills ecosystems;
- having a strategic approach to local skills, and
- the potential importance of benchmarking and measures of progress.

5.3.2. The limits of skills policy

The demand for skill is a derived demand i.e. a concomitant of economic activity. In a demand led system (see below) the role of skills is to satisfy employer's existing skill needs resulting from a range of policies linked to local economic development, technological change, employers' strategic choices etc. Employer's skills need not be met by external recruitment from the local labour market and skills training, they can be satisfied by overtime, subcontracting, automation, off shoring and recruiting overseas workers.

A great deal is expected of skills policy in terms of social and economic development. There is all too often a danger of seeing skills as a driver of growth. Whilst local economic development, accommodating technological change and/or the ability of employers to realise their strategic choices will most likely be hindered by a lack of the requisite skills, skill in itself is seldom the driver of these changes.

This points to the importance of skill development, however defined, being integrated with both businesses' product and labour strategies, and other local economic strategies. However, there are risks associated with boosting the supply of skills for which there might not be a demand, such as, stagnant or reduced wage levels and skills underutilisation. Skills is part of the overall strategic mix, not a panacea. What is needed is a linking of workforce development (e.g. though skills and training) to organisational development (e.g. through revamped work, employment and management practices), which in turn is linked to business development (e.g. through development of new markets or enhanced efficiency and competitiveness) linked to economic development (e.g. based on being stronger, greener and fairer) to create a new and mutually reinforcing virtuous circle of workforce and skills development for the City Region.

5.3.3. National skills policy

The UK has a demand led skills system. Over the past 30 years or more, policy has been very much oriented towards creating a market-based system to satisfy skill needs. The policy has been through a number of twists and turns but, in essence, it comprises:

- training providers which are encouraged to be responsive to the local demand for skills given that their business model is dependent upon doing so;
- the provision of information to individuals and employers about the types of skill in which they might invest (i.e. those skills which have value in the labour market) such that they are informed 'consumers' of training providers' services; and

- the state as both a regulator safeguarding training standards, a funder of last resort insofar as it will step in to offset various kinds of market failure (especially lack of access to capital to fund training) and a provider of information on the value of different skills.

Within the system, Government wants employers to be centre stage. This aspiration is designed to both: (i) better match the supply of skills to demand (the skills system delivers more of what employers need); and (ii) increase investment in human capital (especially levels of skills training). Simply put, if employers are able to obtain the skills they need, they will be better placed to obtain a return on those skills (through their contribution to productive capacity) and, accordingly, be prepared to invest further (because skills impact on production and productivity is positive).

Government policy has also sought to divert the costs of training to employers and learners so that they invest in things that generate a return to them (the essence of a demand-led system). Over time, measures – typically related to funding – have been introduced to make the education and training system more finely attuned to meeting demand. Whilst individuals have increased their investment in skills (e.g. longer time in the education system and increased study at HE level), expenditure on skills by employers has been substantially reduced since 2010.

A demand led system is designed, as its name suggests, to satisfy demand. But that demand, primarily from employers, needs to be in place in the first place. If skills demand is boosted without any corresponding increase in employer's labour demand, then this will result in lower wages and skills underutilisation providing a disincentive for individuals to invest in their skills in future. This is what happens in a low skills equilibrium.

The key question then becomes one of identifying whether this demand-led model suits the needs of the City Region and, if not, how policy might need to adapt.

Across the UK levels of work related training increased substantially during the 2000s before falling away after the financial crisis and continued to do so afterwards before plateauing at a relatively low level at the end of the 2010s.[64]

The high levels of skills underutilisation in the City Region (and nationally) indicate that there is more skill under-use than shortages (see Table 16). This indicates that on average skills supply outstrips demand (replacement demand aside). Given that the current pandemic may well result in employers having further excess skill capacity, there may be reduced incentives for employers to train either existing employees or recruit apprentices or trainees.

5.3.4. Stimulating demand for skills and training from employers

Whilst central government will likely retain a focus on boosting higher level skills, the baseline for the City Region (and its local authorities) is lower. The statistical evidence indicates that above average levels of employment in the City Region is in relatively low skilled, low wage jobs. In these jobs, employee's skill levels can be met in-house through on-the-job training or induction training. More emphasis on creating a demand-led system would not necessarily result in the economic development goals of SCR being met unless employer demand for skills is increased.

[64] Labour Force Survey, participation in training in the past four weeks.

