Labour Market Information 2016

Sheffield City Region
COMBINED AUTHORITY

CONTACTS

General	enquiries@sheffieldcityregion.org.uk
Analysis	lisa.clark@sheffieldcityregion.org.uk
Press/Media	philip.cooper@sheffieldcityregion.org.uk
Address	11 Broad Street West, Sheffield, S1 2BQ. UK
Telephone	0114 220 3400

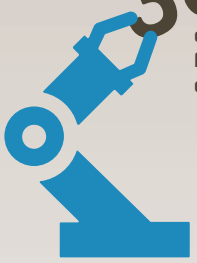
Contents

Labour Market Information 2016

Executive Summary

22,232
predicted new jobs by 2020

Estimated
39%
of jobs at risk from automation



6,500
estimated number of people aged 19 that don't have Maths and English Level2

The SCR trains approximately
20,000
apprentices each year

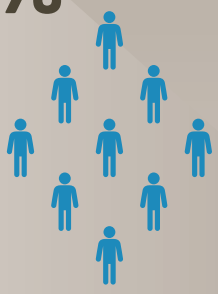
126,000
enterprises

70,000
unique applications to HE institutions in the SCR each year

1,178,500
jobs

133,000
vacancies per year

87%
of SCR enterprises have 0-9 employees



60%
of secondary schools are rated Outstanding or Good

23%
require improvement or inadequate

1 Executive Summary

Sheffield City Region's economic strategy is clear: to create a larger and stronger private sector by increasing the total GVA, number of businesses and jobs. In order to achieve this, it will be important to have a successful skills and employment strategy, which enhances skills supply and thereby feeds the demand for well-skilled employees.

The focus of this research is the analysis of the labour market in the Sheffield City Region, drawing national or LEP comparisons where appropriate. The report aims to draw together a wide range of data (demographic, economic, supply and demand of skills) in order to paint a detailed picture of the labour market and to inform policy makers and other stakeholders. No primary research has been undertaken in the course of this research, though analysis has been borrowed from UKCES surveys. The data presented in the report is all collected via other sources, mainly from government statistics.

This report focusses on providing an evidence base for policy making within the region, rather than making policy recommendations. Analysis within the report is undertaken mainly at a numerical level, with statistics and information being detailed. An oversimplification of information might tend to simplify or trivialise issues that are very complex and therefore the reader is left to discern some of the correlations and implications of the output.

The highlights of this report are detailed in brief below. Chapters of significance have a summary at the start, thereby providing a quick reflection on their contents.

1.1 SCR Demographics

Employment is steadily increasing in the UK and that is also true in the Sheffield City Region. Unemployment fell to 6.4% this year and there are 0.7 jobs per person of working age within the region. Self-employment is steadily increasing, but not as fast as the rest of the UK. However, by 2021, it is estimated that 10,500 more people will be self-employed and will therefore require entrepreneurial skills.

The reported level of young people Not in Education, Employment or Training (NEET) is steadily decreasing. Around 2,800 young people are estimated to be NEET in the City Region, of which approximately 60% reside within jobless households.

Research from the OECD claims that the UK has the highest percentage of low literacy and second highest percentage of low numeracy in any OECD country. Research in this report estimates that 6,500 young people aged 19 will leave education

without Maths or English at NVQ Level 2. There are 3,100 people in the SCR who cannot speak English at all.

Offending rates are significantly decreasing for those under 25 years of age. For adults over 25 years, offending decreased until 2013 when a rise was seen in 2014.

1.2 SCR Economy

In Sheffield City Region, the GVA has been steadily increasing, with growth in all sectors except Finance. The main sectors by GVA are Manufacturing, Distribution and Public administration, followed by Construction, Real Estate and Business Services.

In terms of employment, the most significant sectors are Wholesale & Retail, Health & Social Care, Business Professional & Financial Services and Manufacturing. When considering possible future growth in employment, the significant sectors align to existing employment, though Manufacturing is set to decline and the number of jobs in Construction is predicted to increase. Jobs are also expected to be lost in Education.

The majority of SCR enterprises have 0-9 employees (87%) and 57% of these companies are based in South Yorkshire districts. Larger companies tend to be based in Sheffield and as a trend, most sectors seem to be losing larger companies (1000+ employees) in favour of smaller SMEs (0-4 employees). Of the existing SCR workforce, 118,000 employees (16%) are over the age of 55 years and may look to retire within the next 10 years.

Estimates of future growth in the SCR predict that there will be 23,232 new jobs in the City Region by 2020. Of these jobs, we predict that future skills requirements will be focussed around NVQ levels 1-3 and degree level qualifications, with a gap in between (Level 4-5 are not in demand). Replacement demand follows a similar trend. It is thought that this pattern has been generated from a traditional dichotomy between vocational and academic educational routes.

Sectors with higher than average "niche factor" include: Medium-tech Manufacturing, Civil Construction, Logistics, Motor Trade and Low-tech Manufacturing.

1.3 Demand for Skills

According to Labour Insights, for every person employed in the SCR, there are 0.2 vacancies, which is lower than the national average. The number of vacancies has been steadily increasing, which matches the decreasing unemployment rate in the region. The majority of vacancies in 2016 were within Health & Social Care and Education. In most SCR districts, the annual number of vacancies is comparable to the number of unemployed persons, but the conclusion should not be drawn that all those unemployed could be moved into employment. The exceptions to this is NE Derbyshire and Bolsover, in which there are very few job openings. Chesterfield had a significant number of job vacancies in 2016 compared to its working age population.

From the UKCES research, several important statistics can be pulled out:

- 16% of SCR companies report having skills gaps (average for England 14%)
- 31% of SCR companies report having under-utilised staff (over-skilled or over-qualified) (average for England 30%)
- 6% of SCR businesses report struggling to fill vacancies (average for England 8%)
- 31% of SCR vacancies are considered to be "hard-to-fill" (average for England 33%)

1.4 Supply of Skills

The majority of secondary schools are rated Outstanding or Good (61%), though 23% require improvement or were deemed Inadequate (with the remaining 16% not yet having had an Ofsted inspection, most of which are new academies). However, the SCR Average Point Score for 16-18 education falls below the UK average in almost all measures. It is perhaps surprising to note that science subjects top the list of attainment in the SCR, whilst very few students study Business, IT or computing. Unfortunately, the SCR do not have access to the full Education Funding Agency (EFA) data and are therefore not able to analyse statistics in more depth.

Statistics for adult learning are provided in Section 9.6 in detail, with the majority of courses being in education and training. Significantly, there are a considerable number of learning aims taught which relate to "Preparation for Life and Work". The majority of these courses are taught at NVQ Levels 0-1, with little provision at NVQ Level 3+.

The SCR trains approximately 20,000 apprentices each year, with the most popular sectors being Business, Retail, Engineering & Manufacturing and Health Care. Unfortunately, numbers of apprenticeships in Construction have been declining since 2011/12 and numbers are low in this sector. Furthermore, only 3.5% of all apprenticeships are at a Higher Level and worryingly there is a significant BAME under-representation.

In contrast to FE Education and Training, Workplace Learning is mostly taught at NVQ Level 2, though training sits within just a few sectors: Construction, Health & Social Care, Transportation and Wholesale & Retail. In addition, despite fairly low numbers, there is an over-representation of BAME within Workplace Learning.

Very little up-to-date data has been obtained about Higher Education provision. Around 70,000 unique applications are made to HE institutions within SCR each year, with the majority being made to the two universities (98%). However, HE provision is made at every SCR college, though HE learners within these institutions tend to be more local. According to HEFCE cold spot data (2011/12 - 2013/14), on average per year, 20,800 HE students study in the LEP, of which 39% grew up in the LEP.

A brief analysis of the skills deals emanating from the SCR Skills Bank is provided. Since its inception, 388 employers have completed skills deals and the geographic spread is given in Section 9.9.

Since this research did not collect primary research, no detailed information can be given regarding in-work training. However, from UKCES statistics, 47% of all SCR employers wanted to provide more training.

No direct correlation between supply and demand for skills has been undertaken, due to the complexity of both the data and issues in the topic of study.

1.5 Future Requirements for Skills

Predictive analyses of employment act somewhat as black boxes and there are a range of tools that can be used. In this research, two predictive tools are compared: EMSI and UKCES Working Futures 2012-2022. Data from each were compared over the same timescale and the results mainly agree, which is compelling. As mentioned above, growth in jobs is expected in Health & Social work, Construction and Information technology, but losses of jobs are predicted in Manufacturing and Public Administration.

An analysis is included as to the number of jobs predicted by the SCR Integrated Infrastructure Plan (SCRIIP) and inward investment leads. The SCRIIP analysis utilises the 70,000 job growth requirement of the SCR Strategic Economic Plan as a basis for sectoral growth and therefore the number of jobs are fairly evenly spread across all sectors (except medium to low manufacturing and Public Administration, which are set to shrink).

It is notable that replacement demand is expected to be around 8 times the level of standard growth in jobs, with 118,000 workers presently over the age of 55 years.

A major risk to the region is the level of automation within roles. This is a risk to all jobs worldwide and, in the SCR, we estimate that 39% of jobs are at high risk (283,000). Industries most at risk of automation include Accommodation & Food services, Manufacturing, Transportation & Storage and Wholesale & Retail.

2 Introduction and Context

2.1 Sheffield City Region

Located at the heart of the UK, the Sheffield City Region has been at the forefront of industrial and entrepreneurial development. The reputation of the region in the fields of manufacturing, technology, engineering and materials sectors is known world wide and the "Made in Sheffield" brand is recognised as a sign of quality. After the decline of the steel industry, the region has worked hard to retain and attract industries into the area and has been successful in this endeavour.

The Sheffield City Region is made up of nine local government districts and each has their own cultural heritage, enterprises and demographics. This is a strength of the region, as it builds on successes of each district and develops a stronger economy.

2.2 Devolution Deal

In the autumn of 2015, the Sheffield City Region successfully negotiated a deal with government to develop greater budgetary powers to the Sheffield City Region Combined Authority, these areas included:

- Responsibility for a consolidated, devolved transport budget, with a multi-year settlement to be agreed at the Spending Review.
- Responsibility for franchised bus services, which will support the Combined Authority's delivery of smart and integrated ticketing across the Combined Authority's constituent councils.
- Responsibility for an identified Key Route Network of local authority roads that will be collaboratively managed and maintained at the city region level by the Combined Authority on behalf of the Mayor.
- Powers over strategic planning, including the responsibility to create a spatial framework for the city region and to chair the Sheffield City Region Joint Assets Board.
- Responsibility for the fully devolved Adult Education Budget (AEB) from 2018/19.
- The Sheffield City Region Combined Authority (SCR CA), working with the Mayor, will receive the following powers:

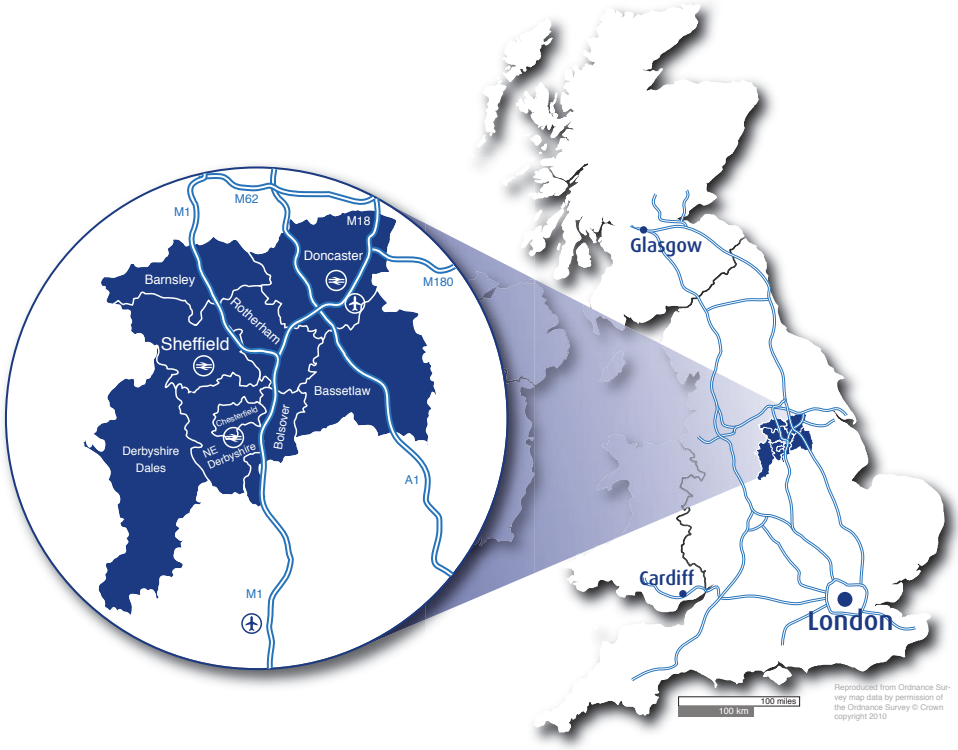


Figure 2.1: The geographic location of Sheffield City Region and its nine districts

- Control of a new additional £30 million a year funding allocation over 30 years, to be invested to boost growth.
- Responsibility for chairing an area-based review of 16+ skills provision, the outcomes of which will be taken forward in line with the principles of the devolved arrangements, and devolved 19+ adult skills funding from 2018/19.
- Joint responsibility with Government to co-design employment support for the harder-to-help claimants, many of whom are currently referred to the Work Programme and Work Choice. SCR will also bring forward a proposal to pilot more intensive support for those furthest from the labour market.
- More effective joint working with UKTI to boost trade and investment, and responsibility to work with Government to develop and implement a devolved approach to the delivery of national business support programmes from 2017.

2.3 A 10-year plan for private sector growth

The Sheffield City Region LEP and its partners published the *Strategic Economic Plan* in 2015 to grow both businesses and jobs. The City Region has set targets to

narrow our economic gap over the next 10 years (2015-2025) through the creation of 70,000 jobs, increased Gross Value Added (GVA) by 10% (or £3bn) and creation of 6,000 additional businesses beyond our baseline growth rates.

2.4 SCR Labour Market

In the context of devolution, the Sheffield City Region is putting in place a package of reforms which seek to stimulate the demand for, and supply of, skilled labour. Underlying the aspiration of the SEP is a requirement to provide eduction and training for all SCR residents and employees, such that the SEP's ambition can be realised.

The Government's framework for raising productivity highlights skills as one of a handful of key productivity drivers. BIS research indicates that around 20% of the UK's productivity gap to France and Germany is attributable to low skill levels. Therefore, lifelong learning is a critical part of realising success in the City Region as it will ensure that: young people will be "work ready", employees can develop their own talent and progress in work and the unemployed can either move closer to the labour market or gain employment.

In the LEP Network's report *Building Local Advantage: Review of Local Enterprise Partnership area economies in 2014*, the Sheffield City Region was ranked alongside other LEPs for various economic metrics. Amongst these were a range of skills measures (which utilised data from 2012), of which the SCR consistently appeared near the bottom of the table. It is very positive to note that, in latest data (2016), the SCR has improved each of the statistics, although not necessarily the LEP ranking. As a measure of success, the percentage of population with no qualifications has decreased from 11.0% to 9.5% as those with Level 1 qualifications has increased. This has improved the LEP ranking for this measure from 35th to 27th.

The City Region should not be evaluated as a silo; it is part of a wider skills system, in which national policy influences the skills and training of both young people, the unemployed and those in work. The OECD's *Employment Outlook 2016* highlights several UK trends and expectations:

- Unemployment has fallen to 5% of the labour force, it lowest level since 2005.
- Average hourly real wages fell by more than 10% since 2007 though they have picked up slightly since 2015.
- The UK had a weak labour productivity growth of 2% from 2010 to 2015. This represents the smallest increase in the OECD after Hungary, Italy and Greece.
- Productivity in the UK could be boosted by improving workforce sills but also through more efficient use of existing skills.

Additionally, in the *REC*[1] *Jobs Outlook* in July 2016, they found that half (47%) of employers who recruit members of staff anticipate skills shortages for permanent

[1]The Recruitment & Employment Confederation (REC)

roles. It is in this context that this report analyses the labour market in the Sheffield City Region, drawing national or LEP comparisons where appropriate. The report aims to draw together a wide range of data (demographic, economic, supply and demand of skills) in order to paint a detailed picture of the labour market and to inform policy makers and other stakeholders.

This report is not intended to be a "one stop shop" for skills policy requirements, instead aiming to provide information on a wide range of topics that are best brought into one tome. The detail in this report is complex and the analysis does not provide a panacea. No distinct policy recommendations are made; the report endeavours to merely present the evidence.

In addition, where the authors have identified a specific requirement for additional data or more intensive work, this has been highlighted throughout the report in orange boxes. These include areas in which analysis was too complex to include in this report or in which data simply did not exist to provide evidence for the topic. These projects are not designated for the SCR Executive Team, but are intended for wider stakeholders to acknowledge and potentially lead on solutions. In this way, the region may collaborate successfully to build a stronger skills system, which will deliver the GVA, businesses and jobs planned in the Strategic Economic Plan.

2.5 Brexit

This report does not attempt to analyse the effects of Brexit (the UK's decision on 24th June 2016 to leave the UK), which occurred during the writing of this report. Despite being several months on from the Brexit decision, the UK is still part of the EU and it is therefore too early to see any potentially significant effect on the labour market. Whilst the money markets showed initial shifts due to Brexit, it is likely that the labour market will be slower to change. Firstly, employers may wait for the terms of Brexit to be decided (i.e. around freedom of movement) and secondly, employees will not just quit jobs without having clear alternatives.

As a forecast, the OECD has reported in its *Employment Outlook 2016* that the referendum decision will negatively affect the short-term labour market prospects and, due to the likely decrease in GDP, Brexit "represents a cloud" over the country's ability to create jobs. The Lloyds Bank Business Barometer surveyed UK companies a week after the EU referendum and their results show that confidence fell from 32% to just 6%, its lowest level in four-and-a-half years. However, according to the latest ONS Labour Market Statistics, which cover the period prior to the referendum and a few weeks afterwards, there is no evidence that the labour market reacted with anticipation to a Brexit decision. In addition, data showing the monthly number of vacancies does not show any statistically significant increase or decrease in the labour market.

That said, there has been some empirical evidence that there is reticence in the labour market, both from employers and employees. For example, a German study by the academic exchange service DAAD has found that British Universities could be at risk of losing up to 15% of staff if free movement for EU academics is not retained in the Brexit deal. However, mainly due to the fact that the UK is still within the EU, the longer-term effect of Brexit is unknown.

3 Methodology

The report mainly reproduces statistics that can be found elsewhere, merely bringing together a variety of information. However, there are aspects which are unique to this report and these are detailed in this section.

3.1 Data Sources

This report utilises a wide range of data sources, which include:

- Skills Funding Agency (SFA) LEP data cube (SCR data)
- Office for National Statistics (ONS)
  - Business Register Employment Survey (BRES)
  - Annual Survey of Hours and Earnings (ASHE)
  - Inter-Departmental Business Register (IDBR)
- UK Commission for Employment and Skills (UKCES)
- Ministry of Justice
- Census 2011 Data (including Census Flow data)
- Edubase and local school websites
- Department for Work and Pensions
- Department for Education

Much of the open government data was sourced via the NOMIS web service. In addition, some data was provided by unique service providers (such as Career Transition Partnership, CTP) who kindly supplied data.

In addition, the report utilises data from two main commercial LMI tools:

- EMSI
- Labour Insights - BurningGlass data on vacancies

The SCR does not have access to the Education Funding Agency (EFA) data and therefore no detailed analysis of 16-18 provision has been possible.

3.2 Industry Definitions

There are many ways to define industry sectors to perform economic analysis. Typically, Standard Industrial Codes (SICs) are utilised to aggregate industrial activities into sectors. The ONS uses the main SIC groupings to aggregate its data, though these are routinely considered to not represent modern industrial sectors. Each LEP or economic analyst will define sectors slightly differently, so for completeness we define our definition here.

For the purpose of this work, each SIC has been designated to reside within one (and only one) sub-sector, which itself resides within one industrial sector. Therefore, each (sub)sector is a unique container for activities. It is important to define the sectors in this way, so that each SIC belongs only in one sub-sector, as it prevents any ambiguity or duplication in numerical counting. The list of (sub)sectors is listed in Table 3.1.

In addition to these (sub)sectors, it is acknowledged that some popular sector definitions have emerged, which cross over several more traditional sectors; for example, Healthcare Technologies is a mixture of activities of engineering and healthcare. In order to classify these, 4 common "cross-sectors" have been also defined, which borrow SICs from a range of sectors. These are listed in Table 3.2.

To avoid ambiguity, these definitions of (sub)sectors are referred to as "SCR sectors", which differ from the ONS sector definitions, which are used in the report where individual SIC breakdown is not possible.

3.3 FE Data

Within the Skills Funding Agency (SFA) Individualised Learner Record (ILR) dataset, courses are disseminated by Substantive Learning Aims (SLAs), which are disaggregated into Tier1 and Tier2 subject levels. However, when considering the analysis of local curriculum and supply/demand of labour, it is noted that the Tier2 levels do not provide a significant breakdown; it is difficult to isolate courses that relate to industry sectors or single occupations.

In order to overcome this issue, the authors of this report have defined a new Tier3 level, which breaks the SLAs down into more specific categories. This new level of disaggregation is defined using general groupings of courses (though is somewhat arbitrary in places due to Tier1 and Tier2 groupings) and allows for a more detailed analysis of courses. A computer program has been written which performs the word matching on each SLA and attempts to identify the Tier3 that best describes it. There is some level of inaccuracy, due to lack of coherent matching, but (where possible) manual checking has been undertaken to quality assure the output. The Tier3 levels have then been matched to SCR (sub)sectors and even occupations, for further analysis.

The complete Tier3 sub-classification is shown in Appendix G, in Figures G.1 to G.15.

Table 3.1: List of industry sectors and sub-sectors used in this report

Sector with sub-sector
Agriculture, Forestry and Fishing
Business, Professional and Financial services
Business
Employment
Financial
Professional
Construction
Buildings
Civil
Specialised
Creative and Digital Industries (CDI)
Creative
Digital
Education
Electricity, Gas and Water (Utilities)
Health and Social care
Leisure, Tourism and Sport
Leisure and Tourism
Sport
Logistics
Manufacturing
Low tech
Medium tech
Advanced
Mining and Quarrying
Other
Public administration and Defence
Science and Research
Transportation
Wholesale and Retail
Motor trade
Retail
Wholesale

Table 3.2: Cross-sectors used in this report, along with the Sectors and Sub-sectors they 'borrow' from

Cross Sector	Sectors/ Sub-sectors crossed with
Hair and Beauty	Business, Professional and Financial services
	Business
	Wholesale and Retail
	Retail
Healthcare technologies	Manufacturing
	Advanced
	Science and Research
Hospitality	Leisure, Tourism and Sport
	Leisure and Tourism
	Wholesale and Retail
	Retail
Motor vehicle	Business, Professional and Financial services
	Business
	Manufacturing
	Advanced
	Wholesale and Retail
	Motor trade

4 SCR Demographics

Summary

The key findings of this chapter are:

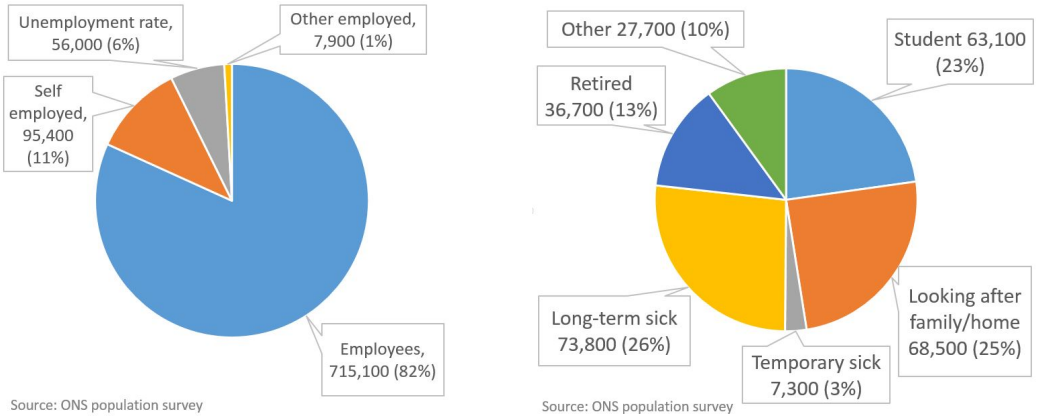
- Unemployment in SCR is steadily decreasing (6.4% in 2015/16 compared to 10.8% in 2011/12)
- There are 0.7 jobs per person of working age within SCR
- Self-employment is increasing slower than the national average, but 10,500 more people will be self-employed by 2021
- The main reasons for economic inactivity in SCR are long term sickness and caring duties
- The single most significant travel to work route is from Rotherham to Sheffield (22,500 daily commuters)
- 8.5% of the SCR working age population commute outside of the region for work
- There are approximately 2,700 NEET young people within in the City Region, of which it is estimated that 60% reside in jobless households
- On average, an SCR reoffender will make 3 new offences each year

Before considering the labour market within the region and the sectoral breakdown of enterprises and employment, it is useful to consider the demographic nature of Sheffield City Region. In later chapters, statistics are broken down for each district. In this chapter, for simplicity, such breakdown is deferred to Appendix A and only total SCR numbers are quoted in this section.

4.1 Economically active population

Within Sheffield City Region there are 1,842,200 people, of which 1,163,200 persons (63.1%) are of working age (aged 16-64). Within this group, 885,400 are defined to be economically active (76.8%), of which 57,800 people are unemployed (6.5% of economically active). Interestingly, there are 72,300 people who are registered as inactive, but who "want a job" (see Table A.4).

The breakdown of SCR economic activity and inactivity are shown in Figure 4.1, where it is clear that the most significant reasons for inactivity (51%) are long-term sickness (26.6% compared to a GB average of 22.4%) and caring duties (24.7% compared to a GB average of 24.8%). For reference, the age breakdown of the population is shown in Figure 4.2. There are 0.70 jobs for each person of working age within SCR which compares to 0.82 nationally (ONS jobs density), though regional values of range between 0.88 (Derbyshire Dales) and 0.52 (NE Derbyshire). Full statistics (including national averages) are given in Tables A.2 and A.3.



(a) Activity (b) Inactivity

Figure 4.1: SCR economic activity and inactivity (Annual 2015 figures, aged 16-64). Regional statistics are detailed in Tables A.3 and A.4.

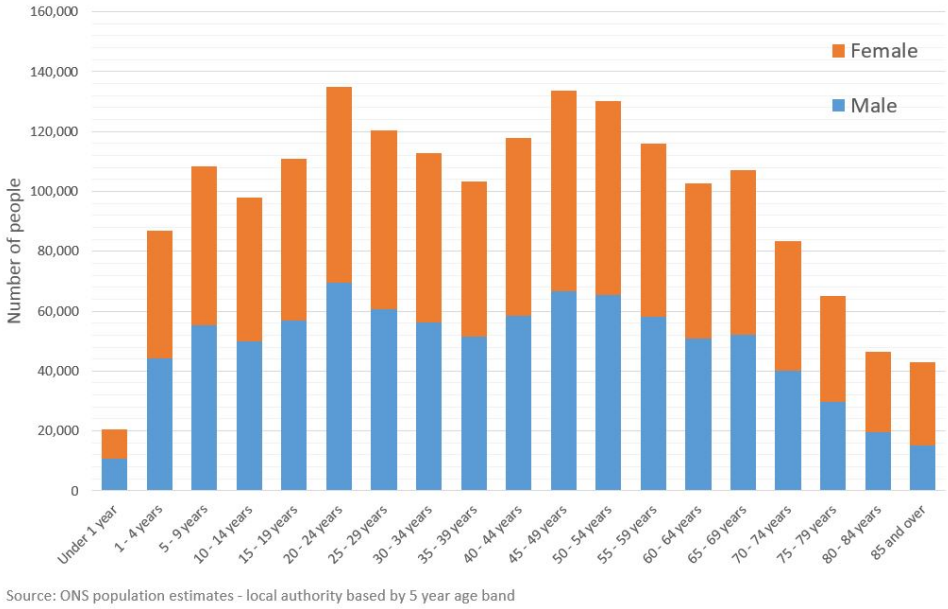
4.2 Employment and Skills Levels

According to the ONS Business Register and Employment Survey, which accounts for 715,700 employee jobs (compared to 729,200 listed within ONS Annual Population Survey), 72% are full-time positions and 28% are part-time positions (see Table 4.1). It is clear that males undertake more full-time work (88%) than the average and that females typically undertake more part-time work (45%) than average. Further to this, a breakdown of employees by ONS industries is shown in Figure 4.3. It is clear that the main industries in the region are health, manufacturing, retail, education and business. More detail regarding industrial breakdown will be provided in Chapter 5.

The breakdown of existing employees by level of education will be tackled later in Section 5.7. However, it is worth noting here that, in the SCR, 28.7% of residents have skills at an equivalent NVQ Level 4 or above, compared to a national average of 37.1%. The aim to increase high level skills occupations in the region is one of the ambitions of the Strategic Economic Plan.

Within the region, there is a lower than average representation of highly-skilled workers (managers, professionals and associate professionals: 38% compared to 43% nationally and 57% in London). On the other hand, there is a higher than aver-

Figure 4.2: The breakdown of SCR population by age and gender (2015)



Source: ONS population estimates - local authority based by 5 year age band

Table 4.1: Breakdown of employee jobs in SCR (Apr 2015 - Mar 2016). Regional statistics for full-time / part-time (from BRES data - 2014) are detailed in Table A.6.

	All people		Males		Females	
	Number	%	Number	%	Number	%
Total Employees	765,000		397,900		367,000	
Full-time	549,000	71.8	348,500	87.6	200,400	54.6
Part-time	215,600	28.2	49,200	12.4	166,400	45.3

Source: ONS Annual Population Survey - workplace analysis

age representation of the lowest skilled occupations (sales, process and elementary occupations: 29% compared to 25%).

4.3 Self-Employment

The levels of self-employment have been steadily increasing in England over the past decade, as indicated in Figure 4.6, and presently stands at 10.6% of all employment. The percentage of self-employment is lower in Sheffield City Region as a whole (8.8% of all employment), but is also steadily increasing. By 2021, it is expected that self-employment in SCR will rise to between 8.4% and 9.7% (linear or quadratic fit). A rise to 9.7% would result in 10,500 people moving into self-employment. It is therefore necessary to consider the entrepreneurial skills that might be required by these indivuals in order to sustain successful business.

Figure 4.6 also shows the levels of self-employment within districts of SCR. Derbyshire Dales has a very high level of self-employment, compared to both the SCR and England values. In contrast, Chesterfield and Bolsolver have low levels of self-employment.

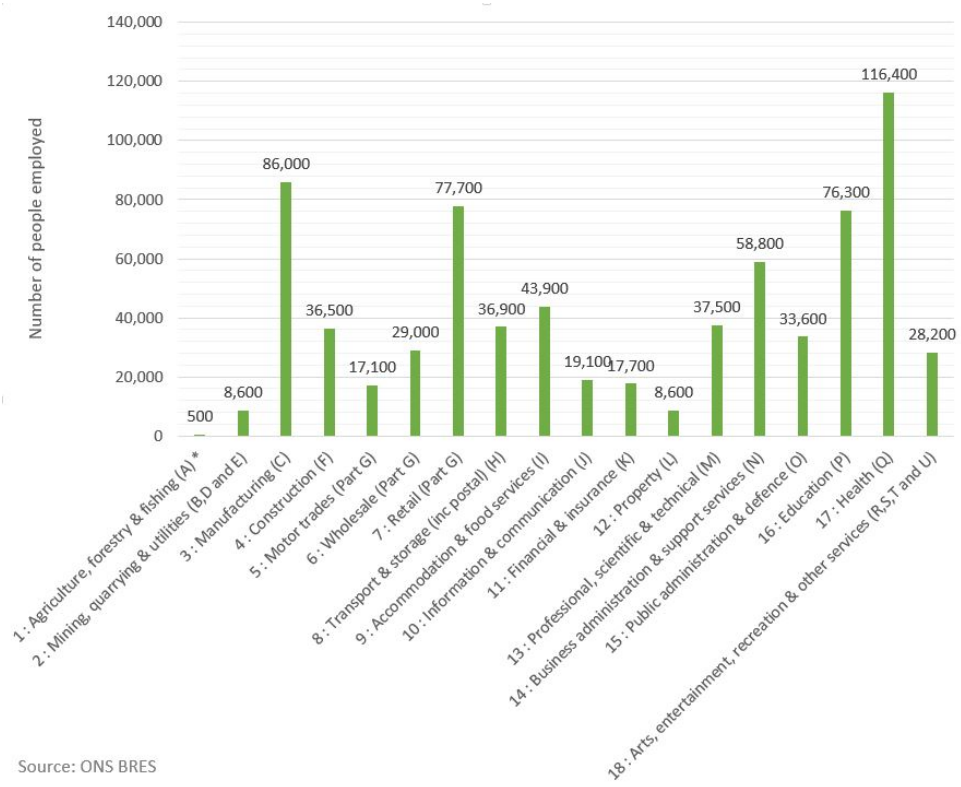


Figure 4.3: The breakdown of employed persons in SCR by ONS industry groupings (2014). Regional statistics are detailed in Table A.6.

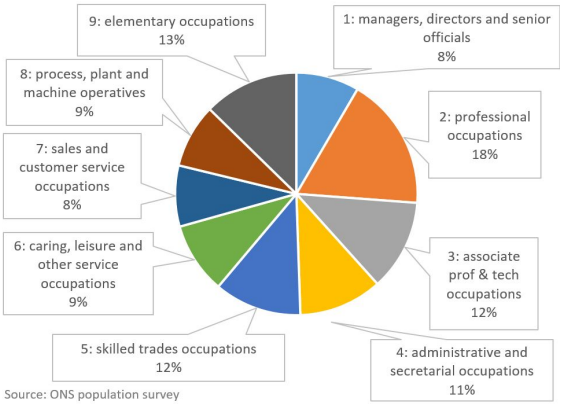


Figure 4.4: The breakdown of occupations in SCR (complete population) according to ONS (2015). Regional statistics are detailed in Table A.5.

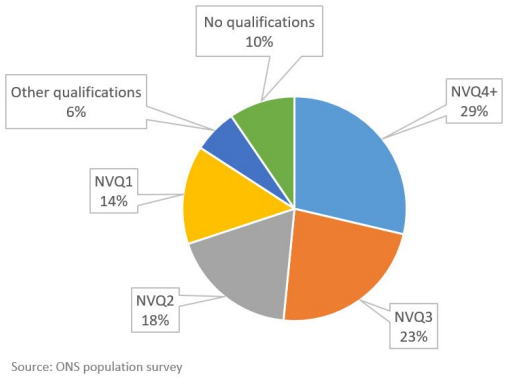


Figure 4.5: The breakdown of qualifications in SCR (complete population) according to ONS (2015). Regional statistics are detailed in Table A.8 and cumulative statistics are detailed in Table A.7.

Table 4.2: Economic activity by highest qualification level

Highest Level of Qualification	**Economically active: In employment**	**Economically active: Unemployed (including full-time students)**	**Economically inactive**
No qualifications	11.9	24.9	36.4
Level 1 qualifications	16.1	22.5	15.7
Level 2 qualifications	19.0	21.2	15.5
Level 3 qualifications	16.0	13.4	13.5
Level 4 qualifications and above	28.5	10.8	12.2
Apprenticeships and other qualifications	8.5	7.2	6.7
TOTAL	100	100	100

Source: Census 2011 - LC5601EW - Highest level of qualification by economic activity

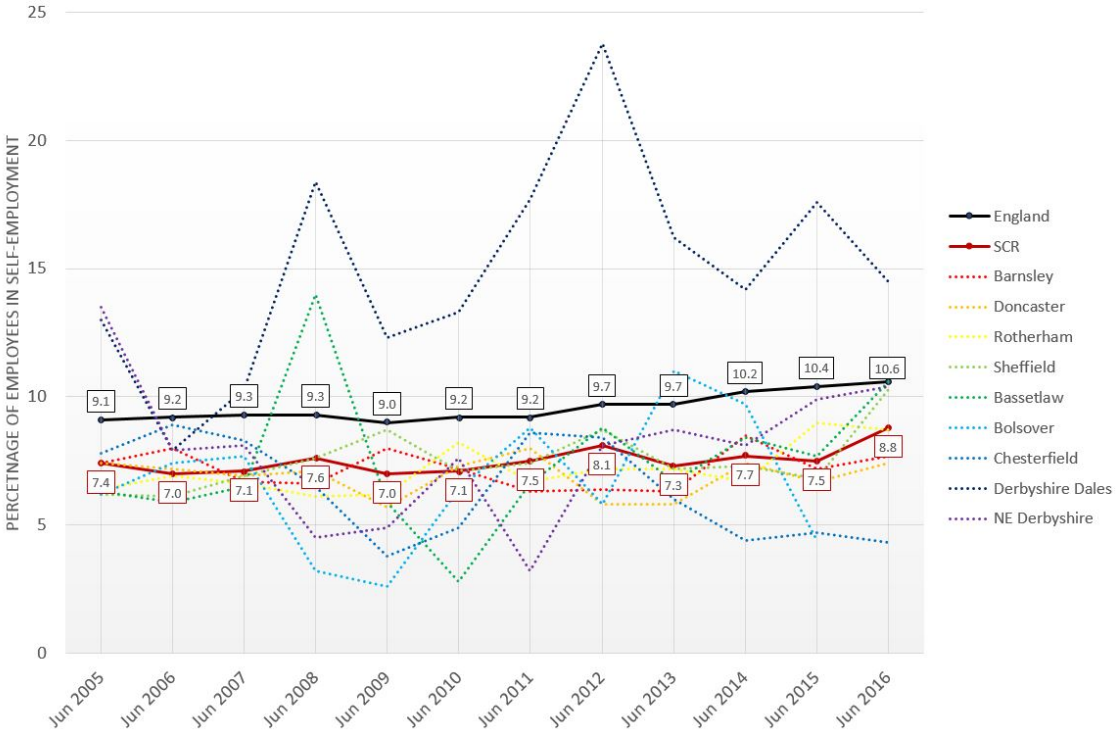


Figure 4.6: The proportion of self-employment within SCR.

4.4 SCP LEP ranking in skills measures

The LEP Network's report *Building Local Advantage: Review of Local Enterprise Partnership area economies in 2014* drew some useful comparisons between the 39 different LEPs. We have updated some of the skills metrics quoted in that report and include the findings in Table.

Table 4.3: LEP rankings for skills metrics

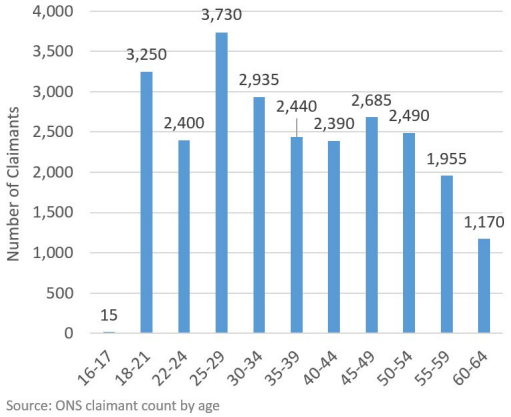
	Percentage in year			Rank in year		
	2012 [1]	2014	2015	2012 [1]	2014	2015
Percentage employed in Level 4 (highly skilled) occupations (ranked high to low)	26.5	-	-	31	-	-
Percentage employed in Level 1 (low-skilled) occupations (ranked low to high)	12.9	-	-	29	-	-
Percentage qualified to Level 4+ (ranked high to low)	27.9	27.9	28.7	30	34	35
Percentage qualified to Level 1 (ranked low to high)	13.3	13.9	14.3	26	36	35
Percentage with no qualifications (ranked low to high)	11.0	9.9	9.5	35	29	27
Share of establishments that have formal training activity (ranked high to low)	52.0	-	68.0[2]	10	-	12

Source: Annual Population Survey
1: Data is taken from the LEP Network's report *Building Local Advantage: Review of Local Enterprise Partnership area economies in 2014*
2: Data is taken from UKCES Employer Skills Survey
Rank is out of 39 Local Enterprise Partnerships (LEPs)

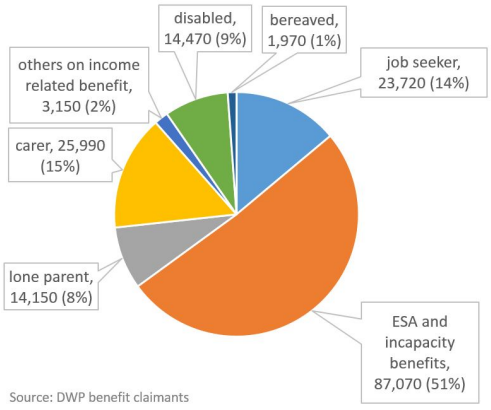
4.5 Unemployment and claimant counts

There are presently 56,000 people defined as unemployed (but economically active) by the ONS in Sheffield City Region and a total of 170,490 people claim benefits. This compares to 72,300 people who are economically inactive who want a job (26% of all economically inactive people in SCR).

A breakdown of the claimant statistics shows that 51% of people claim ESA and incapacity benefits (87,070), whilst there are 23,720 job seekers (14% of claimants). It is worth noting that, from the total of 56,000 unemployed, there are around 32,280 people who are unemployed but not claiming job seekers allowance, which is more than those who are claiming it. Unemployment figures for SCR districts are given in Appendix A (Table A.3). In an efficient labour market, it would be beneficial to match at least the job seekers to local skills demand and enable these individuals to move into work. However, the match of people, skills demand and geographic locations is not trivial and will be the focus of the data sets in the next few chapters.



(a) Ages*



(b) Claim types

Figure 4.7: The breakdown of DWP claimants in SCR by age (May 2016) and type (Feb 2016). * Claimant count by age is the number of people claiming benefit principally for the reason of being unemployed. Regional statistics are detailed in Tables A.9 and A.10. Data are provided at one date and provide a snapshot in time.

The age breakdown of claimants shows an even spread across most age groups but shows an increase for 25-29 year olds.

Table 4.4: Benefit claimants by duration

Duration	SCR Claimants (number)			% of population aged 16-64			% of Total		
	Any benefits	Job Seeker	ESA and incapacity benefits	Any benefits	Job Seeker	ESA and incapacity benefits	Any benefits	Job Seeker	ESA and incapacity benefits
<6 months	27,290	12,690	8,610	2.3	1.1	0.7	16.0	53.5	9.9
6 months - 1 year	13,720	3,430	5,040	1.2	0.3	0.4	8.0	14.5	5.8
1 - 2 years	18,340	2,650	8,260	1.6	0.2	0.7	10.8	11.2	9.5
2 - 5 years	31,230	2,820	14,500	2.7	0.2	1.3	18.3	11.9	16.7
>5 years	79,910	2,130	50,660	6.9	0.2	4.4	46.9	9.0	58.2
Total	170,490	23,720	87,070	14.7	2.0	7.5	100	100	100

Source: DWP Work and Pensions Longitudinal Study (WPLS) - working age client group, February 2016
Data has been rounded to the nearest 10

A further breakdown of claimants is shown in 4.4, where the duration of claims are detailed. In February 2016, there were 111,140 16-64 year olds in SCR that had been claiming an out of work benefit for 2 years or more, 65% of the claimant total. Of this number, 57% were claiming ESA or incapacity benefits, whilst 4% were job seekers.

A breakdown of benefit claimants by agebands is shown in Table 4.5. Considering only those aged under 25 years, there were 21,370 such claimants, of which 45.2% were on benefits for longer than 2 years. As the ageband increases, so does the average length of time each claimant spends on benefits.

Table 4.5: Claimants broken down by ageband and duration.

Duration	All ages	aged under 25	aged 25-34	aged 35-44	aged 45-54	aged 55-59	aged 60-64
All durations (number)	170,490	21,730	31,780	31,820	42,610	22,850	19,690
<6 months (%)	16.0%	27.4%	22.8%	15.4%	12.0%	10.0%	8.9%
6months - 1 year (%)	8.0%	12.7%	10.7%	8.0%	6.1%	5.7%	5.5%
1-2 years (%)	10.8%	14.6%	14.2%	11.7%	8.7%	7.2%	8.1%
2-5 years (%)	18.3%	18.6%	22.3%	20.5%	16.8%	14.4%	16.0%
>5 years (%)	46.9%	26.6%	29.9%	44.5%	56.4%	62.8%	61.5%
All durations (%)	100%	100%	100%	100%	100%	100%	100%

Source: DWP Work and Pensions Longitudinal Study (WPLS) - working age client group, February 2016

4.6 18-24 year olds

The status of 18-24 year old is an important statistic when considering skills and employment. According to the Annual Population Survey (APS), 33.6% of 18-24 year olds (61,200) were in full-time education, 63.1% (115,000) were in employment and 8.5% (15,400) were unemployed. Note that these statistics do not add to 100%, due to the overlap in statistics. Additionally, the 8.5% statistic of those unemployed does not represent the official unemployment rate, as it is a percentage of the full 18-24 population and not just the economically active. Full statistics split by district are shown in Appendix A Table A.11.

4.7 Number of NEETS

The OECD predict that young people aged 16-18 who are not in education, employment or training (NEET) in the UK are at risk of being left behind in the job market. Whilst the UK proportion of low-skilled NEETs is below the OECD average, there is a relatively large proportion who live in households without any employed adults. According to the OECD, nearly 60% of NEETs live in jobless households, which puts them at risk of poverty. This statistic is higher than any other EU country (the EU average of NEETs living in jobless households is below 10%).

It is difficult to estimate the number of NEETs in each local authority. The best estimates are provided by each LA to the Department for Education (DfE) and consist of an average statistic from November to January each year. It would be inappropriate to take just a single snapshot or even complete annual period, so this is the best methodology known at present. By the nature of the statistic, it is incredibly hard to identify the full count of "Not Knowns". We have reproduced the statistics provided to DfE below. It should be noted that the estimated figures tend to be lower than official, national statistics on young people for three reasons:

- The figures only include young people who are known to their local authority;
- The NEET figures do not include young people who are taking a gap year or are in custody;
- The data depend on the quality of each local authority's data collection.

The current percentages of NEETs and Not Knowns (aged 16-18) for each local authority are shown in Figure 4.8. Due to the data, it is not possible to separate Derbyshire and Nottinghamshire into component districts, in order to identify only SCR districts. The general trend is that NEET and Not Known figures increase with age (from 16 to 18). Barnsley seems to have a higher than average percentage of Not Knowns (16.9%). The total estimated number of NEETs within the City Region is 2,743.

The historic data is displayed in Figure 4.9, where the general trend over the past 5 years is that the NEET percentage is decreasing. The SCR average NEET percentage has fallen from 6.75% to 4.2%, which matches the national trend (NEETs

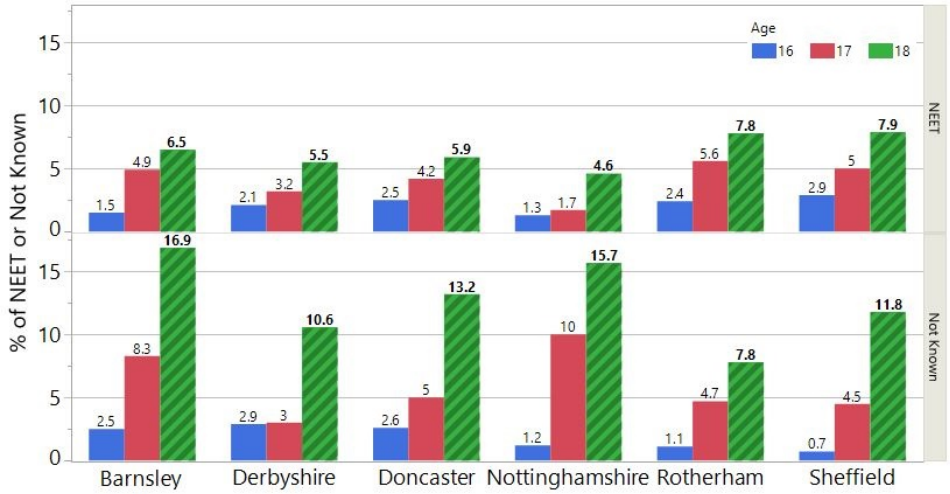


Figure 4.8: The percentage of NEET and Not Known in SCR at the end of 2015. Source: Department for Education

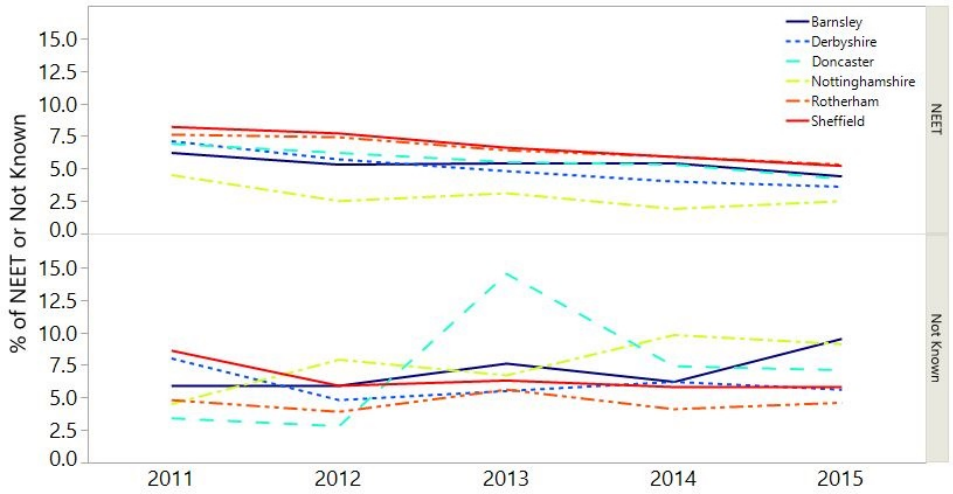


Figure 4.9: The percentage of NEET and Not Known in the Region since 2011. Source: Department for Education

have reduced from 6.1% to 4.2% nationally). There is some level of instability in the Not Known figures, which could be expected from the nature of the data itself.

4.8 Designated levels of English & Maths and ESOL learners

The OECD 's Survey of Adult Skills (PIAAC) in 2012 showed that, amongst 16-19 year olds, the UK has the highest percentage of low literacy and second highest percentage of low numeracy in any OECD country: over 20% of 16-19 years olds are below Level 2 in literacy and nearly 30% are below Level 2 in numeracy. The study

also concluded that 7% of 20 to 34-year-old graduates in England have numeracy skills below level two, while 3.4% have literacy skills below this level.

It has not been possible to identify base levels of English and Maths aptitude in Sheffield City Region by level of achievement. The main two reasons for this are that information has not been collated at a regional level and also data has not been collated in a coherent, electronic manner for older generations and this would rely on self-reporting. A quality survey around this topic has not been undertaken in the region.

However, two indirect measures are possible. Firstly, it is possible to crudely estimate 19+ leavers without Maths or English at level 2. This is achieved by utilising the number of pupils at age 16 who have gained a Maths or English GCSE award at A*-C or equivalent, understanding those who re-take qualifications and then approximating the levels of 19+ year olds leaving education without Level 2 Maths and English each year. These are shown in Section 9.3.

Secondly, it is possible to obtain statistics on proficiency in English amongst the population from within the 2011 census data. Naturally, this data is indicative only, since data is out of date (5 years old) and native English speakers may not have good levels of language skills. However, it provides a minimum level of need, since it allows us to understand the direct levels of English spoken within the region.

The statistics are displayed in Table 4.6. The vast majority of people within the region (95.8%) have English as their main language. Of those whose main language is not English, the majority speak English very well or well. Only 1.1% of the SCR population cannot speak English well or not at all, though this corresponds to 18,692 people, over half of whom are female (10,650 people). There are 3,088 people who cannot speak English at all within Sheffield City Region. Furthermore, it is clear within the statistics that, typically, males are more likely to speak better English, but this is especially true within older age groups. Females are more likely to have poorer levels of English speaking over aged 20, but especially within the 65+ year old group: 81% of people over 65 years old who cannot speak English are female.

Table 4.6: Proficiency in English by age and gender

Category	Age	Total	Main language is English	Main language is not English			
				Can speak English very well	Can speak English well	Cannot speak English well	Cannot speak English
Total (Number)	Age 3+	1,742,047	1,668,545	25,659	29,151	15,604	3,088
	Age 3 - 14	244,241	235,206	4,094	2,813	1,553	575
	Age 15	22,043	21,380	420	182	55	6
	Age 16 - 19	98,112	94,476	1,821	1,317	437	61
	Age 20 - 24	128,411	118,165	3,317	5,208	1,531	190
	Age 25 - 39	330,557	300,249	10,550	13,046	6,033	679
	Age 40 - 64	606,231	590,218	4,645	5,575	4,845	948
	Age 65 +	312,452	308,851	812	1,010	1,150	629
Total (% of age group total)	Age 3+	-	95.8%	1.5%	1.7%	0.9%	0.2%
	Age 3 - 14	-	96.3%	1.7%	1.2%	0.6%	0.2%
	Age 15	-	97.0%	1.9%	0.8%	0.2%	0.0%
	Age 16 - 19	-	96.3%	1.9%	1.3%	0.4%	0.1%
	Age 20 - 24	-	92.0%	2.6%	4.1%	1.2%	0.1%
	Age 25 - 39	-	90.8%	3.2%	3.9%	1.8%	0.2%
	Age 40 - 64	-	97.4%	0.8%	0.9%	0.8%	0.2%
	Age 65 +	-	98.8%	0.3%	0.3%	0.4%	0.2%
Male (% of total)	Age 3+	49%	49.2%	52.3%	55.0%	44.2%	37.3%
	Age 3 - 14	51%	51%	51%	53%	49%	50%
	Age 15	51%	51%	50%	58%	51%	100%
	Age 16 - 19	51%	51%	51%	53%	49%	51%
	Age 20 - 24	51%	51%	53%	52%	44%	37%
	Age 25 - 39	50%	50%	52%	56%	45%	45%
	Age 40 - 64	50%	50%	54%	55%	42%	35%
	Age 65 +	44%	44%	56%	61%	40%	19%
	Age 3+	51%	51%	48%	45%	56%	63%
Female (% of total)	Age 3 - 14	49%	49%	49%	47%	51%	50%
	Age 15	49%	49%	50%	42%	49%	0%
	Age 16 - 19	49%	49%	49%	47%	51%	49%
	Age 20 - 24	49%	49%	47%	48%	56%	63%
	Age 25 - 39	50%	50%	48%	44%	55%	55%
	Age 40 - 64	50%	50%	46%	45%	58%	65%
	Age 65 +	56%	56%	44%	39%	60%	81%

Source: Census 2011 - DC2105EW - Proficiency in English by sex by age

Future Project 4.1

It is difficult to identify the level of requirement for English, Maths and ESOL training provision, since existing statistics do not identify people with low levels of these skills. In particular, the skills of older people are typically not collated on educational records (they would not appear on the ILR for example). A project might look at identifying the following statistics:

- The number of people in SCR who do not hold a Level 2 qualification (or equivalent) in Maths or English
- The current population who do not speak English well or not at all
- The current population who do not write/read English well or not at all

This work might require some level of population survey, amongst both those in-work and those out-of-work. The statistics should include all economic activity/inactivity and should collate information regarding age, economic activity and potential reasons for lack of qualification. The work could attempt to identify groups within the population for which these statistics are higher than average.

Table 4.7: Detailed commuting numbers between districts of the SCR

Residential District	Workplace District									
	Barnsley	Bassetlaw	Bolsover	Chesterfield	Derbyshire Dales	Doncaster	North East Derbyshire	Rotherham	Sheffield	Non-SCR
Barnsley	49800	177	70	144	14	3107	115	8226	8353	17419
Bassetlaw	163	26770	1007	330	18	3345	181	1771	1829	8331
Bolsover	61	1658	8869	3314	492	201	1543	603	1404	11071
Chesterfield	83	362	1695	23428	1958	154	4423	464	3137	4831
Derbyshire Dales	22	32	252	1130	14107	40	443	147	1444	8318
Doncaster	1774	2226	169	160	21	79848	150	7490	4022	16286
North East Derbyshire	169	347	1583	8375	1637	254	9735	1324	8742	6233
Rotherham	3363	2169	458	677	67	5658	748	53655	22529	7929
Sheffield	3961	884	706	3226	919	2461	3642	11700	161004	17927
Non-SCR	7718	8306	9375	3993	8035	11274	2169	5161	12233	–

Source: 2011 SWS Merged LA/LA [Location of usual residence and place of work by method of travel to work] - WU03UK - Open
Census output is Crown copyright and is reproduced with the permission of the Controller of HMSO and the Queen's Printer for Scotland

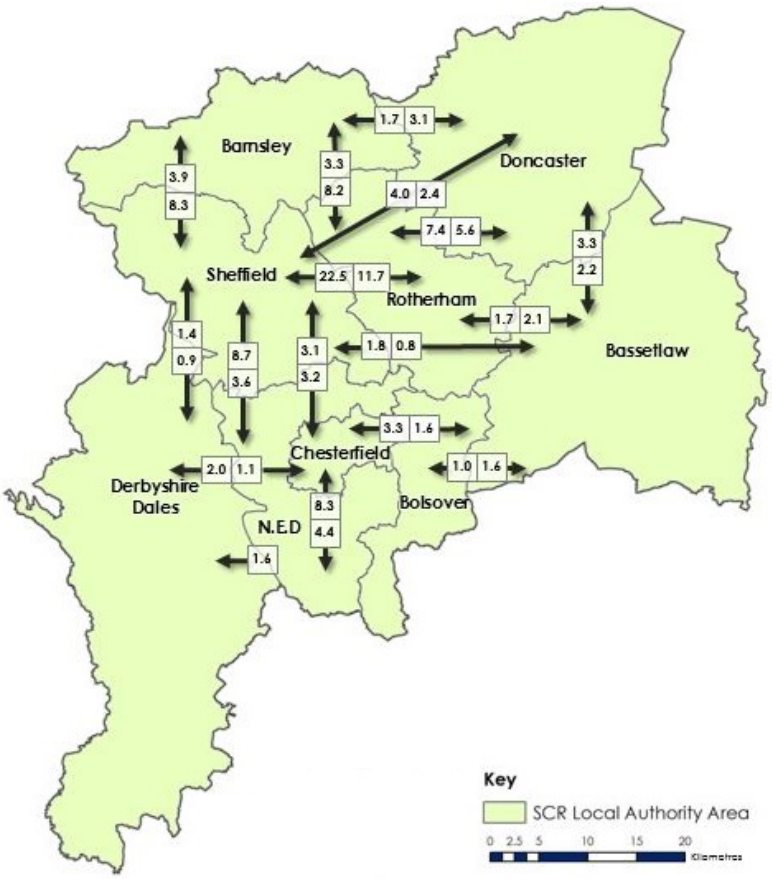
Table 4.8: The breakdown of weighted average commuting distances (km) between districts of the SCR

Residential District	Workplace District									
	Barnsley	Bassetlaw	Bolsover	Chesterfield	Derbyshire Dales	Doncaster	North East Derbyshire	Rotherham	Sheffield	Non-SCR
Barnsley	3.9	34.4	37.9	33.5	35.5	17.1	29.5	10.2	15.4	43.5
Bassetlaw	34.2	4.8	14.0	23.8	44.0	17.1	23.3	16.8	25.5	54.4
Bolsover	37.9	12.6	3.0	11.1	21.7	34.6	10.4	17.6	19.8	26.5
Chesterfield	33.0	23.2	11.1	2.5	16.1	37.1	6.8	19.9	15.0	58.1
Derbyshire Dales	35.6	43.1	22.4	17.0	5.0	50.7	16.2	32.1	21.9	37.4
Doncaster	17.8	18.6	34.8	37.2	53.0	5.2	33.2	12.8	25.5	62.1
North East Derbyshire	29.5	22.1	10.2	6.8	14.6	33.3	3.2	14.7	10.5	49.1
Rotherham	12.3	14.0	16.9	19.2	35.1	14.3	14.0	4.3	10.1	83.4
Sheffield	15.3	25.2	18.8	13.7	20.8	27.6	8.7	11.1	4.4	88.0
Non-SCR	36.2	44.0	24.5	55.0	28.4	56.1	43.8	68.0	74.3	–

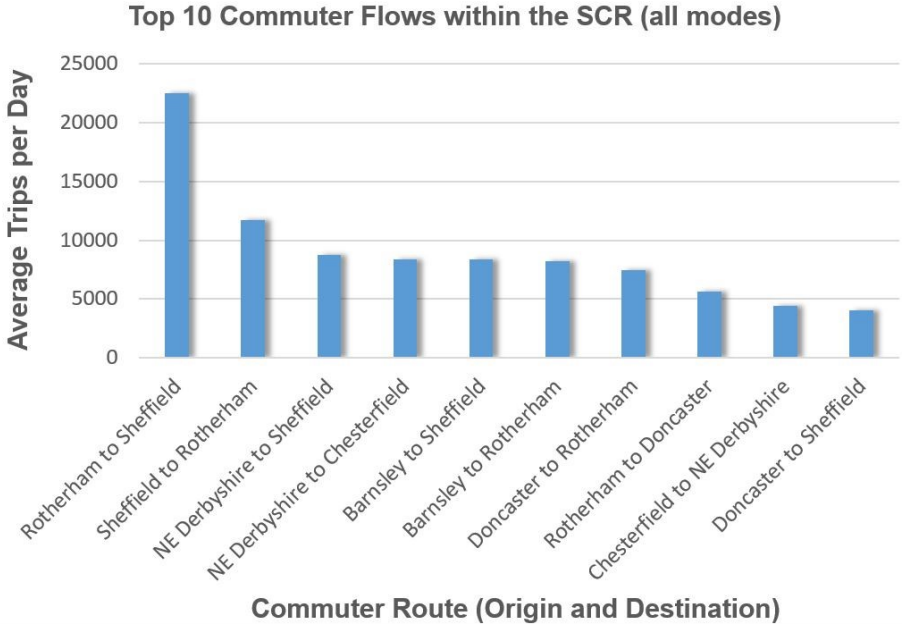
Source: 2011 SWS Merged LA/LA [Location of usual residence and place of work by method of travel to work] - WU03UK - Open
Census output is Crown copyright and is reproduced with the permission of the Controller of HMSO and the Queen's Printer for Scotland

4.9 Travel to Work patterns

Using the Census flow data, it is possible to identify the most common commuter routes within the Sheffield City Region. The common routes are shown in Figure 4.10 and the most significant route is for people travelling from Rotherham to Sheffield (22,500 individuals per day), who cover an average of 10.1km each way. Commuting numbers are detailed in Table 4.7 and average commuting distances are given in Table 4.8. Over 98,000 people commute out of the region from districts in the SCR, which is 8.5% of the working age population. It is noticeable that nearly 18,000 residents of Sheffield are willing to travel a distance of 88km on average for work outside of the region (compared to around 17,500 from Barnsley who travel only half this distance).



(a) Signficant flow rate between districts, in thousands of people



(b) Top commuter flows in SCR

Figure 4.10: Commuter flows in SCR between districts. Detailed statistics (numbers and average distances) are given in Tables 4.7 and 4.8. Source: Census Flow Data

4.10 Travel to Learn patterns

Using data released by the Skills Funding Agency (SFA), it is possible to identify travel to learn patterns, between learner home district and their chosen provider, see Figure 4.11. It would be a natural assumption that learners choose to stay local to home for their course of study and the statistics quoted in Table 4.9 give credit to this theory; most colleges recruit the main cohort from local residents (apart from Chesterfield, in which more learners enter the district than study locally). In addition to this trend, it is possible to look at imports (learners travelling from other districts) and exports (learners leaving the district to study). It can be seen that Doncaster, Bolsolver and Sheffield are net exporters, whilst Chesterfield and Rotherham are significant importers.

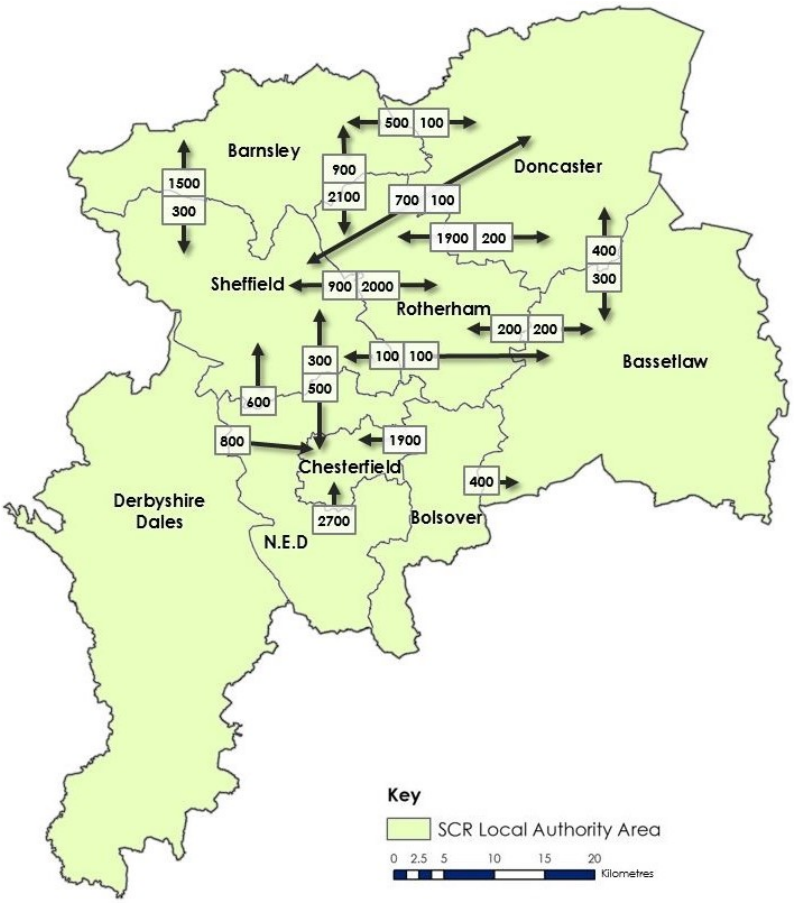


Figure 4.11: FE Learner flows (aged 19+) within SCR districts. Numbers quoted represent learning aims and not distinct learners, due to availability of data from SFA. Source: Skills Funding Agency LEP Data cubes

Table 4.9: FE provider district statistics (aged 19+), broken down into local retention and flows to other districts. Numbers quoted represent learning aims and not distinct learners, due to availability of data from SFA. Numbers have been rounded. Source: Skills Funding Agency LEP Data cubes

FE Provider District	Retain	Into District	Out of district	Net import/export
Barnsley	13300	2900	2500	400
Bassetlaw	3700	1100	700	400
Bolsover	-	-	2400	-2400
Chesterfield	4100	6100	300	5800
Derbyshire Dales	-	-	900	-900
Doncaster	8700	800	3600	-2800
North East Derbyshire	-	-	3400	-3400
Rotherham	13100	6300	2200	4100
Sheffield	27200	2900	4200	-1300

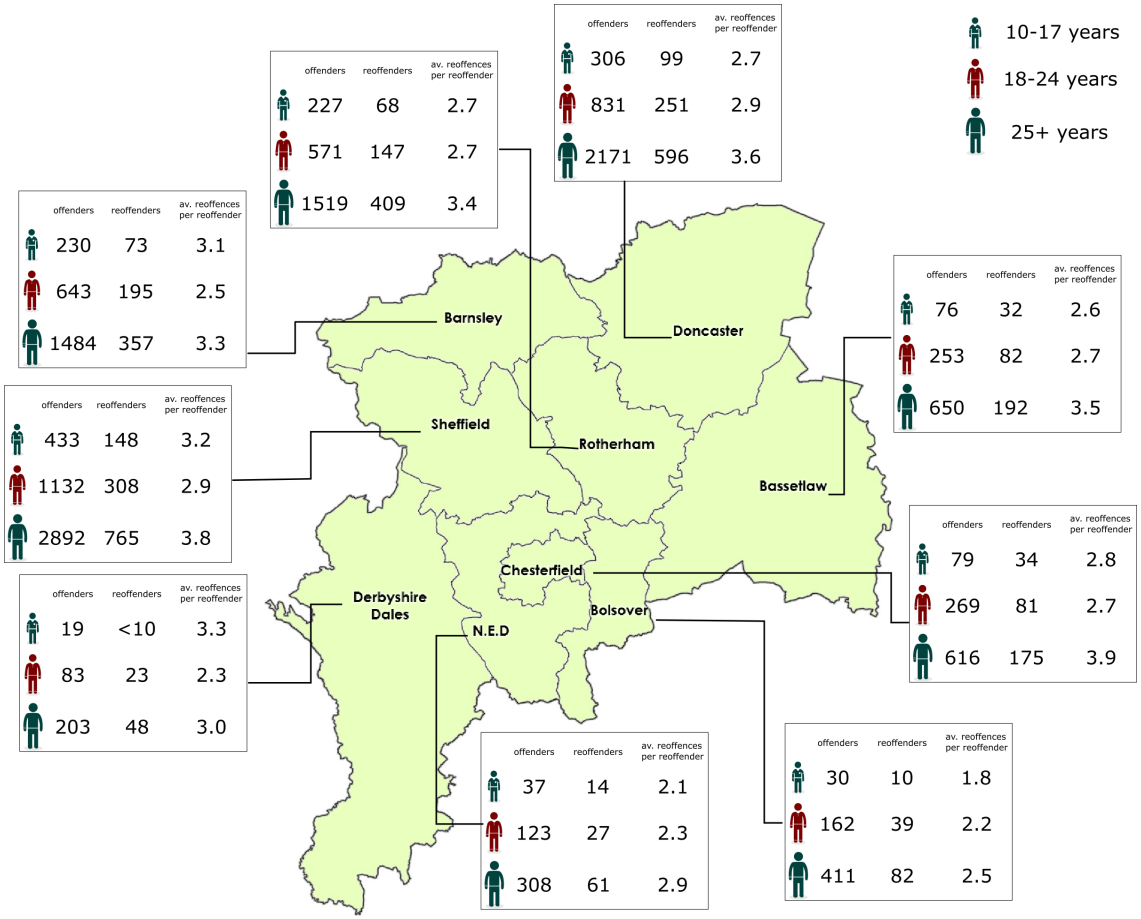


Figure 4.12: The number of offenders and reoffenders within the region in 2014. Source: Ministry of Justice Reoffending Geographical Data

4.11 Offender numbers

The trend of offending within SCR is decreasing. The yearly number of offenders has reduced by nearly 30% across the region (from 21,300 in 2010 to 15758 in 2014). This trend is not consistent across each district as shown in Figure 4.13. In the figure, the data are normalised to the number of offenders in 2010 and therefore the graph presents the percentage change in offenders from 2010 until 2014. The data are broken down into three age groups: 10-17 years old (juveniles), 18-24 year olds (youths) and 25+ year olds (adults).

Juvenile offending has decreased significantly across all regions. In most districts, offending numbers for youths and adult also decreased between 2010 and 2014. However, offending increased sharply in Chesterfield and Derbyshire Dales in 2013-2014. However, this increase should be compared to the (relatively low) number of offenders in those districts.

Figure 4.12 depicts the number of offenders and reoffenders within districts of Sheffield City Region. Average statistics for the whole region are shown in Table 4.10. On average, a third (27%) of the number of offenders become reoffenders each year. Noticeably, a reoffender will reoffend 3 times.

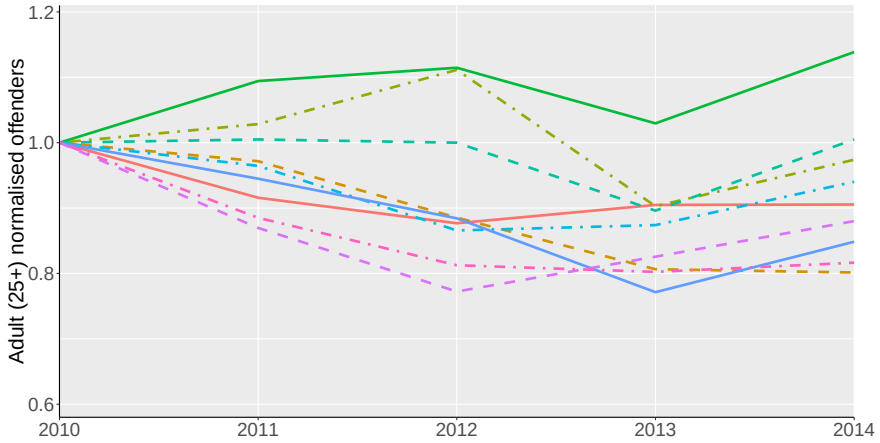
Table 4.10: The average statistics of offenders and reoffenders in Sheffield City Region

	Offenders	Reoffenders	Average number of reoffences per reoffender
Age 10-17 years	1437	487	2.9
Age 18-24 years	4067	1153	2.7
Age 24+ years	10254	2685	3.5

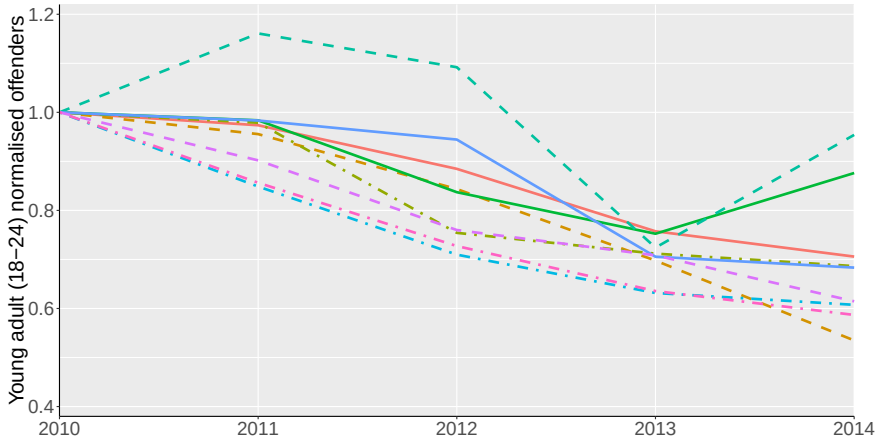
Source: Ministry Of Justice Reoffending Geographical Data

Future Project 4.2

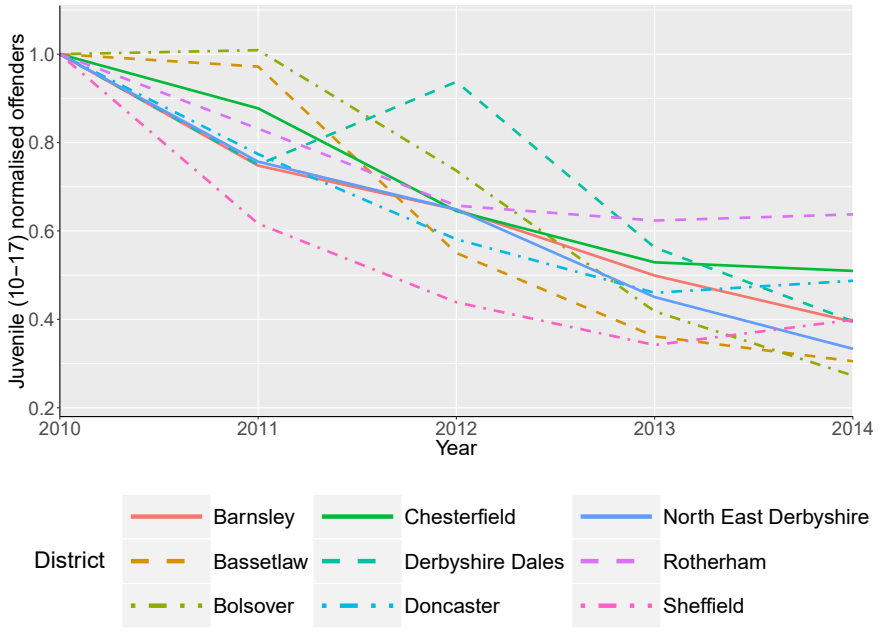
The statitics for offending have shown some areas of concern, particularly the high offending numbers in Chesterfield and also the trend in increasing offending in young adults. However, the current statistics do not detail the type of offences, the nature of reoffences and the level of severity. This project would look deeper into offending trends, in order to identify the root causes and areas that might need to be addressed. This work could include an understanding of offenders' skills (or lack of) and their economic activity.



(a) Adult (25+)



(b) Young adult (18-25 years)



(c) Juvenile (10-17 years)

Figure 4.13: Offender trends for the time period 2010 - 2014 for the Sheffield City Region. The y axes shows the number of offenders normalised to the 2010 number of offenders for each age group shown in the subcaptions.
Source: Ministry of Justice Reoffending Geographical Data

Table 4.11: The breakdown of military personnel resettlement in 2015 within the SCR by categories.

		Total
Service	Army	214
	RAF	47
	Royal Marines	18
	Royal Navy	30
Status	Active Post-Discharge	19
	Declined CTP Service	10
	Economically Inactive	17
	Employed	188
	Employed but Looking	6
	Non-Responder	51
	Pre-Registration	15
	Re-Engaged	3
Category	Core Resettlement Programme	152
	Employment Support Programme	40
	Early Service Leavers - Non Trained	52
	Early Service Leavers - Trained	16
	Medical Discharge	46
	Recruit Medical	3

Source: Career Transition Partnership (CTP) Future Horizons
See Appendix B for definitions of programmes and categorisation.

4.12 Resettlement from Armed Forces

In 2015, a total of 309 military personnel were resettled in the SCR. The majority of people were discharged from the Army (214 people) and these were split fairly evenly across the region. Almost two thirds of the personnel were employed when discharged and numbers were relatively low for medical discharge (46 people) and economically inactive (11 people). The breakdown of military resettlement numbers is shown in Table 4.11 and full regional numbers (including breakdown by dates) are shown in Tables A.15 and A.16. Data was supplied by Career Transition Partnership (CTP) Future Horizons.

4.13 Index of Multiple Deprivation

Sheffield City Region is ranked 7th out of 39 LEPs[1] for Index of Multiple Deprivation statistics, with an average rank IMD of 20,940.82 (out of 32,844). The region is also ranked 7th for proportion of LSOAs in most deprived 10% nationally (value of 0.1754). The LA districts within SCR are ranked for IMD as (from worst to best): Barnsley, Doncaster, Bolsover, Rotherham, Chesterfield, Sheffield, Bassetlaw, NE

[1] A high ranking relates to high Index of Multiple Deprivation and is a poor result.

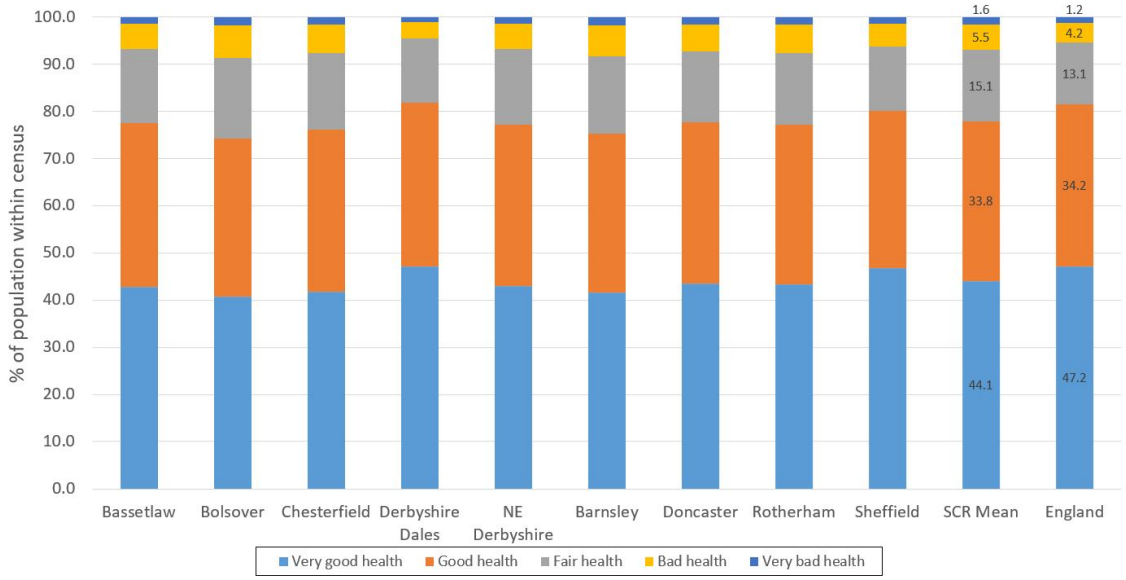


Figure 4.14: The breakdown of general health of population within Sheffield City Region. The SCR mean and data for England are shown for reference.
Source: Census 2011 Data - QS302EW, ONS Crown Copyright Reserved

Derbyshire and Derbyshire Dales. The full statistics are quoted in Table A.13 and Table A.14.

4.14 Health and Well Being

On the whole, the population of the Sheffield City Region is healthy, with 44.1% of people defining themselves as having "very good health" in the 2011 census (compared to 47.2% nationally). Only 7.1% of the population defined themselves to have "bad health" or "very bad health" (127,373 people). The figures are shown by district in Figure 4.14.

In the SCR, 3 out of 4 (75%) people in the 2011 census responded that they were not limited in their day-to-day activities. This compares to an eighth (12.4%) claiming they are limited a little and an eighth (12.6%) claiming they are limited a lot. This changes significantly when looking at the breakdown of level of claimed disability by NS-SeC value, which is shown in Figure 4.15: only 57.7% of the population who have never worked or are long term unemployed responded that they were not limited in their day-to-day activities. The statistics for "Never worked and long-term unemployed" have been further disaggregated, as detailed in Table 4.12 for reference.

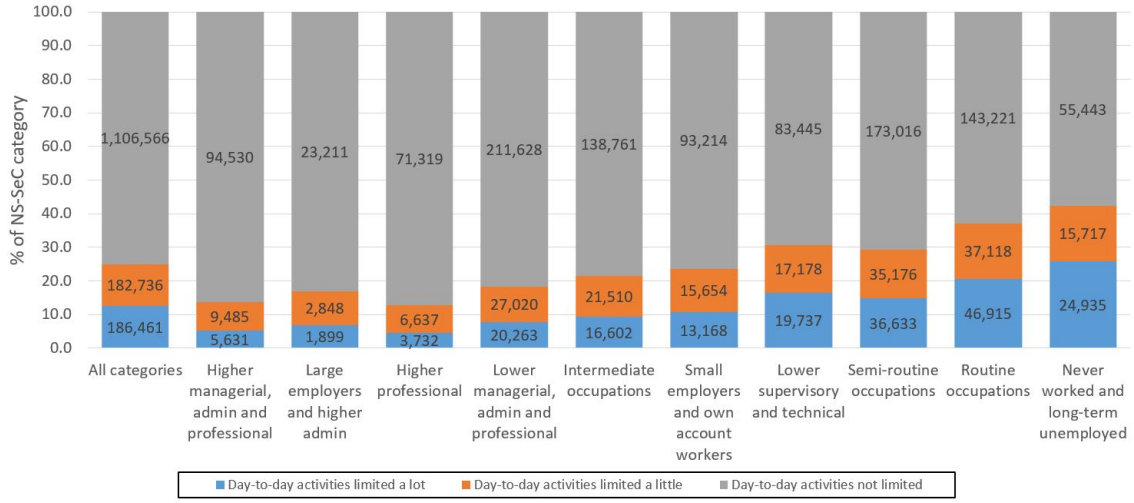


Figure 4.15: The breakdown of disabilities by NS-SeC codes within Sheffield City Region
Source: Census 2011 Data - DC3602EW, ONS Crown Copyright Reserved

Table 4.12: The breakdown of listed disabilities for those who have never worked or long-term unemployed in SCR.
Source: Census 2011 Data - DC3602EW, ONS Crown Copyright Reserved

	All categories	Number			Percentage		
		Day-to-day activities limited a lot	Day-to-day activities limited a little	Day-to-day activities not limited	Day-to-day activities limited a lot	Day-to-day activities limited a little	Day-to-day activities not limited
Never worked and long-term unemployed	96,095	24,935	15,717	55,443	25.9	16.4	57.7
Never worked	70,561	23,721	12,277	34,563	33.6	17.4	49.0
Long-term unemployed	25,534	1,214	3,440	20,880	4.8	13.5	81.8

5 SCR Economy

Summary

- In terms of GVA, significant SCR industry sectors are: Manufacturing, Distribution and Public administration, followed by Construction, Real Estate and Business Services.
- In terms of future growth in jobs, significant sectors are: Health & Social Care, Business Professional & Financial Service, Construction and Wholesale & Retail.
- 87% of SCR enterprises are micro (0-9 employees).
- 57% of SCR enterprises reside in the South Yorkshire districts.
- Most sectors seem to be losing larger companies (1000+ employees) in favour of smaller SMEs (0-4 employees).
- By 2020, due to standard growth, there will be 23,232 new jobs in the City Region.
- Of all sectors, jobs within Education and Manufacturing are predicted to shrink in real terms by 2020.
- Future skills requirements will be focussed around NVQ levels 1-3 and degree level qualifications.
- 118,000 employees (16%) within the region are over the age of 55 years and may look to retire within the next 10 years.
- Sectors with higher than average "niche factor" include: Medium-tech Manufacturing, Civil Construction, Logistics, Motor Trade and Low-tech Manufacturing.

5.1 Overview of SCR Economy

According to the UK Commission for Employment and Skills (UKCES)[1], with analysis undertaken prior to Brexit, the overall trend for the UK is one of a gradual upturn, though in general it has taken a hard knock from previous recessions. In SCR, mirroring a national trend, employment is now growing and unemployment is decreasing.

The SCR is stronger than the national average in Manufacturing (excluding engineering), Health & Social Care and Education, but weaker in professional services, support services, accommodation & food and finance & insurance. In addition, the public sector is very over-represented in the region (the ONS estimated that 76% of all jobs are in the public sector), with UKCES predicting that the private sector will only contribute around 66% to net job growth in the area between 2012 and 2022.

In this chapter, working with data from both UKCES and government, an overview of the industry and occupation breakdown within the Sheffield City Region is presented.

According to Chapter 3, industry sectors, and sub-sectors within them, have been defined in addition to cross-sectors, the latter of which "borrow" SICs from more than one of these sectors/sub-sectors. A list of these sectors and sub-sectors is given in Table 3.1 and the cross-sectors are detailed in Table 3.2. For the full four digit SIC categorisation of our defined sectors see the separate spreadsheet.

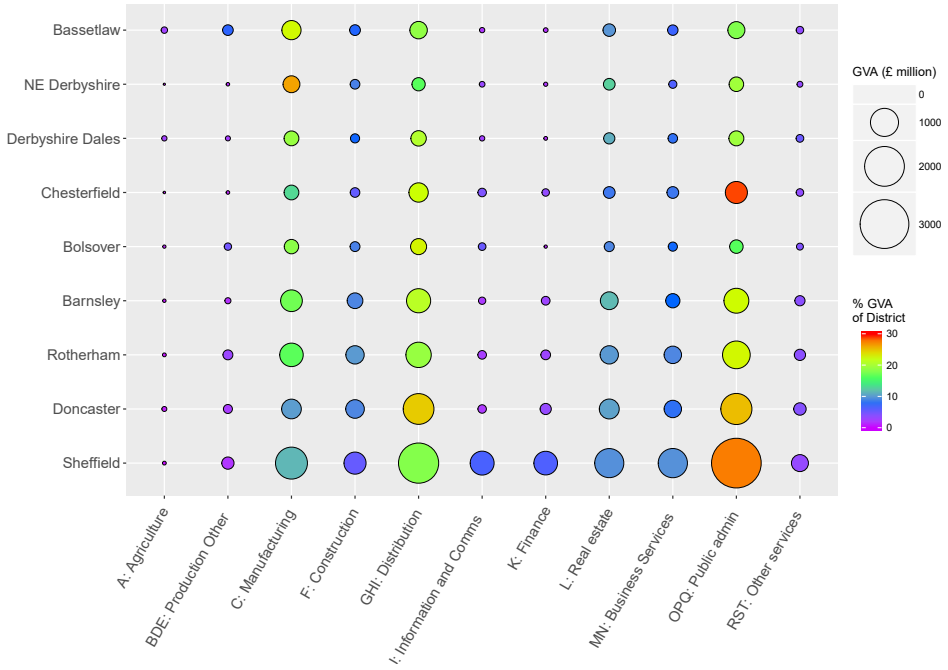
Size, growth, median earnings and data taken from various other sources is presented with the aim being to identify key sectors for further investigation in chapter 8.