Moreover on some key indicators of good work, the City Region does not perform well. Pay levels are low in the region and whilst levels of training are as good as the rest of the country by international standards there are low levels of upskilling of the existing workforce through training and education (which is not surprising given high level of skill under-utilisation amongst workers). Therefore, there is a need to raise employer demand for higher-skilled workers in better jobs. This demand has to be at the point of use not just hire (i.e. investing in the skills of their existing workforce rather than seeking to recruit externally), otherwise the existing high level of skills under-use in the City Region will be compounded.

A demand-led approach will not be an effective mechanism as, based on the evidence, supply meets demand. Rather there is a need to explore how employer engagement within the local skills system can be used to leverage a shift towards employers implementing higher value product market strategies which, in turn, should increase demand for higher levels of skill. Perhaps the levers of the high levels of replacement demand and the need for higher level skills to remain competitive (against other UK regions as well as internationally) could be employed, as could the large Government investments in infrastructure that were unveiled just before the pandemic.

The obvious reason for employers to invest in training is to address skill mismatches (or more precisely skills shortages in the workplace). However, the evidence on the level of hard-to-fill or skill shortage vacancies shows that both are low in the City Region and account for a relatively small share of overall employment. So it is a moot point whether the scale of skill shortages is a problem. It is more likely that there are particular niche sectoral or occupational skills shortage hotspots (such as nursing or project management). These hotspots are potentially important depending upon the types of jobs, sectors, and the reasons for them arising, particularly if they exist in expanding sectors such as advanced manufacturing and green energy. Not addressing them will create bottlenecks that constrain higher value local economic development. Therefore addressing skills shortages in priority sectors can be important and the decision to intervene could be taken based on the following criteria:

- the strategic importance of the sector/occupation to the local economy (e.g. big employment and growing sectors, and sectors with potential);
- the reason why training has not taken place is because of some form of market failure (for example, supporting smaller employers);
- the types of skills which are in short-supply are ones with relatively long lead-in times to develop (such as those relating to higher level skills).

A previous exercise in prioritising skill mismatches used a variety of measures to identify the extent to which a skill shortage warranted interventions of one kind or another.[65]

A further consideration is how to equip people with the skills that help them to enter, sustain and progress in employment. Unemployment of young people and adults is an issue in the City Region, but especially in particular local authorities. Employers will invest in skills from which they can appropriate a return. If the labour market of the future is one where individuals move between jobs more than in the past, then there is less incentive for employers to invest in them. Therefore there is a need to think about how individuals can be supported to develop

[65] Gambin L, Hogarth T, Murphy L, Spreadbury K, Warhurst C, Winterbotham M (2016) '*Research to understand the extent, nature and impact of skills mismatches in the economy.* London: Department for Business, Innovation and Skills Research Paper number 265. For an example of what this looks like in practice, see CEDEFOPs list of occupations for the UK.

the transferable skills which have currency in the labour market. As suggested it may not be the case that the needs of this group can be met via employers.

This points to how entitlements to participate in lifelong learning, as mooted in the recent White Paper 'Skills for Jobs'[66] can be used to broaden the acquisition of skills by individuals so the risk of skills obsolescence is reduced. It might be that the City Region needs to develop a local learning escalator (progression routes) through which individuals can have opportunity to progress upwards starting with lower-level skills and then gradually acquiring higher-level skills over time. Such an escalator will provide and maintain the employability of workers. It will, however, mean that returns to investment in skills acquisition in terms of higher pay might not be immediate.

5.3.5. Stimulating demand for skills and training from individuals

That central government wants to put employers at the centre of the skills system is not new and comes with mixed results. It assumes that employers are willing and able to play a central role in the skills system and that there are no competing priorities amongst employers (e.g. competitors) or between employers and local government.

For many adults their access to training will be via their employers. However, analysis of the LFS shows that the incidence of employer training has been in decline for some time. Furthermore, training resources (for both employers and individuals) tends to be focused on those already with high skills and qualifications and in higher levels jobs creating a 'virtuous' and 'vicious' circle of workforce skills development.[67]

For those with relatively low-level skills (for example, those with less developed functional skills in literacy, numeracy and digital skills) active labour market policies attached to the benefits system potentially provide them with access to training. For those who fall out of scope of active labour market policies, but with a similar skills profile (such as some groups of economically inactive people), may well have limited access to skills development.