5.2 Sectoral GVA within SCR

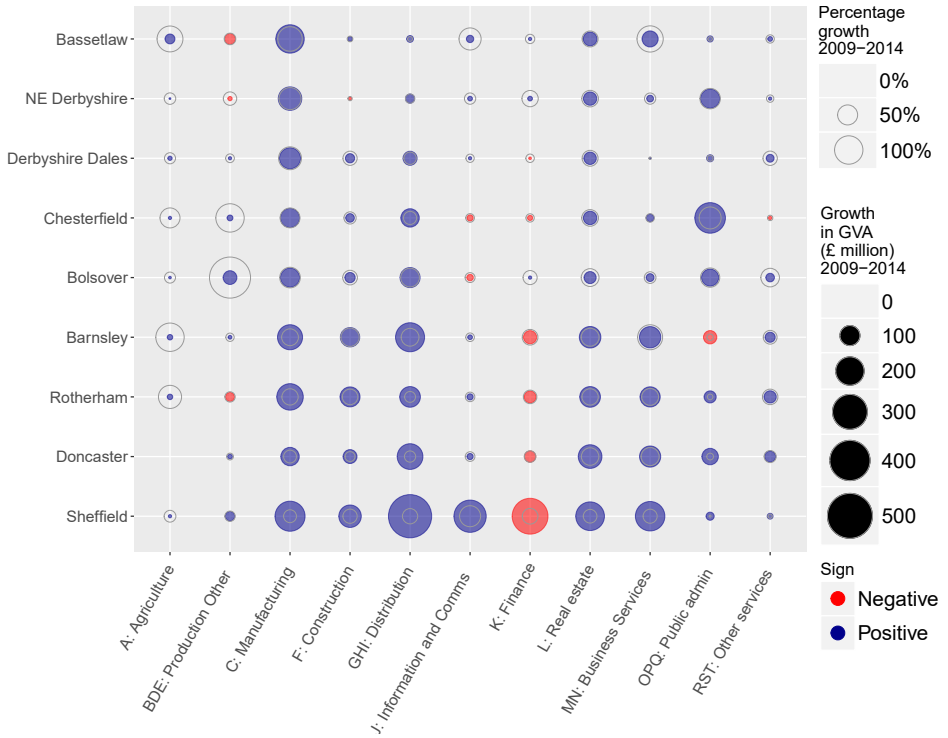
In 2014, the total GVA within SCR was £32,330M (£17,650 per head) which ranks as 10th LEP by GVA. Utilising ONS statistics of GVA within LEP regions, it is possible to calculate the GVA associated with ONS sector groups and this is depicted in Figure 5.1. It is clear that the largest sectors in SCR by GVA (in order) are Public Admin, Distribution and Manufacturing. This trend is true across all districts, however, the relative importance of the GVA amount differs from district to district. For example, Public admin is relatively more significant in Sheffield and Chesterfield 27.7% and 29.2% share[2] respectively, whereas Manufacturing is relatively high in North-East Derbyshire (26.3%) and Distribution is significant in Doncaster (24.7%).

[1] "UKCES LMI Summary - Sheffield City Region", which provides a summary of anaysis from three UKCES research products: Working Futures, the Employer Skills Survey (ESS) and the Employer Perspectives Survey (EPS).

[2] For clarity, the percentages here are the percentage of the district not the sector. For example in Chesterfield 29.2% of the GVA for Chesterfield comes from the Public admin sector.



(a) GVA in 2014



(b) Historic growth (2009-2014)

Figure 5.1: ONS sectoral breakdown of SCR GVA by district, including historic growth (positive and negative). In (a), the size of the bubbles correspond to the 2014 GVA value (in £million) and the colour of each bubble represents the percentage of GVA the sector represents within the given district. In (b), the size of the bubbles correspond to the growth (postive or negative) in GVA from 2009 until 2014 in £million and the grey rings represent the percentage change in the GVA over the same period. Note that for (b) the scale for the grey rings is two times the scale provided for the job number change (a 100% change in GVA produces a grey ring with the same size of a £200m GVA value bubble). Note: These sectors do not necessarily correspond to SCR sector definitions.
Source: ONS - GVA for LEPs

5.3 Existing SCR industries

A second indicator of economic activity is the number of jobs with industry sectors. The number of employees in the Sheffield City region by sectors, sub-sectors and cross-sectors is given in Table 5.1. The top sectors by number of employees in 2015 are Wholesale & Retail, Health & Social Care, Business Professional & Financial Services and Manufacturing. It is worth noting that, whilst complete sectors may rank highly (or poorly), the sub-sectors within such a sector may not follow the same trend. For example, as a sector, Wholesale & Retail is ranked top for employees, but its success is driven mainly by one of its sub-sectors (Retail) , whereas two of its sub-sectors (Motor trade and Wholesale) do not contain so many employees. The listing in Table 5.1 is ordered by sector ranking, but the sub-sector ranking is also given for reference.

Table 5.1: Existing jobs in industry (sub)sectors and cross-sectors

Sector / Sub-sector / Cross-sector	**2010 Jobs**	**2013 Jobs**	**2015 Jobs**	**Sector Rank[1]**	**Sub-sector Rank[2]**
Wholesale and Retail	116,006	114,309	121,185	1	
Motor trade	12,313	15,706	16,796		19
Retail	73,606	71,385	75,274		2
Wholesale	30,087	27,218	29,115		10
Health & Social care	113,137	112,426	119,983	2	1
Business, Professional and Financial Services	102,998	110,367	116,277	3	
Business	32,488	38,572	43,503		7
Employment	19,544	19,719	18,783		16
Financial	16,606	15,300	17,438		17
Professional	34,360	36,776	36,553		8
Manufacturing	82,725	83,312	89,944	4	
Advanced	23,890	23,190	23,341		12
Low Tech	21,946	22,357	23,097		13
Medium Tech	36,889	37,765	43,506		6
Education	72,560	75,171	73,546	5	3
Leisure, Tourism and Sport	58,576	56,768	62,624	6	
Leisure and Tourism	47,893	47,625	53,474		4
Sport	10,683	9,143	9,150		20
Construction	37,143	30,242	35,753	8	
Buildings	8,829	7,748	7,204		24
Civil	8,872	6,599	8,311		21
Specialised	19,442	15,895	20,238		15
Public administration and Defence	45,804	36,119	32,080	9	9
Logistics	25,678	27,318	27,205	10	11
Creative and Digital Industries (CDI)	25,804	27,258	25,404	11	
Creative	10,825	9,358	8,294		22
Digital	14,979	17,900	17,110		18
Transportation	9,129	8,442	8,148	13	23
Electricity, gas and water (utilities)	6,279	8,408	7,171	14	25
Agriculture, forestry and fishing	3,628	3,217	3,621	15	26
Science and Research	2,134	2,725	2,882	18	29
Mining and quarrying	2,018	1,404	1,475	19	30
Hospitality	44,540	42,684	52,404	7	5
Motor Vehicle	15,359	19,287	20,961	12	14
Hair and Beauty	3,635	3,142	3,616	16	27
Healthcare technologies	3,529	2,434	3,124	17	28
ALL Sectors	1,126,871	1,119,742	1,178,485	-	-

Source: EMSI Q1 2016 dataset
Cross-sectors are shown in italic font at the end of the table
1: Ranks have been calculated by ordering the number of jobs in 2015 by sector with Rank 1 having the largest number of jobs
2: Ranks have been calculated by ordering the number of jobs in 2015 by sub-sector with Rank 1 having the largest number of jobs

When only sub-sectors are considered (and not sector groupings), then the Health & Social care sub-sector dominates, with Retail and Education also employing a very large number of people in the region.

5.4 Company size by sector

In Table 5.1, employee numbers by industry sectors were presented. As a variation, we now consider the number of companies in each sector. The data is presented in a multi-level pie chart as Figure 5.2, where each level is a different grouping or 'bin' of company size by number of employees, as shown by the dashed line. Colours show the different industry sectors. By navigating around this chart, the importance of various sectors at different size bands becomes clear.

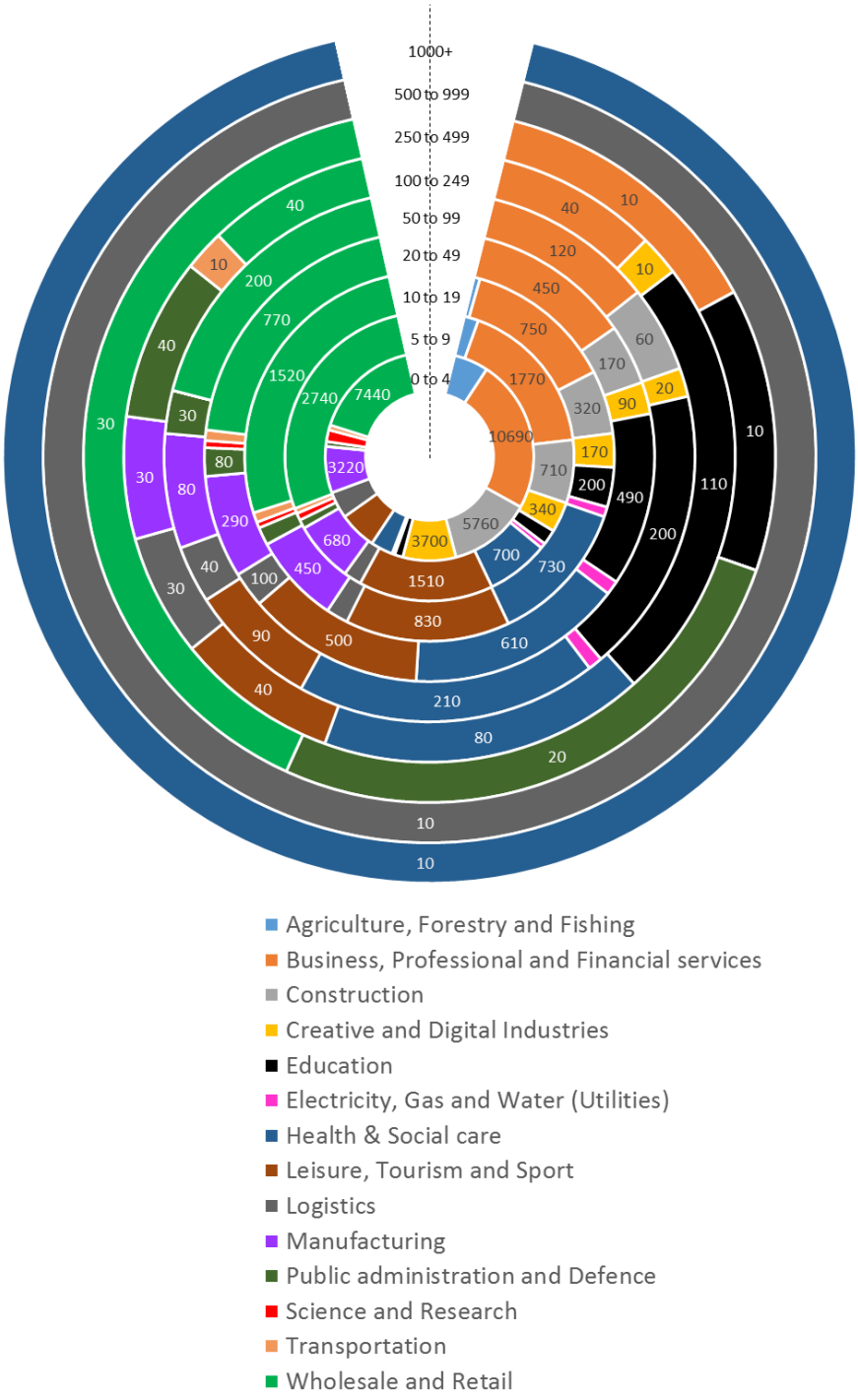


Figure 5.2: Number of companies by sizeband (number of employees) for industry sectors in the SCR. The radial axis (shown by the dashed black line) displays the company sizeband, the innermost ring being the smallest companies (0 to 4 employees) and moving outwards the company sizeband increases. The colours correspond to industry sectors, as shown in the legend. Numerical values for certain data points are shown for a sense of scale; this is the number of companies of that particular size in that particular sector. The Mining & Quarrying sector is not shown on this plot as there are only 20 companies, all of which are in the 0 to 4 size range, therefore it would not be visible. Numbers have been rounded.
Source: ONS; Inter-Departmental Business Register (IDBR) (2015)

It can be immediately seen that the large sectors are Wholesale and Retail (bottle green), Business, Professional and Financial services (orange) and Health and Social care (navy blue).

Business Professional and Financial services tends to be significant on the smaller scales but becomes less important on the larger scales where Logistics (dark grey), Health and Social care and Education (black) become significant.

Consider the Creative and Digital Industries: there are 3700 companies in the 0-4 sizeband, which probably represents more employees than in the 10 companies within the 100-249 sizeband. This example shows that the piechart can be useful in considering either the share of industrial sector or share of companies within a given sizeband of a single instance.

The split of companies by sizeband by SCR district is detailed in Table 5.2. There are considerably more micro enterprises (0-9 employees) than other sizes (87% of all enterprises). Naturally, most enterprises reside within the larger conurbations, with nearly 57% of enterprises being within the South Yorkshire districts.

Table 5.2: Number of companies in districts of SCR

District	**Total number of enterprises**	**% of total enterprises**	**% of total enterprises which are micro enterprises (0 to 9)**	**% of total enterprises which are small enterprises (10 to 49)**	**% of total enterprises which are medium enterprises (50 to 249)**	**% of total enterprises which are large enterprises (250+)**
Barnsley	13745	10.90	9.50	0.94	0.06	0.00
Bassetlaw	8565	6.79	5.97	0.54	0.03	0.00
Bolsover	8415	6.67	5.87	0.64	0.01	0.00
Chesterfield	7435	5.90	5.04	0.49	0.05	0.01
Derbyshire Dales	10185	8.08	7.18	0.73	0.02	0.00
Doncaster	20830	16.52	14.73	1.26	0.14	0.00
NE Derbyshire	7265	5.76	5.09	0.44	0.00	0.00
Rotherham	15305	12.14	10.59	1.10	0.12	0.01
Sheffield	34355	27.24	23.43	3.03	0.38	0.03
SCR	126100	100	87.39	9.17	0.81	0.05

Source: Inter-departmental business register 2016

5.5 Historic growth in SCR industries

It is also important to consider growth in jobs over a five year period and the results are displayed in Table 5.3. Absolute growth by number between (2010 and 2015) along with relative growth by percentage are presented in Table 5.3. The data are ordered by sector ranking.

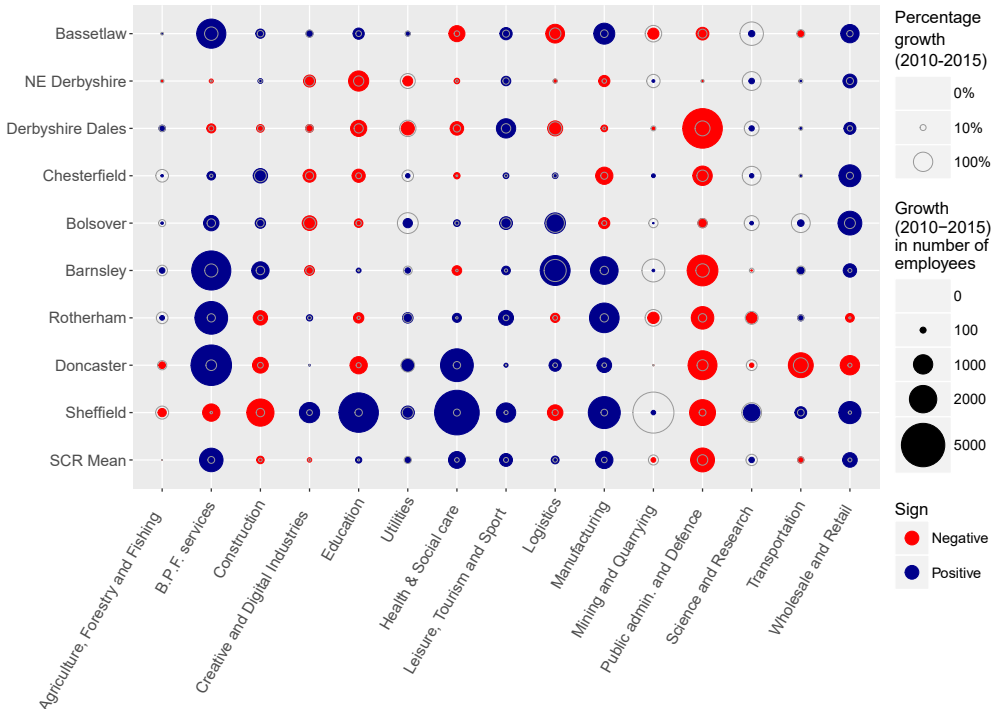
Table 5.3: Historic growth in SCR industries by number of employees

Sector / Sub-sector / Cross-sector	**Change in jobs (2010-2015)**	**% change**	Jobs Rank (sector) [1]	% change Rank (sector)[2]	Jobs Rank (sub-sector) [3]	% change Rank (sub-sector) [4]
Business, Professional and Financial Services	13,279	12.9	1	5		
Business	11,015	33.9			1	3
Employment	-761	-3.9			17	16
Financial	832	5.0			11	10
Professional	2,193	6.4			7	8
Manufacturing	7,219	8.7	3	6		
Advanced	-549	-2.3			15	14
Low Tech	1,151	5.2			10	9
Medium Tech	6,617	17.9			3	4
Health & Social care	6,846	6.1	4	8		
Wholesale and Retail	5,179	4.5	6	10		
Motor trade	4,483	36.4			6	2
Retail	1,668	2.3			9	12
Wholesale	-972	-3.2			18	15
Leisure, Tourism and Sport	4,048	6.9	7	7		
Leisure and Tourism	5,581	11.7			5	7
Sport	-1,533	-14.3			19	19
Logistics	1,527	5.9	8	9		
Education	986	1.4	9	11		
Electricity, gas and water (utilities)	892	14.2	10	4		
Science and Research	748	35.1	11	2		
Agriculture, forestry and fishing	-7	-0.2	12	12		
Creative and Digital Industries (CDI)	-400	-1.6	14	14		
Creative	-2,531	-23.4			21	21
Digital	2,131	14.2			8	6
Mining and quarrying	-543	-26.9	16	18		
Transportation	-981	-10.7	17	16		
Construction	-1,390	-3.7	18	15		
Buildings	-1,625	-18.4			20	20
Civil	-561	-6.3			16	17
Specialised	796	4.1			12	11
Public administration and Defence	-13,724	-30.0	19	19		
Hospitality	7,864	17.7	2	3	2	5
Motor Vehicle	5,602	36.5	5	1	4	1
Hair and Beauty	-19	-0.5	13	13	13	13
Healthcare technologies	-405	-11.5	15	17	14	18

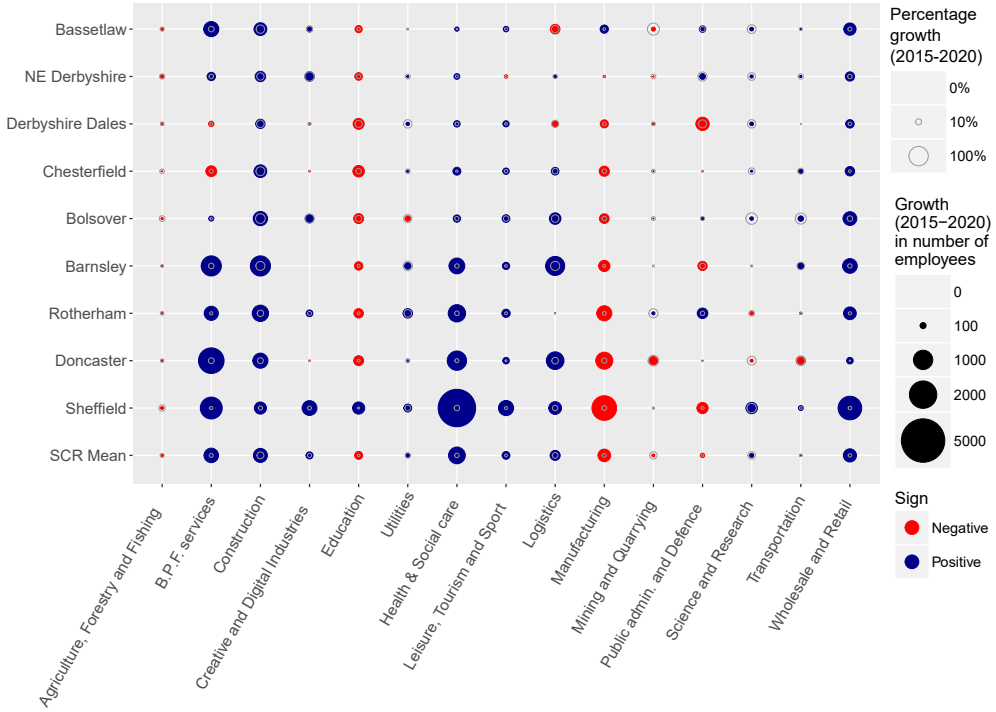
Source: EMSI Q1 2016 dataset
Cross-sectors are shown in italic font at the end of the table
1: Ranks have been calculated by ordering the change in jobs (2010-2015) by sector and cross-sector with Rank 1 having the largest change in jobs
2: Ranks have been calculated by ordering the percentage change by sector and cross-sector with Rank 1 having the largest % change in jobs
3: Ranks have been calculated by ordering the change in jobs (2010-2015) by sub-sector and cross-sector with Rank 1 having the largest change in jobs
4: Ranks have been calculated by ordering the percentage change by sub-sector and cross-sector with Rank 1 having the largest % change in jobs

Similar to base job numbers, the top sectors by growth in employees (2010-2015) are Business Professional & Financial Services, Manufacturing, Health & Social Care and Wholesale & Retail, but the ordering is different. Once again, the sectoral and sub-sectoral rankings do not necessarily agree, since some sub-sectors may have grown or shrunk out of proportion.

The growth (or shrinkage) of sectors from 2010-2015 are shown graphically as a grid plot in Figure 5.3a, where the SCR is broken down into constituent districts. For reference, an SCR mean value is also shown.



(a) Historic growth in jobs (2010-2015)



(b) Future growth in jobs (2015-2020)

Figure 5.3: Grid plot showing the growth (positive and negative) of the industry sectors for each district in the Region, both historic and futuristic. The size of the bubbles correspond to the change in the number of jobs. The grey rings represent the percentage change in the number of jobs across the same time period, the scale for this is ten times the scale provided for the job number change (a 100% change produces a grey ring with the same size of a 1000 number change bubble). Impact of the job growth is detailed in the text (bullet points) on Page 54.
Notes: i) In plot (a) (Historic growth), Mining and Quarrying in Chesterfield does not show a percentage growth as in 2010 this sector had zero employees. ii) There is no data available for the 'Other' sector. Raw data is given in Table C.1. Source: EMSI Q1 2016 dataset

Each bubble shows the size of growth in number of jobs (if coloured blue) or shrinkage (if coloured red) between 2010-2015 for each sector shown along the x axis for SCR districts shown along the y axis. The grey rings show the percentage growth and therefore are based on the existing size of the sector in the district. From the plot, it is possible to pick out the impact of job growth:

- For a large blue or red bubble with a small grey ring, there is a relatively low impact of change in jobs on the sector;
- For a small blue or red bubble with a large grey ring, the impact is relatively high on the sector.

The Health and Social care sector in Sheffield has seen the largest (absolute) growth of any sector in any district over the period between 2010 and 2015, although this sector across the whole region is ranked fourth in Table 5.3 (or third when cross-sectors are discounted), meaning most of the growth in this sector has taken place in Sheffield.

Business, Professional and Financial services has seen the largest growth across the whole region but surprisingly underwent a small shrinkage in Sheffield. The Public Administration and Defence sector has seen a large decline across all districts in the region, which is most likely due to governmental budget cuts. It is noticeable that both Derbyshire Dales and North-East Derbyshire have seen significant shrinkage across many sectors, except for Leisure, Tourism & Sport.

Mining & Quarrying in Sheffield is an aberration, since it has undergone significant growth in jobs for the size of the sector. This is mainly due to the small size of the industry and a small increased number of jobs in the past 5 years. This equates to a significance in percentage growth, as seen in Figure 5.3a, though the overall effect on the labour market is very small.

5.6 Future growth in SCR industries

This section will consider the predicted growth in jobs within the region. It will not consider replacement demand, which will be the focus on a future section.

Figure 5.3b shows the expected growth in jobs between 2015 and 2020 using EMSI Analyst. The EMSI tool predicts a more moderate growth across all sectors in the next 5 years than in the past 5 years. EMSI predicts a total growth of around 23,200 jobs. The sectors which are expected to grow include Business, Professional & Financial Services, Construction, Health & Social Care, Leisure & Tourism, Logistics and Wholesale & Retail. The EMSI data predicts that the Manufacturing in SCR is likely to shrink by 2020 in all disticts except Bassetlaw. Additionally, the Education sector is expected to shrink.

Naturally, whilst jobs within whole sectors are expected to increase or decrease, the trend may not be identical within sub-sectors. Figure 5.4 shows the relation between historic growth (2010-2015), "present" jobs (2015) and futuristic predicted growth (2015-2020) for each sub-sector and cross-sector. The position of the bubbles along the y-axis shows the number of jobs in the sub-sector at present, thereby representing importance of growth on the region. Bubbles to the right-hand side (left-hand side) are showing a presently growing (shrinking) sector. Blue bubbles show that the sector is expected to grow, whilst red bubbles show that the sector is likely to shrink.

This plot shows more clearly the discrepancy between sub-sectors within one single sector. For example, considering the Construction sector, which is predicted to grow modestly as a whole sector:

- The Buildings sub-sector has been historically shrinking and is predicted to continue to shrink (low bottom left);
- The Civil construction sub-sector has been shrinking, but is predicted to grow until 2020 (low bottom left);
- The Specialised construction sub-sector has undergone growth and is predicted to continue to grow, but more modestly (middle low).

If we consider the CDI sector, then both the Creative and Digital sub-sectors are predicted to grow, though Digital industries are likely to grow more significantly than creative ones. It is notable that, according to EMSI data, all three sub-sectors of Manufacturing (Low Tech, Medium Tech and Advanced) are likely to shrink in the future.

Figure 5.3b can be used to identify which sectors are likely to undergo a change in growth in the next half-decade:

- Blue bubbles on the left hand side depict sub-sectors which have been historically shrinking, but are expected to undergo growth in the next few years;
- Red bubbles on the left hand side depict sub-sectors which have been and will continue to shrink;
- Blue bubbles on the right hand side show sb-sectors which have undergone and will continue to undergo growth;

- Red bubbles on the right hand side show sub-sectors which are expected to shrink in the next few years, despite previous growth.

Main points to note from Figure 5.3b include:

1. Health & Social Care and Retail sectors, which employ a large number of people, has been growing and is expected to continue to grow by 6%;
2. Education, which also employs a significant number of people, is likely to shrink by $\sim 2\%$;
3. Leisure & Tourism is expected to grow by $\sim$3%;
4. Low Tech, Medium Tech and Advanced Manufacturing are expected to all shrink in the next few years;
5. While Business, Motor Vehicle and Motor Trade have all undergone significant growth in the past (around 30%), it is predicted that their growth rate will slow to less than 5%;
6. Civil construction underwent a significant shrinkage in the past 5 years, but is likely to pick up again, leading to a growth of 19%.

5.7 Sectoral Education Profiles

In order to identify the educational profile of each industry sector, we have utilised EMSI data (using ONS definitions). This applies an assumed level of education to each SOC, then associates occupations to industry sectors and aggregates over the sector to provide a total profile. This calculation has been performed for the existing employment base and also the future growth in jobs. These are shown as grid plots in Figure 5.5. It should be noted that these are not actual profiles, but assumed educations, due to the level of each occupation. Some employees will have lower or higher qualifications and actual levels of education were quoted in Figure 4.5. However, it should be noted that the educational profile reflects employment and occupations within the region and is not the same as the national skills profile (which will have a different profile of occupations).

We consider the existing educational profile first, as shown in Figure 5.5a. Level 1-3 skills are fairly ubiquitous across all sectors and are spread according to the prevalence of jobs in the sector. It is noticeable that three sectors are dominated by Level 2 qualifications: Agriculture Forestry & Fishing, Leisure Tourism & Sport and Transportation. There is a distinct lack of requirement for Level 4-5 qualifications (Certificate and NVQ Level 4) across all sectors (except perhaps a moderate need in Health & Social Care), though there is a need for Level 6 qualifications (Honours or Bachelor's degree et al) across most sectors (specfically Business Professional & Financial Services, Education and Health & Social Care). The only sector which has a significant demand for Level 7 qualifications (Masters degree et al) is Education, which is perhaps unsurprising.

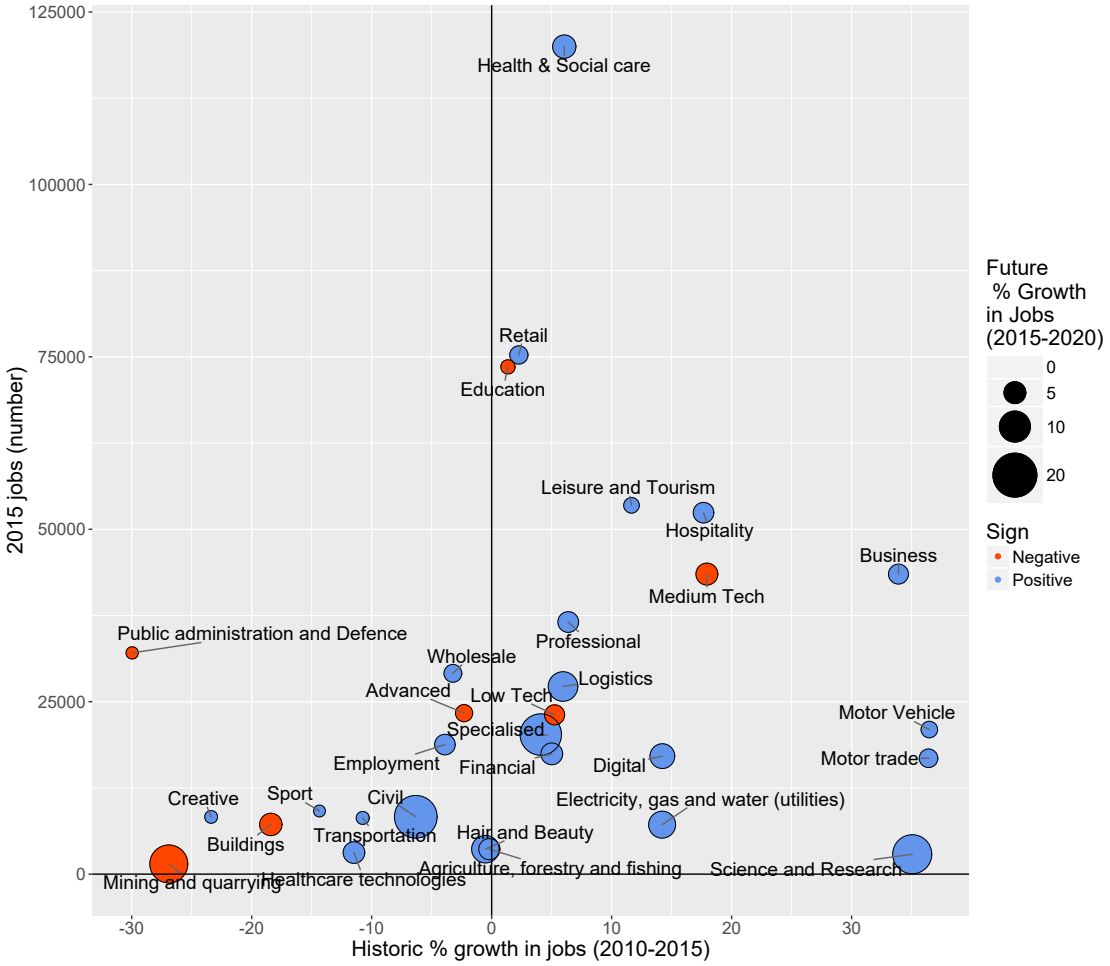
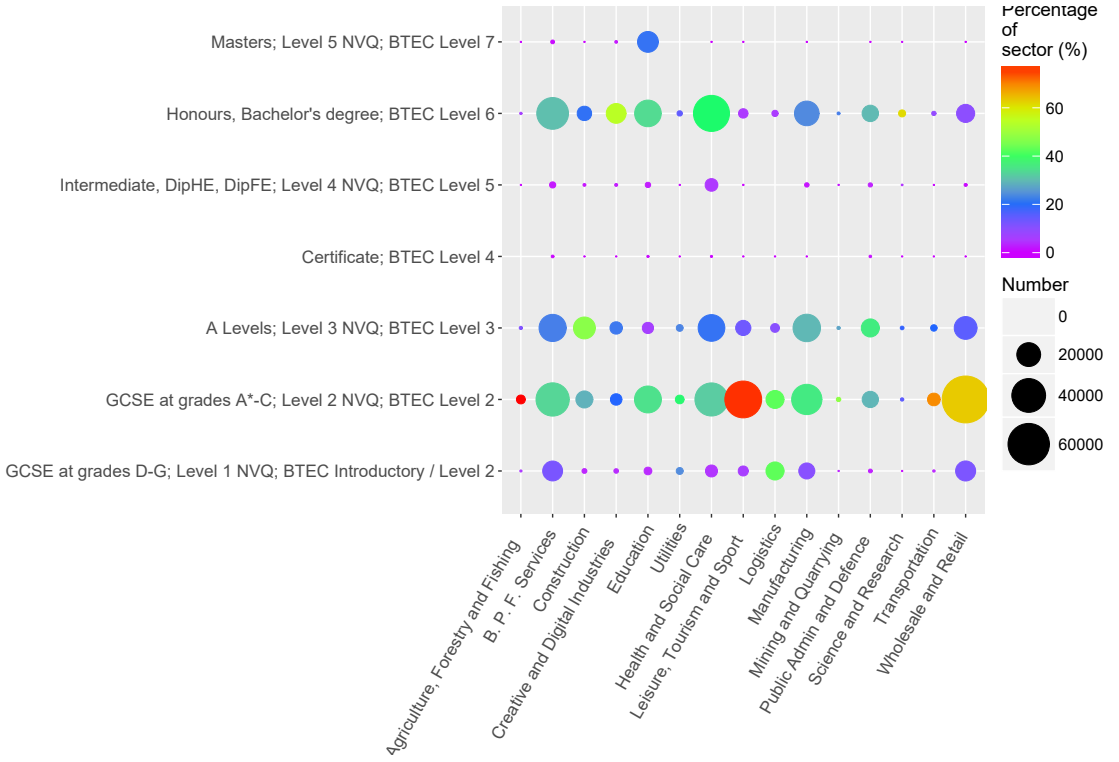


Figure 5.4: The historic, present and futuristic job market in the Sheffield City Region for all sub-sectors. Historic growth (%) and present number of jobs are plotted along the x and y-axis respectively. The colour of each bubble represents futuristic growth (blue) or shrinkage (red), whilst the size of each bubble represents the futuristic growth in jobs (% of sub-sector).
Source: EMSI Q1 2016 dataset

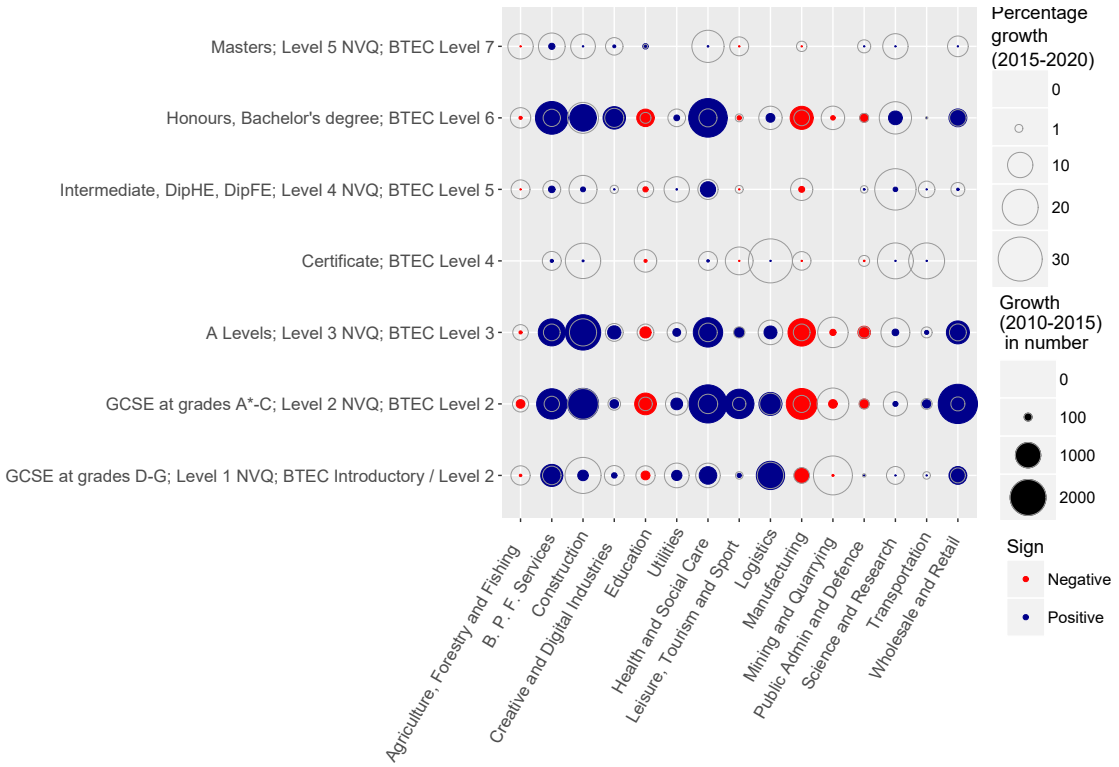
It is important to consider the requirement for qualifications in the next few years, so that the region can address the demand for skills. It is important to note that replacement demand is typically much lareger than the growth in new jobs and this will be the focus of a later section. Here, we just consider growth in new jobs. Figure 5.5b shows the requirement of levels of education required for the future growth in jobs. There is a general requirement for Level 1-3 qualifications across all sectors in which jobs are growing (mainly B.P.F. Services, Construction, Health & Social Care, Logistics and Wholesale & Retail). As seen in the exiting educational profile, there is an almost negligible demand for Level 4-5 qualifications (Certificate and Level 4 NVQ). Due to a shrinkage of the sectors, both Manufacturing and Education see a clear loss of need for qualifications across the board. It will be envisaged that exiting employees may need to shift their talents and skills into other sectors, in order to remain employed. However, in Education, there will be a

minor growth in Level 7 jobs (Masters degree) which bucks the trend for the sector. In Health & Social Care, the prediction is that there will not be a new requirement for Level 6 jobs (Honours degree, as per the existing job base), but instead there will be an increased need for Level 5 qualifications (Level 4 NVQ).

The most significant percentage growth (and therefore new demand) is in four areas: Levels 2, 3 and 6 in Construction and Level 1 in Logistics. In these three area, the percentage growth of the sector is 14.6%, 11.5%, 14.9% and 10.8% respectively. It should be noted that there is visibly significant percentage growth at Level 4 (Certificate) in all sectors, but the number of jobs is actually very low and just a few extra jobs looks significant as a percentage.



(a) Existing education base (2015)



(b) Future growth in education base (2015-2020)

Figure 5.5: The distribution of education level within industry sectors in Sheffield City Region. Source: EMSI Q1 dataset.

5.8 Sectoral Age Profiles

Data is available as to the age profile of each industry sector and can be calculated within EMSI. In Figure 5.6, we can see that almost 20% of the working population is aged 55+, which indicates that this number are likely to retire in the next 10 years. Transport seems to be a sector in which workers tend to be older than the average (50% above 44 years), whereas leisure & tourism is very much dominated by younger people (around75% of workers below 44 years). The approximate number of workers aged over 55 years is shown by sector in Table 5.4 by sector and Table 5.5 by occupation, where it can be seen that there are around 118,000 workers over the age of 55 within the SCR (16% of the total workforce).

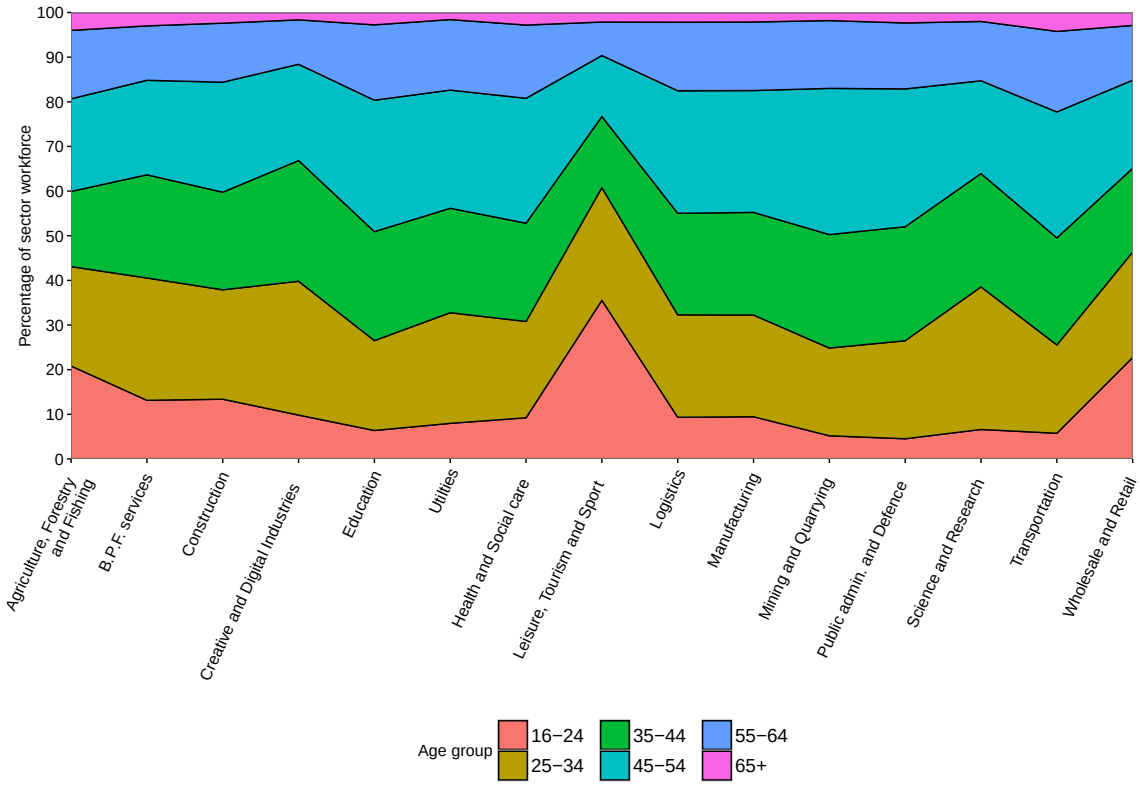


Figure 5.6: The distribution of age groups within industry sectors in Sheffield City Region. The 'Other' sector is not shown due to no data being available for these SICs.
Source: EMSI Q1 dataset.

The UKCES Working Futures 2012-2022 dataset predicts that replacement demand will contribute almost eight times as many job openings as net job growth in the next decade (302,000 openings compared with 39,000).

Table 5.4: Number of employees aged 55+ in SCR by industrial sector

Sector	All employees	Employees aged 55-64	Employees aged 65+
Agriculture, Forestry and Fishing	3711	557	148
B.P.F. services	116291	13955	3489
Construction	35778	4651	716
Creative and Digital Industries	25453	2545	509
Education	73572	12507	2207
Utilities	7255	1161	145
Health and Social care	120013	19202	3600
Leisure, Tourism and Sport	62652	5012	1253
Logistics	27252	4088	545
Manufacturing	90076	13511	1802
Mining and Quarrying	1525	229	31
Public admin. and Defence	32085	4813	642
Science and Research	2913	379	58
Transportation	8204	1477	328
Wholesale and Retail	121235	14548	3637
Total	728015	98635	19110

Source: EMSI Q1 2016 dataset

Table 5.5: Number of employees aged 55+ in SCR by occupation

Occupation	**All employees**	**Number Aged 55-64**	**Number Aged 65+**
Managers, Directors and Senior Officials	60,408	9,148	1,829
Professional Occupations	127,658	16,111	2,126
Associate Professional and Technical Occupations	84,670	8,978	1,341
Administrative and Secretarial Occupations	84,571	14,154	3,007
Skilled Trades Occupations	62,743	9,039	1,391
Caring, Leisure and Other Service Occupations	68,673	9,433	1,904
Sales and Customer Service Occupations	73,974	8,039	1,783
Process, Plant and Machine Operatives	55,786	10,199	2,009
Elementary Occupations	108,974	13,257	3,191
Total	727,457	98,359	18,583

Source: EMSI Q1 2016 dataset

5.9 Existing SCR occupations

So far, we have analysed industrial sectors. We now focus on occupations within SCR. The Standard Occupational Classification (SOC) System is used to categorise occupations. At the highest level, the one digit SOC system details nine occupational categories and the occupational growth for these is presented in Table 5.6 for SCR.

Over the period 2010-2015, the region has seen a large increase in elementary occupations (8.5% growth) and it is predicted that these occupations will have the largest (b ut more modest) growth in future (3.9%). Future, followed by Professional Occupations and Associate Professional and Technical Occupations. This table is particularly relevant when also considering the level of education required within each occupational group, which is shown in Figure 5.7.

Table 5.6: All nine high level occupations, sorted by futuristic growth in 2015-2020

Occupation	2010 Jobs	2015 Jobs	2020 Jobs	Historic Change in Jobs (2010-2015)	Historic % change in jobs	Futuristic Change in Jobs (2015-2020)	Futuristic % change in jobs
Elementary Occupations	100,454	108,974	113,204	8,520	8.5%	4,230	3.9%
Professional Occupations	124,112	127,658	131,106	3,546	2.9%	3,448	2.7%
Associate Professional and Technical Occupations	83,389	84,670	87,107	1,282	1.5%	2,437	2.9%
Caring, Leisure and Other Service Occupations	65,362	68,673	71,012	3,311	5.1%	2,339	3.4%
Sales and Customer Service Occupations	71,472	73,974	75,955	2,502	3.5%	1,981	2.7%
Managers, Directors and Senior Officials	58,286	60,408	62,354	2,122	3.6%	1,946	3.2%
Administrative and Secretarial Occupations	86,130	84,571	86,459	-1,559	-1.8%	1,888	2.2%
Skilled Trades Occupations	58,916	62,743	64,229	3,827	6.5%	1,485	2.4%
Process, Plant and Machine Operatives	55,684	55,786	56,938	101	0.2%	1,152	2.1%

Source: EMSI Q1 2016 dataset

The growth in Elementary Occupations will lead to an increased demand for NVQ Levels 1 and 2, whilst most of the growth in other occupational groups will lead to demand in NVQ Levels 2 and 3 by 2020. Only a few areas will demand higher level education at Level 6: Professional Occupations (3,300), Associate Professional & Technical Occupations (1,200) and Managers, Directors & Secretarial Occupations (780). It is predicted that fewer Level 2's will be needed at Associate Professional level, but this is a negligible decrease.

Table 5.7: Future growth (2015-2020) in high level occupations by skill levels

Change in jobs (2015-2020) within industry	**GCSE at grades D-G; Level 1 NVQ; BTEC Introductory / Level 2**	**GCSE at grades A*-C; Level 2 NVQ; BTEC Level 2**	**A Levels; Level 3 NVQ; BTEC Level 3**	**Certificate; BTEC Level 4**	**Intermediate, DipHE, DipFE; Level 4 NVQ; BTEC Level 5**	**Honours, Bachelor's degree; BTEC Level 6**	**Masters; Level 5 NVQ; BTEC Level 7**	**TOTAL**
Elementary Occupations	2,929	1,302	0	0	0	0	0	4,230
Professional Occupations	0	0	0	0	15	3,298	134	3,448
Associate Professional and Technical Occupations	0	-22	978	0	295	1,186	0	2,437
Caring, Leisure and Other Service Occupations	0	1,447	799	0	93	0	0	2,339
Sales and Customer Service Occupations	0	1,654	327	0	0	0	0	1,981
Managers, Directors and Senior Officials	0	208	927	0	34	777	0	1,946
Administrative and Secretarial Occupations	0	1,615	253	19	0	0	0	1,888
Skilled Trades Occupations	0	349	1,108	0	0	29	0	1,485
Process, Plant and Machine Operatives	0	1,101	52	0	0	0	0	1,152

Source: EMSI Q1 2016 dataset
Ordering follows that in Table 5.6

5.10 Youth (16-24 year olds) Occupations

It is informative to consider where the majority of young people are employed at present. In Section 5.8, it can be seen that the sectors with large 16-24 year old workforces are Agriculture, Leisure Tourism & Sport and Wholesale & Retail. However, this does not reflect the number of workers in each sector.

Therefore, in this section we summarise the main occupations in which young people can be found. The top occupations for 16 - 24 year olds and the required level of education are detailed in Table 5.8. This list of 30 occupations (by SOC) accounts for over 70% of all 16-24 year olds in the region.

As can be seen from Table 5.8, the very top occupations are dominated by Wholesale & Retail occupations and most of the occupations only require an education level of 1 or 2 (NVQ equivalent). Of the Top 30, only two SOCs (Nurses and Marketing Associate Professionals) require a Honours or Bachelor's degree.

Table 5.8: Top 30 Occupations held by 16 - 24 year olds in SCR

SOC	Description	Education Level	Percentage of 16-24 year olds within SOC	16-24 Number of 16-24 year olds in SOC
7111	Sales and retail assistants	Level 2 NVQ	41%	13281
9274	Bar staff	Level 2 NVQ	59%	5674
9273	Waiters and waitresses	Level 2 NVQ	65%	5293
9272	Kitchen and catering assistants	Level 2 NVQ	40%	5216
9260	Elementary storage occupations	Level 1 NVQ	18%	3536
6145	Care workers and home carers	Level 2 NVQ	16%	3454
4159	Other administrative occupations n.e.c.	Level 2 NVQ	16%	2924
9233	Cleaners and domestics	Level 1 NVQ	11%	2173
7112	Retail cashiers and check-out operators	Level 2 NVQ	32%	2167
7211	Call and contact centre occupations	Level 3 NVQ	30%	2047
7219	Customer service occupations n.e.c.	Level 2 NVQ	23%	1766
5231	Vehicle technicians, mechanics and electricians	Level 3 NVQ	26%	1472
7130	Sales supervisors	Level 2 NVQ	24%	1432
9134	Packers, bottlers, canners and fillers	Level 1 NVQ	21%	1385
6141	Nursing auxiliaries and assistants	Level 3 NVQ	13%	1381
4216	Receptionists	Level 2 NVQ	17%	1211
5434	Chefs	Level 2 NVQ	20%	1203
4122	Book-keepers, payroll managers and wages clerks	Level 2 NVQ	11%	1086
6121	Nursery nurses and assistants	Level 2 NVQ	28%	1075
5241	Electricians and electrical fitters	Level 3 NVQ	19%	975
2231	Nurses	Honours/Bachelor's degree	5%	940
3543	Marketing associate professionals	Honours/Bachelor's degree	28%	909
9251	Shelf fillers	Level 1 NVQ	32%	883
6221	Hairdressers and barbers	Level 3 NVQ	44%	845
5223	Metal working production and maintenance fitters	Level 3 NVQ	14%	824
9120	Elementary construction occupations	Level 2 NVQ	29%	819
6211	Sports and leisure assistants	Level 2 NVQ	56%	795
6125	Teaching assistants	Level 2 NVQ	9%	777
7113	Telephone salespersons	Level 2 NVQ	38%	749

Source: EMSI Q1 2016 dataset

5.11 Highest paying industries and occupations

Using the Annual Survey of Hours and Earnings (ASHE) data within EMSI, it is possible to consider the range of salaries for each occupation and aggregate them into industrial sectors. The output is graphically displayed in Figure 5.7. The graph shows the range of salaries within each sector (the boxes), also detailing the median salary (band inside each box) and the mean advertised salary in vacancies. The range is fairly moderate for most sectors, though the range is limited for Agriculture, Fishing & Forestry and the salaries seem high for Mining & Quarrying.

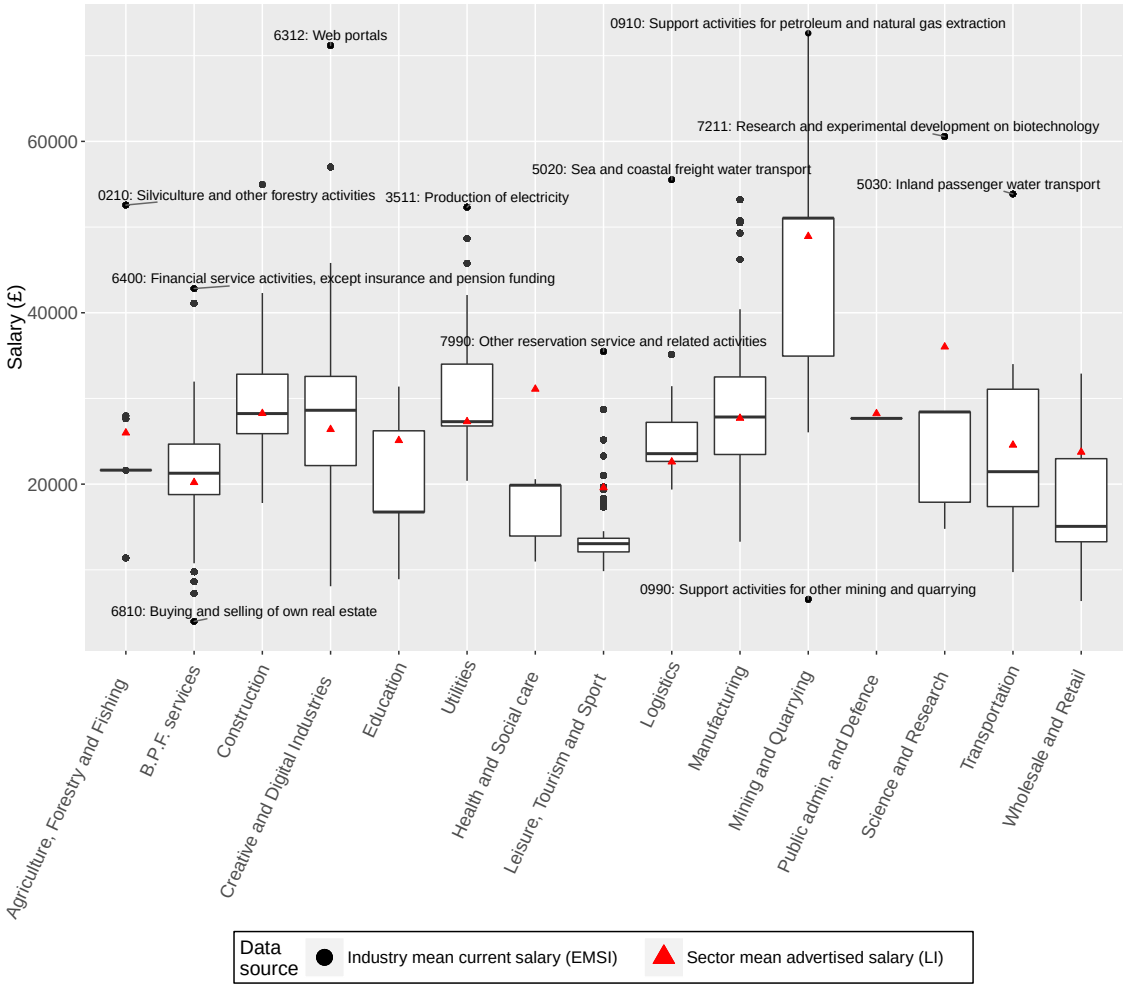


Figure 5.7: Boxplot showing salaries across each sector for Sheffield City Region. The band inside each box is the median current salary, the boxes contain 50% of all salaries, whilst the whiskers extend to contain 99.3% of all the salaries. Outliers (those salaries that lie outside of this range i.e. the remaining 0.7%) are plotted as black circles. The red triangles are average advertised salaries for each sector within vacancies.
Sources: Current salaries taken from EMSI Q1 dataset. Advertised salaries taken from LabourInsight

As an example, the highest paying industry sub-sectors and 4-digit (low level)

occupations are shown in Tables 5.9 and Tables 5.10. For sub-sectors, the average current earnings are shown, but for occupations the median annual salary is given since this is a better indication of the industry as a whole (a mean value can be easily distorted by a small number of unusually low or high salaries).

Table 5.9: 10 highest paying industry (sub)sectors in SCR

Sub-Sector	Sector	Average current total earnings
Mining and Quarrying	Mining and Quarrying	£42,685
Financial	Business, Professional and Financial services	£37,129
Civil	Construction	£34,159
Electricity, Gas and Water (Utilities)	Electricity, Gas and Water (Utilities)	£31,500
Specialised	Construction	£30,336
Medium tech	Manufacturing	£30,133
Advanced	Manufacturing	£29,238
Digital	Creative and Digital Industries	£27,756
Healthcare technologies[1]	Healthcare technologies[1]	£27,265
Creative	Creative and Digital Industries	£26,020

Source: EMSI Q1 2016 dataset
[1] Cross-sector

Table 5.10: 10 highest paying occupations in SCR

SOC	Occupation	Median hourly wage (2015)
3512	Aircraft pilots and flight engineers	£43.08
2317	Senior professionals of educational establishments	£36.09
2211	Medical practitioners	£32.98
1115	Chief executives and senior officials	£32.22
3511	Air traffic controllers	£32.20
2419	Legal professionals n.e.c.	£31.57
1132	Marketing and sales directors	£30.99
1136	Information technology and telecommunications directors	£30.71
2215	Dental practitioners	£27.75
1172	Senior police officers	£27.08

Source: EMSI Q1 2016 dataset

5.12 Niche industries and occupations

To investigate the niche industries and occupations we used the deepest level SIC and SOC systems respectively. Whether an industry or occupation is 'niche' can be determined by using a measure known as the location quotient (LQ). The location quotient compares the concentration of the particular industry or occupation to the national picture. As an example in our region we can have a measure of the concentration of manufacturing jobs (which is the number of manufacturing jobs divided by the total number of jobs), we can then divide this by the concentration of manufacturing jobs across the whole nation to get the location quotient for manufacturing jobs in the Sheffield City Region. Therefore an LQ of one means the concentration of the particular occupation/industry is the same as the national picture, an LQ of greater than one means that particular occupation/industry is more concentrated in the region and is therefore 'niche' and an LQ of less than one means that occupation/industry is lacking in our region relative to the national picture.

A list of the top thirty niche industries and occupations are given as tables J.1 and J.2 in the appendix. Unsurprisingly cutlery and steel industries place high on the LQ measure. However surprisingly the region is niche in the construction of bridges and tunnels, and the repair of household appliances. Regarding occupations, again those related to steel and coal industries place high, but occupations in rail and call centres also place high on this LQ measure.

The location quotients for all the sub-sectors and cross-sectors are provided in Table 5.11.

Table 5.11: Sub-sectors and cross-sectors by location quotient

Sub-Sector	Sector	Location quotient (2015)
Medium tech	Manufacturing	2.27
Civil	Construction	1.69
Logistics	Logistics	1.54
Motor trade	Wholesale and Retail	1.30
Low tech	Manufacturing	1.26
Health and Social care	Health and Social care	1.24
Motor vehicle[1]	Motor vehicle[1]	1.18
Specialised	Construction	1.11
Education	Education	1.10
Retail	Wholesale and Retail	1.05
Wholesale	Wholesale and Retail	1.01
Business	Business, Professional and Financial services	1.00
Public administration and Defence	Public administration and Defence	1.00
Sport	Leisure, Tourism and Sport	0.97
Electricity, Gas and Water (Utilities)	Electricity, Gas and Water (Utilities)	0.94
Hospitality[1]	Hospitality[1]	0.93
Hair and Beauty[1]	Hair and Beauty[1]	0.88
Mining and Quarrying	Mining and Quarrying	0.88
Leisure and Tourism	Leisure, Tourism and Sport	0.87
Employment	Business, Professional and Financial services	0.80
Advanced	Manufacturing	0.78
Digital	Creative and Digital Industries	0.72
Buildings	Construction	0.68
Professional	Business, Professional and Financial services	0.66
Financial	Business, Professional and Financial services	0.65
Healthcare technologies[1]	Healthcare technologies[1]	0.63
Agriculture, Forestry and Fishing	Agriculture, Forestry and Fishing	0.61
Transportation	Transportation	0.56
Science and Research	Science and Research	0.5
Creative	Creative and Digital Industries	0.41

Source: EMSI Q1 2016 dataset

[1] Cross-sector

6 Employer Perspectives and Employee Skills

In any labour market analysis, it is important to consider employer perspectives related to skills and employment. In this work, we have not undertaken any primary research within the region. However, we can use datsets from other completed research. The first dataset we consider is that from the SCR Skills Bank; during the skills deal process, employers engage with the managing agent and as a result some information is gleaned as to generic skills needs. Secondly, we present the results of the UKCES Employer Perspectives Survey 2014[1], which includes recruitment, work experience, people development and apprenticeships. We consider the UKCES Employment Skills Survey and Working Futures later in the report.

6.0.1 Skills Banks Assessments

From business applications for skills deals to the SCR Skills Bank, several themes have emerged regarding employer perspectives on skills. This gives us an insight into employment within our region. The predominant themes are detailed below.

Businesses know the skills they need but struggle to find the right people While 74% of businesses think that their workforce has clearly defined roles and responsibilities, only 33% think their current workforce has the skills needed to deliver their business products and services. When they recruit, only 42% of businesses said that their new employees have been sufficiently trained to allow them to deliver their products and services.

There's a broad need for marketing skills 60% of businesses indicate that their workforce do not have the skills to market the business, its products and services. 56% think they're not able to use technology and social media effectively in order to connect with customers.

Belief in benefits from upskilling in back office functions SMEs have suggested that they need to develop their employee's skills in finance, including systems and reporting, with only 40-45% of SMEs indicating that their workforce has the skills required to run their back office functions effectively. 59% of all businesses think that their legal skill set (including procurement, negotiation, contracting) and HR functions would benefit from an investment in skills.

[1] A subset of the UKCES Employer Perspectives Survey 2016 data for the SCR from is not available at present.

Large companies need to improve team-working amongst their staff Only 40% of large businesses think their workforce is able to work productively in teams, whilst 50% agree that their workforce understands the needs of both their business and their customers.

Businesses in different sectors have varying needs From the various skills deals being made, there are some useful insights into the needs of specific industries. As an example, 65% of companies in the building materials sector thought that their skills development plan effectively supported the delivery of their products and services. This contrasts to only 38% of organisations in the healthcare and related sector. But, when looking at how these sectors view their administration and management skills, a different picture emerges. 77% of the healthcare and related sector believed their employees needed training and support in developing new products, whereas in the building and materials sector this is 43%. These variations are not unique. As another example, 75% of the engineering products sector said that their business had recently invested in technology for making products and services compared to only 50% of the support sector. This led to 79% of the support sector indicating that they had a skills need with regards to technology compared to only 44% in the engineering products sector.

LAs face different challenges with regards to upskilling There are some striking differences faced by companies within different Local Authorities. 72% of companies in Chesterfield said that they had an up-to-date development plan for their business compared to only 50% in Sheffield. 81% of companies in Rotherham thought their business had a clear plan for the future and understood the capabilities to deliver this compared to only 60% in Doncaster. In Sheffield 63% identified a skills need for Technology compared to only 42% of companies in Barnsley.

UKCES Employer Perspectives Survey 2014

Employer Perspectives on Recruitment

57%
employers specify a requirement for Maths and English to level 2 or GCSE A-C grade (average for England 58%)

43%
employers had recruited at least one member in 12 months prior to survey (average for England 46%)

27%
employers recruit a young person between 16-24 in the 12 months prior to survey (average for England 31%)

16-24

13%
employers recruited a person aged 50+ in previous 12 months (average for England 13%)

50+

Employer Perspectives on Work Experience

31%
employers had someone on work experience in the 12 months prior to survey (average for England 38%)

70%
employers cited that work experience was a critical factor in recruiting (average for England 66%)

Employer Perspectives on People Development

67%
of employers had provided training to employees in preceding 12 months (average for England 69%)

2015

52%
of employers had offered internal training (average for England 58%)

45%
of employers offered external training (average for England 45%)

Only
8%
of employers had used FE institutions for staff training (average for England 8%)

Only
2%
of employers had used HE institutions for staff training (average for England 4%)

Employer Perspectives on Apprenticeships

18%
of employers had offered apprenticeships (average for England 15%)

41%
local employers stated an intention to offer apprenticeships in the future (average for England 35%)

7 SCR Demand for skills

Summary

- There are 0.2 vacancies per person employed in SCR per year, which is lower than national average
- In most SCR districts, the annual number of vacancies is comparable to the number of unemployed persons
- In NE Derbyshire, there are very few job openings (190 vacancies) when compared to the level of unemployment (1700)
- In Bolsover, there are also very few annual job openings (274 vacancies) though unemployment figures are also low
- In Chesterfield, there is a significant number of annual job openings (4,240) compared to their unemployment figure (1700)
- 16% of SCR companies report having skills gaps
- 31% of SCR companies report having under-utilised staff (over-skilled or over-qualified)
- 6% of SCR businesses report struggling to fill vacancies
- 31% of SCR vacancies are considered to be "hard-to-fill"

In this chapter the labour demand in the Sheffield City Region is investigated.

7.1 Vacancies

According to Labour Insights, annually there are 0.16 vacancies per person employed in the Sheffield City Region (132,691 jobs), which is lower than the national average (0.24 or 6,700,941 vacancies). The monthly number of vacancies identified within Labour Insights is shown in Figure 7.1. No obvious effects or consequences from the decision of the EU referendum can be seen from the statistics.

As in Chapter 5 the industry sectors can be used to investigate vacancies. Vacancies broken down by district are shown in Figure 7.2, this is similar in form to the plots in Figure 5.3 with districts displayed on the y axis and sectors on the x axis. The colour scale represents the absolute number of vacancies whereas the size of each bubble scales with the number of vacancies normalised to the working

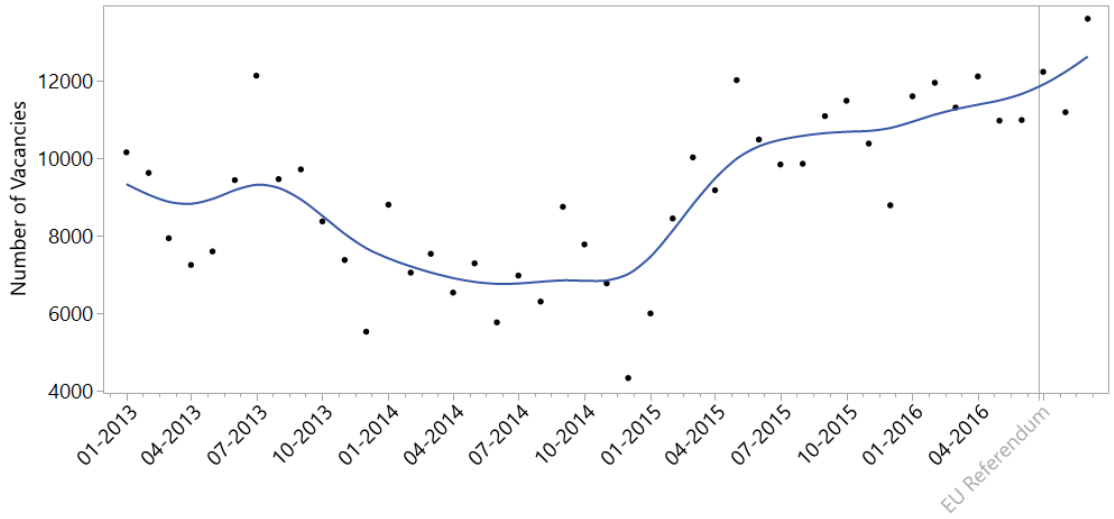


Figure 7.1: Monthly vacancies in Sheffield City Region according to Labour Insights. The date of the EU referendum is shown for purely for reference. Source: Labour Insights

Table 7.1: Top 10 industry sectors by number of vacancies in the Sheffield City Region, advertised from Aug. 01, 2015 - Jul. 30, 2016

Sector	Job postings
Health and Social care	16,104
Education	10,072
Leisure, Tourism and Sport	5,042
Wholesale and Retail	4,608
Business, Professional and Financial services	2,914
Logistics	2,109
Creative and Digital Industries	2,087
Manufacturing	1,995
Construction	1,644
Science and Research	575

Labour Insight Jobs: postings for Aug. 01, 2015 - Jul. 30, 2016.

age (16-64) population in that particular district (this is given as a percentage). Unemployment figures are also plotted but these do not use the colour scale (these numbers are much greater than the number of vacancies) instead, the unemployment figures are given in white text in the data bubbles themselves. If the reader wishes to compare sectors within a district the size of the bubble is important. However, if the reader wishes to compare districts for a particular sector then colour is the important scale.

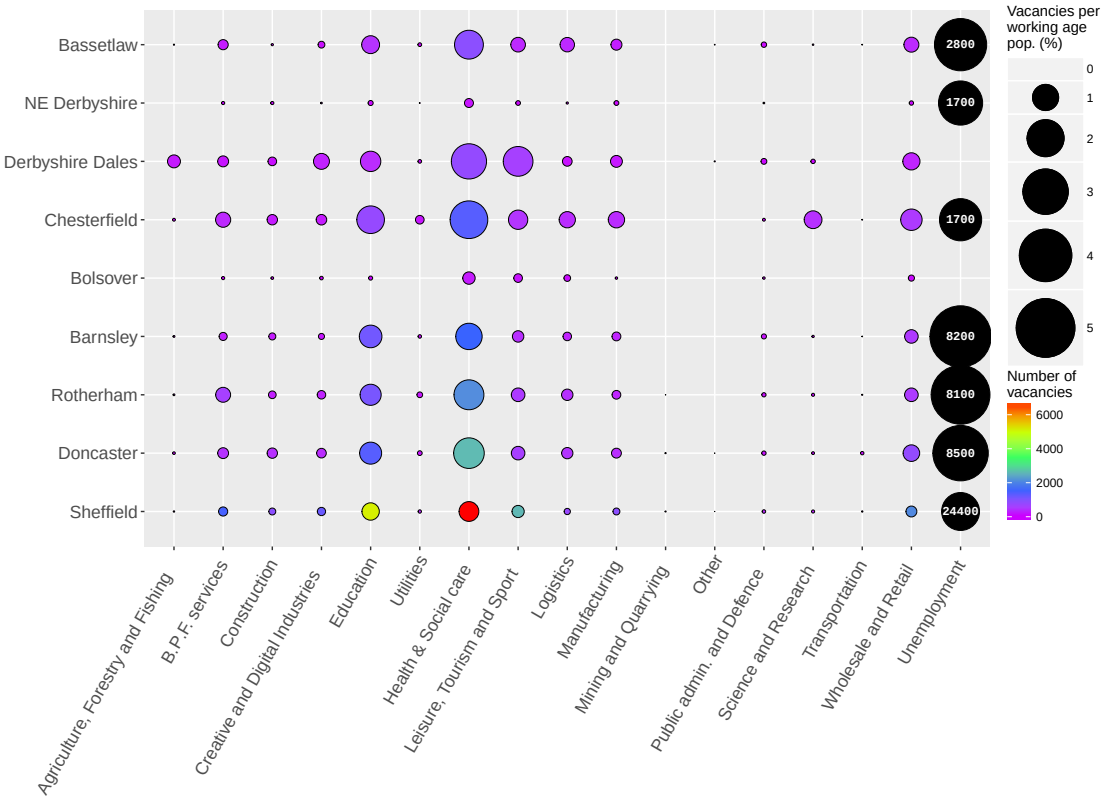


Figure 7.2: Grid plot showing vacancies (or unemployment) in each industry sector within districts in the Sheffield City Region. The size of each data bubble corresponds to the number of vacancies over the course of a year normalised against the working age population in the particular district, the scale shows this as a percentage. The colour of each data bubble corresponds to the absolute number of vacancies in the particular sector in the particular district, the scale is given in the bottom left. Unemployment data is not coloured but the raw numbers provided in white text. Raw data is given in Table C.1.
Vacancy source: Labour Insight Jobs, postings for Aug. 2015 - Jul. 2016.
Working age pop. source: ONS population estimates (2015) given in Table A.1.
Unemployment data source: ONS annual pop. survey (March 2015- March 2016) given in Table A.3. The unemployment figures for Derbyshire Dales and Bolsover are unavailable due to their disclosive nature.

From this plot, issues with, and possible solutions to, unemployment can be determined. For example, Chesterfield's unemployment figure could be reduced by training those closest to the labour market into the Health and Social care sector. However, this graph also highlights problems: for example, in Bassetlaw and Barnsley the level of unemployment is high relative to the number of vacancies available and more complex solutions are required.

7.2 Most Important Talents

Utilising the O*NET database[1], in recent research Deloitte LLP have identified the top 25 most essential talents for the UK's workforce[2]. We reproduce their findings here in Table 7.2 on Page 78.

Deloitte's research shows that increased cognitive abilities and social skills are associated with an uplift in wages: a 10% increase in cognitive abilities equates to a 12% increase in median hourly earnings, whilst a 10% increase in social skills equates to a 10% increase. Deloitte's analysis demonstrates the correlation between the importance of certain skills (process skills, social skills, problem-solving skills and systems skills) with changes in employment. Over the last 15 years, jobs in which these skills are most important to the role have seen strong growth and those where they are least important seeing declines. On the other hand, jobs in which physical abilities, psychomotor abilities, sensory abilities and technical abilities are most important have seen the largest decreases in employment in the past decade, with stronger growth in roles where they are least important.

7.3 Transferable skills

By analysing the skills desired in advertised vacancies it is possible to gather a picture of the skills that are in greatest demand in the region. Data of these transferable (or non-specialised baseline) skills is presented in Table 7.3. Unsurprisingly Communication and Organisational skills are by far in greatest demand.

[1]O*NET: Occupational Information Network, US Department of Labor/Employment and Training Administration

[2]Deloitte LLP – Talent for Survival: Essential skills for humans working in the machine age July 2016

Table 7.3: Top 25 (non-specialised) skills in greatest demand across the Sheffield City Region

Skills	Job Postings
Communication Skills	5,607
Organisational Skills	3,883
Planning	1,767
Mathematics	1,623
Team Work/ Collaboration	1,523
Detail-Orientated	1,513
Writing	1,276
English	1,195
Problem Solving	1,031
Computer Skills	861
Research	840
Leadership	774
Creativity	725
Quality Assurance and Control	689
Management	669
Time Management	661
Meeting Deadlines	570
File Management	548
Positive Disposition	488
Multi-Tasking	406
Typing	392
Presentation Skills	379
Troubleshooting	339
Mentoring	331
Prioritising Tasks	276

Source: Labour Insight Jobs: Baseline Skills, May. 12, 2016 - Aug. 9, 2016

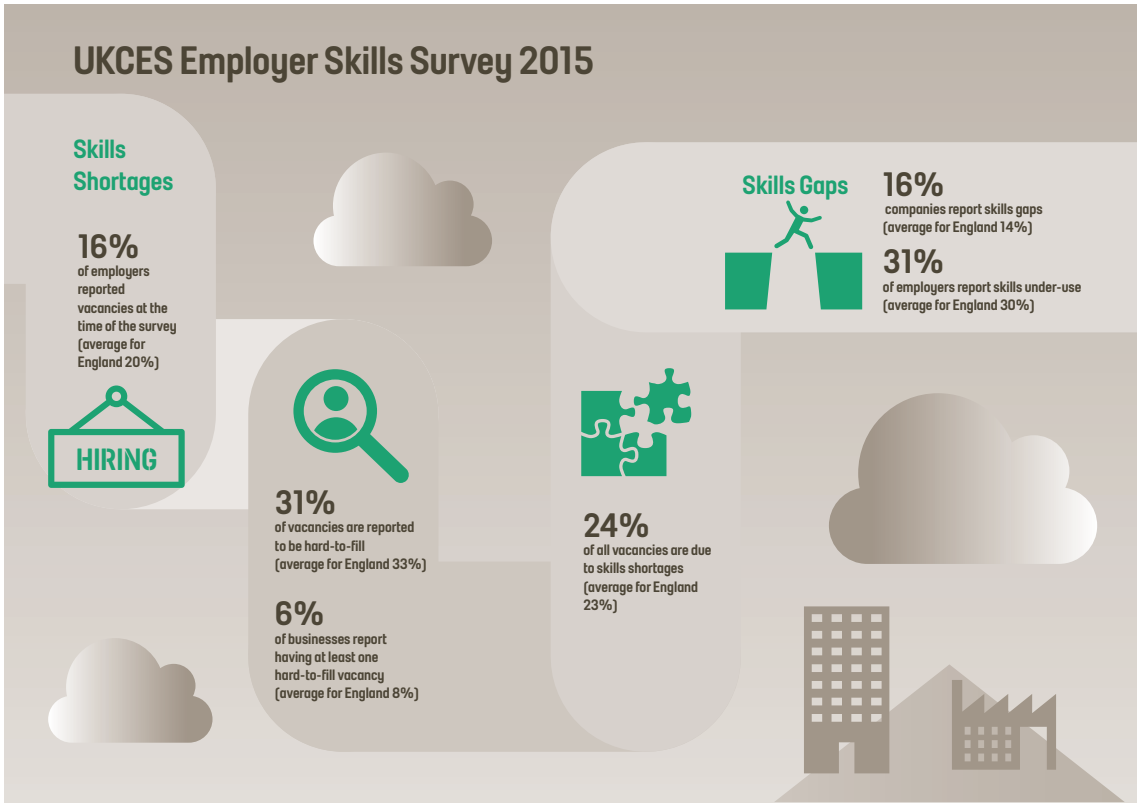
Table 7.2: Essential talents in the UK's workforce

Rank 2015	Rank 2001		Talent	Category	Description
1	2	△	Oral comprehension	Cognitive	The ability to listen to and understand information and ideas presented through spoken words and sentences
2	1	▽	Problem sensitivity	Cognitive	The ability to tell when something is wrong or is likely to go wrong
3	3	-	Oral expression	Cognitive	The ability to communicate information and ideas by speaking so others will understand
4	4	-	Near vision	Sensory	The ability to see details at close range
5	5	-	Deductive reasoning	Cognitive	The ability to apply general rules to specific problems to produce answers that make sense
6	6	-	Critical thinking	Process	Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems
7	8	△	Speaking	Content	Talking to others to convey information effectively
8	7	▽	Information Ordering	Cognitive	The ability to arrange things or actions in a certain order or pattern according to a specific rule or set of rules
9	10	△	Monitoriny	Process	Monitoring/assessing performance of yourself, other individuals or organisations to make improvements or take corrective action
10	9	▽	Active listening	Content	Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting
11	11	-	Speech recognition	Sensory	The ability to identify and understand the speech of another person
12	12	-	Speech clarity	Sensory	The ability to speak clearly so others can understand you
13	13	-	Category flexibility	Cognitive	The ability to generate or use different sets of rules for combining or grouping things in different ways
14	17	△	English language	Arts and Humanities	Knowledge of the structure and content of the English language including the meaning and spelling of words, rules of composition and grammar
15	16	△	Coordination	Social	Adjusting actions in relation to others' actions
16	14	▽	Inductive reasoning	Cognitive	The ability to combine pieces of information to form general rules or conclusions (includes finding a relationship among seemingly unrelated events)
17	15	▽	Written comprehension	Cognitive	The ability to read and understand information and ideas presented in writing
18	18	-	Reading comprehension	Content	Understanding written sentences and paragraphs in work-related documents
19	19	-	Social perceptiveness	Social	Being aware of others' reactions and understanding why they react as they do
20	21	△	Judgement and decision-making	Systems	Considering the relative costs and benefits of potential actions to choose the most appropriate one
21	20	▽	Time management	Resource Management	Managing one's own time and the time of others
22	23	△	Customer and personal service	Business and Management	Knowledge of principles and processes for providing customer and personal services
23	22	▽	Selective attention	Cognitive	The ability to concentrate on a task over a period of time without being distracted
24	24	-	Written expression	Cognitive	The ability to communicate information and ideas in writing so others will understand
25	25	-	Complex problem-solving	Complex problem-solving	Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions

Source: Deloitte, "Talent for Survival: Essential skills for humans working in the machine age", 2016

7.4 Skills Gaps

According to the UKCES Employer Skills Survey 2015, most employers report having a proficient workforce with no skills gaps. The number of companies reporting having skills gaps (16%) is higher than the average in England (14%). However, almost a third of employers (31%) report having underutilised staff, where the employee is over-skilled or over-qualified for their existing role.



7.5 Hard to Fill Vacancies

Skills in high demand include those related to positions proving most difficult for employers to fill. Data from the UKCES Employer Skills Survey (UKCES ESS) includes the number of employers that report having at least one vacancy that is proving "hard to fill" and the associated number of "hard-to-fill" vacancies. According to this data, around a third of all vacancies in the SCR are reported to be "hard-to-fill" (33% compared to a national figure of 28%) with 2-6% of businesses reporting concerns. A detailed breakdown for sectors is presented in Figure 7.3, showing the percentage of employers with at least one vacancy that is hard-to-fill for each sector in both the Sheffield City Region and England.

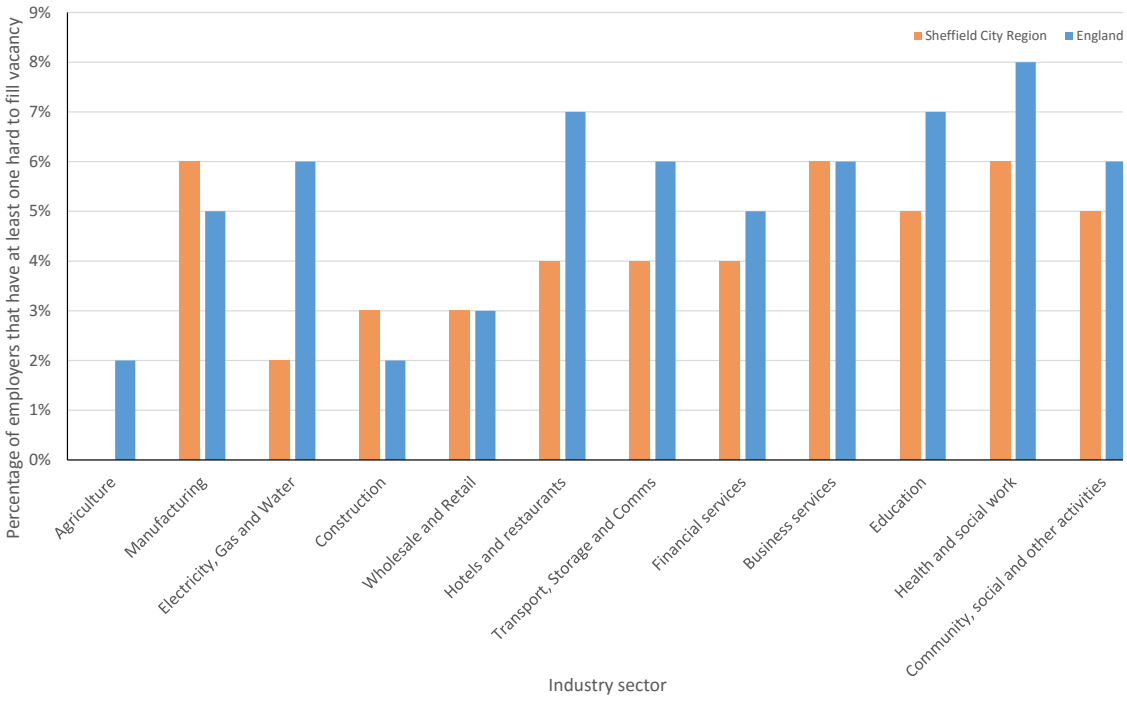


Figure 7.3: Percentage of hard to fill vacancies by industry sector in both the Sheffield City Region (orange) and England (blue). The average across all sectors is 5% for all of England and 4% for SCR. The figures for Mining and Quarrying and Public admin. are not presented as these are disclosive. Source: UK Commission for Employment and Skills' (UKCES) Employer Skills Survey (2013). Note: the 14 Industry sectors (12 of which are presented here) are those used in the UKCES ESS and are defined in Appendix A of the UKCES ESS technical report.
Source: UKCES Employer Skills Survey 2013

Within the UKCES ESS, companies who reported having "hard-to-fill" vacancies were asked for reasons as to why they thought that their positions were hard to fill. Unfortunately, the statistics at this level are not released for individual LEPs or districts, due to small response numbers. Therefore in Figure 7.4, we display the reasons given by national companies. Next to each bar, the average reasons per vacancy is shown. Nationally, the average number of reasons per vacancy is roughly 2, implying that hard-to-fill vacancies do, indeed, appear complicated; the problem is not just down to one or two reasons, but a complex mix of several reasons.

Future Project 7.1

This report has not undertaken any primary research and there exists limited research at the SCR level for skills gaps and difficulties for matching employers with employees. It is therefore recommended that some primary research is undertaken within the region to determine:

- Which companies and/or sectors are finding it hard to recruit?
- Which occupations are difficult to recruit into?
- What are the reasons for difficulty?
- Do employees find it hard to find certain employment? In which occupations or sectors?
- Are there specific skills gaps within SCR?
- Are there specific employment related barriers (e.g. offered or expected wages, location)?

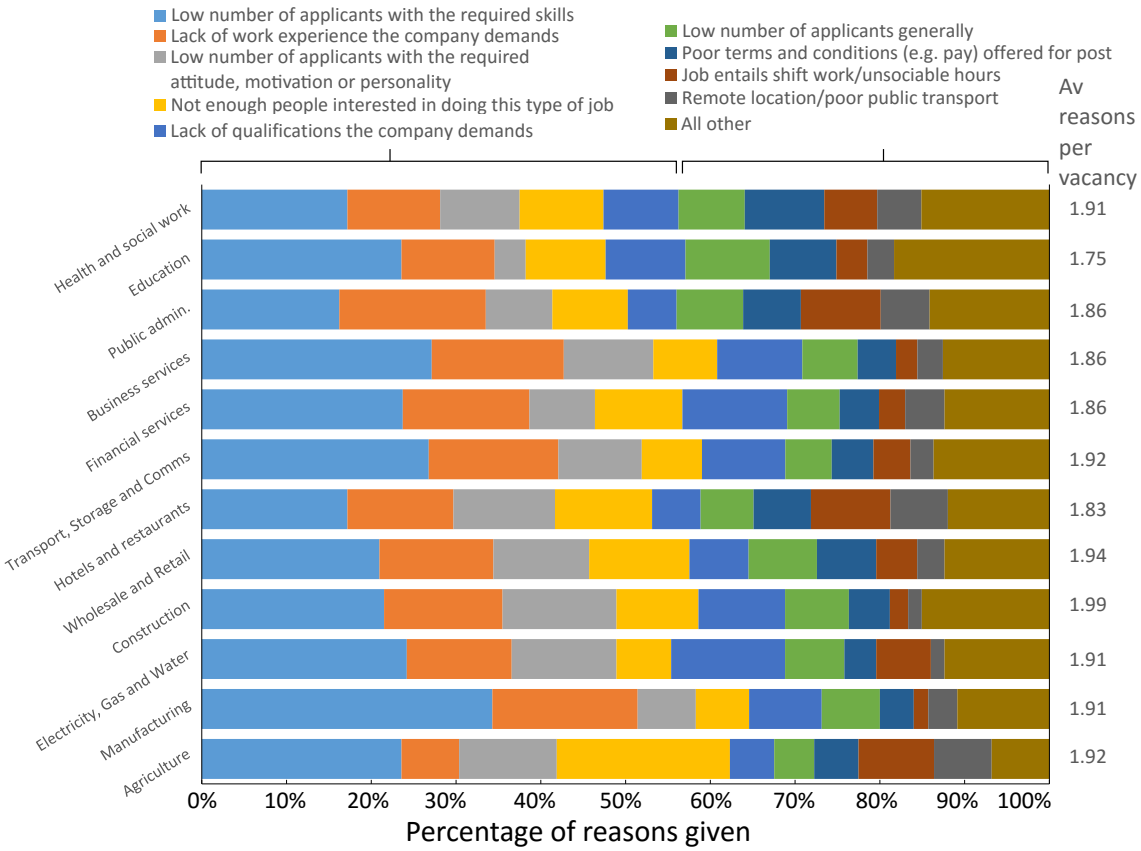


Figure 7.4: Reasons given by companies for "hard-to-fill" vacancies. Data is for all national companies and is not SCR specific, due to lack of responses.