It is worth noting that recently there has been increased interest across the world, including in the UK, in individualised learning accounts (ILAs). These accounts are not new to England. ILAs were introduced in England in 2000 as what was intended to be a demand-led shakeup to training in the UK. The scheme was withdrawn in 2001 due to significant fraud in its operation. Notwithstanding the reasons for their withdrawal, the National Audit Office in their review of the scheme pointed to its innovative design for engaging people in training who might otherwise fail to do so. It is notable that the European Union is providing resources to fund and encourage participation in its Upskilling Pathway (UP) which is aimed at raising the skills of individuals. Its 2020 EU Skills Agenda[68] would appear to advocate the use of ILAs or similar to empower individuals to access training and engage in the UP. This type of policy has also been used in several countries, such as the USA, Singapore and Scotland to good effect in

[66] Department for Education (2021) Skills for jobs: lifelong learning for opportunity and growth.

[67] Luchinskaya, D. and Dickinson, P. (January 2019), The Adult Skills Gap: Is Falling Investment In UK Adults Stalling Social Mobility? Social Mobility Commission.

[68] European Commission (2020) European Skills Agenda for Sustainable Competitiveness, Social Fairness and Resilience.

encouraging individual participation in training according to the OECD.[69] More broadly, ILAs can help address some major barriers to training, such as:

1. the need to tackle the substantial share of people lacking functional literacy, numeracy and IT skills;
2. a recognition that the nature of the employment relationship between employer and employee is changing. Employer's face disincentives to training in an increasingly and relatively flexible and fluid labour market where employers are less able to obtain a return from their investment training (e.g. due to poaching of qualified staff);
3. increasing levels of self-employment, sometimes allied to platform work, where cost constraints provide a substantial barrier to training for individuals[70];
4. the nature and scale of technological change in the guise of Industry 4.0, robotics, AI where number of jobs might be substituted by automation or involve upskilling. Individuals therefore need to acquire those skills which will make them resilient in the face of technological change.

In some respects it might be easier to persuade individuals to invest in training rather than employers at the present time given dampened levels of demand for skills and training in the labour market. But the challenge posed to outreach should not be underestimated.

5.3.6. The supply-side and skill ecosystems

Much is often required of training providers. The evidence suggests that in England they have been adaptive to the frequent and substantive changes in government policy. There is a wide range of evidence from around Europe that where there is concerted action based on collaboration and partnership between the supply side (colleges, private training providers, and schools) and local stakeholders, the result can be shared actions and added value. Evidence from five sector studies in specific geographic clusters (or networks of producers) across Europe (including the UK) revealed the way in which sectoral clusters were mutually reinforcing.[71] The benefits of such collaborative action included:

- An increased supply of highly skilled labour — from within internal and external labour markets — which supported the growth and competitiveness of each cluster;
- public agencies and private firms are engaged in the supply of knowledge which firms within the networks require to flourish, creating a more responsive system;
- innovation is sustained through the long-term accumulation of professional knowledge in local labour markets;
- the return on the employer investment is in the contribution to the pool of skills in the cluster from which it can benefit;
- there is a high degree of cooperation among companies within networks which aids sharing of knowledge for the benefit of the cluster.

A skill ecosystem approach offers this concerted action. Central to the establishment of the cluster or ecosystem in the first instance is the role of a central public agency bringing the

[69] OECD November 2019) Individual Learning Accounts: Panacea or Pandora's Box?

[70] Henry, N., Dickinson, P., et. al. (May 2021) Creating Value in Place: Understanding the Role, Contribution and Challenges of Creative Freelance Work

[71] For examples of where this approach has been seen to work well see: Cedefop (2012) Sectoral perspectives on the benefits of vocational education and training.

supply-side and a network of employers, training providers and often train unions and other bodies. They focus on four skill issues:

- **Skills development** through education, training and workplace learning;
- **Skills supply** presented by workers to employers through the labour market;
- **Skills demand** required by employers at the point of hire i.e. for workers to get jobs;
- **Skills deployment or utilisation** in work i.e. the skills workers needed to do the job.

Such ecosystems can be regionally or sectorally focused. Whichever focus is adopted the ecosystem requires concept and problem agreement amongst the participants. They require direction by government and local stakeholder support and involvement. Which stakeholders are involved and their influence can vary depending on each particular skill ecosystem, though government, employers, education and training providers, trade unions, consultancies and research organisations most obviously.

Embedding the City Region Intelligence Hub in such a skills ecosystem will be important. Its resources will be essential in not only stocktaking the current state of the City Region labour market and benchmarking change but also in identifying labour market needs and informing the development and adjustment of labour market plans. If partners can vary, what is constant however is the need for the relevant partners to be included, for their roles and responsibilities to be defined and coordinated, and for resource support to be available (for SMEs in particular).