8 Industry Breakdown

Summary

- The Business sub-sector is the driver of growth in the whole B.P.F. services sector
- The Employment sub-sector dominates the market of large companies (100+ employees) in B.P.F., but is insignificant amongst smaller companies (Figure 8.1)
- The Digital sub-sector is growing, the Creative sub-sector is shrinking.
- Healthcare technologies is niche (and slowly growing) within Sheffield but not within the Sheffield City Region as a whole, where we see shrinkage.
- Medium-tech manufacturing is the largest sub-sector within Manufacturing, but Advanced manufacturing dominates at the smaller company scale. See Table 8.5 and Figure 8.5

In this section, several key industry sectors are investigated further and analysis is provided on the sub-sectors within these sectors. The key sectors considered are:

- Business, Professional and Financial Services
- Creative and Digital Industries
- Healthcare Technologies
- Manufacturing

It is worth noting that a comprehensive review of the construction sector labour market was recently undertaken on behalf of the SCR byt the CITB (June 2016) and is the reason that this sector is not considered in this chapter.

8.1 Business, Professional and Financial services

The Business, Professional and Financial services sector can be broken down into four sub-sectors: Business, Employment, Financial and Professional (as outlined in Table 3.1).

8.1.1 Summary of previous analysis

The Business, Professional and Financial services sector:

- Is growing and has seen the largest absolute growth over the period 2010-2015, (13,300 jobs, 13% growth). The business sub-sector in particular has seen very high growth in past five years. See Table 5.3).
- Is the third largest sector by number of employees, behind Wholesale and Retail and Health and Social care
- Overall represents a smaller proportion of the labour market in SCR than the national average (although the Business sub-sector is equal to the national average). See Table 5.11.
- Is placed fifth when considering vacancies, which is strange seen as it is the largest growing sector. See Table 7.1.
- Has relatively low salaries overall, eleventh in terms of the median salary (£22k). However the Financial sub-sector is unsurprisingly very highly paid (median £37.1k), sitting second behind the very small sector of Mining and Quarrying. See Table 5.9 and Figure 5.7

8.1.2 Employees, growth and salaries by sub-sector

The number of jobs within each sub-sector is shown in Table 8.1. It is clear that there is a signficant number of jobs within the industry and, other than the Employment sub-sector, the sector is growing. The Business sub-sector is growing greatly and accounts for much of the sector's growth (11,000 jobs). As might be expected, the salaries are dominated by the Financial sub-sector (average of £37,130), with Business occupations being the lowest paid (average £17,440).

Table 8.1: Overview of jobs within sub-sectors of the B.P.F. sector

Sub-Sector	2010 Jobs	2015 Jobs	Change	Change %	Median salary
Business	32,500	43,510	11,010	33.9%	£17,440
Employment	19,540	18,780	-760	-3.9%	£19,730
Financial	16,610	17,440	830	5.0%	£37,130
Professional	34,360	36,553	2,193	6.4%	£21,240
B.P.F. services	103,010	116,280	13,270	12.9%	£21,960

Source: EMSI Q1 dataset.

8.1.3 National gender breakdown

There is an approximate equal ratio of males to females within the sector, though the Employment sub-sector seems to have more females in general. These figures represent a national profile though and may differ in the region itself.

Table 8.2: National gender breakdown of the B.P.F. services sector

Sub-sector	National male %	National female %
Business	55%	45%
Employment	38%	62%
Financial	55%	45%
Professional	45%	55%
B.P.F. services	49%	51%

Source: EMSI Q1 dataset.

8.1.4 Company sizes by sub-sector

Using the piechart of Figure 5.2, we looked at number of companies at different size scales. This can be done for the B.P.F services sector as a whole, splitting into the sub-sectors and this is presented as Figure 8.1 below. It is apparent that there are a small number of companies within the Financial sub-sector. Enterprises within the Business and Professional sub-sectors cover almost all sizebands (except 250-499 employees), whilst the Employment sub-sector is typically made up of larger companies (more than 20 employees) and dominates the much larger enterprises in this sector.

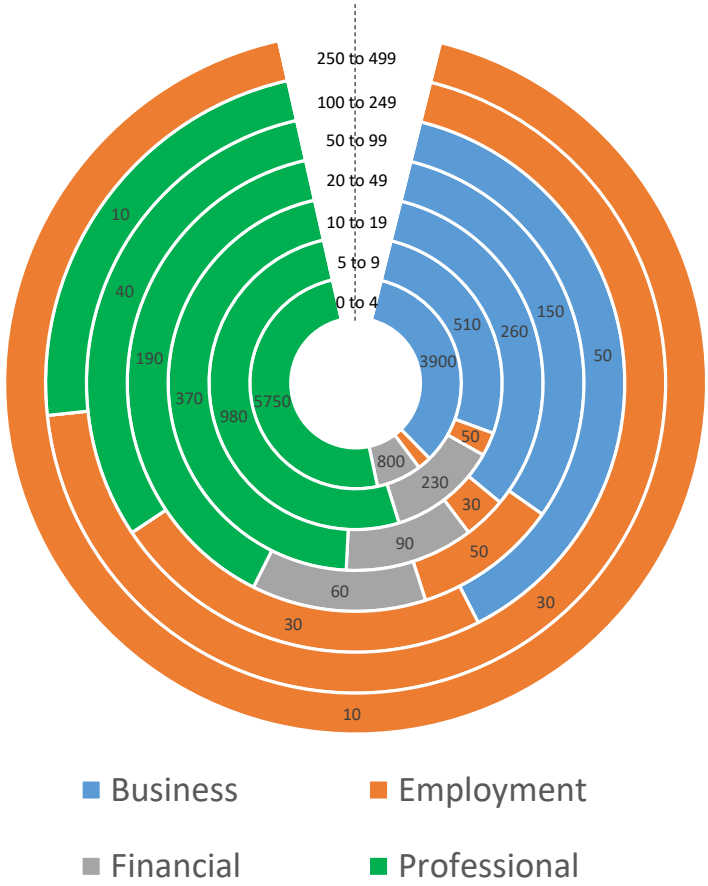


Figure 8.1: Number of companies of particular sizes (by number of employees) for the different sub-sectors within Business, Professional and Financial services in the Sheffield City Region. The radial axis (shown by the dashed black line) displays the company size, the innermost ring being the smallest companies (0 to 4 employees) and as we move out the company size increases as shown. The colours in the legend correspond to the different industry sectors. Numerical values for certain data points are shown for a sense of scale. Numbers have been rounded. Source: ONS; Inter-Departmental Business Register (IDBR) (2015)

8.2 Creative and Digital Industries

Creative and Digital Industries (CDI) sector is naturally broken down into the two sub-sectors: Creative and Digital.

8.2.1 Summary of previous analysis

The Creative and Digital sector is:

- Tenth largest sector by number of jobs, behind Logistics and Construction
- Overall saw a small shrinkage of 1.6% (413 job losses) over the period 2010-2015

- Seventh amongst the other sectors when considering vacancies.

8.2.2 Employees, growth and salaries by sub-sector

The breakdown of jobs within each sub-sector of the CDI sector is shown in Table 8.3. Whilst the whole sector is shrinking in terms of jobs, it is noticeable that the Digital sub-sector is growing (2,120 jobs created representing a growth of 14.1%) and the Creative sub-sector is responsible for the overall shrinkage with a loss of 2,530 jobs (23.4% shrinkage). Salaries within the Digital sub-sector are a little higher than the sector average. Due to the direct disparity between the sub-sectors, it raises the question as to whether the sector should be considered as two separate entities within the Sheffield City Region, such that confusion does not arise.

Table 8.3: Overview of the CDI sector

Sub-Sector	2010 Jobs	2015 Jobs	Change	Change %	Median salary
Creative	10,837	8,305	-2,532	-23.4%	£26,020
Digital	14,998	17,116	2,118	14.1%	£27,756
CDI	25,834	25,421	-413	-1.6%	£27,189

8.2.3 National gender breakdown

The CDI sector is heavily over-represented by males, though it is mainly the Digital sub-sector that leads this trend, with 77% of employees being male. Once again, this is a national profile, so the representation in the SCR may be different.

Table 8.4: National gender breakdown of the CDI sector

Sub-sector	National male %	National female %
Creative	59%	41%
Digital	77%	23%
CDI	69%	31%

Source: EMSI Q1 dataset.

8.2.4 Company sizes by sub-sector

The number of companies within employee size bands is shown for the two sub-sectors in Figure 8.2. It is very clear that the majority of CDI enterprises within SCR are within the Digital sub-sector.

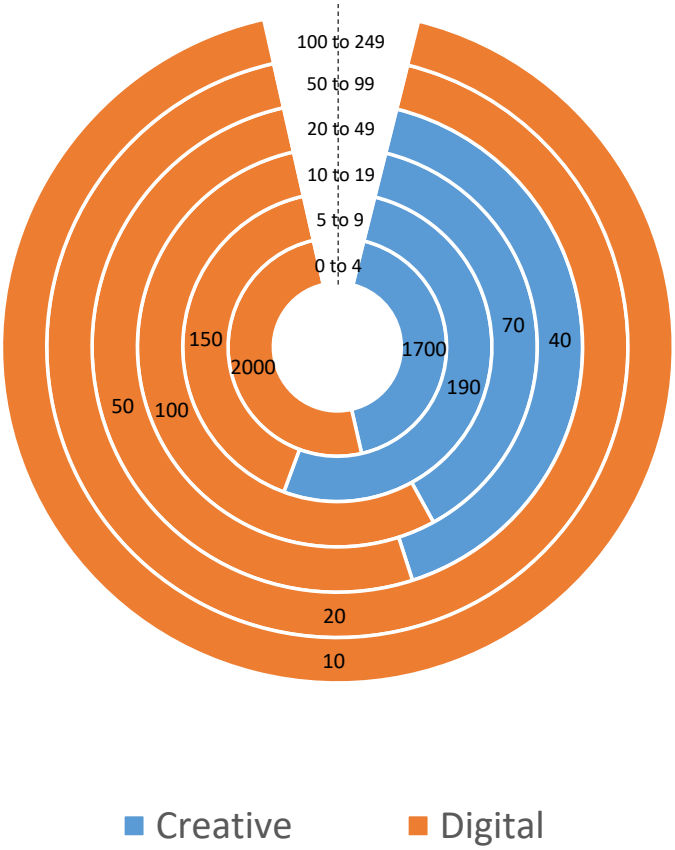


Figure 8.2: Number of companies of particular sizes (by number of employees) for the different sub-sectors within CDI in the Sheffield City Region. Source: ONS; Inter-Departmental Business Register (IDBR) (2015)

8.3 Healthcare technologies

Healthcare technologies is defined as a cross-sector and 'borrows' from the Advanced Manufacturing sub-sector and the Science and Research sector. As it is a cross-sector, no analysis has been presented as of yet in this report.

8.3.1 Overview of employees, growth and salary in the SCR

A summary of the Healthcare Technologies cross-sector shows:

- There were 3,530 employees in 2010, dropping to 3,130 in 2015[1].
- It is expected to grow slightly to 3,280 by 2020[1].
- The average salary for 2015 was £27,265[1].

[1]Source: EMSI Q1 dataset

- The national gender breakdown for this cross-sector is 58% male and 42% female.

8.3.2 Location quotient

Across the whole sector and according to EMSI data[1], SCR is lacking in Healthcare Technology industries, with a Location Quotient (LQ) of 0.63[2]. However, industries within Sheffield score 1.37. For the SIC 3250 - (Manufacture of medical and dental instruments and supplies) the LQ is 1.59 for SCR and 3.99 for Sheffield. This represents a significant niche industry.

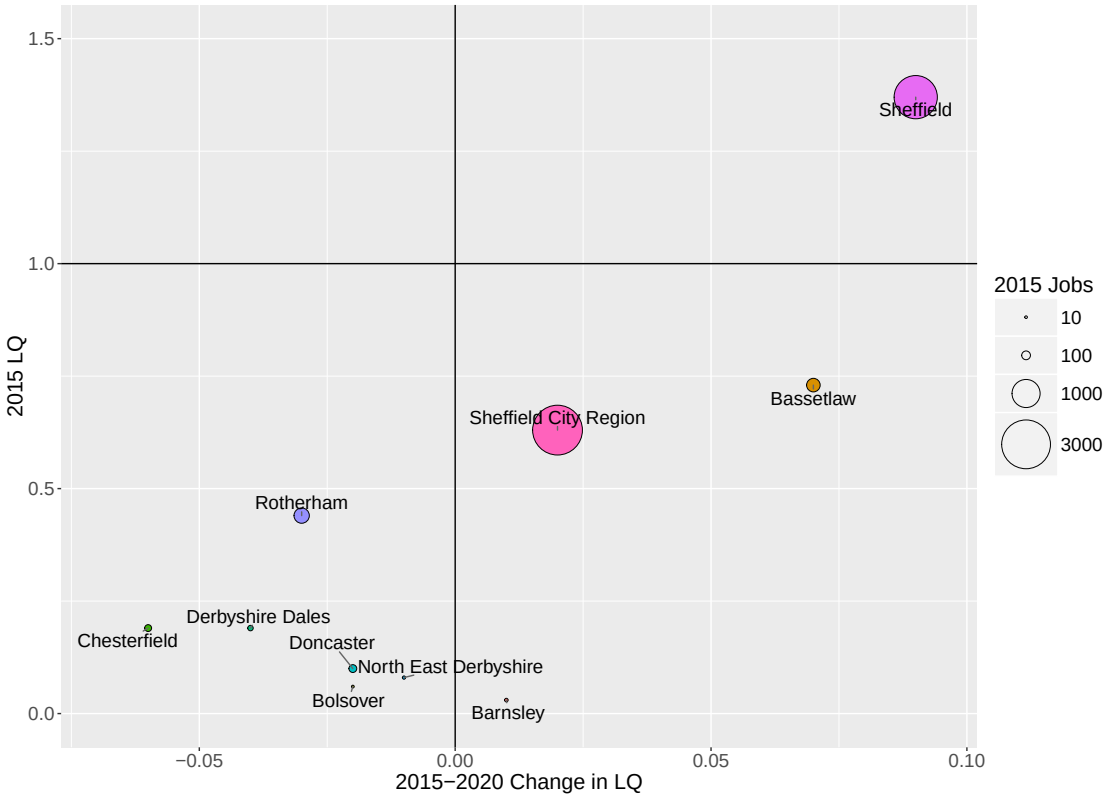


Figure 8.3: Location Quotient (LQ) for Healthcare Technologies split by SCR district and change in LQ

8.4 Manufacturing

The Manufacturing sector can be split up into three sub-sectors: Low tech, Medium tech and Advanced manufacturing.

[1]Source: EMSI Q1 dataset

[2]The Location Quotient quantifies the concentration of a particular industry in a region as compared to the nation. It can reveal what makes a particular region "unique" in comparison to the national average. A value of 1 represents the national average. A value less than 1 indicates a lower concentration, whilst higher number indicates a higher concentration.

8.4.1 Summary of previous analysis

The Manufacturing sector:

- Is the fourth largest sector by 2015 jobs, behind B.P.F. services
- Has seen 8.7% growth over period 2010-15, but this is not expected to continue with job losses predicted
- Medium-tech Manufacturing offers slightly better pay than Advanced Manufacturing
- Low- and Medium-tech Manufacturing are considered niche in SCR with LQs of 1.26 and 2.27 respectively
- Advanced Manufacturing is lacking in SCR (LQ of 0.78)

8.4.2 Employees, growth and salaries by sub-sector

The number of jobs and historic growth are shown for each sub-sector in Table 8.5. The greatest growth is seen in Medium-tech Manufacturing, which had a growth in jobs of 18% and the highest average salary (£30,133). Advanced Manufacturing has a similar level of average salary (£29,238) but showed a loss of jobs (-551 jobs) between 2010 and 2015. A modest growth was observed in Low-tech Manufacturing.

Table 8.5: Overview of the Manufacturing sector

Sub-Sector	2010 Jobs	2015 Jobs	Change	Change %	Median salary
Low-tech	21,957	23,125	1,168	5.3%	£21,069
Medium-tech	36,911	43,538	6,627	18.0%	£30,133
Advanced	23,921	23,370	-551	-2.3%	£29,238
Manufacturing	82,789	90,032	7,243	8.7%	£27,573

Source: EMSI Q1 dataset.

8.4.3 National gender breakdown

As might be expected, the sector is heavily over-represented by males at 76% of all employees.

Table 8.6: National gender breakdown of the Manufacturing sector

Sub-sector	National male %	National female %
Low-tech	67%	33%
Medium-tech	83%	17%
Advanced	77%	23%
Manufacturing	76%	24%

Source: EMSI Q1 dataset.

8.4.4 Salaries within Manufacturing

The range of salaries for this sector are shown in Figure 8.5. The median salary in Medium-tech manufacturing is higher than that of Advanced. Low-tech manufacturing has a muchn lower average salary much lower than the other two.

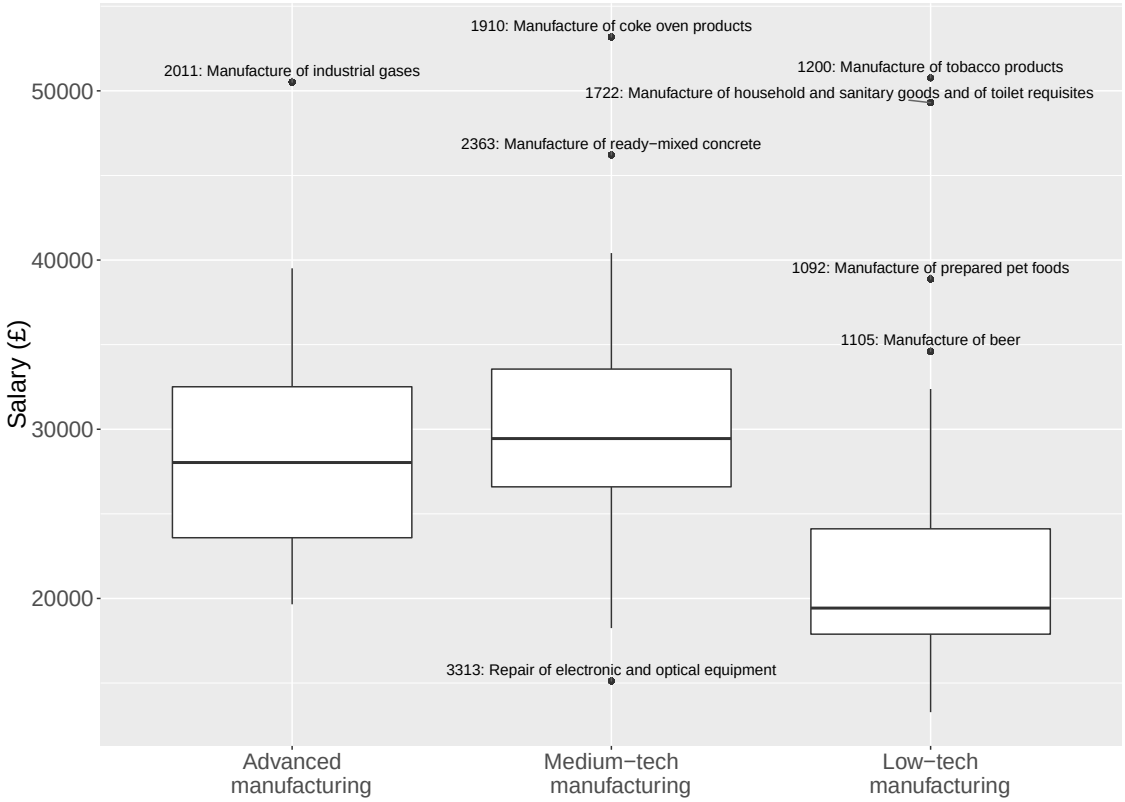


Figure 8.4: Boxplot showing salaries within Manufacturing for Sheffield City Region. The band inside each box is the median current salary, the top and bottom of the boxes are the 75th and 25th percentiles respectively. The whiskers extend to the lowest datum within 1.5 times the inter-quartile range (the range between 75th and 2th percentiles). Outliers that lie outside of this are plotted as black circles. Source: EMSI Q1 dataset

8.4.5 Company sizes by sub-sector

The breakdown of enterprises within the Manufacturing sub-sectors are shown in Figure 8.5. The majority of enterprises are within the Medium-tech sub-sector, which comprises all sizes of companies. The Low-tech sub-sector has a minority of smaller companies. The Advanced Manufacturing sub-sector has a considerable number of micro enterprises (0-9 employees), though it has around a third of all other-sized enterprises.

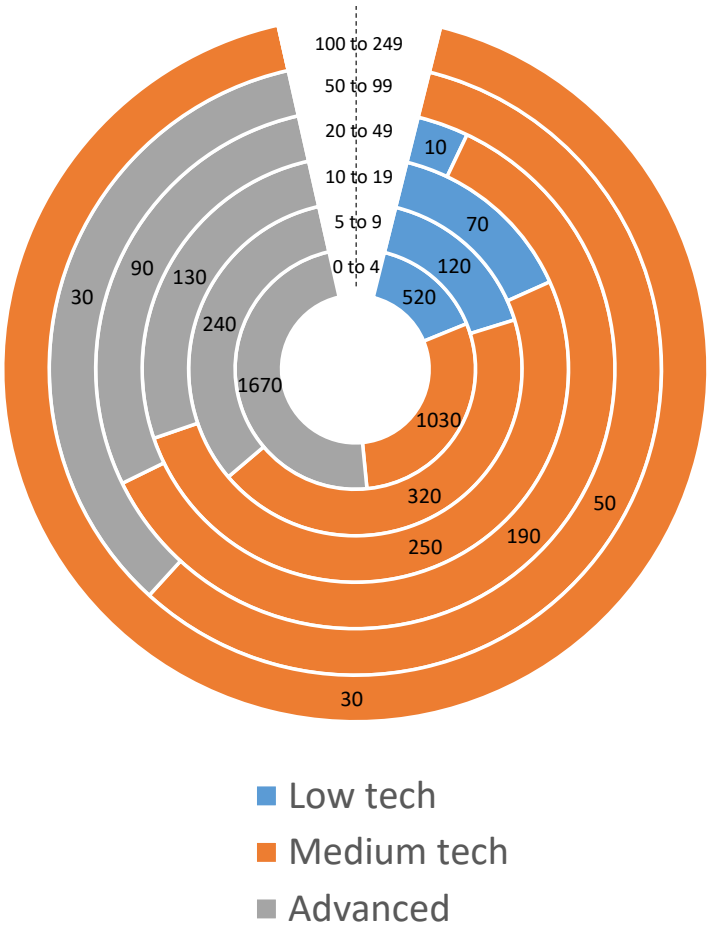


Figure 8.5: Number of companies of particular sizes (by number of employees) for the different sub-sectors within Manufacturing in the Sheffield City Region. Source: ONS; Inter-Departmental Business Register (IDBR) (2015)

9 SCR Supply of Skills

Summary

- 61% of all SCR secondary schools are rated Outstanding or Good, whilst 23% require improvement or are Inadequate.
- Approximately 6,500 people leave education at 19 years each year without a Level 2 qualification in Maths or English.
- SCR Average Point Score in 16-18 education falls below the UK average in almost all statistics.
- Science subjects top the list of highest attainment in A'levels, whilst few students study Business, IT or Computing.
- The majority of FE Education & Training learning aims are taught at NVQ Levels 0-1, with very little provision at Level 3+.
- Adult Community Learning and ESF courses are almost all at Level 0-1.
- Workplace provision is mainly at NVQ Level 2.
- The highest numbers of apprentices in SCR are in Business, Retail, Engineering & Manufacturing and Health care.
- Building and Construction apprenticeships are in steady decline since 2011/12.
- Only 3.5% of Apprenticeships are Higher Level.
- There is a significant under-representation of BAME apprentices, especially within Engineering, Construction and Retail apprenticeships.
- There is a significant over-representation of BAME within workplace learning.
- 70,000 unique applications are made to SCR HE institutions each year, the majority to the two universities (98%).
- According the UKCES, 47% of all employers wanted to provide more training.
- 388 employers have completed skills deals with the SCR Skills Bank.

9.1 Secondary Schools

Within the SCR, there are 133 secondary schools, of which 24 have been rated as Outstanding by Ofsted. At the other end, 25 require improvement and 5 were deemed inadequate. There are no Ofsted reports for 24 schools, many of which are new academies. Table 9.1 details the full breakdown. The full list of schools and their Ofsted ratings is included in Appendix D.

Table 9.1: Ofsted ratings for secondary schools with Sheffield City Region

Ofsted Rating	Barnsley	Doncaster	Rotherham	Sheffield	Bassetlaw	Bolsover	Chesterfield	Derbyshire Dales	NE Derbyshire	**SCR total**
Outstanding	2	5	3	7	2	2	2	0	1	**24**
Good	4	7	15	16	4	1	4	4	0	**55**
Requires Improvement	3	8	1	4	1	3	3	0	2	**25**
Inadequate	0	2	1	2	0	0	0	0	0	**5**
No Ofsted assessment published	10	3	2	5	0	0	1	0	0	**21**
TOTAL	**19**	**25**	**22**	**34**	**7**	**6**	**10**	**4**	**3**	**130**

Source: EduBase and individual school websites.
The list of schools included in this table is given in Appendix D.

9.2 GCSE Results

Provisional results for 2016 GCSE attainment in Sheffield City Region are available. The statistics for numbers of pupils gaining Grade A*-C in English and maths GCSEs are shown in Table 9.2, along with percentage of pupils achieving 5+ GCSEs including maths and English. Overall, the SCR results have improved since 2014/15 and are slightly ahead of the England average, but lower than the state-funded average: in SCR, the percentage of pupils who achieved 5+ A*-C GCSEs was 54.8%, which is higher than in 2014/15 (53.6%), higher than the national average (52.8%) but lower than the state-funded average (57.0%). Further, 60.3% achieved A*-C in English and maths GCSEs in SCR compared to an England average of 58.7% and state-funded average of 62.8%. Results are shown graphically in Figure 9.1.

For reference, we have also included the figures for the "Progress 8" and "Attainment 8" measures, which were introduced by the Department for Education, but only implemented in 2016. According to the Department for Education:

> Progress 8 aims to capture the progress a pupil makes from the end of primary school to the end of secondary school. It is a type of value added measure, which means that pupils' results are compared to the actual achievements of other pupils with the same prior attainment.

Table 9.2: Provisional 2016 GCSE results in SCR

Region/Local Authority	Number of pupils at the end of key stage 4	A*-C in English and maths GCSEs		English Baccalaureate		Percentage of pupils at the end of key stage 4 achieving 5+ A*-C grades including English and mathematics GCSEs				
		Pupils entered for components	Pupils who achieved	Pupils entered for all components	Pupils who achieved	2011/12	2012/13	2013/14	2014/15	2015/16
Total (state-funded sector)	**538,623**	**96.8**	**62.8**	**39.7**	**24.6**	**59.1**	**60.8**	**56.8**	**57.3**	**57.0**
England	**603,203**	**90.6**	**58.7**	**36.6**	**22.8**	**59.4**	**59.2**	**53.4**	**53.8**	**52.8**
Barnsley	2,091	97.4	58.4	28.6	17.5	45.3	50.3	47.1	49.5	54.7
Doncaster	3,025	95.3	59.0	27.4	15.8	54.7	56.6	49.4	50.1	54.5
Rotherham	3,335	97.5	61.3	31.2	19.7	60.0	63.6	57.3	55.2	57.5
Sheffield	5,251	96.1	58.8	39.3	21.6	55.6	57.3	53.9	54.0	52.8
Derbyshire	7632 [1]	97.7	62.0	30.9	18.8	57.2	59.1	53.7	55.9	53.8
Nottinghamshire	7893 [2]	97.9	65.6	40.8	25.1	60.6	63.4	58.0	57.0	59.6
Estimated SCR	18,244	96.8	60.3	33.2	19.5	55.7	58.3	53.2	53.6	54.8

Source: Department for Education.
1: Of which 3,358 are expected within the SCR (44%)
2: Of which 1,184 are expected within SCR (15%)

Attainment 8 will measure the achievement of a pupil across 8 qualifications including mathematics (double weighted) and English (double weighted), 3 further qualifications that count in the English Baccalaureate (EBacc) measure and 3 further qualifications that can be GCSE qualifications (including EBacc subjects) or any other non-GCSE qualifications on the DfE approved list.

Progress 8 and Attainment 8 results are shown in Table 9.3.

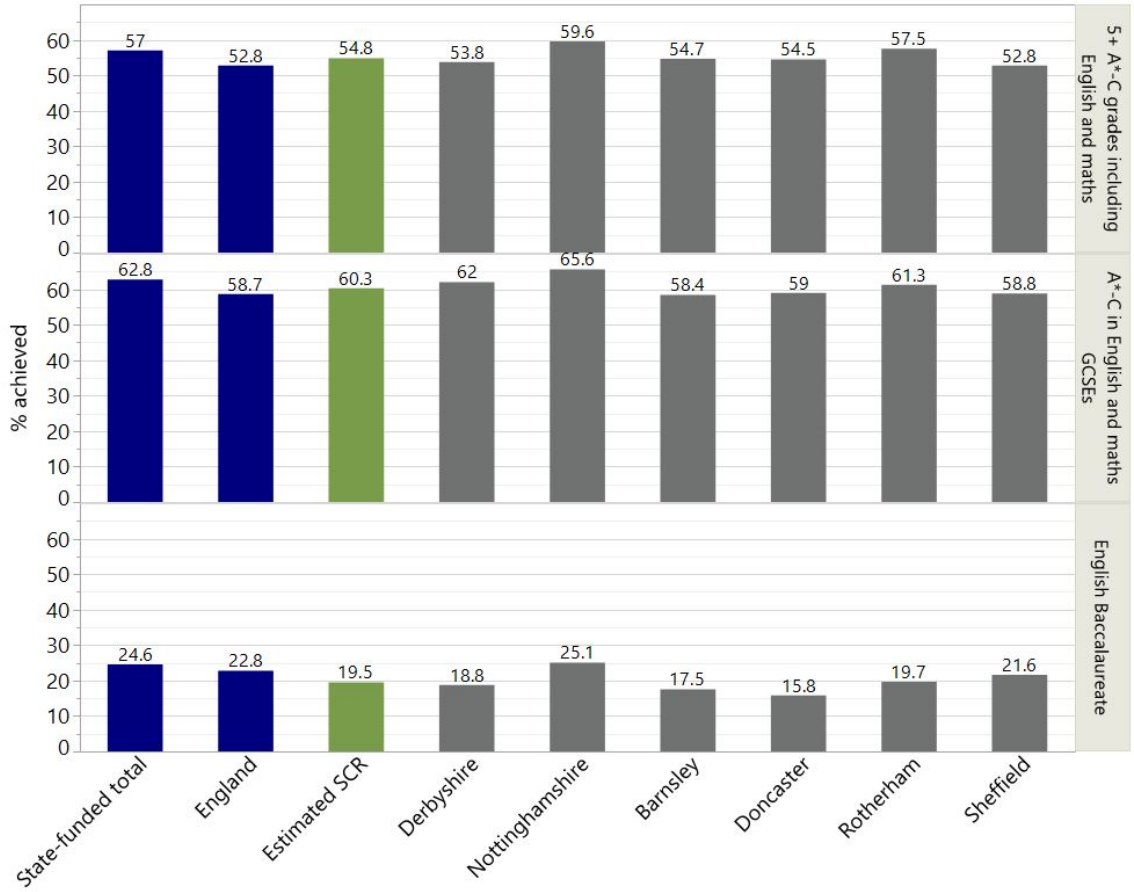


Figure 9.1: The achievement of A*-C in Maths and English GCSE or equivalent at Key Stage 4 in SCR in 2014/15. Source: Department for Education

Table 9.3: Provisional 2016 Progress 8 and Attainment 8 results in SCR

Region/Local Authority	Progress 8				Average Attainment 8 score per pupil	
	Number of pupils included in the measure	Average Progress 8 score [1]	*Lower confidence interval*	*Upper confidence interval*	2014/15 [4]	2015/16
Total (state-funded sector)	**512,368**	**-0.03**	**.**	**.**	**48.6**	**49.9**
England	**.**	**.**	**.**	**.**	**47.4**	**48.2**
Barnsley	2,042	-0.21	*-0.26*	*-0.17*	44.3	47.3
Doncaster	2,927	-0.21	*-0.25*	*-0.17*	44.2	46.8
Rotherham	3,256	0.03	*-0.01*	*0.07*	46.1	48.5
Sheffield	5,021	0.01	*-0.02*	*0.04*	47.2	48.1
Derbyshire	7507 [3]	-0.27	*-0.29*	*-0.24*	47.6	48.9
Nottinghamshire	7701 [4]	-0.04	*-0.07*	*-0.02*	47.8	50.6
Estimated SCR	17704	-0.10	*-0.14*	*-0.07*	46.3	48.2

Source: Department for Education.

1: A Progress 8 score of 1.0 means pupils in the group make on average a grade more progress than the national average; a score of -0.5 means they make on average half a grade less progress than average. Progress 8 scores should be interpreted alongside the associated confidence intervals. If the lower bound of the confidence interval is greater than zero, it can be interpreted as meaning that the group achieves greater than average progress compared to pupils in mainstream schools nationally and that this is statistically significant. If the upper bound is negative, this means that the group achieves lower than average progress compared to pupils in mainstream schools nationally and that this is statistically significant.

2: In 2015 schools could opt in to the new performance measures. 327 schools chose to do so. This data reflects the results of all schools, not just the opt-in schools. The 2015 data will, therefore, not reflect behavioural change in line with the new performance measures for the majority of schools.

3: Of which 3,308 are expected within the SCR (44%)

4: Of which 1,155 are expected within SCR (15%)

9.3 Maths and English: Rates of Level 2 attainment (GCSEs and equivalent)

It is beneficial to understand the numbers of young people (16-19 years old) who do or do not hold a Level 2 qualification in Maths and/or English.

Statistics on the number of entrants and level of achievement is available from the Department of Education and are summarised in Table 9.4. Of approximately 19,000 pupils in the SCR who are entered for GCSE Maths and English, 56% achieve grades A*-C, leaving 7,900 pupils at end of Key Stage 4 (KS4) who do not achieve this grade or equivalent.

In Table 9.4, we have also estimated the numbers of 16-18 year olds who attempt further study in both Maths and English. These estimates are based on experimental statistics (released by the Department for Education) regarding the numbers of individuals returning to study Maths and English between ages of 16 - 18 (who have not previously obtained it). These regional figures are only available for 2014/15 academic year, where it can be seen that:

- 61.1% of individuals not having previously achieved Level 2 English return to study English
- 63.0% of individuals not having previously achieved Level 2 Maths return to study Maths
- 25.0% of individuals not having previously achieved Level 2 English gain a Level 2 English qualification

Table 9.4: Key Stage 4 attainment in and 16-18 further study of Maths and English in SCR.

Region / LA	Number of pupils at the end of key stage 4	A*-C in English and mathematics GCSEs including equivalents [1]		Number of 16 year olds not attaining GCSE A*-C or or other Level 2 qualifications in English and maths	Estimated Numbers of 16-18 years old			
		Per cent entered	Per cent achieved		Further study in English (61.1%)	Further achieve-ment in English (25%)	Further study in Maths (63.0%)	Further achieve-ment in Maths (13.7%)
England	**611,081**	**90.0**	**55.8**	**217,010**	132600	54250	136700	29750
Derbyshire	8,060	95.8	58.7	3,165	1950	800	2000	450
Nottinghamshire	8,193	96.0	59.7	3,165	1950	800	2000	450
Derbyshire in SCR (44%) [2]	3,546	95.8	58.7	1,393	850	350	900	200
Nottinghamshire in SCR (15%) [2]	1,229	96.0	59.7	475	300	100	300	50
Barnsley	2,269	97.1	52.2	1,245	750	300	800	150
Doncaster	3,259	95.3	52.9	1,395	850	350	900	200
Rotherham	3,315	95.3	57.9	1,260	750	300	800	150
Sheffield	5,298	95.7	55.7	2,130	1300	550	1350	300
Estimated SCR	**18,916**		**56.0**	**7,897**	**4850**	**1950**	**5000**	**1100**

Source: Department for Education.

1: Figures have been taken from 2014/15 statistics, due to availability of data for further study and comparability

2: SCR statistics have been estimated using 16-18 population statistics.

Table 9.5: Qualification statistics of 19 year olds (Level 2 or 3) in SCR (2014/15).

LA Region	Population of 19 years olds	Percentage of 19 year olds qualified to Level 2	Percentage of 19 year olds qualified to Level 2 with English and Maths	Percentage of 19 year olds qualified to Level 3	Number of 19 years olds not qualified to Level 2 with English and Maths
England	**562,620**	**86.0**	**67.9**	**57.4**	**180,601**
Derbyshire	8,295	85.3	68.0	54.0	2,663
Nottinghamshire	8,740	83.2	66.5	50.4	2,806
Derbyshire in SCR (44%)	3,650	-	-	-	1,172
Nottinghamshire in SCR (15%)	1,311	-	-	-	421
Barnsley	2,570	81.6	63.0	45.7	825
Doncaster	3,485	81.3	63.0	47.7	1,119
Rotherham	3,530	82.7	66.7	51.5	1,133
Sheffield	5,435	82.4	65.6	55.4	1,745
SCR Estimate	**19,981**	**82.7**	**65.5**	**51.5**	**6,897**

Source: Department for Education

Total statistics, including breakdoThe achievement of A*-C in Maths and English GCSE or equivalent at Key Stage 4 in SCR in 2014/15wn by eligibility for Free School Meals (FSM) can be found in Appendix E

- 13.7% of individuals not having previously achieved Level 2 English gain a Level 2 Maths qualification

Due to statistics for further study of English and Maths only being available in 2014/15 (not for 2015/16 yet), we have used full statistics for 2014/15, despite provisional 2016 Key Stage 4 results being available. This ensures comparability across the whole dataset, but it should be noted that data will not agree with that in Table 9.2. It can be estimated from these numbers that approximately 6,500 19 year olds do not have a Level 2 Maths and English qualification in the Sheffield City Region.

The statistics of 19 year olds who attain GCSE (or equivalent) Maths and English are detailed in Appendix E.

The qualification level of 19 year olds in the SCR is shown in Table 9.5. Of all 19 year olds in the SCR, 6,900 do not hold a Level 2 qualification in Maths and English. However, 82.7% of 19 year olds hold a Level 2 and 51.5% are qualified to Level 3. The statistics are shown graphically in Figure 9.2.

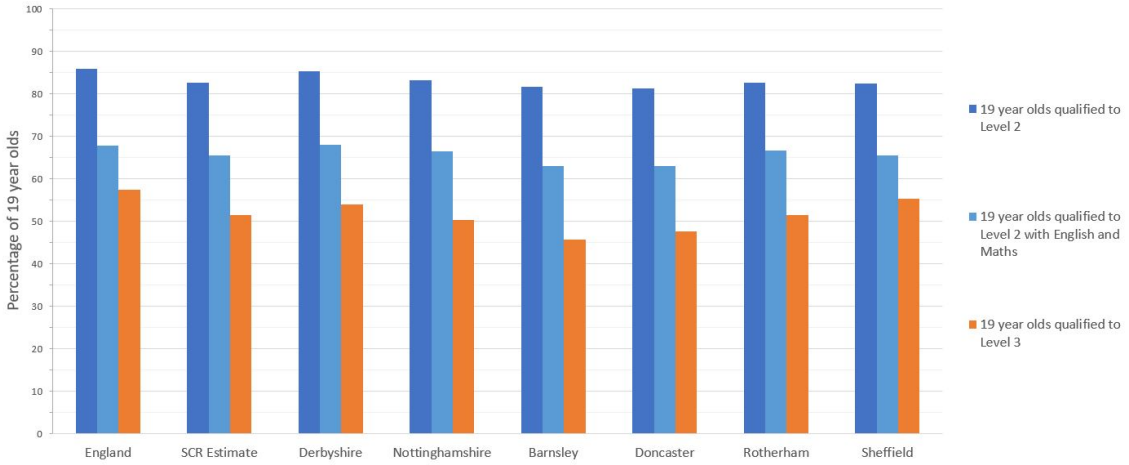


Figure 9.2: The qualification level of 19 year olds within Sheffield City Region. Source: Department for Education

9.4 16-18 Provision

Each year, the Department of Education (DfE) publish the statistics on educational attainment for 16-18 year provision. The data is split into several categories of provision, as defined by DfE:

Level 3 students Covers students at the end of advanced level study who were entered for at least one academic qualification equal in size to at least half an A level or an extended project, or applied general or tech level qualification during their 16-18 study.

Academic students Covers students at the end of advanced level study who were entered for at least one academic qualification at least half the size of an A level

A'level students Covers students at the end of advanced level study who were entered for at least one academic qualification at least half the size of an A level or an Extended Project Qualification during 16-18 study.

Technical Level students Covers students at the end of advanced level study who were entered for at least one technical level qualification during 16-18 study.

Applied General students Covers students at the end of advanced level study who were entered for at least one applied general qualification during 16-18 study.

TechBacc students The TechBacc is awarded to students taking advanced programmes of study who achieve a Tech Level, Level 3 maths and Extended Project Qualification.

The statistics are aggregated by Local Authority and individual districts are not separated. It is therefore not easy to identify an SCR value for each measure. However, from 16-18 population statistics, a representative proportion of Nottinghamshire and Derbyshire has been identified. These figures have been used to estimate SCR statistics.

The statistics for Level 3 and Academic students are given in Table 9.6. Whilst the Average Point Score (APS) for Level 3 students is comparable within all districts, the SCR average falls below the England average (30.21 compared to 32.23). The same is true for Academic students: the SCR average APS as a grade is C, compared to C+ for England, with Barnsley and Doncaster falling to an average of C-.

For A'level students (Table 9.7), attainment is again below the national average, with students gaining an average APS of 28.93 (C grade equivalent) per entry (compared to an England average of 31.52 or C grade). When considering students who have been entered for at least 3 A'levels, the figures improve for the "best 3" figures: on average each student achieves an APS of 32.38 (or C+), compared to an England average of 34.64 (also C+).

Considering the attainment of technical and general students in Table 9.8, the SCR average is much closer numerically to the England average (29.09 compared to 30.83), though the grade equivalent lies across the boundary (Merit+ in SCR

Table 9.6: Attainment of Level 3 and Academic state-funded students aged 16-18

	Level 3 students		**Academic students**		
	Number of students	APS per entry	Number of students	APS per entry	APS per entry as a grade
England	**454,116**	**32.23**	**338,563**	**31.83**	**C+**
Derbyshire	3,692	29.38	2,949	29.20	C
Nottinghamshire	4,944	30.23	3,582	30.21	C
Derbyshire in SCR (44%)	1624	29.38	1298	29.20	C
Nottinghamshire in SCR (15%)	742	30.23	537	30.21	C
Barnsley	1,538	30.32	641	25.42	C-
Doncaster	1,800	30.50	1,349	28.10	C-
Rotherham	2,340	30.04	1,674	28.67	C
Sheffield	3,634	30.50	2,348	30.42	C
SCR Estimate	11,678	30.21	7,847	29.02	C

Source: Department for Education.
APS: Average Point Score
For Derbyshire and Nottinghamshire districts, SCR statistics have been estimated using 16-18 population statistics.

Table 9.7: Attainment of A'level state-funded students aged 16-18

	A level students							
	Number of students	APS per entry	APS per entry as a grade	Number of students entered for one or more A level or applied A level 11	APS per entry, best 3	APS per entry, best 3 as a grade	Percentage of students achieving 3 A*-A grades or better at A level	Percentage of students achieving grades AAB or better at A level
England	**333,392**	**31.52**	**C**	**229,341**	**34.64**	**C+**	**12.9**	**21.6**
Derbyshire	2,934	29.12	C	2,063	32.12	C+	8.6	16.3
Nottinghamshire	3,579	30.09	C	2,286	33.42	C+	9.3	17.7
Derbyshire in SCR (44%)	1291	29.12	C	908	32.12	C+	8.6	16.3
Nottinghamshire in SCR (15%)	537	30.09	C	343	33.42	C+	9.3	17.7
Barnsley	641	25.40	C-	367	31.71	C+	4.4	7.6
Doncaster	1,342	28.05	C-	775	30.89	C	6.3	13.2
Rotherham	1,673	28.61	C	922	31.75	C+	7.2	14.8
Sheffield	2,333	30.28	C	1,549	33.59	C+	12.6	19.6
SCR Estimate	7,817	28.93	C	4,864	32.38	C+	8.97	16.01

Source: Department for Education.
APS: Average Point Score
For Derbyshire and Nottinghamshire districts, SCR statistics have been estimated using 16-18 population statistics.

compared to Dist- for England). This is also true for applied general students, who achieve Distinction on average in both SCR and across England. It should be noted that the number of students entered for these qualifications is significantly lower than for A'levels, Level 3 or Academic qualifications. The number of students undertaking the TechBacc is incredibly low, approximately only 10 in the whole region.

Table 9.8: Attainment of Technical and General state-funded students aged 16-18

	Tech level students			**Applied General students**			**TechBacc**[3]
	Number of students	APS per entry	APS per entry as a grade	Number of students	APS per entry	APS per entry as a grade	Number of students achieving TechBacc
England	**70,015**	**30.83**	**Dist-**	**130,906**	**34.70**	**Dist**	**243**
Derbyshire	491	26.99	Merit+	779	32.41	Dist-	x
Nottinghamshire	953	26.65	Merit	1,277	33.66	Dist	7
Derbyshire in SCR (44%)	216	26.99	Merit+	343	32.41	Dist-	x
Nottinghamshire in SCR (15%)	143	26.65	Merit	192	33.66	Dist	x
Barnsley	441	32.11	Dist-	611	35.43	Dist	0
Doncaster	226	30.30	Dist-	714	37.25	Dist+	0
Rotherham	398	26.94	Merit+	945	35.47	Dist	x
Sheffield	573	29.18	Merit+	1,342	31.22	Dist-	5
SCR Estimate	1,997	29.09	Merit+	4,146	34.06	Dist	∼10

Source: Department for Education.
APS: Average Point Score
For Derbyshire and Nottinghamshire districts, SCR statistics have been estimated using 16-18 population statistics.
'x' means that a number is suppressed

9.5 A'level Results

It is possible to look in more detail as to the A'level subjects studied within the region. A breakdown of the subject groupings is shown in Table 9.9, which includes the number of entries per subject and the attainment levels (A*-A and A*-E). The top 10 subject groups have been highlighted in the right-hand columns (percentage of all subjects) and, whilst the order is different in each column, the top 10 list remains identical: Biological Sciences, Chemistry, Physics, Maths, Geography, History, Psychology, Sociology, Art & Design and English. It is perhaps surprising to note that Mathematics is the highest attaining subject: 19.1% of all A*-A grades are in Maths, followed by Biological Sciences (8.6%). It is worth noting that very few students study Business, ICT or Computing.

Table 9.9: Number of A'levels studied and achieved in SCR in 2016.

Subject	SCR Estimate			% of all subjects		
	Entries	A*-A	A*-E	Entries	A*-A	A*-E
Biological Sciences	1200	280	1180	7.5	8.6	7.5
Chemistry	960	250	940	6.0	7.7	6.0
Physics	650	170	630	4.1	5.2	4.0
Other Science	40	10	40	0.3	0.3	0.3
Mathematics	1630	620	1620	10.3	19.1	10.3
Further Mathematics	220	110	220	1.4	3.4	1.4
Design and Technology	230	20	220	1.4	0.6	1.4
Computing	60	0	60	0.4	0.0	0.4
ICT	210	20	200	1.3	0.6	1.3
Home Economics	0	0	0	0.0	0.0	0.0
Accounting and Finance	0	0	10	0.0	0.0	0.1
Business Studies	390	50	380	2.5	1.5	2.4
Economics	410	100	400	2.6	3.1	2.6
Geography	680	150	680	4.3	4.6	4.3
Government and Politics	220	30	210	1.4	0.9	1.3
History	1100	200	1100	6.9	6.2	7.0
Law	170	20	160	1.1	0.6	1.0
Psychology	1420	200	1400	8.9	6.2	8.9
Sociology	800	140	790	5.0	4.3	5.0
Other social studies	70	10	60	0.4	0.3	0.4
Art and Design	720	210	710	4.5	6.5	4.5
Drama	220	20	220	1.4	0.6	1.4
English	2170	270	2160	13.6	8.3	13.8
M/F/T Studies*	320	20	320	2.0	0.6	2.0
Other Communication Studies	200	20	200	1.3	0.6	1.3
French	130	30	130	0.8	0.9	0.8
German	80	20	50	0.5	0.6	0.3
Spanish	140	30	140	0.9	0.9	0.9
Other modern languages	60	20	60	0.4	0.6	0.4
Classical Studies	30	0	30	0.2	0.0	0.2
Religious Studies	370	60	360	2.3	1.9	2.3
Music	110	10	110	0.7	0.3	0.7
Physical Education	260	40	250	1.6	1.2	1.6
General Studies	590	60	550	3.7	1.9	3.5
All subjects	15900	3240	15660	100.0	100.0	100.0

Source: Department for Education.
Top 10 subject areas have been highlighted in green. Figures have been rounded to the nearest 10.
For Derbyshire and Nottinghamshire districts, SCR statistics have been estimated using 16-18 population statistics.

Table 9.10: The breakdown of starts by provision type for all providers in SCR

Provision Type	2011/12	2012/13	2013/14	2014/15	Total
Apprenticeships	22,300	20,600	18,700	21,400	83,000
Community Learning	28,100	28,700	29,000	26,300	112,200
Education and Training	255,900	272,600	268,700	230,400	1,027,600
Workplace Learning	13,400	4,800	2,800	2,200	23,300
Total	319,800	326,800	319,200	280,300	1,246,100

Source: SFA LEP data cubes.
These numbers relate to learning aims and not distinct learners, due to the nature of the data.
Numbers have been rounded and may not necessarily add up correctly.

Table 9.11: The breakdown of provision (starts) by type in SCR Local Authorities in 2014/15

Learner Home LA	Apprenticeships	Community Learning	Education and Training	Workplace Learning	Total
Barnsley	3,100	3,200	33,800	300	40,300
Bassetlaw	1,300	2,100	12,200	100	15,600
Bolsover	1,100	1,700	9,200	100	12,200
Chesterfield	1,500	1,800	11,900	100	15,300
Derbyshire Dales	700	2,600	4,300	<50	7,600
Doncaster	4,000	2,600	51,800	300	58,700
North East Derbyshire	1,200	2,000	8,400	200	11,900
Rotherham	3,200	1,500	34,400	600	39,700
Sheffield	5,300	8,700	64,300	600	78,900
Grand Total	21,400	26,300	230,400	2,200	280,300

Source: SFA LEP data cubes.
Numbers relate to learning aims and not distinct learners, due to the nature of the data.
Numbers have been rounded and may not necessarily add up correctly.

9.6 Further Education (FE) and Training

There is a plethora of Further Education courses available within the Sheffield City Region, which cover:

1. Education and Training
2. Community Learning
3. Apprenticeships
4. Workplace Learning.

A breakdown of learning aims by provision type in 2014/15 is given in Table 9.10, where it can be seen that the majority of provision is within "Education & Training". The breakdown of these statistics by learner home authority for the 2014/15 academic year is shown in Table 9.11. For Education & Training and Apprenticeships, most provision seems to occur within the 4 major cities in South Yorkshire (Barnsley, Doncaster, Sheffield and Rotherham), whereas Community Learning is (naturally) more spread across all districts.

Further detail on each of the four learning areas will be given in the following sub-sections.

9.6.1 Education and Training

A graph showing the education and training courses is seen in Figure 9.3. It can be seen that the majority of taught aims are covered in "Preparation for Life and Work" (Tier 14). It should be noted that these figures do not include community learning numbers, which will be detailed in the next section. Peaks are also seen in:

- Health & Social Care (Tier 1.3)
- Science & Maths (Tier 2)
- Transportation (Tier 4.3, which includes Motor Vehicle Studies)
- Building & Construction (Tier 5.2)
- ICT for Users (Tier 6.2)
- Services and Hospitality & Catering (Tiers 7.3 and 7.4)
- Sport, Tourism & Recreation (Tier 8.1)
- Crafts, Creative Arts & Design (Tier 9.2)
- Languages, Literature & Culture (Tier 12.1).

Using the definition of a Tier 3 for each Learning Aims (as discussed in the Methodology, Section 3.3), it is possible to roughly aggregate learning aims by industry sector. This provides an indication of the number of learning aims taught by sector and also by the NVQ level (or equivalent) of courses taught within the SCR. The results are shown in Figure 9.4. Due to the method, there are many courses which do not fit into industry sectors (for example, "Preparation for Life and Work" courses), so we have added a "Misc" group to accommodate these.

It is apparent from Figure 9.4 that most European Social Fund (ESF) and Adult Community Learning (ACL) courses taught are at either entry level or NVQ Level 1. At the other end, many Science & Research courses are Level 3+. However, it is perhaps surprising to find that many Business, Professional & Financial and CDI courses are either entry level or Level 1.

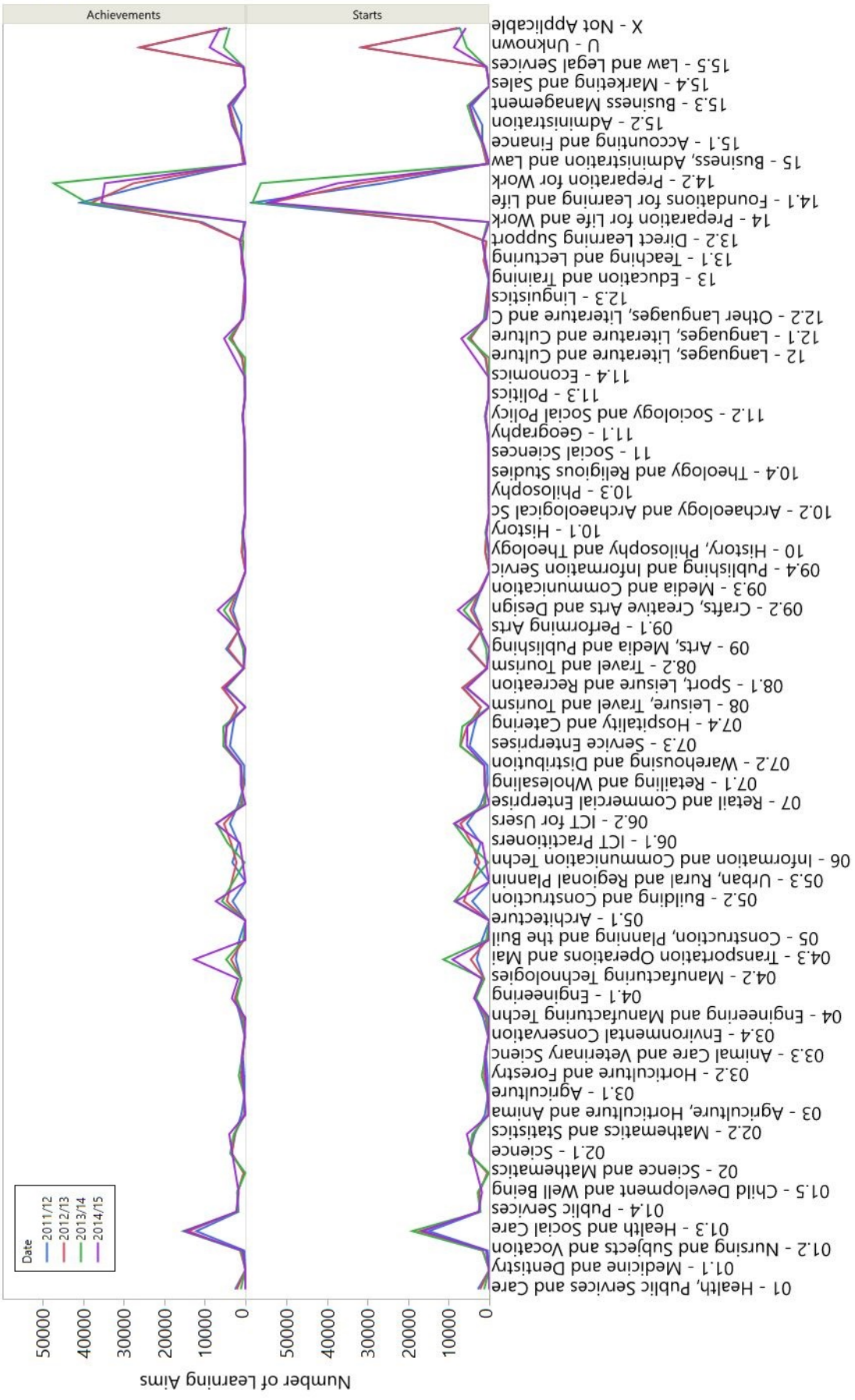


Figure 9.3: Education and Training: Starts and Achievements by Tier2 levels for 4 academic years (2011/12 to 2014/15). Numbers quoted are learning aims and not distinct learner numbers. Raw statistics can be found in Table F.1.
Source: SFA LEP data cubes.

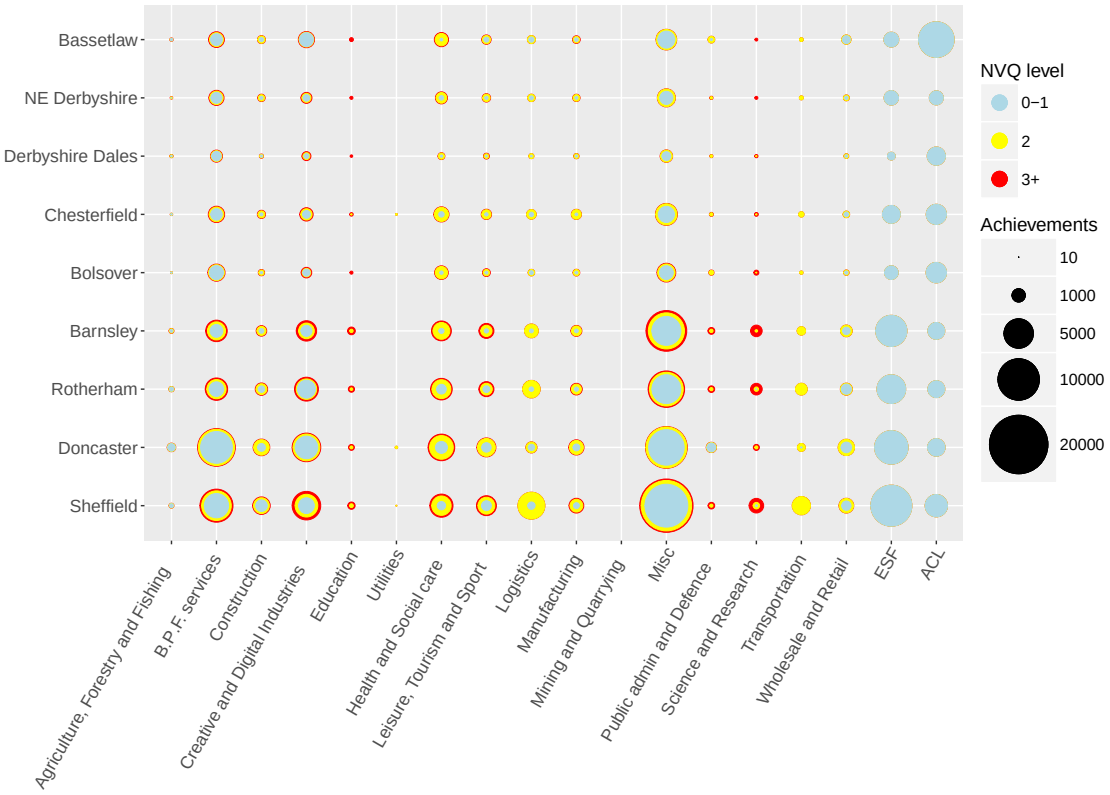


Figure 9.4: Education and training achievements 2014/15 by NVQ level. Source SFA LEP data cube

9.6.2 Adult Community Learning

The breakdown of taught learning aims within Adult Community Learning in SCR is shown in Figure 9.5. It is clear that significant learning aims are taught in Crafts and Preparation for Learning and Life. However, it can be seen that the following courses are mainly taught:

- ICT for Users (Tier 6.2)
- Hospitality and Catering (Tier 7.4)
- Sport, Leisure and Recreation (Tier 8.1)
- Crafts, Creative Arts and Design (Tier 9.2)
- Other languages, Literature and Culture (Tier 12.2)
- Preparations for Life and Work (Tier 14)
- Foundations for Learning and Life (Tier 14.1).

A breakdown of Community Learners by gender, age and ethnicity shows that the majority of learners are female (76%) and the modal ageband is 31-49 years old. The breakdown of skills level is shown on the right-hand side of Figure 9.4; almost all taught courses are at either entry level or Level 1.

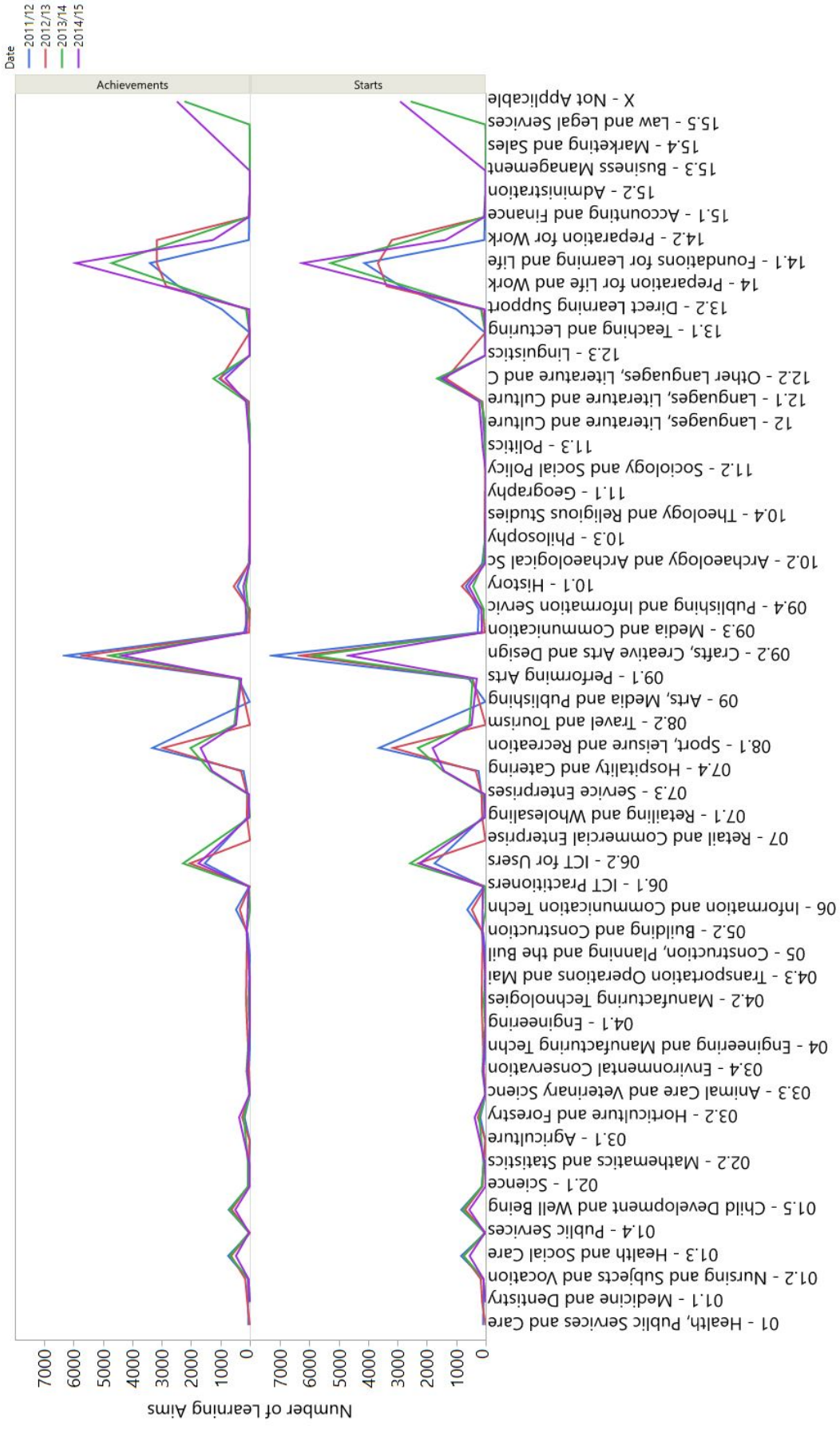


Figure 9.5: Adult Community Learning: Starts and Achievements by Tier2 levels for 4 academic years (2011/12 to 2014/15). Numbers quoted are learning aims and not distinct learner numbers. Raw statistics can be found in Table F.1.
Source: SFA LEP data cubes.

Table 9.12: The breakdown of Adult Community Learning provision (starts) by gender and ethnicity.

	Female	Male	19-23	24	25-30	31-49	50-64	65+	Grand Total
African	540	130	30	10	130	450	40	<10	670
Any other Asian Background	260	80	<10	10	80	210	30	<10	340
Any other Black/African/Caribbean Background	140	50	<10	<10	30	110	30	<10	190
Any other ethnic group	430	110	20	10	130	330	40	<10	540
Any other Mixed / multiple ethnic background	60	30	<10	<10	20	40	10	<10	90
Any Other White Background	650	230	50	20	210	460	110	30	880
Arab	260	50	<10	<10	70	190	30	<10	300
Bangladeshi	140	30	<10	<10	30	130	<10	<10	170
Caribbean	80	10	<10	<10	20	40	30	<10	90
Chinese	70	<10	<10	<10	20	40	<10	<10	80
English / Welsh / Scottish / Northern Irish / British	15,410	5,060	1,040	310	2,100	6,570	5,410	5,060	20,480
Gypsy or Irish Traveller	30	20	10	<10	<10	20	<10	<10	40
Indian	80	20	<10	<10	20	60	10	10	100
Irish	60	20	<10	<10	<10	30	20	20	70
Not Provided	670	380	100	20	160	420	200	160	1,050
Pakistani	900	100	50	20	190	650	80	20	1,000
White and Asian	60	<10	<10	<10	10	40	10	<10	70
White and Black African	50	20	<10	<10	10	50	<10	<10	80
White and Black Caribbean	90	10	20	<10	20	40	<10	<10	100
Grand Total	19,970	6,360	1,360	420	3,260	9,850	6,080	5,350	26,330

Source: SFA LEP data cubes.

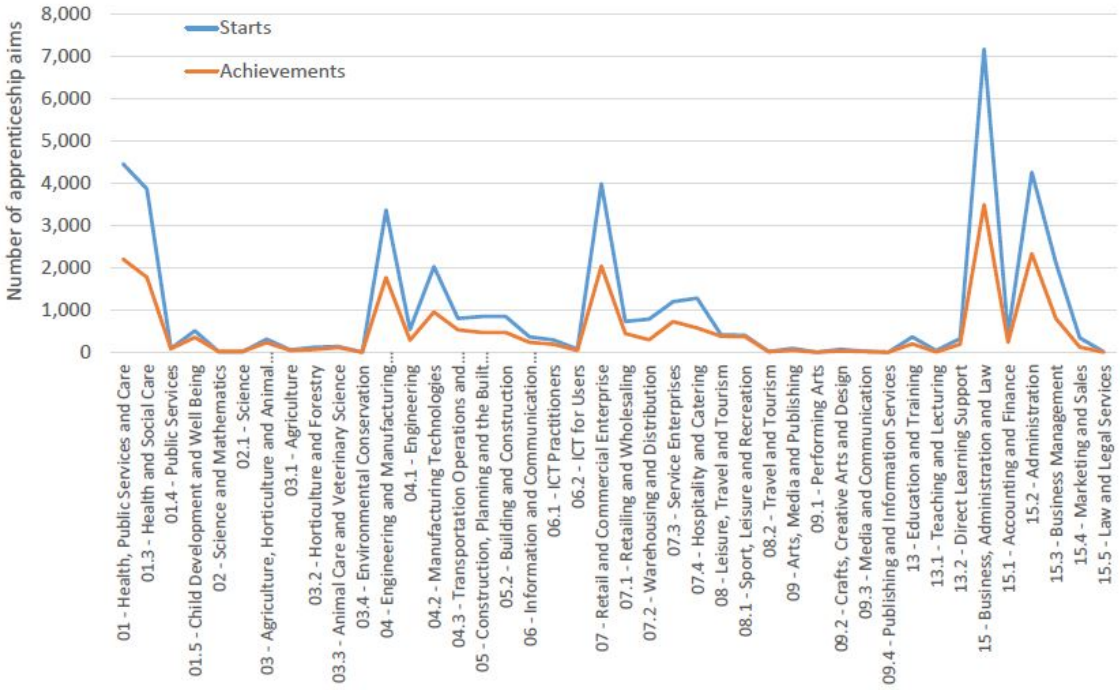


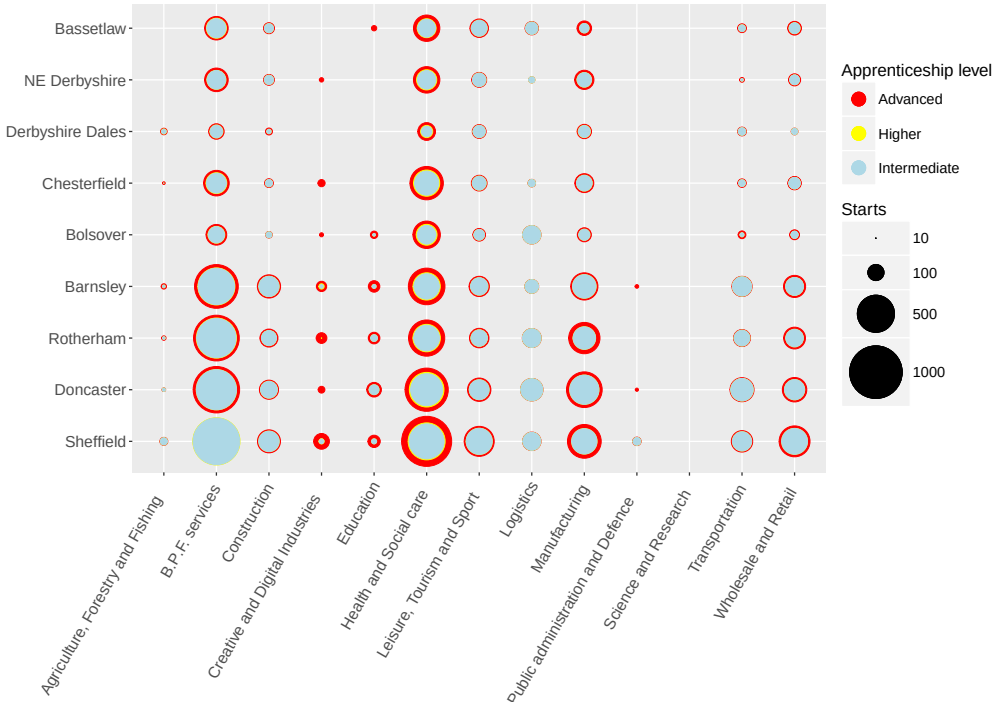
Figure 9.6: Apprenticeships: Starts and Achievements in 2014/15 by Tier 1 levels. Source: SFA LEP data cube

9.6.3 Apprenticeships

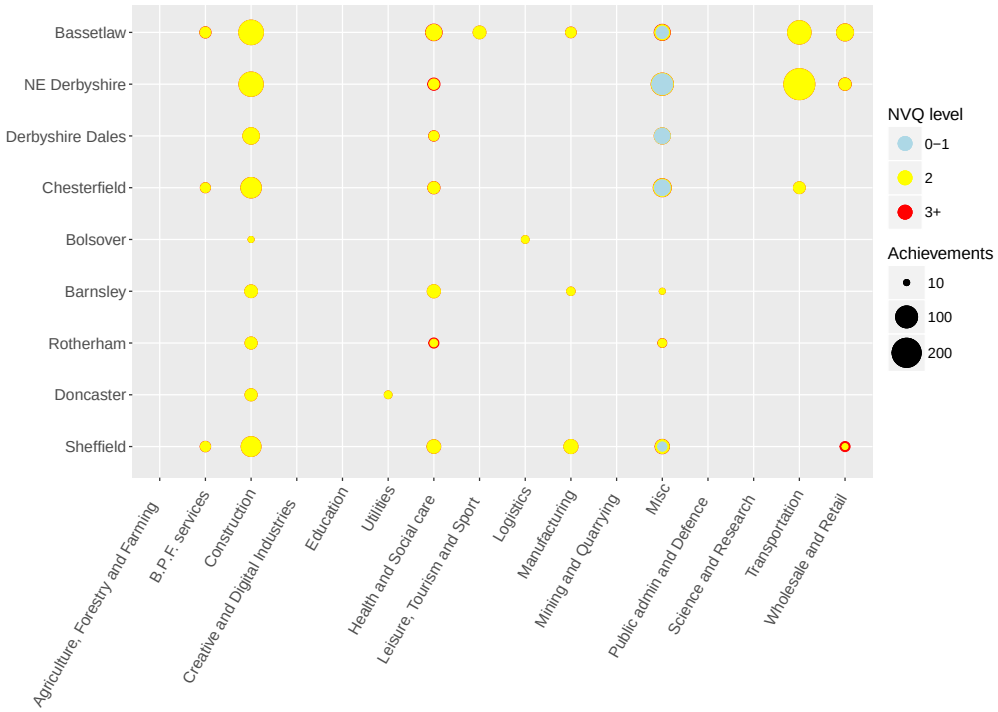
According to Skills Funding Agency statistics, there were 83,000 apprentices in training between the 2011/12 and 2014/15 academic years. A breakdown of the apprenticeships in 2014/15 by Tier 1 levels is shown in Figure 9.6. The most significant areas of study are business, retail, engineering & manufacturing and health care.

It is worth noting that in 2014/15, 21,400 apprentices started training in Sheffield City Region, which placed the region as 6th LEP for number of starts and 7th LEP for starts per capita.

The number of apprentice starts in 2014/15 by apprenticeship level are shown in the top of Figure 9.7. Raw statistics are given in Table H.1. The majority of all starts are at intermediate level (61.3%), with only 3.5% of apprenticeships at Higher Level. It would appear that there is higher percentage of Advanced Level apprentices within Creative & Digital, Education and Health & Social care than in other Framework Tiers.



(a) Apprenticeship starts by level



(b) Workplace learning achievements by NVQ level

Figure 9.7: Apprenticeship starts and Workplace Learning achievements in 2014/15 by sector and learning level. Apprenticeship starts by Tier 1 level is shown in Appendix H - Figure H.1. Source: SFA LEP data cube

The growth (or decline) of the main apprenticeship tiers are shown in Figure 9.8. It can be seen that the number of apprenticeships in Administration, Health & Social care and Business Management are variable, but have grown significantly

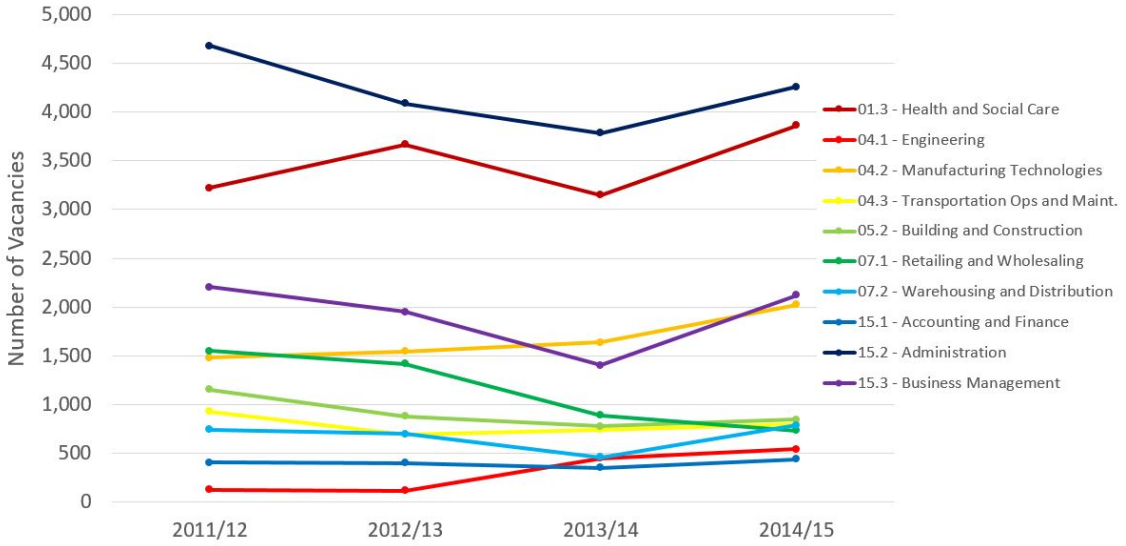


Figure 9.8: Apprenticeships: Starts by academic year. Only the main apprenticeship tiers have been included. Source: SFA LEP data cube

Table 9.13: The breakdown of apprenticeships (starts) by gender, age and ethnicity.

	Female	Male	Under 16	16-18	19-24	25+	White	BAME	**Grand Total**
01 - Health, Public Services and Care	3,800	660	<10	580	1,170	2,700	94%	6%	**4,460**
02 - Science and Mathematics	<10	<10	<10	<10	<10	<10	-	-	**10**
03 - Agriculture, Horticulture and Animal Care	120	180	<10	170	120	20	-	-	**310**
04 - Engineering and Manufacturing Technologies	200	3,170	<10	1,460	1,000	900	97%	3%	**3,370**
05 - Construction, Planning and the Built Environment	20	820	<10	540	250	60	98%	2%	**840**
06 - Information and Communication Technology	60	300	<10	170	140	60	94%	6%	**360**
07 - Retail and Commercial Enterprise	2,360	1,630	<10	1,100	1,350	1,530	97%	3%	**3,990**
08 - Leisure, Travel and Tourism	120	300	<10	200	120	100	94%	6%	**420**
09 - Arts, Media and Publishing	40	50	<10	60	30	<10	-	-	**90**
13 - Education and Training	290	70	<10	70	90	200	95%	5%	**360**
15 - Business, Administration and Law	4,600	2,570	<10	1,530	2,140	3,510	95%	5%	**7,170**
Grand Total	**11,620**	**9,760**	**<10**	**5,880**	**6,410**	**9,090**	96%	4%	**21,380**

Source: SFA LEP data cubes.
'-' shows that data has been suppressed

from 2013/14 to 2014/15. However, areas which have remained low and are either declining or have minimal growth are: Manufacturing, Engineering, Building & Construction, Retailing & Wholesale and Accounting & Finance. Engineering apprenticeships are incredibly low, but are in moderate growth.

When considering the make-up of apprenticeships in terms of gender, age and ethnicity, it can be seen that just over half of all apprentices are female. However, when broken down into subject areas, the male/female split becomes more apparent; female-dominated subjects include Health & Public Services, Retail and Business & Admin, whilst Engineering & Manufacturing apprentices are mainly male. The number of apprentices is split fairly evenly between agebands. The most significant issue that may be raised by these statistics is that only 4% of apprentices are BAME ethnicity (compared to an SCR average of 7.6%). This under-representation is very significant within Engineering, Construction and Retail apprenticeships.

Table 9.14: The breakdown of workplace learning (starts) by gender, age and ethnicity.

	Female	Male	16-18	19-24	25+	White	BAME	**Grand Total**
01 - Health, Public Services and Care	200	30	<10	60	170	93%	7%	230
03 - Agriculture, Horticulture and Animal Care	<10	10	<10	<10	10	100%	0%	10
04 - Engineering and Manufacturing Technologies	40	540	<10	60	530	46%	35%	580
05 - Construction, Planning and the Built Environment	<10	620	<10	100	520	98%	2%	620
06 - Information and Communication Technology	10	<10	<10	<10	20	-	-	20
07 - Retail and Commercial Enterprise	40	20	<10	40	30	100%	0%	60
08 - Leisure, Travel and Tourism	30	90	<10	40	80	-	-	120
13 - Education and Training	<10	<10	<10	<10	<10	-	-	<10
14 - Preparation for Life and Work	230	180	<10	50	360	74%	20%	410
15 - Business, Administration and Law	40	90	<10	20	110	51%	33%	130
X - Not Applicable	<10	<10	<10	<10	<10	-	-	<10
Grand Total	600	1,590	<10	360	1,830	76%	19%	2,190

Source: SFA LEP data cubes.
'-' shows that data has been suppressed

9.6.4 Workplace Learning

From the lower graph in Figure 9.7, it can be seen that the majority of workplace learning is undertaken at Level 2, except for aims within the area "Misc" which is predominately at either entry level or Level 1 (corresponding to "Preparation for Life and Work" courses). Very little workplace learning is completed at Level 3+.

Table 9.14 shows clearly that the majority of workplace learning is undertaken by white males over 25 years old. However, the BAME group is over-represented quite significantly overall (19% compared to an SCR average of 7.6%) and this is exceptionally high in Engineering & Manufacturing Technologies (35%) and Business Administration & Law (33%).

9.7 Higher Education

Data regarding Higher Education (HE) supply in the Sheffield City Region is scarce. Courtesy of UCAS and the Higher Education Progression Partnership (HEPP), we have obtained data on the number of applicants into SCR HE institutions. An analysis of these statistics (see Table 9.15) shows that there are around 70,000 unique applications made to SCR institutions each year. The majority of applications are made to the two Universities in the region, Sheffield Hallam University and the University of Sheffield (98% in 2015).

It is interesting to consider the origin of applicants to each institution and the breakdown is displayed in Figure 9.9. The majority of applications to colleges originate from SCR residents (Dearne Valley College has applications solely from SCR residents) and very few applications come from non-SCR residents. It might be expected that these non-SCR applicants live just across the boundary. However, the two universities have considerably more non-SCR (but still UK) applications. It is very noticeable that 25% of the applications to the University of Sheffield are from outside the UK, which is expected due to their international standing. Further to this, however, it should be noted that many of the SCR colleges have a comparable level of international applications to Sheffield Hallam University, around 6-7% of all

Table 9.15: The breakdown of unique applicants to Higher Education Institutions within SCR

SCR Provider	2011	2012	2013	2014	2015
Barnsley College	0	0	0	250	290
Chesterfield College	0	0	0	170	130
Dearne Valley College	100	155	105	90	95
Doncaster College	635	580	550	560	515
Rotherham College of Arts and Technology	25	70	60	30	30
Sheffield College	360	330	345	295	355
Sheffield Hallam University	43575	36840	35685	36210	35320
The University of Sheffield	32870	30585	34290	35565	34095
TOTAL	77565	68560	71035	73170	70830

Source: UCAS, courtesy of the Higher Education Progression Partnership (HEPP)

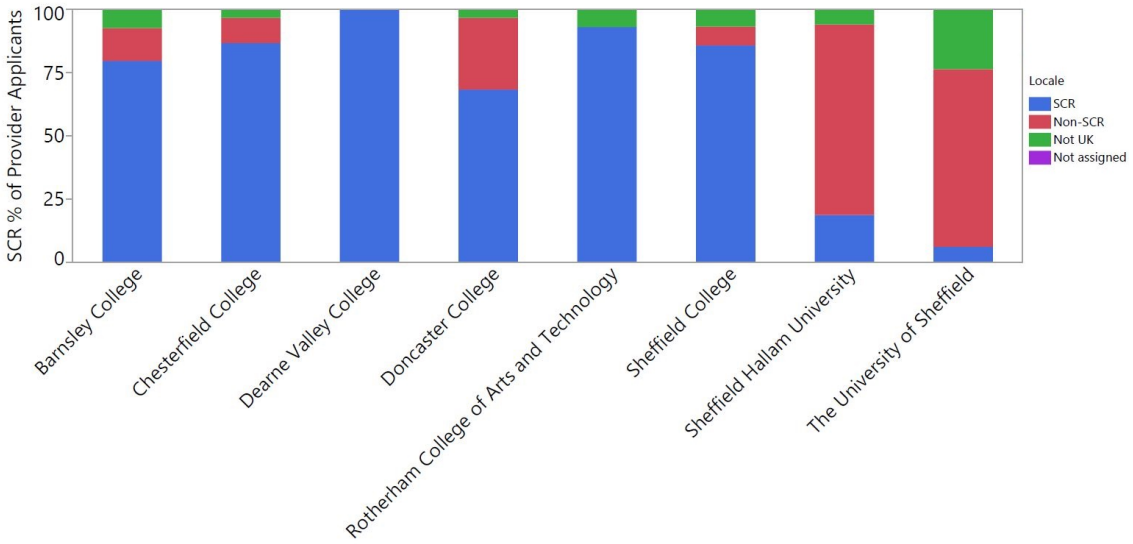


Figure 9.9: Application numbers to Higher Education in SCR institutions

applications.

Finally the percentage of applicants from SCR by academic year is plotted for reference in Figure 9.10, where it can be seen that the level of applications is fairly consistent across the years. The exemption to this is for Barnsley and Chesterfield Colleges, who only have applications from 2014 and in both cases, their percentage of SCR applications decreased in 2015. In reality, the number of applications to Barnsley College was comparable for both years (while they received an increased number of non-SCR applications), though applications to Chesterfield from SCR residents dropped very slightly.