Integrating, the ecosystem's experience and expertise and working collaboratively through challenges, priorities and needs in a concerted way allows a more proactive approach to skill – and local economic – issues, and provides a more agile and responsive approach to addressing those challenges, priorities and needs. It also offers opportunity to move away from transactional relationships with employers and for formal and informal developmental relationships to emerge. Having a local champion to manage the ecosystem is also important. Finally, ensuring that sufficient time is allowed for the system to bed in and be able to deliver change is essential.[72]

Encouraging partnerships between employers and training providers requires a degree of promotion. Employers already engaged with providers are often the best advocate for engaging in training or with the provider (a B2B approach) since employers are perhaps more willing to listen to other employers. Ambassadorial roles can be vitally important in this respect.

From the supply-side there is a need to check that progression pathways are available locally, so that individuals can progress up to higher level skills and qualifications. This is then something which employers can avail themselves of too. But again it requires concerted action between different types of provider and with the wider range of local stakeholders to ensure that the progression pathways are economically viable for the providers delivering them. Such arrangements are not a quick fix but they are increasing recognised as useful,

[72] Anderson, P. and Warhurst, C. (2012) 'Lost In Translation: Skills policy and the shift to skill ecosystems' in T. Dolphin and D. Nash (eds) *Complex New World: Translating new economic thinking into public policy*, London: IPPR; OECD (2020) Better using skills in the workplace, in the Leeds City Region, United Kingdom, Paris: OECD.

and have been adopted recently for example by CEDEFOP with its Centres for Vocational Excellence programme.[73]

5.3.7. A strategic approach to local skills

It is generally recognised that, for the City Region and more broadly across England, current skill policies are not delivering what they intended i.e. more and better jobs, increased productivity and wider economic and social improvements. Strategic direction is needed to complement organic growth if the City Region's position in the low skill equilibrium quadrant is to be broken. This strategy will need to recognise that different stakeholders can have different needs and priorities. To be successfully delivered, the strategy will need to be premised on identifying mutual gains that generate consensus by aligning needs and priorities to achieve a common goal. Support for this approach comes from drawing on central government's proposed Skills Development Fund which is likely to offer opportunity for coordinated responses to emerging skill priorities.

Drawing on the discussion above, this strategic approach in the City Region will need to join up three dimensions:

1. a need to dovetail the local response with national government priorities and programmes;
2. a need to engage, mobilise and (importantly) coordinate local stakeholders, perhaps using a skill ecosystem approach;
3. within workplaces, to integrate workforce, organisational and business development.

Any strategy, will also need to recognise that the COVID-19 pandemic has changed the way that we think about the economy. Throughout the crisis it is workers in the 'foundational economy', which comprise essential daily economic activities, examples include: utilities; transportation; warehousing and distribution; food processing; food retailing; education; and health and social care. It is workers in jobs in these sectors who have cared for the sick and infirm, kept the lights on and the internet running, put food on the shelves in supermarkets and delivered parcels to our doors. A balance needs to now be struck between supporting high value, export sectors and those locally-fixed sectors that are essential to preventing crisis in our daily lives.

The Chancellor's 'Building Back Better' plan emphasises the high value added sectors such as aerospace, life sciences, creative and AI. Support for these sectors is useful to the City Region, which has significant actual and potential employment growth in the advanced manufacturing, creative and digital sectors for example. However most employment in the City Region is in healthcare, education, public administration, and distribution, hotels and restaurants with significant recent growth in transport and communications. It is important to note that these sectors also offer high skill, high wage jobs not just low skill, low wage jobs. Providing support for them can thus also help maintain and expand employment in good jobs, and it is good jobs that link the stronger, greener and fairer economic recovery desired by the City Region.

5.3.8. Metrics and benchmarking

A final question is: what does success look like? The obvious answer is improvements over time against a range of criteria. Perhaps there is a case of identifying key metrics – and

[73] https://ec.europa.eu/social/main.jsp?catId=1501&langId=en

potentially targets by a given date (say 2030) – to demonstrate the pace of progress which can be benchmarked against the country as a whole or other regions (in or outside of England). This might at least have the impact of concentrating minds on what is working well and where policy interventions might be required.

There are dangers in this approach if policy becomes fixated on meeting targets, but if there is a balanced scorecard this pitfall can be avoided. Based on the types of targets that have been used elsewhere to drive skills policy, these might include the:

- percentage of individuals who are qualified below Level 3;
- percentage of adults engaged in learning;
- percentage of adults lacking basic skills, including digital;
- percentage of graduates in graduate level jobs three years after graduation;
- percentage of employers providing apprenticeships;
- youth unemployment / NEET rate.