According to HEFCE cold spot data (2011/12 - 2013/14), on average per year, 20,800 HE students study in the LEP, of which 39% grew up in the LEP. For the students who grew up in the region, the top destinations for HE are Leeds

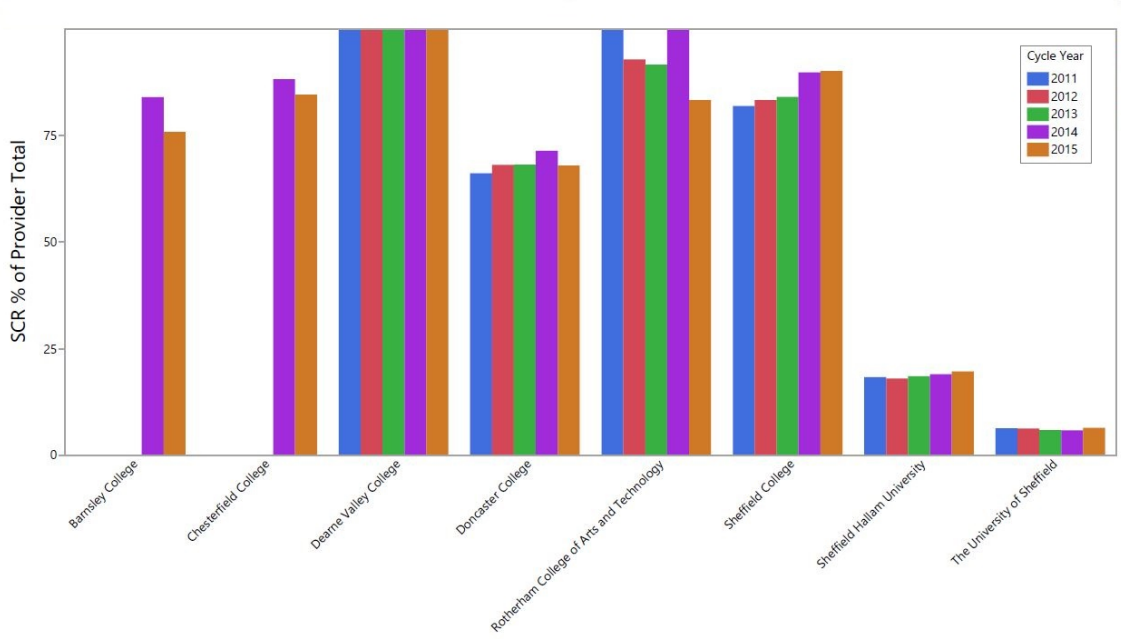


Figure 9.10: Application numbers to Higher Education in SCR institutions

Table 9.16: The number of students studying HE in Sheffield City Region in both HE Institutions (HEI) and Further Education Colleges (FEC)

	2008-09, 2009/10 (2 years)		**2010-11, 2011/12 (2 years)**		**2012-13, 2013/14 (2 years)**		Total (6 years)
	HEI	**FEC**	**HEI**	**FEC**	**HEI**	**FEC**	
Total students that studied in the LEP	41915	2990	41135	2335	33905	2640	20800
Total students that grew up in the LEP	28110	2805	27455	2460	23175	2735	14450
New flow into the LEP	13805	158	13680	-125	10730	-95	6350
Students that grew up and studied in the LEP	16570	2165	14860	1700	11725	2035	8200
% of students that grew up and studied in the LEP	39.5%	72.4%	36.1%	72.8%	34.6%	77.1%	39.4%

Source: HEFCE Cold Spot Data

(1990 students), Kirklees (1005), Manchester (730), York and Greater London (both 720 students). Of the students who study within the region, the top origins are Derbyshire (2020 students), Nottinghamshire (1315), Greater London (1150) and Lincolnshire (930).

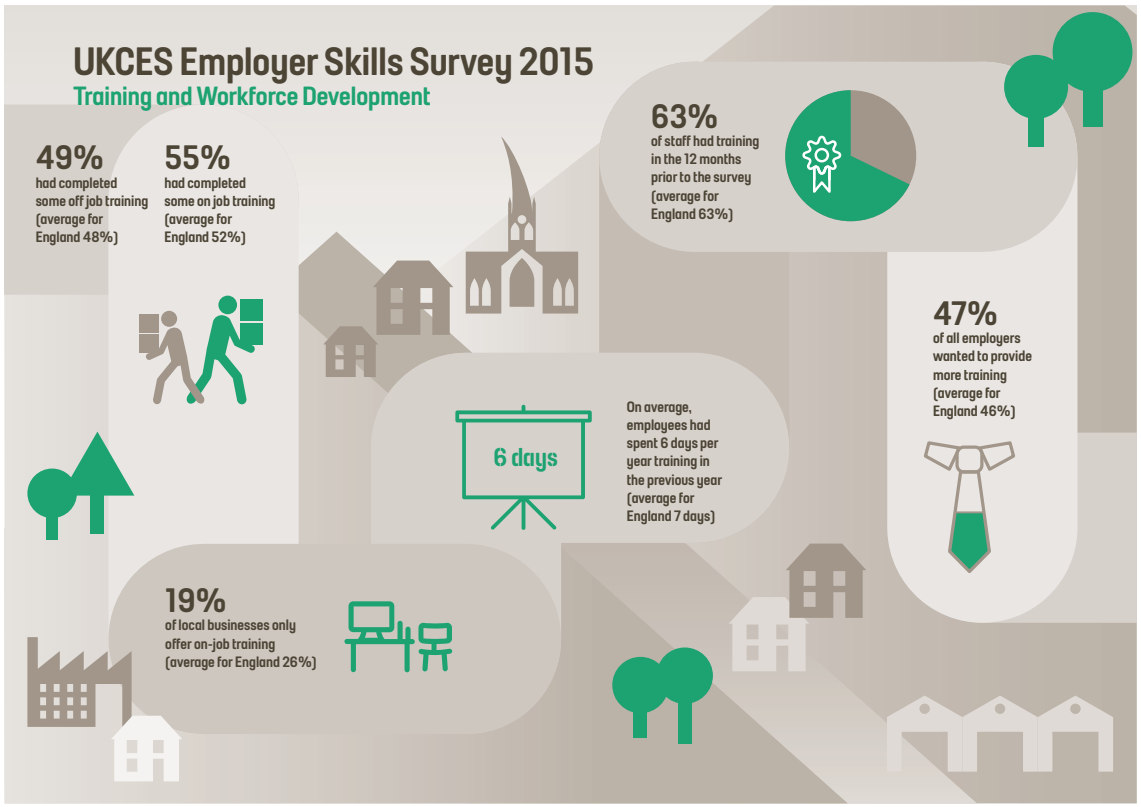
Future Project 9.1

Obtain and analyse student numbers in HE institutions, including:

- The breakdown of students who originate within the SCR and those originating from elsewhere
- The breakdown of particular courses by student numbers and degree classifications
- The level of graduates and post-graduates who remain in the SCR after their studies

9.8 Employee Training

The UKCES Employer Skills Survey 2015 asked employers about the training offered to employees. The results of the survey within SCR are shown in the infographic.



In addition to the UKCES ESS data, the government also collect information from the Labour Force Survey as to the number of hours employees spend away from work due to training. The results are shown in Figure 9.11. The trend is worrying, as it shows a considerable decrease since 1999. Since just 2010, the numbers have decreased to a quarter of their value (18,000 employees undertook training in 2014 compared to 70,000 in 2010).

9.9 Skills Bank Deals

The SCR Skills Bank is a new service offered by the City Region to invest in skills and expertise in order to drive business growth. The service empowers employers to choose and invest in the skills that they need, growing their company as they do so. The service has been operational since March 2016. Headline performance statistics to end of September 2016 include:

- 388 employers completed skills deals (or are in the pipeline)
- Training 7,430 learners within the programme
- Providing an average training contribution per learner of £473.

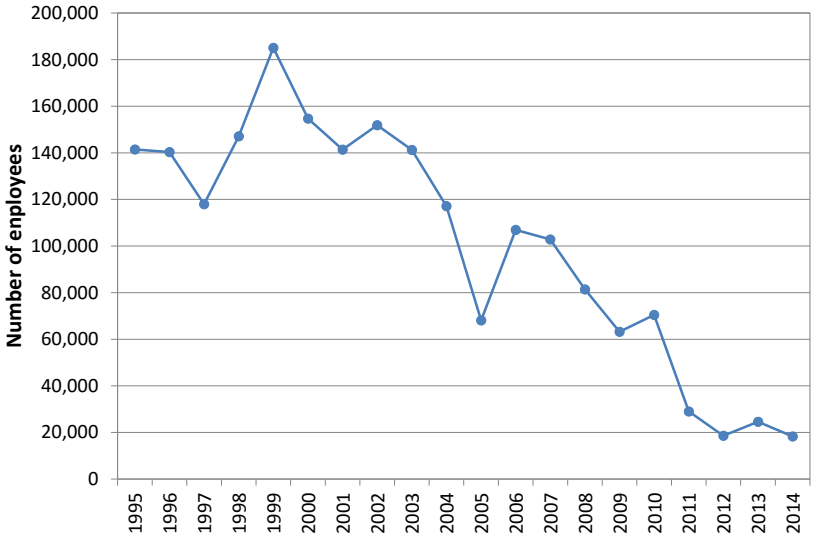


Figure 9.11: The number of employees in England who worked fewer hours than usual in reference week because they attended a training course away from own workplace, 1995-2014.
Source: Variable YLESS6 from the Labour Force Survey

The geographic spread, number of Skills Bank deals and their approved financial values are shown by district and sector in Figure 9.12. Neither Bolsover nor Derbyshire Dales have any skills deals. In addition, not all sectors have deals. The size of companies completing deals are varied, from micro through to large and are well spread across sectors and districts.

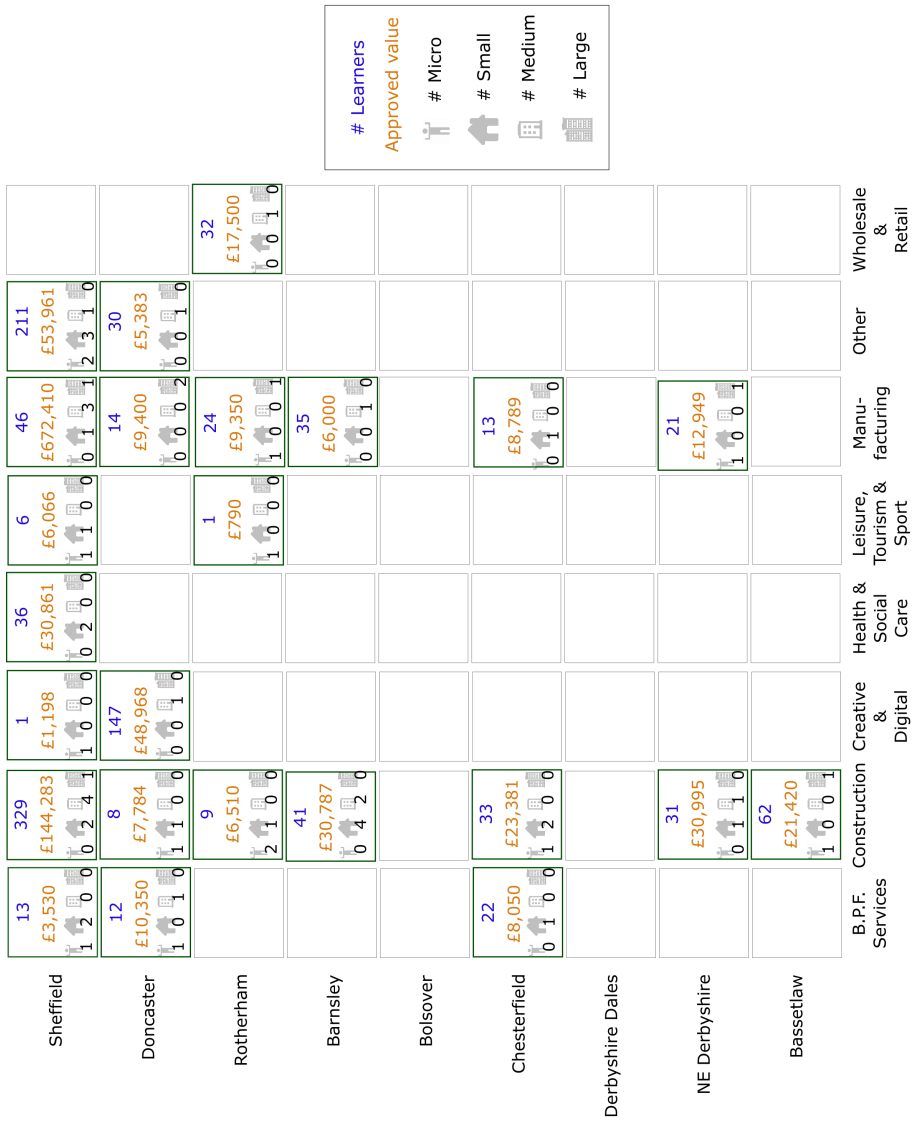


Figure 9.12: Breakdown of Skills Bank deals across the Sheffield City Region. The estimated number of learners is given in blue font, whilst the approved value of the deal (in £) is in green font. The number and size of companies is shown within each box, next to the appropriate graphic. For example, within Manufacturing in NE Derbyshire, there are 2 skills deals (1 micro company and 1 large company), with 21 estimated learners and a value of £12,949.
Source: Skills Bank Data

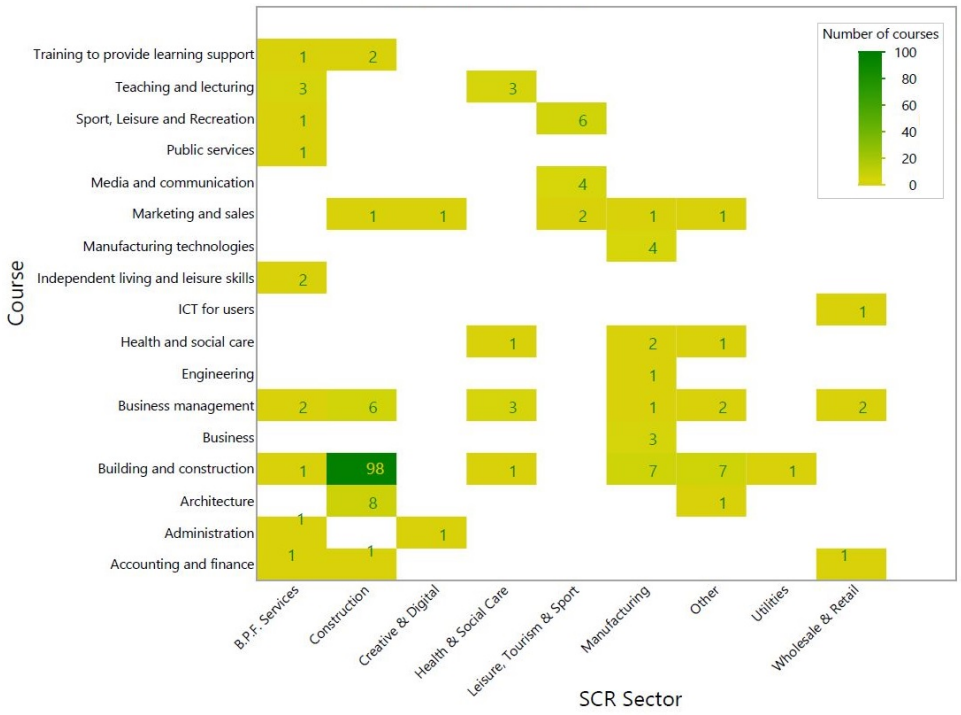


Figure 9.13: Breakdown of Skills Bank deals by course (horizontal) and sector (vertical). The number of courses is shown on each block.
Source: Skills Bank Data

The breakdown of employer-requested training is detailed in Figure 9.13. The spread of courses is varied, but it is noticeable that "Building and Construction" courses are provided to employers of many different industry sectors. The reasons for this are not immediately apparent from the statistics. It is also noticeable that there are a considerable number of "Building and Construction" courses provided within the Construction Sector (98 courses). Whilst this is not, on its own, unusual, the number is considerably higher than any other offering by sector or course grouping.

When employers apply for a Skills Deal, they are required to detail a growth story, which explains why the specific training for their employees will develop economic growth in their company. Some initial themes are starting to emerge from these growth stories:

- Reducing complexity and inefficiency in processes to allow business to take on more work / deliver current projects more quickly or to a higher standard
- Upskilling or cross-training of staff to help them win more work and/or be more agile in the work they can take on because all of their staff are trained to the appropriate level
- Winning work with new clients or in different markets by having appropriate training / accreditations which are seen as a prerequisite

- Training staff to take on more complex and highly skilled roles – this allows for the backfilling of lower skilled roles with new staff / school leavers / apprentices
- Winning new work through effectively being able to write bids and /or manage contracts

10 Alignment of Supply and Demand

For ease of use, we collate the levels of supply and demand into two tables in this chapter, so that all the salient points of the previous chapters can be viewed together. It is important to note that, as mentioned previously, it is not trivial to correlate supply and demand. This is mainly due to several factors:

- Growth statistics are best estimates of where the market will lead. This cannot account wholly for local fluctuations (e.g. inward investment opportunities) and a future changes in the sector.
- Simple job data cannot depict true movement within the market (e.g. promotions or retirements which leave vacancies but are not new demand).
- Supply numbers will include those in work who also undertake 19+ SFA training.
- It is always necessary to have more learners at lower levels who should then progress into education at higher levels.

Therefore, this chapter does not attempt any direct correlation of supply and demand.

Table 10.1: Correlation matrix of demand and supply in SCR - DEMAND

		Sector																
		Agriculture, Forestry and Fishing	B. P. F. Services	Construction	Creative and Digital Industries	Education	Utilities	Health and Social Care	Leisure, Tourism and Sport	Logistics	Manufacturing	Mining and Quarrying	Public Admin and Defence	Science and Research	Transportation	Wholesale and Retail	Misc	All Sectors - Number of Jobs/Vacancies/Learners
Number of Jobs (2015)	NVQ Level 1	190	13992	877	803	2149	1745	5123	3623	11558	9120	34	572	20	224	14168		64198
	NVQ Level 2	2877	38789	10296	4761	25471	2774	38428	47478	11492	32235	757	9424	464	5737	76750		307733
	NVQ Level 3	446	25946	16883	5483	4533	1691	25020	8215	2788	26560	439	11556	553	1533	18285		149931
	Certificate	0	301	36	5	202	5	197	25	10	37	0	267	5	15	53		1158
	NVQ Level 4	18	1389	327	349	1079	50	5720	104	5	739	10	676	132	23	365		10986
	Degree	260	35352	7382	13828	24936	1110	45524	3230	1439	21386	395	9571	1829	732	11614		178588
	NVQ Level 5 / Masters	10	557	42	314	15292	5	31	72	0	59	40	74	20	5	15		16496
Estimated Annual Number of Vacancies (2015)	NVQ Level 1	10	349	39	65	294	117	687	291	893	202	1	8	4	2	537		3498
	NVQ Level 2	153	968	458	384	3482	185	5154	3812	888	712	16	138	88	59	2907		19404
	NVQ Level 3	24	648	751	442	620	113	3356	660	215	587	9	169	105	16	692		8406
	Certificate	0	8	2	0	28	0	26	2	1	1	0	4	1	0	2		74
	NVQ Level 4	1	35	15	28	148	3	767	8	0	16	0	10	25	0	14		1071
	Degree	14	882	328	1115	3409	74	6106	259	111	473	8	140	346	8	440		13714
	NVQ Level 5 / Masters	1	14	2	25	2091	0	4	6	0	1	0	1	4	0	1		2149
Growth in Number of Jobs (2015-2020)	NVQ Level 1	-11	762	177	49	-124	166	483	31	1246	-352	-8	1	1	2	498		2921
	NVQ Level 2	-119	1430	1508	117	-734	218	2254	1347	825	-1477	-119	-154	42	111	2391		7640
	NVQ Level 3	-17	1133	1938	276	-198	98	1342	163	262	-1165	-63	-247	72	29	823		4446
	Certificate	0	17	7	0	-16	0	11	-3	3	-2	0	-5	1	3	0		16
	NVQ Level 4	-1	70	40	4	-45	5	367	-1	0	-57	0	6	35	1	11		435
	Degree	-17	1662	1101	788	-481	54	2309	-31	123	-832	-34	-121	297	1	499		5318
	NVQ Level 5 / Masters	-1	62	4	15	48	0	5	-4	0	-1	0	2	2	0	1		133
Total SCR Number of Vacancies (2015)		202	2903	1595	2060	10070	493	16101	5038	2109	1992	35	469	572	85	4592	7	48316
Estimated Replacement Demand (presently aged 55+)	NVQ Level 1	30	3081	139	126	527	269	1316	827	1802	1305	5	113	3	41	2093		11676
	NVQ Level 2	505	7030	1790	808	4632	595	6955	4824	2508	5261	153	1747	83	1744	11784		50418
	NVQ Level 3	87	3727	2959	819	818	266	5100	1065	455	5014	76	1514	81	254	2742		24978
	Certificate	0	78	9	1	52	1	51	6	2	9	0	62	1	2	14		288
	NVQ Level 4	3	241	33	22	187	8	881	17	0	114	2	108	24	3	39		1680
	Degree	36	4562	1123	1530	4277	166	7083	436	207	3432	52	1551	240	107	1471		26271
	NVQ Level 5 / Masters	2	84	4	25	2947	0	8	14	0	5	0	13	3	0	2		3107

Source: EMSI Q1 2016 Dataset, Labour Insights

Table 10.2: Correlation matrix of demand and supply in SCR - SUPPLY

		Sector																
		Agriculture, Forestry and Fishing	B. P. F. Services	Construction	Creative and Digital Industries	Education	Utilities	Health and Social Care	Leisure, Tourism and Sport	Logistics	Manufacturing	Mining and Quarrying	Public Admin and Defence	Science and Research	Transportation	Wholesale and Retail	Misc[1]	All Sectors - Number of Jobs/Vacancies/Learners
Number of FE Achievements in Education and Learning (2014/15)	Entry Level	80	6305	300	2620	0	0	235	130	80	75	0	0	10	0	950	17145	10785
	NVQ Level 1	555	4480	1395	6315	5	10	2000	1600	955	775	0	495	35	20	1640	15765	20280
	NVQ Level 2	260	6835	3180	4970	280	100	10445	4710	7860	3570	0	715	440	3760	2690	14590	49815
	NVQ Level 3	130	4205	1085	4975	795	5	3450	2285	235	995	0	685	2810	10	195	6065	21860
	NVQ Level 4	20	460	145	425	180	0	470	160	10	155	0	45	10	5	10	50	2095
	NVQ Level 5	0	20	5	5	60	0	5	0	0	0	0	0	0	0	0	0	95
	N/A	5	4530	35	55	0	0	55	0	130	25	0	0	0	0	45	120	4880
Number of Apprentice Starts (2014/15)	Intermediate	135	4390	645	50	125	0	2150	1175	750	1500	0	70	0	670	1370		13030
	Advanced	25	2500	195	240	195	0	1930	505	0	1055	0	20	0	130	550		7345
	Higher	0	395	0	25	0	0	290	0	0	0	0	0	0	0	0		710
Number of Apprentice Achievements (2014/15)	Intermediate	85	2350	355	25	75	0	1115	710	255	720	0	50	0	415	810		6965
	Advanced	15	1200	115	155	115	0	965	235	0	515	0	30	0	115	355		3815
	Higher	0	55	0	15	0	0	45	0	0	0	0	0	0	0	0		115

Source: Department for Education - SFA LEP data cube (2014/15)
1: Miscellaneous courses mainly focus around Preparation for Life and Work and those without a direct industrial sector to link to.

11 Future Skills

Summary

- UKCES Working Futures 2012-2022 predicts SCR job growth in Health & Social work, Construction and Information technology, but losses in Manufacturing and Public Administration.
- EMSI predicts jobs growth in Business Professional & Financial Services, Health & Social Care and Wholesale & Retail, with job losses in Manufacturing, Education and Public Administration.
- The SCR Integrated Infrastructure Plan employment figures show growth in most sectors (including Advanced Manufacturing) but a loss of jobs in medium to low Manufacturing and Public Administration.
- Due to automation, 39% of jobs within SCR are at risk (283,000).
- Industries most at risk of automation include: Accommodation & Food services, Manufacturing, Transportation & Storage and Wholesale & Retail.

11.1 Future Growth in Industries

A prediction of growth in jobs was given in Figure 5.3b, where data was taken from EMSI. However, this provides just one method for predicting future jobs and, due to the nature of the tool, it is unable to identify specific job growth coming from either locally commissioned projects (such as large infrastructure projects) or inward investment activities. It should be noted that this section does not attempt any analysis of the impact of Brexit, as detailed in the introduction.

An alternative prediction of future jobs comes from the UKCES Working Futures 2012-2022 project, results from which are shown in the infographic below. That report predicts that, in SCR specifically, employment growth will be topped by health & social work (+19,000), construction (+7,000) and information technology (+6,000). However, it also predicts job losses in manufacturing (-10%) and public administration (-9%), which correlate with the national picture.

The UKCES predictions match roughly to the EMSI predictions over the same timescale for Health & Social Care (+16500 jobs) and construction (+8100), see Table 11.1. However, in contradiction EMSI predicts:

- a large increase in Business, Professional & and Financial Services (+28,000 jobs)
- a moderate increase in jobs in the CDI sector (+600 jobs)
- a moderate loss in manufacturing (-3%)
- a significant loss in public admin and defence (-25%).

No tool can accurately predict the future, so the difference in numbers is probably rooted in methodology.

UKCES Working Futures 2012-2022

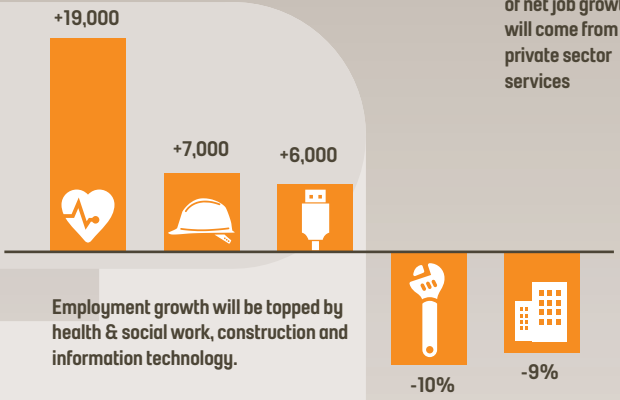
Jobs and the economy

Jobs in SCR projected to rise around

39,000

over the next decade (2012-2022)

Sectors



66%

of net job growth will come from private sector services

Employment growth will be topped by health & social work, construction and information technology.

However, job losses are predicted in manufacturing and public administration, which correlate with the national picture.

Occupations

+49,000

more high level jobs

-19,000

fewer jobs in middle ranking administration, secretarial and skilled trade occupations

+20,000

additional jobs in caring or leisure roles

Qualifications

The proportion of jobs held by people qualified at a higher level (level 4 and above) is projected to increase from 36 per cent to 46 per cent between 2012 and 2022.

Workers with low qualifications (below level 2) are expected to decline from 20 per cent to 13 per cent of the total workforce over this period.

Replacement Demands

Replacement demands will contribute almost eight times as many job openings as net job growth over the next decade: 302,000 openings compared with 39,000.

Table 11.1: Prediction of sectoral growth (2012-2022) from EMSI

Sector / Subsector / Cross-Sector	Change in Jobs	Percentage change	Sector Rank	Subsector rank
Business, Professional and Financial Services	28292	29.7	1	
Business	16551	56.0		2
Employment	2808	16.5		14
Financial	2962	18.8		12
Professional	5971	18.1		8
Health & Social care	16564	14.6	2	1
Wholesale and Retail	13167	11.6	4	
Motor trade	3641	26.1		10
Retail	6558	9.1		6
Wholesale	2968	10.8		11
Leisure, Tourism and Sport	10793	19.8	5	
Leisure and Tourism	11007	24.5		4
Sport	-214	-2.2		21
Construction	8198	24.5	6	
Buildings	-2031	-22.9		26
Civil	2882	39.1		13
Specialised	7347	42.7		5
Logistics	6433	26.8	7	7
Electricity, gas and water (utilities)	855	12.3	9	16
Creative and Digital Industries (CDI)	570	2.2	10	
Creative	-1852	-18.3		25
Digital	2422	14.9		15
Science and Research	455	15.3	11	17
Transportation	-376	-4.2	14	23
Agriculture, forestry and fishing	-634	-15.5	15	24
Mining and quarrying	-2289	-65.5	16	27
Manufacturing	-2889	-3.3	17	
Advanced	-3496	-13.3		28
Low Tech	233	1.1		19
Medium Tech	374	0.9		18
Education	-7292	-9.1	18	29
Public Administration and Defence	-10452	-24.9	19	30
Hospitality	15247	37.5	3	3
Motor Vehicle	4276	24.4	8	9
Hair and Beauty	53	1.4	12	20
Healthcare technologies	-239	-6.9	13	22

Source: EMSI Q1 2016 dataset.

11.2 SCRIIP

Within the Sheffield City Region, there is an Integrated Infrastructure Plan (SCRIIP), which clearly details a number of contracted infrastructure projects that are required to provide the level of jobs required by the SCR Strategic Economic Plan (SCR SEP). The SCRIIP goes as far as to predict the level of jobs that will be required for these projects and tied into the level of growth predicted in the SCR SEP (70,000 new jobs). It is important to acknowledge that the SCRIIP model does not justify the growth in jobs, but assumes that 70,000 new jobs will be created within the SCR, as detailed in the SEP. The modelling undertaken within the SCRIIP utilises the base level of jobs in 2014 along with the job growth prediction and identifies the infrastructure that is required to sustain this level of growth, in terms of buildings, transport and utilities. Whereas the SCR SEP predicts 70,000 new jobs, due to the level of infrastructure required the SCRIIP predicts a growth of 82,749 jobs between 2014 and 2024.

The detail within the SCRIIP report has been analysed and the job growth (or loss) is depicted in Figure 11.1 for each industry sector and SCR district. It is worth noting that the industry sector definitions used here are generated from the SEP and therefore do not necessarily match the industry sectors used elsewhere within this report. The match should be fairly close to those used in this report, however, as they were used as a basis for the SCR industry definitions.

Unlike the EMSI predictions of Figure 5.3b or the UKCES predictions, but closely related to the generic predictive nature of the SCR SEP, the SCRIIP predictions are much more uniform and generally show an overall increase in jobs for all sectors. However, all three sources agree that jobs will be lost in Public Administration.

The SCRIIP figures show that Advanced Manufacturing will grow (38% or 9,229 jobs), while Medium to Low-Tech Manufacturing will shrink (-5% or -3,666 jobs). This is in stark contrast with EMSI, which predicts a loss of jobs in Advanced Manufacturing (-14.2% or -3,700 jobs from 2012-2022) and a slight increase in Low Tech and Medium Tech manufacturing (1.4% or 545 jobs from 2012-2022).

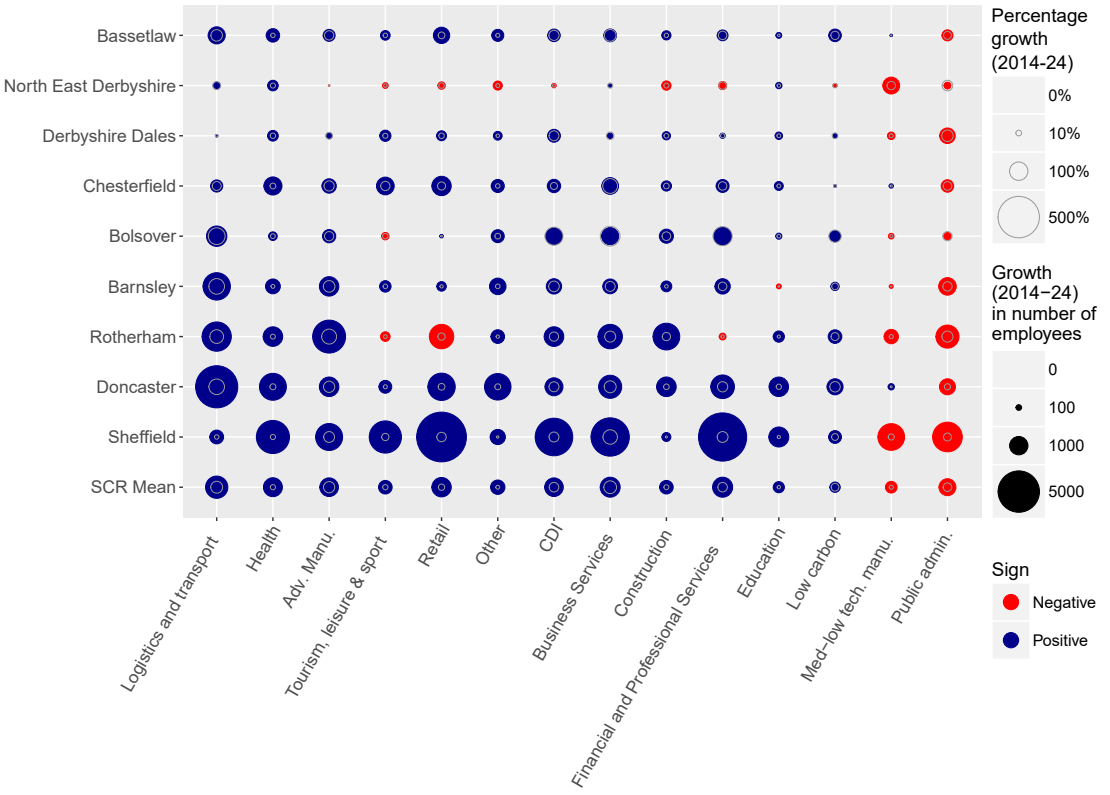


Figure 11.1: Grid plot showing the future predicted growth (both positive and negative) of the industry sectors for each district in the Sheffield City Region. The size of the data bubbles corresponds to the change in the number of jobs (2014-2024) shown by the scale provided. The grey rings represent the percentage change in the number of jobs across the same time period, the scale for this is ten times the scale provided for the job number change (a 100% change produces a grey ring with the same size of a 1000 number change bubble). Source: SCRIIP

11.3 Inward Investment Prospects

Using internal information about inward investment leads, it has been possible to amalgamate data in order to understand the types of company and employment which might move to the Sheffield City Region. The statistics are shown in Figure 11.2. Naturally, not all the "deals" are included; only those with information about the number of expected new jobs or safeguarded jobs are included in the dataset. Therefore, the actual number will be higher than the subset included here.

In the subset of data we can use, the majority of jobs sit within a few sectors: Creative & Digital, Leisure Travel & Sport, Logistics, Manufacturing, Wholesale & Retail and Other. Due to the educational profile of these sectors, it is expected that most of the jobs will be at NVQ levels 1,2 and 3, with some Level 6 jobs (CDI, Manufacturing and Wholesale & Retail).

The sector labelled as "Other" includes deals that are impossible to classify at this time.

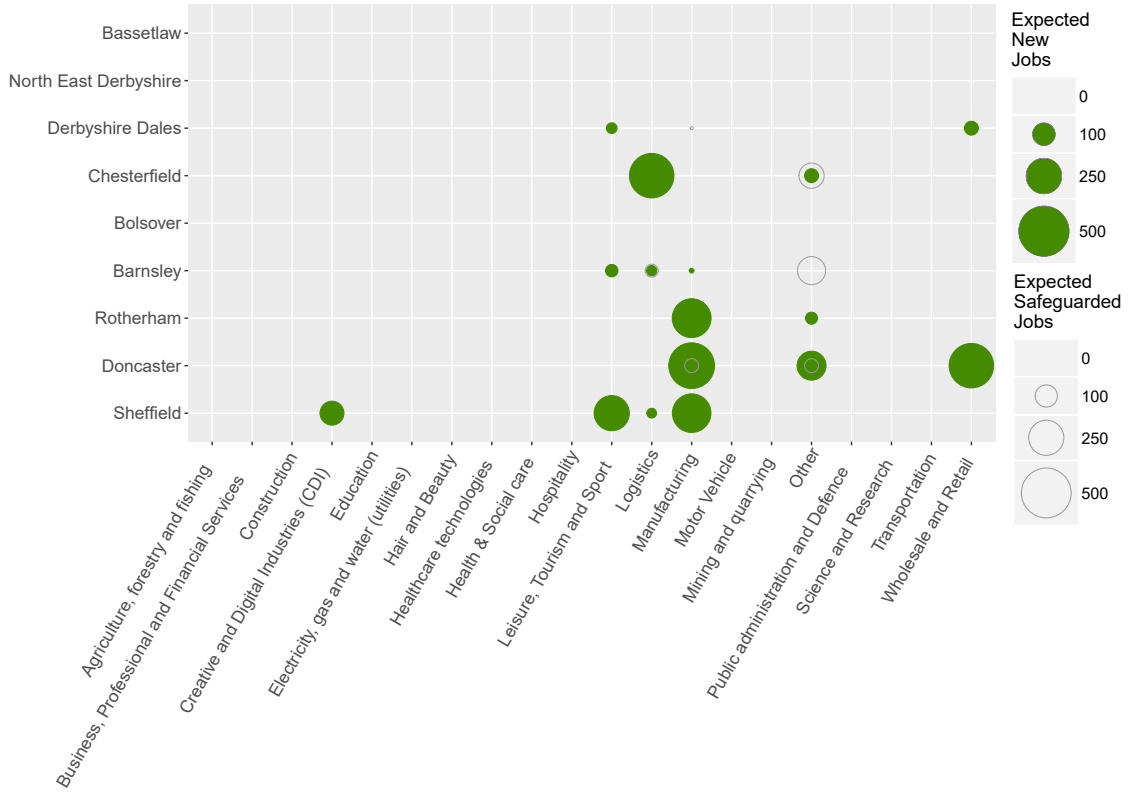


Figure 11.2: Grid plot showing the potential Inward Investment opportunities of the industry sectors for each district in the Sheffield City Region. The size of the green bubbles corresponds to the estimated number of new jobs created by Inward Investment and shown by the scale provided. The grey rings represent the estimated number of safeguarded jobs, which correspond to the same Inward Investment opportunities. Source: SCR Inward Investment

11.4 Risk of Automation

Deloitte LLP have undertaken research into the risk of automation to jobs[1] between 2001 and 2015, detailing the ONS industry sectors most at risk of automation. Their research found that the Wholesale & retail and Transport & Storage sectors have the highest numbers of jobs at high risk of automation. In addition, the effects of technology and automation were found to have a clear effect on job and wage shifts since 2001. They conclude that in the Manufacturing sector 90% of job loss from 2001 until 2015 was due to automation, whilst in Wholesale & Retail it was 71%. Within Professional, Scientific & Technical roles, jobs were lost due to automation, though at the same time there was also a growth of low risk jobs in the sector.

Ultimately, sectors in which roles or tasks are manual, clerical and repetitive are more vulnerable than those where required skills are creative, technical or strongly interpersonal. Across ONS sectors, Deloitte has estimated the number of jobs which are designated to be low, medium or high risk. We have used the percentage esti-

[1]Deloitte LLP – Transformers: How machines are changing every sector of the UK economy January 2016

Table 11.2: Jobs at risk of automation in SCR

	Number of jobs			Percentage of jobs		
	High risk	Medium risk	Low risk	High risk	Medium risk	Low risk
SCR	282888	157069	292443	39%	21%	40%
Barnsley	31328	16903	29670	40%	22%	38%
Doncaster	45585	25477	44238	40%	22%	38%
Rotherham	38855	22435	38811	39%	22%	39%
Sheffield	92989	53646	108865	36%	21%	43%
Bassetlaw	19127	10248	17525	41%	22%	37%
Bolsover	12043	5730	10427	43%	20%	37%
Chesterfield	18716	10408	19676	38%	21%	40%
Derbyshire Dales	12799	6094	12207	41%	20%	39%
NE Derbyshire	10860	5656	10484	40%	21%	39%

Source: ONS Business Register and Employment Survey, with automation estimates from Deloitte LLP.

mates by sector in order to estimate the level of risk within each district in SCR. It should be noted that, due to the methodology used, the risk within each sector will naturally mirror that found in the Deloitte report. The results are shown in Table 11.2. In general, it is expected that 39% of jobs within SCR are at high risk of automation. This statistic is worse in Bassetlaw, Bolsover and Derbyshire Dales. This figure is comparable to the OECD estimate that 35% of all current jobs in the UK have over 50% of tasks at risk of automation[2].

Figure 11.3 details the expected levels of risk across both district and industry sectors. Due to the nature of the data estimates available, the breakdown is based on ONS sectors and not SCR sectors. It can be seen from the graph that Accommodation & Food services, Manufacturing, Transportation & Storage and Wholesale & Retail are likely to be the sectors with jobs most at risk of automation.

[2]OECD Employment Outlook 2016, OECD Publishing, Paris

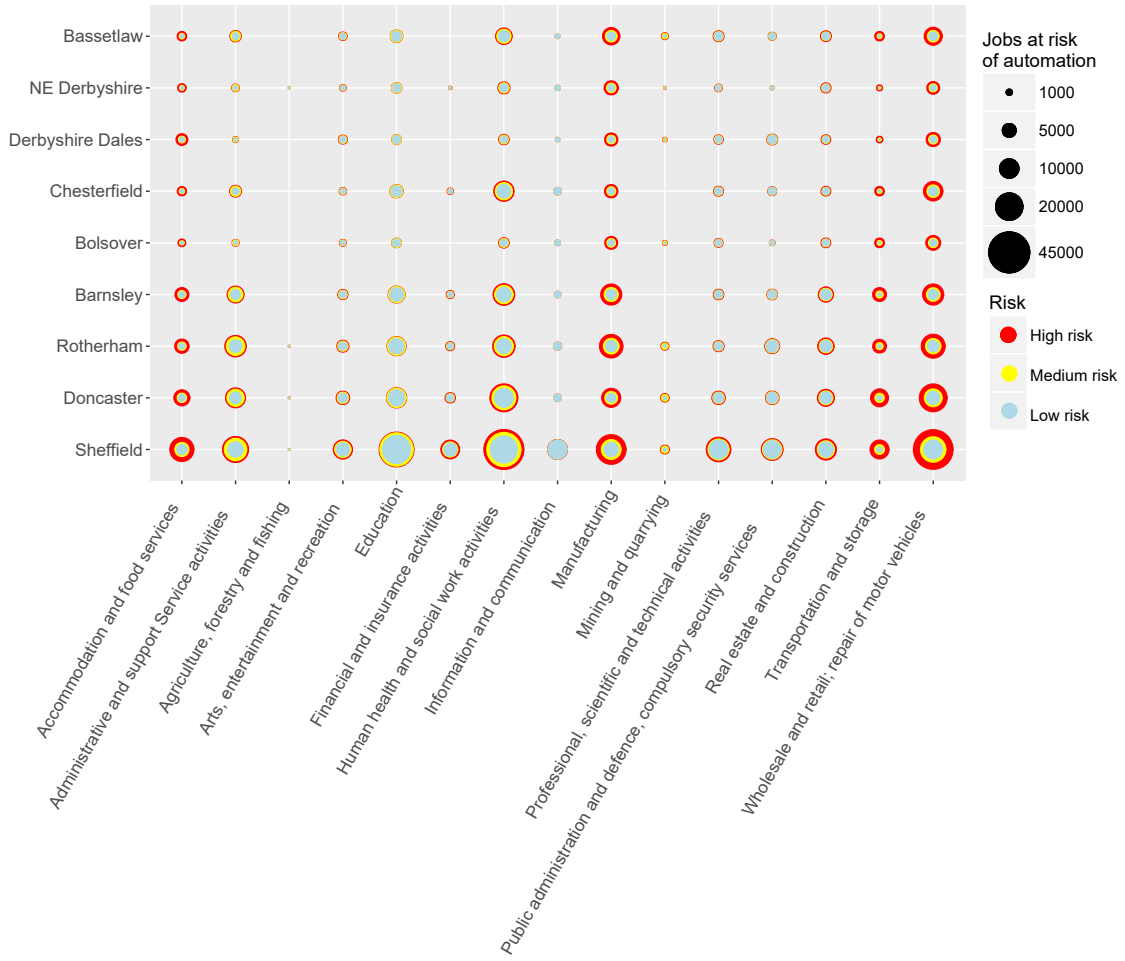


Figure 11.3: Grid plot showing the potential jobs at risk of automation within industry sectors for each district in the Sheffield City Region. The size of the bubbles corresponds to the estimated number of jobs at risk of automation, according to estimates. The level of risk is indicated by the colours: red is high risk, yellow is medium risk and blue is low risk. Source: ONS Business Register and Employment Survey, with automation estimates from Deloitte LLP.

12 Conclusion

This report has attempted to lay down a wide range of measures of the labour market within the Sheffield City Region. The first few chapters deal with the demographic and economic base of the City Region, whilst later chapter focus on the demand and supply of skills, including employers' perspectives where possible. The nature of this report is mainly statistical and evidential, thereby providing weight to future skills and employment policy that emanates from the SCR Combined Authority and LEP.

Where possible in the analysis, the statistics have been broken down by SCR district. It has long been discussed that such a breakdown would be useful for policy and decision making. No emphasis is intended to be drawn on individual districts, as each district will have its own strengths in the economy. However, this methodology naturally highlights issues in which individual districts might benefit from differential policies, rather than SCR-wide policies.

This report provides narrative around the statistics, though the final work is not intended to be a panacea; the included work is complex (as is the wider field of skills and employment) and will require more analysis and interpretation for specific purposes. It is envisaged that dissemination of the results will form the basis of further work, either within the SCR Executive Team or by engaged stakeholders.