This list above is provided for illustrative purposes only to show the types of indicator which can be used. There will inevitably be a degree of arbitrariness in the setting of the target.

In addition, SCR (in common with other MCAs/LEPs) should be better supported with access to data in order to understand the position, dynamics and impacts of the local skills system, for example:

- employer investment in apprenticeships. Much data exists on learner take-up and provider delivery of apprenticeships from the ILR, but no real time data exists on employers. For example, it is not possible to analyse the take-up, say, of apprenticeships by manufacturing businesses in Rotherham, and how this differs from similar businesses elsewhere in the City Region, and how this has changed over time;
- the impact of publicly funded provision could be mapped and analysed through integrated data sets, for example, Longitudinal Education Outcomes (LEO) data. This would provide an assessment on the labour market impact (job outcomes and earnings) of different types of provision, identify best practice, and used to provide justification for increased investment in skills development;
- similarly the impact of publicly funded provision could be analysed with greater access to the ILR. The City Region has relatively lower skill levels so a key objective is not just to engage people with no or low qualifications to enter skills training but to progress beyond their entry point. Using the Unique Learner Number (ULN) it should be possible to identify the extent to which learners do progress as a result of the publicly funded skills system, and to explore the reasons and conditions why some progress more than others;
- higher level skills at Level 4+ will increase in demand over the decade. However, HE provision from FE colleges is not currently included in HESA statistics. Also other key HE data (e.g. the level of retention of HE students in the City Region) is currently out of date. An understanding of the level and dynamics of higher level skills acquisition and retention is increasingly important;
- there is a gap in data on NEET within the 18-24 population. Analysis suggests that post 18 there is little movement between different broad types of destination category

(e.g. HE, employment, apprenticeship and NEET).[74] This suggests that 18 year old transition point is critical for longer term outcomes in a young person's life yet little information is available on the level and composition of the NEET population at 18 years of age and beyond.

5.3.9. Conclusion

The challenge is to break out of any trajectory which may hinder the raising of skills in the City Region. A number of suggestions have been provided which might stimulate the supply of skills and links the demand for skills in the City Region in a way which confers economic benefits of individuals. This requires breaking away a little from the demand-led approach which has so dominated the skills systems in England over recent decades, but is in in keeping with the recent White Paper which suggested that individuals have a right to engage in lifelong learning.

The danger is that without a stimulus package for skills development that also raises demand, the various changes on the horizon resulting from technological change could result in a rather poor outlook for individuals and the City Region. If people can be equipped with various skills now which will allow them to acquire a broad range of portable employability skills, individuals' prospects will be that much more optimistic. It is also apparent that, with a strategic approach, a cluster or ecosystem-based approach may result in employers recognising that there is value to be obtained from contributing to the pool of skills in their cluster/ecosystem from which they may ultimately draw.

[74] Dickinson, P. (May 2019) Choices that students make between different post-18 routes and whether these choices are effective and reliably informed: Review of relevant literature and evidence. DfE.

Appendix A: Definition of green jobs and skills

The definition of green occupations is based on the 'greening of occupations', which 'refers to the extent to which green economy activities and technologies increase the demand for existing occupations, shape the work and worker requirements needed for occupational performance, or generate unique work and worker requirements' (Dierdorff et al. 2009, p.4).

These green jobs include three types of occupations:

- New and emerging green occupations: occupations that have been directly created by the impact of green economy activities. They are the jobs most closely associated with the 'purist' definition e.g., biomass plant engineers, industrial ecologists, recycling workers, etc.
- Green enhanced skills occupations: occupations for which the green economy has changed the job requirements (tasks, skills, etc.) e.g., financial analysts, soil and water conservationists, environmental engineers, etc.
- Green increased demand occupations: occupations whose labour demand has increased due to a greener economy without altering their job requirements e.g. chemists, electricians, architects, etc.[75] [76]

[75] Dierdorff, E.C., Norton, J.J., Drewes, D.W., Kroustalis, C.M., Rivkin, D. & Lewis, P. (2009) Greening of the world of work: Implications for O* NET®-SOC and new and emerging occupations. National Center for O*NET Development, O*NET Resource Center (onetcenter.org).

[76] Sofroniou, N. & Anderson, P. (2021 forthcoming) 'The green factor: Unpacking green job growth', International Labour Review, doi.org/10.1111/ilr.12176, https://onlinelibrary.wiley.com/doi/full/10.1111/ilr.12176