It was not intended to directly correlate the demand and supply of skills and therefore we make no reference to policy recommendations. The reason for this lies mainly in the lack of consistent data across all ages and levels of education and training. For example, whilst we can analyse the 19+ adult education dataset (supplied by the Skills Funding Agency), we do not have access to 16-18 education data (held by the Education Funding Agency). In addition, at the time of this report, we do not have detailed HE statistics. Therefore, it is impossible to fully identify the true flow of skills gain within the City Region.

The main outputs of this work are the understanding of the economic base (both in terms of GVA and jobs), the historic growth and predicted growth of industry sectors, the educational requirements in the next 5 years and the futuristic trends for employment. Specifically, the highlights of the report include several detailed charts, which we draw the readers' notice to:

- Figure 5.1 (Page 45) - Existing GVA by sector and historic growth (2009-2014)
- Figure 5.2 (Page 49) - The breakdown of SCR employment by size of company and sector
- Figure 5.3 (Page 53) - Historic and future growth in jobs by sector

- Figure 5.4 (Page 57) - Historic, present and futuristic job market for all sub-sectors
- Figure 5.5 (Page 59) - Educational profile for all sectors (present and future)
- Figure 7.2 (Page 75) - Annual vacancies in each industry sector
- Table 9.10 (Page 107) - Breakdown of the Adult Education Budget by provision type
- Figure 9.4 (Page 110) - AEB education and training split by sector, SCR district and NVQ level
- Figure 9.7 (Page 114) - SCR Apprenticeships split by sector, SCR district and level
- Table 11.1 (Page 132) - Prediction of sectoral growth from EMSI (2012-2022)
- Figure 11.1 (Page 134) - Prediction of future employment from the SCR Integrated Infrastructure Plan (SCRIIP)
- Figure 11.2 (Page 135) - Examples of the inward investment pipeline
- Figure 11.3 (Page 137) - Jobs at risk of automation by sector and SCR district

The final outcome of this work is a collation of an important mix of statistics of the SCR labour market which can hopefully be utilised to initiate local policy decisions or even investment decisions. No direct conclusions will be drawn from the research in this report, as the work is purposefully intended to merely inform.

Labour Market Information 2016

Appendices

Sheffield City Region

COMBINED AUTHORITY

A Economic data by District

Table A.1: Working age (16-64) population within Sheffield City Region and districts (2015)

Area	**Total**		**Male**		**Female**	
	Number	%	**Number**	%	**Number**	%
Sheffield City Region	1,163,200	63.1	583,500	64.1	579,800	62.2
Barnsley	150,400	62.9	75,100	63.6	75,400	62.2
Doncaster	190,600	62.5	96,100	63.7	94,500	61.4
Rotherham	161,200	61.8	80,300	62.5	80,900	61.1
Sheffield	374,400	65.7	188,600	66.6	185,800	64.8
Bassetlaw	70,600	61.6	35,600	62.6	35,000	60.7
Bolsover	48,700	62.6	24,400	63.6	24,300	61.7
Chesterfield	65,600	62.8	32,800	64.0	32,700	61.6
Derbyshire Dales	41,800	58.8	21,000	60.0	20,900	57.7
NE Derbyshire	59,900	60.2	29,700	60.9	30,300	59.4

Source: ONS Population Estimates - local authority based by five year age band
% is proportion of total population

Table A.2: Jobs density (2014)

Area	**Total jobs**	**Jobs density**
Sheffield City Region	813,000	0.70
Barnsley	87,000	0.58
Doncaster	128,000	0.67
Rotherham	110,000	0.68
Sheffield	284,000	0.77
Bassetlaw	55,000	0.78
Bolsover	29,000	0.60
Chesterfield	52,000	0.79
Derbyshire Dales	37,000	0.88
NE Derbyshire	32,000	0.52
England	28,445,000	0.83
Great Britain	32,621,000	0.82

Source: ONS jobs density
The density figures represent the ratio of total jobs to population aged 16-64
Total jobs includes employees, self-employed, government-supported trainees and HM Forces

Table A.3: Regional employment numbers (Mar 2015 - Mar 2016)

	SCR		Barnsley		Doncaster		Rotherham		Sheffield		Bassetlaw		Bolsover		Chesterfield		Derbyshire Dales		NE Derbyshire		Great Britain
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	%
Economic activity rate †	874,300	75.9	116,900	76.7	143,700	76.5	120,200	75.1	276,500	75.0	48,200	69.1	35,700	74.9	49,000	77.0	35,900	86.9	48,200	80.1	77.8
Employment rate †	818,400	71.0	108,700	71.3	135,200	72.0	112,100	70.0	252,100	68.3	45,400	65.1	35,000	73.5	47,300	74.3	35,900	86.9	46,600	77.3	73.7
Employees †	715,100	62.1	95,700	62.8	120,400	64.1	96,300	60.1	215,600	58.5	37,900	54.3	33,700	70.6	43,900	68.9	29,900	72.6	41,600	69.1	63.2
Self employed †	95,400	8.3	12,400	8.1	13,600	7.2	14,400	9.0	33,300	9.0	7,000	10.1	!	!	2,800	4.4	5,900	14.3	5,000	8.2	10.2
Unemployment rate ‡	56,000	6.4	8,200	7.0	8,500	5.9	8,100	6.8	24,400	8.8	2,800	5.8	!	!	1,700	3.5	!	!	1,700	3.4	5.3

Source: ONS annual population survey
† Number is given for those aged 16-64, % is proportion of aged 16-64
‡ Number is given for those aged 16-64, % is proportion of economically active
! Estimate not available since the group sample size is zero or disclosive (0-2).

Table A.4: Regional economic inactivity (Mar 2015 - Mar 2016)

	SCR		Barnsley		Doncaster		Rotherham		Sheffield		Bassetlaw		Bolsover		Chesterfield		Derbyshire Dales		NE Derbyshire		GB
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	%
Total economically inactive †	277,700	24.1	35,600	23.3	44,200	23.5	39,900	24.9	92,400	25.0	21,600	30.9	12,000	25.1	14,700	23.0	5,400	13.1	12,000	19.9	22.2
student ‡	63,100	22.7	3,900	11.0	7,200	16.2	7,100	17.7	34,000	36.8	5,100	23.5	!	!	3,300	22.2	!	!	!	!	26.0
looking after family/home ‡	68,500	24.7	8,100	22.8	15,100	34.2	10,900	27.3	19,000	20.6	5,400	25.1	3,600	30.3	2,400	16.6	1,400	26.0	2,500	20.6	24.8
temporary sick ‡	7,300	2.6	1,500	4.1	1,100	2.6	1,400	3.6	!	!	!	!	!	!	!	!	!	!	!	!	2.3
long-term sick ‡	73,800	26.6	13,300	37.4	12,600	28.5	10,000	25.0	19,100	20.6	6,800	31.6	5,400	45.5	3,100	20.9	1,100	20.0	2,400	20.2	22.4
discouraged ‡	!	!	!	!	!	!	!	!	!	!	!	!	!	!	!	!	!	!	!	!	0.4
retired ‡	36,700	13.2	3,700	10.5	5,400	12.2	5,000	12.6	11,000	11.9	2,200	10.1	!	!	3,100	21.3	2,400	45.0	3,000	24.9	13.8
other ‡	27,700	10.0	4,900	13.8	2,800	6.4	5,500	13.7	8,400	9.1	!	!	1,400	11.5	2,400	16.3	!	!	!	!	10.3
who want a job ‡	72,300	26.0	10,900	30.6	11,100	25.1	11,300	28.2	24,900	26.9	3,100	14.2	2,400	19.9	4,100	27.8	1,600	29.0	3,100	25.4	24.6
who do not want a job ‡	205,400	74.0	24,700	69.4	33,100	74.9	28,600	71.8	67,500	73.1	18,500	85.8	9,600	80.1	10,600	72.2	3,800	71.0	9,000	74.6	75.4

Source: ONS annual population survey
† Number is given for those aged 16-64, % is proportion of aged 16-64
‡ Number is given for those aged 16-64, % is proportion of economically inactive
! Estimate not available since the group sample size is zero or disclosive (0-2).

Table A.5: Regional employment by ONS occupation (Mar 2015 - Mar 2016)

	SCR		Barnsley		Doncaster		Rotherham		Sheffield		Bassetlaw		Bolsover		Chesterfield		Derbyshire Dales		NE Derbyshire		GB
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	%
1: managers, directors and senior officials	70,400	8.3	8,200	7.4	13,200	9.4	10,600	9.2	19,700	7.6	3,800	8.3	2,200	6.0	2,500	5.1	6,100	15.3	4,200	8.6	10.4
2: professional occupations	148,600	17.6	14,500	13.1	17,900	12.8	18,200	15.9	59,000	22.9	6,100	13.3	3,500	9.7	7,200	14.9	10,600	26.4	11,600	23.4	19.9
3: associate prof & tech occupations	101,600	12.0	13,300	11.9	18,900	13.4	11,700	10.2	32,700	12.7	2,900	6.4	4,900	13.6	5,900	12.1	3,900	9.8	7,400	15.0	14.1
4: administrative and secretarial occupations	93,100	11.0	11,600	10.4	16,400	11.7	11,900	10.4	32,200	12.5	5,400	11.7	2,500	6.9	4,500	9.4	4,700	11.6	3,900	7.9	10.6
5: skilled trades occupations	97,600	11.6	13,600	12.2	15,700	11.2	13,500	11.8	21,300	8.2	5,600	12.3	7,400	20.3	6,700	13.8	4,900	12.2	8,900	18.0	10.5
6: caring, leisure and other service occupations	79,500	9.4	10,700	9.7	12,700	9.0	12,100	10.5	24,400	9.4	4,600	10.0	3,200	8.9	4,900	10.0	2,400	6.0	4,600	9.3	9.2
7: sales and customer service occupations	68,100	8.1	13,900	12.5	14,000	10.0	11,700	10.2	16,700	6.5	1,900	4.2	2,900	7.9	4,400	9.1	!	!	2,100	4.3	7.6
8: process, plant and machine operatives	71,300	8.4	8,900	8.0	12,700	9.1	10,200	8.9	21,500	8.3	6,800	14.9	2,800	7.6	4,300	8.8	2,300	5.7	1,800	3.6	6.4
9: elementary occupations	106,100	12.6	15,500	14.0	17,600	12.5	13,300	11.6	28,200	10.9	7,500	16.4	6,900	19.0	7,500	15.5	4,600	11.5	4,900	10.0	10.8

Source: ONS annual population survey
Number is given for those aged 16-64, % is proportion of all persons in employment

Table A.6: Employee Jobs by ONS Industry (2014)

Industry	SCR		Barnsley		Doncaster		Rotherham		Sheffield		Bassetlaw		Bolsover		Chesterfield		Derbyshire Dales		NE Derbyshire		GB	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Total Employee Jobs *	715,700		76,600		112,600		98,000		250,500		46,000		27,700		48,100		30,100		26,000		27,950,900	
Full-time *	494,000	69.0	52,100	68.0	77,700	69.0	70,700	72.1	167,000	66.7	31,100	67.6	21,500	77.6	33,400	69.4	21,200	70.4	19,300	74.2	19,090,100	68.3
Part-time *	221,700	31.0	24,400	31.9	34,900	31.0	27,200	27.8	83,500	33.3	14,900	32.4	6,200	22.4	14,700	30.6	9,000	29.9	6,800	26.2	8,860,800	31.7
Employee Jobs by Industry																						
1 : Agriculture, forestry & fishing (A) *	500	0.1	-	-	100	0.1	100	0.1	100	0.0	-	-	-	-	-	-	-	-	100	0.4	478,300	1.7
2 : Mining, quarrying & utilities (B,D and E)	8,600	1.2	-	-	1,800	1.6	1,600	1.6	2,000	0.8	1,200	2.6	600	2.2	-	-	500	1.7	200	0.8	355,400	1.3
3 : Manufacturing (C)	86,000	12.0	11,700	15.3	9,600	8.5	14,700	15.0	23,500	9.4	8,000	17.4	4,300	15.5	4,600	9.6	4,500	15.0	5,200	20.0	2,387,400	8.5
4 : Construction (F)	36,500	5.1	4,900	6.4	6,600	5.9	6,300	6.4	8,400	3.4	2,300	5.0	2,200	7.9	2,000	4.2	1,700	5.6	2,100	8.1	1,334,900	4.8
5 : Motor trades (Part G)	17,100	2.4	1,900	2.5	3,300	2.9	1,800	1.8	4,700	1.9	1,000	2.2	600	2.2	2,100	4.4	800	2.7	800	3.1	530,800	1.9
6 : Wholesale (Part G)	29,000	4.1	2,400	3.1	4,000	3.6	3,600	3.7	10,500	4.2	1,400	3.0	2,900	10.5	2,300	4.8	800	2.7	1,100	4.2	1,150,300	4.1
7 : Retail (Part G)	77,700	10.9	7,500	9.8	13,300	11.8	9,800	10.0	26,900	10.7	6,200	13.5	2,300	8.3	5,600	11.6	3,600	12.0	2,300	8.8	2,903,000	10.4
8 : Transport & storage (inc postal) (H)	36,900	5.2	5,000	6.5	8,500	7.5	4,900	5.0	9,500	3.8	2,300	5.0	2,400	8.7	2,300	4.8	1,100	3.7	900	3.5	1,286,100	4.6
9 : Accommodation & food services (I)	43,900	6.1	5,000	6.5	6,800	6.0	5,300	5.4	15,400	6.1	2,300	5.0	1,500	5.4	2,200	4.6	3,600	12.0	1,800	6.9	2,046,600	7.3
10 : Information & communication (J)	19,100	2.7	1,100	1.4	1,500	1.3	1,700	1.7	10,500	4.2	600	1.3	800	2.9	1,500	3.1	500	1.7	700	2.7	1,160,700	4.2
11 : Financial & insurance (K)	17,700	2.5	1,600	2.1	2,700	2.4	2,000	2.0	9,300	3.7	-	-	-	-	1,000	2.1	-	-	300	1.2	1,041,800	3.7
12 : Property (L)	8,600	1.2	1,200	1.6	1,000	0.9	700	0.7	3,400	1.4	700	1.5	200	0.7	400	0.8	600	2.0	500	1.9	519,200	1.9
13 : Professional, scientific & technical (M)	37,500	5.2	2,800	3.7	4,600	4.1	3,100	3.2	16,000	6.4	3,000	6.5	2,000	7.2	2,500	5.2	2,200	7.3	1,500	5.8	2,377,300	8.5
14 : Business administration & support services (N)	58,800	8.2	7,500	9.8	10,500	9.3	12,200	12.4	18,000	7.2	3,300	7.2	1,200	4.3	3,600	7.5	900	3.0	1,500	5.8	2,464,300	8.8
15 : Public administration & defence (O)	33,600	4.7	2,900	3.8	4,700	4.2	5,800	5.9	12,400	5.0	1,600	3.5	800	2.9	2,000	4.2	3,000	10.0	400	1.5	1,284,600	4.6
16 : Education (P)	76,300	10.7	7,500	9.8	10,800	9.6	9,600	9.8	32,300	12.9	4,000	8.7	2,400	8.7	4,500	9.4	2,400	8.0	2,800	10.8	2,583,400	9.2
17 : Health (Q)	116,400	16.3	12,300	16.1	20,800	18.5	13,200	13.5	42,900	17.1	7,200	15.7	2,800	10.1	10,800	22.5	2,800	9.3	3,700	14.2	3,801,600	13.6
18 : Arts, entertainment, recreation & other services (R,S,T and U)	28,200	3.9	2,600	3.4	4,700	4.2	3,700	3.8	9,700	3.9	1,800	3.9	1,200	4.3	1,400	2.9	2,100	7.0	1,100	4.2	1,283,700	4.6
Total Employee Jobs by Industry *	732,400	-	78,400	-	115,200	-	100,200	-	255,500	-	47,300	-	28,300	-	49,100	-	31,500	-	27,000	-	28,989,300	-

Source: ONS Business Register and Employment Survey
Data have been secondary suppressed and rounded to the nearest 100
* These figures exclude farm agriculture (SIC subclass 01000).

Table A.7: Regional level of qualifications of population (Jan 2015 - Dec 2015) - CUMULATIVE NUMBERS

	SCR		Barnsley		Doncaster		Rotherham		Sheffield		Bassetlaw		Bolsover		Chesterfield		Derbyshire Dales		NE Derbyshire		GB
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	%
NVQ4+	329,300	28.7	34,100	22.8	42,600	22.6	42,100	26.3	131,700	35.9	17,200	24.7	8,500	18.1	16,100	25.5	17,800	42.2	19,200	31.1	37.1
NVQ3+	592,600	51.6	68,100	45.5	88,800	47.1	80,800	50.5	208,500	56.8	26,000	37.3	24,700	52.3	33,900	53.6	25,600	60.9	36,300	58.7	57.4
NVQ2+	803,600	69.9	100,000	66.8	128,900	68.4	108,100	67.5	259,200	70.6	43,900	63.0	32,200	68.3	48,600	76.8	33,500	79.5	49,400	80.0	73.6
NVQ1+	966,900	84.1	123,000	82.2	155,000	82.3	134,400	84.0	310,000	84.4	55,300	79.3	38,000	80.7	57,200	90.5	38,500	91.5	55,500	89.9	84.9
Other qualifications	72,600	6.3	10,100	6.8	14,500	7.7	9,600	6.0	20,600	5.6	4,800	6.8	5,400	11.5	2,800	4.4	1,600	3.7	3,300	5.3	6.5
No qualifications	109,600	9.5	16,500	11.0	18,900	10.0	16,000	10.0	36,700	10.0	9,700	13.9	3,700	7.9	3,200	5.1	2,000	4.8	3,000	4.8	8.6

Source: ONS annual population survey
Number is given for those aged 16-64, % is proportion of resident population of area aged 16-64

Table A.8: Regional level of qualifications of population (Jan 2015 - Dec 2015) - SEPARATE QUALIFICATION LEVELS

	SCR		Barnsley		Doncaster		Rotherham		Sheffield		Bassetlaw		Bolsover		Chesterfield		Derbyshire Dales		NE Derbyshire		GB
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	%
NVQ4+	329,300	28.7	34,100	22.8	42,600	22.6	42,100	26.3	131,700	35.9	17,200	24.7	8,500	18.1	16,100	25.5	17,800	42.2	19,200	31.1	37.1
NVQ3	263,300	22.9	34,000	22.7	46,200	24.5	38,700	24.2	76,800	20.9	8,800	12.6	16,200	34.2	17,800	28.1	7,800	18.7	17,100	27.6	20.3
NVQ2	211,000	18.3	31,900	21.3	40,100	21.3	27,300	17.0	50,700	13.8	17,900	25.7	7,500	16.0	14,700	23.2	7,900	18.6	13,100	21.3	16.2
NVQ1	163,300	14.2	23,000	15.4	26,100	13.9	26,300	16.5	50,800	13.8	11,400	16.3	5,800	12.4	8,600	13.7	5,000	12.0	6,100	9.9	11.3
Other qualifications	72,600	6.3	10,100	6.8	14,500	7.7	9,600	6.0	20,600	5.6	4,800	6.8	5,400	11.5	2,800	4.4	1,600	3.7	3,300	5.3	6.5
No qualifications	109,600	9.5	16,500	11.0	18,900	10.0	16,000	10.0	36,700	10.0	9,700	13.9	3,700	7.9	3,200	5.1	2,000	4.8	3,000	4.8	8.6

Source: ONS annual population survey
Number is given for those aged 16-64, % is proportion of resident population of area aged 16-64

Table A.9: Claimant count by age and gender (May 2016)

Gender	Age	SCR		Barnsley		Doncaster		Rotherham		Sheffield		Bassetlaw		Bolsover		Chesterfield		Derbyshire Dales		NE Derbyshire		GB
		Numbers	%	Numbers	%	Numbers	%	Numbers	%	Numbers	%	Numbers	%	Numbers	%	Numbers	%	Numbers	%	Numbers	%	%
	All categories: Age 16+	25,465	2.2	3,325	2.2	5,230	2.7	3,945	2.4	9,085	2.4	1,080	1.5	710	1.5	1,115	1.7	230	0.6	750	1.3	1.8
	Age unknown (clerical claims)	10	-	0	-	0	-	0	-	10	-	0	-	0	-	0	-	0	-	0	-	-
	Aged 16-24	5,660	2.5	740	2.9	1,190	3.7	865	3.2	1,905	2.0	250	2.1	180	2.2	300	2.7	45	0.7	180	1.9	2.1
	Aged 16-17	15	-	0	-	0	-	5	-	0	-	0	-	0	-	0	-	0	-	0	-	-
	Aged 18-24	5,650	3.1	740	3.8	1,190	4.9	860	4.1	1,905	2.3	250	2.8	180	2.9	300	3.5	45	1.0	180	2.5	2.6
	Aged 18-21	3,250	-	430	-	710	-	495	-	1,045	-	150	-	110	-	165	-	30	-	115	-	-
	Aged 25-49	14,180	2.4	1,840	2.4	2,885	2.9	2,200	2.7	5,215	2.8	590	1.7	375	1.5	575	1.7	120	0.6	380	1.3	1.9
	Aged 25-29	3,730	3.1	465	3.1	810	4.0	575	3.5	1,370	3.1	150	2.4	95	2.0	160	2.6	20	0.7	90	1.8	2.3
Total	Aged 30-34	2,935	2.6	425	2.8	580	2.9	440	2.8	1,105	3.0	115	1.9	70	1.5	105	1.7	20	0.7	70	1.4	1.9
	Aged 35-39	2,440	2.4	295	2.2	510	2.9	385	2.7	895	2.6	110	1.8	80	1.9	90	1.5	20	0.6	55	1.1	1.8
	Aged 40-44	2,390	2.0	315	2.0	465	2.4	380	2.2	875	2.5	100	1.3	50	1.0	105	1.5	25	0.6	75	1.2	1.7
	Aged 45-49	2,685	2.0	340	1.9	520	2.4	420	2.2	970	2.5	120	1.4	80	1.3	115	1.4	35	0.6	85	1.1	1.7
	Aged 50+	5,615	1.6	745	1.6	1,155	1.9	875	1.7	1,960	2.1	235	1.0	150	1.0	240	1.1	65	0.4	195	0.9	1.5
	Aged 50-54	2,490	1.9	340	1.9	460	2.1	400	2.1	890	2.5	100	1.1	70	1.2	110	1.4	30	0.5	90	1.2	1.7
	Aged 55-59	1,955	1.7	260	1.6	435	2.2	285	1.7	665	2.2	90	1.2	45	0.9	80	1.1	20	0.4	65	0.9	1.6
	Aged 60-64	1,170	1.1	140	1.0	255	1.4	190	1.3	400	1.5	45	0.6	35	0.8	50	0.8	15	0.3	40	0.6	1.0
	Aged 65+	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0.0
	All categories: Age 16+	16,775	2.9	2,100	2.8	3,375	3.5	2,570	3.2	6,165	3.3	675	1.9	465	1.9	770	2.3	145	0.7	510	1.7	2.3
	Age unknown (clerical claims)	10	-	0	-	0	-	0	-	5	-	0	-	0	-	0	-	0	-	0	-	-
	Aged 16-24	3,735	3.2	455	3.6	790	4.8	545	3.9	1,290	2.6	160	2.6	115	2.8	220	3.9	30	0.9	130	2.6	2.6
	Aged 16-17	5	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	-
	Aged 18-24	3,730	4.0	455	4.6	790	6.2	545	5.1	1,290	3.0	160	3.4	110	3.4	220	5.0	30	1.3	130	3.4	3.3
	Aged 18-21	2,080	-	250	-	460	-	310	-	685	-	95	-	60	-	120	-	20	-	75	-	-
	Aged 25-49	9,335	3.2	1,180	3.1	1,885	3.8	1,420	3.5	3,520	3.7	365	2.1	255	2.0	385	2.3	70	0.7	245	1.7	2.4
	Aged 25-29	2,570	4.2	305	4.1	575	5.6	385	4.8	955	4.3	95	3.0	70	3.0	115	3.7	10	0.6	60	2.4	3.0
Male	Aged 30-34	1,940	3.5	285	3.8	370	3.6	275	3.6	755	4.1	80	2.6	50	2.2	70	2.3	10	0.7	50	2.0	2.5
	Aged 35-39	1,600	3.1	195	3.0	340	3.7	235	3.4	600	3.5	70	2.3	55	2.5	60	2.1	10	0.7	40	1.7	2.2
	Aged 40-44	1,560	2.7	190	2.4	305	3.1	260	3.1	590	3.4	55	1.5	35	1.3	70	2.0	15	0.7	45	1.5	2.1
	Aged 45-49	1,660	2.5	210	2.3	300	2.8	265	2.7	620	3.2	70	1.6	45	1.5	75	1.9	20	0.7	55	1.5	2.1
	Aged 50+	3,695	2.1	465	1.9	700	2.3	605	2.4	1,350	3.0	150	1.2	95	1.2	160	1.5	40	0.5	135	1.3	1.9
	Aged 50-54	1,660	2.5	210	2.4	285	2.6	290	3.0	615	3.5	60	1.3	45	1.6	70	1.8	20	0.7	60	1.6	2.2
	Aged 55-59	1,235	2.1	170	2.1	250	2.5	185	2.2	440	2.9	55	1.4	25	1.0	50	1.4	10	0.4	50	1.4	2.1
	Aged 60-64	805	1.6	85	1.2	165	1.9	125	1.7	295	2.3	35	0.9	25	1.1	40	1.3	10	0.4	25	0.8	1.4
	Aged 65+	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0.0
	All categories: Age 16+	8,695	1.5	1,225	1.6	1,850	2.0	1,375	1.7	2,920	1.6	405	1.2	245	1.0	345	1.1	85	0.4	240	0.8	1.3
	Age unknown (clerical claims)	5	-	0	-	0	-	0	-	5	-	0	-	0	-	0	-	0	-	0	-	-
	Aged 16-24	1,925	1.8	285	2.3	405	2.6	320	2.4	615	1.3	90	1.6	65	1.7	75	1.4	15	0.5	50	1.0	1.5
	Aged 16-17	5	-	0	-	0	-	5	-	0	-	0	-	0	-	0	-	0	-	0	-	-
	Aged 18-24	1,920	2.2	285	3.0	400	3.4	315	3.1	615	1.5	90	2.2	65	2.2	75	1.7	15	0.7	50	1.4	1.9
	Aged 18-21	1,170	-	180	-	250	-	185	-	360	-	55	-	45	-	45	-	10	-	40	-	-
	Aged 25-49	4,845	1.6	660	1.7	1,000	2.0	780	1.9	1,690	1.8	225	1.3	120	0.9	190	1.1	50	0.5	135	0.9	1.4
	Aged 25-29	1,160	1.9	160	2.1	235	2.3	195	2.4	415	1.9	55	1.8	25	1.0	45	1.5	5	0.4	30	1.2	1.6
Female	Aged 30-34	990	1.7	140	1.8	215	2.2	165	2.0	350	1.9	40	1.3	20	0.8	35	1.2	10	0.7	25	1.0	1.4
	Aged 35-39	840	1.6	105	1.6	170	2.0	150	2.0	295	1.8	40	1.3	25	1.2	30	1.0	10	0.6	20	0.8	1.3
	Aged 40-44	830	1.4	125	1.6	160	1.6	120	1.4	285	1.6	40	1.1	20	0.7	40	1.1	10	0.4	30	0.9	1.3
	Aged 45-49	1,025	1.5	135	1.5	220	2.0	155	1.6	350	1.8	50	1.1	35	1.1	40	1.0	15	0.5	30	0.8	1.3
	Aged 50+	1,920	1.1	280	1.2	450	1.5	275	1.1	610	1.3	90	0.8	55	0.7	80	0.8	25	0.3	55	0.5	1.0
	Aged 50-54	830	1.3	130	1.5	175	1.6	110	1.2	280	1.6	40	0.9	25	0.9	40	1.0	10	0.3	30	0.8	1.2
	Aged 55-59	720	1.2	95	1.2	185	1.8	100	1.2	225	1.5	35	0.9	20	0.8	30	0.9	10	0.4	15	0.4	1.2
	Aged 60-64	370	0.7	60	0.9	90	1.0	65	0.9	105	0.8	15	0.4	10	0.4	10	0.3	5	0.2	15	0.5	0.7
	Aged 65+	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0.0

Source: ONS claimant count by sex and age
% is number of claimants as a proportion of resident population of the same size
Claimant count is the number of people claiming benefit principally for the reason of being unemployed.

Table A.10: Working-age main benefit claimants (November 2015)

Benefit	SCR		Barnsley		Doncaster		Rotherham		Sheffield		Bassetlaw		Bolsover		Chesterfield		Derbyshire Dales		NE Derbyshire		GB
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	%
Total Claimants	169,510	14.6	25,410	16.9	29,860	15.6	26,760	16.6	50,550	13.7	9,020	12.8	7,480	15.4	10,140	15.4	3,000	7.1	7,280	12.1	11.8
By Statistical Group																					
Job seekers	23,500	2.0	2,740	1.8	4,560	2.4	4,070	2.5	8,970	2.4	870	1.2	590	1.2	860	1.3	210	0.5	640	1.1	1.5
ESA and Incapacity benefits	86,280	7.4	13,730	9.1	14,720	7.7	12,990	8.1	24,530	6.6	4,850	6.9	4,120	8.5	5,770	8.8	1,660	3.9	3,930	6.5	6.2
Lone Parents	14,070	1.2	2,110	1.4	2,710	1.4	2,170	1.3	4,500	1.2	720	1.0	510	1.1	740	1.1	180	0.4	440	0.7	1.1
Carers	25,510	2.2	3,900	2.6	4,370	2.3	4,400	2.7	7,200	1.9	1,340	1.9	1,250	2.6	1,400	2.1	470	1.1	1,180	2.0	1.6
Others on Income Related Benefits	3,330	0.3	470	0.3	640	0.3	520	0.3	980	0.3	170	0.2	130	0.3	220	0.3	60	0.1	160	0.3	0.2
Disabled	14,910	1.3	2,200	1.5	2,560	1.3	2,340	1.5	3,870	1.0	940	1.3	800	1.6	1,060	1.6	340	0.8	810	1.3	1.0
Bereaved	1,900	0.2	260	0.2	320	0.2	280	0.2	500	0.1	140	0.2	80	0.2	110	0.2	90	0.2	130	0.2	0.2
Main Out-of-Work Benefits †	127,180	11.0	19,050	12.7	22,610	11.8	19,740	12.2	38,980	10.5	6,600	9.3	5,350	11.0	7,570	11.5	2,110	5.0	5,170	8.6	9.0

Source: DWP benefit claimants - working age client group
† Main out-of-work benefits includes the groups: job seekers, ESA and incapacity benefits, lone parents and others on income related benefits.
% is a proportion of resident population of area aged 16-64
Figures in the table do not yet include claimants of Universal Credit

Table A.11: Status of 18-24 year olds in Sheffield City Region and districts

Area	**In employment**		**Unemployed**		**In full-time education**		**18-24 population**
	number	**%**	**number**	**%**	**number**	**%**	**number**
Barnsley	15,700	64.9	3,000	12.4	5,600	23.1	24,200
Doncaster	21,600	69.9	1,300	4.2	5,400	17.5	30,900
Rotherham	13,300	59.9	2,100	9.5	5,300	23.9	22,200
Sheffield	34,600	51.5	7,500	11.2	33,800	50.3	67,200
Bassetlaw	4,000	51.9	!	!	2,000	*	7,700
Bolsover	5,400	90.0	!	!	!	!	6,000
Chesterfield	9,300	83.0	!	!	4,400	*	11,200
Derbyshire Dales	4,200	100.0	!	!	!	!	4,200
North East Derbyshire	6,900	79.3	!	!	2,600	*	8,700
Sheffield City Region	115,000	63.1	15,400	8.5	61,200	33.6	182,200
England	2,974,400	61.6	426,600	8.8	1,523,000	31.5	4,831,900
Great Britain	3,449,700	61.5	492,500	8.8	1,778,400	31.7	5,609,300

Source: Annual Population Survey
Data has been suppressed where relevant
Percentages are given as "percentage of all population" and therefore do not represent unemployment rate (which is "percentage of those economically active")
Note that economic activity headings do not add to 100% of population figures

Table A.12: Travel to Learn statistics for FE adult skills (aged 19+)

FE Provider District	**Learner District**								
	Barnsley	**Bassetlaw**	**Bolsover**	**Chesterfield**	**Derbyshire Dales**	**Doncaster**	**NE Derbyshire**	**Rotherham**	**Sheffield**
Barnsley	13313	19	10	<10	<10	517	10	866	1465
Bassetlaw	65	3656	400	42	<10	342	31	174	60
Bolsover	-	-	-	-	-	-	-	-	-
Chesterfield	26	63	1904	4095	839	62	2654	51	541
Derbyshire Dales	-	-	-	-	-	-	-	-	-
Doncaster	125	360	10	17	<10	8732	19	213	68
North East Derbyshire	-	-	-	-	-	-	-	-	-
Rotherham	2063	170	23	27	<10	1913	75	13055	2028
Sheffield	259	69	47	251	39	732	587	892	27161
Non-SCR	3396	3001	3159	2067	1602	24032	1275	4800	6811

Source: Skills Funding Agency LEP Data Cube
Data has been suppressed where relevant

Table A.13: SCR Index of Multiple Deprivation (IMD) Statistics

Local Authority District code (2013)	**Local Authority District name (2013)**	**Average rank**	**Rank of average rank**	**Average score**	**Rank of average score**	**Proportion of LSOAs in most deprived 10% nationally**	**Rank of proportion of LSOAs in most deprived 10% nationally**	**Extent**	**Rank of extent**	**Local concentration**	**Rank of local concentration**
E08000016	Barnsley	21550.43	37	29.568	39	0.2177	32	0.3662	39	31798.97	48
E08000017	Doncaster	21067.75	48	29.051	42	0.2062	37	0.3569	42	31729.27	51
E07000033	Bolsover	20183.4	61	24.778	87	0.0417	142	0.2021	104	29282.26	143
E08000018	Rotherham	20182.99	62	28.279	52	0.1916	43	0.3231	52	32267.14	23
E07000034	Chesterfield	19375.63	85	25.32	81	0.087	96	0.2714	74	30801.87	94
E08000019	Sheffield	18943.81	94	27.568	60	0.2348	26	0.343	47	32188.9	29
E07000171	Bassetlaw	17685.8	115	22.729	114	0.0857	97	0.1988	107	31154.31	78
E07000038	North East Derbyshire	13909.58	190	16.843	184	0.0159	180	0.0875	172	27815.34	172
E07000035	Derbyshire Dales	10467.66	258	12.261	257	0.0233	165	0.0225	242	20811.97	284

Source: English Indices of Deprivation 2015
Only SCR Local Authority Districts have been shown
A low rank or score corresponds to a worse level of deprivation

Table A.14: Top 10 ranked LEPs by Index of Multiple Deprivation (IMD) (Rank 1 = worst)

Local Enterprise Partnership Code (2013)	**Local Authority District name (2013)**	**Average rank**	**Rank of average rank**	**Average score**	**Rank of average score**	**Proportion of LSOAs in most deprived 10% nationally**	**Rank of proportion of LSOAs in most deprived 10% nationally**	**Extent**	**Rank of extent**	**Local concentration**	**Rank of local concentration**
E37000022	Liverpool City Region	23755.58	1	33.26	1	0.3134	1	0.4408	1	35251.43	1
E37000001	Black Country	23657.81	2	30.111	2	0.1868	6	0.4252	2	34198.66	10
E37000015	Greater Manchester	21966.4	3	28.789	5	0.208	5	0.3648	5	34854.1	4
E37000012	Greater Birmingham and Solihull	21859.02	4	28.896	4	0.2391	3	0.3766	3	34751.31	6
E37000005	Cornwall and Isles of Scilly	21731.07	5	23.784	12	0.052	25	0.1439	21	32205.37	24
E37000034	Tees Valley	21446.14	6	29.726	3	0.2686	2	0.3744	4	35214.33	2
E37000040	Sheffield City Region	20940.92	7	26.441	7	0.1754	7	0.306	6	34596.32	7
E37000023	London	20804.37	8	23.913	11	0.0567	21	0.235	11	32451.04	22
E37000025	North Eastern	20803.6	9	25.756	8	0.1379	10	0.292	7	34282.82	9
E37000019	Lancashire	19877.22	10	25.569	9	0.1722	8	0.2828	10	34764.53	5

Source: English Indices of Deprivation 2015
Only SCR Local Authority Districts have been shown
A low rank or score corresponds to a worse level of deprivation

Table A.15: The breakdown of military personnel resettlement within districts of the SCR by date

Discharge Date	Barnsley	Bassetlaw	Bolsover	Chesterfield	Derbyshire Dales	Doncaster	North East Derbyshire	Rotherham	Sheffield	Total
January 2015	3	4	0	2	1	5	1	6	3	25
February 2015	5	1	1	3	1	7	1	6	2	27
March 2015	7	2	2	4	2	9	5	7	2	40
April 2015	9	0	1	1	0	8	0	3	3	25
May 2015	6	0	0	2	0	6	1	3	2	20
June 2015	5	1	1	3	0	10	3	5	0	28
July 2015	8	2	1	5	2	5	3	4	0	30
August 2015	3	1	2	1	1	3	0	3	5	19
September 2015	3	4	2	2	0	6	3	7	2	29
October 2015	7	0	2	2	1	4	4	2	5	27
November 2015	5	1	2	0	0	8	2	4	0	22
December 2015	4	1	0	1	1	2	1	5	2	17

Source: Career Transition Partnership (CTP) Future Horizons

Table A.16: The breakdown of military personnel resettlement within districts of the SCR by categories (2015)

Category	Barnsley	Bassetlaw	Bolsover	Chesterfield	Derbyshire Dales	Doncaster	North East Derbyshire	Rotherham	Sheffield	Total
Army	49	10	10	19	3	51	19	36	17	214
RAF	7	2	2	6	3	13	1	9	4	47
Royal Marines	4	3	0	0	3	1	2	3	2	18
Royal Navy	5	2	2	1	0	8	2	7	3	30
Active Post-Discharge	1	0	2	3	0	6	2	3	2	19
Declined CTP Service	1	0	0	2	1	3	0	3	0	10
Economically Inactive	2	1	0	1	0	2	0	3	2	11
Employed	45	11	9	15	6	45	13	28	16	188
Employed but Looking	2	0	0	2	0	1	0	1	0	6
Inactive	3	0	0	0	0	0	0	2	1	6
Non-Responder	8	4	3	3	2	10	4	13	4	51
Pre-Registration	2	1	0	0	0	4	5	2	1	15
Re-Engaged	1	0	0	0	0	2	0	0	0	3
Core Resettlement Programme	29	7	9	15	3	29	14	23	18	147
Employment Support Programme	4	4	1	5	3	8	4	10	1	40
ESL - Non Trained	16	3	1	3	2	13	3	7	4	52
ESL - Trained	5	1	0	0	0	4	0	5	1	16
Full-Programme (R)	1	0	1	0	0	2	1	0	0	5
Medical Discharge	8	2	2	2	1	14	1	7	2	39
Medical Discharge CTP Assist	1	0	0	1	0	1	0	0	0	3
Medical Discharge Deferred	0	0	0	0	0	1	1	2	0	4
Recruit Medical	1	0	0	0	0	1	0	1	0	3

Source: Career Transition Partnership (CTP) Future Horizons
"Economically Inactive" and "Inactive" refer to the same status (renamed recently)
"Core Resettlement Programme" and "Full-Progamme (R)" refer to the same category (renamed recently)
In Table 4.11, "Medical Discharge", "Medical Discharge CTP Assist" and "Medical Discharge Deferred" have been grouped together

B Definition of Status and Categories of Military Resettlement

The military resettlement figures in Table 4.11 are broken down in three ways: service, status of resettlement and category of personnel. Status of resettlement is broken down into:

Core Resettlement Programme A programme for personnel who have completed more than 6 years in service. These individuals can access assistance up to year years both prior and after their discharge date. Personnel can attend a Career Transition Workshop (CTW, 3 day event), as well as various briefings and workshops and are allocated a careers consultant. They are entitled to paid annual leave in order to attend courses prior to discharge. Each individual has access to a £700 resettlement grant to spend on training, as well as potentially a significant sum as part of their "enhanced learning credits".

Employment Support Programme A programme for personnel who have completed between 4 and 6 years service. They are entitled to attend a CTW and have a single appointment with a careers consultant. They have full access to online tools. If individuals within this category are deemed either "at risk" or vulnerable, then they can be referred to the Core Resettlement Programme. Many of these individuals start an apprenticeship or obtain an entry-level job post-discharge.

Early Service Leavers (trained or non-trained) Early Service Leavers (ESL) are classed as those individuals who have not completed 4 years in service. These include individuals who may become disillusioned with service life, those who have failed routine drugs tests or undertaken more serious crimes, those who cannot complete the training (for non-medical reasons) et cetera. Military offenders (theft, sexual offences etc.) are discharged into this category, since they lose their rights on leaving military service. These individuals often leave service very quickly (within days or 2 weeks). "At risk" or vulnerable individuals may be referred to the Core Resettlement Programme.

Medical Discharge Individuals who are discharged for medical reasons enter either the Core Resettlement Programme or engage CTP Assist. CTP Assist offers tailored support in order to help wounded, injured and sick personnel to achieve long-term employment.

Recruit Medical These are new recruits who have been medically discharged during their initial training (for example, injured during training). They are un-

able to finish training for medical reasons, but may re-enter service when they are once again medically fit.

The category of personnel is broken down into an individual's engagement with employability. The categorisation includes:

Active Post-discharge Individuals who are actively engaged with CTP and are looking for employment

Declined CTP service Individuals who choose not to engage with CTP programmes

Economically inactive Individuals who are economically inactive (e.g. sickness, medically discharged, caring responsibilities, further training/education).

Employed Individuals who have already gained employment.

Employed but looking Individuals who are employed already, but are seeking alternative work.

Non-responder / Pre-registration Individuals who are not responding to CTP's efforts for engagement with the programmes. Non-responders are those who have already left service (post-discharge) and pre-registration are those who are still in service but not replying.

Re-engaged Individuals who stopped engagement with CTP (for example, having gained employment) but who are now re-engaging with the service (typically 1 year later).

C Employment and Vacancies in SCR Districts

The following table details actual statistics that underlie Figures 5.3 and 7.2.

Table C.1: Historic and futuristic employment statistics and vacancies in SCR by district

District	Sector	2010 Jobs	2015 Jobs	2020 Jobs	Historic Change (2010-2015)	Historic Change %	Futuristic Change (2015 - 2020)	Futuristic Change %	Vacanies per working age population (%)	Number of vacancies
SCR Mean	Agriculture, Forestry and Fishing	404	403	384	-1	-0.3	-19	-4.7	0.03	22
Sheffield	Agriculture, Forestry and Fishing	414	225	200	-189	-45.7	-26	-11.3	0.00	44
Doncaster	Agriculture, Forestry and Fishing	536	411	397	-125	-23.3	-14	-3.5	0.01	23
Rotherham	Agriculture, Forestry and Fishing	174	238	229	64	36.8	-9	-3.9	0.01	10
Barnsley	Agriculture, Forestry and Fishing	285	372	363	87	30.5	-9	-2.4	0.01	10
Bolsover	Agriculture, Forestry and Fishing	137	156	142	19	13.9	-14	-9.2	0.00	0
Chesterfield	Agriculture, Forestry and Fishing	44	63	59	19	43.2	-4	-5.8	0.01	9
Derbyshire Dales	Agriculture, Forestry and Fishing	1,058	1,176	1,143	118	11.2	-33	-2.8	0.25	104
NE Derbyshire	Agriculture, Forestry and Fishing	435	419	386	-16	-3.7	-33	-7.8	0.00	0
Bassetlaw	Agriculture, Forestry and Fishing	555	567	539	12	2.2	-27	-4.8	0.00	2
SCR Mean	B.P.F. services	11,446	12,920	13,490	1,475	12.9	570	4.4	0.16	323
Sheffield	B.P.F. services	44,493	43,688	44,968	-805	-1.8	1,280	2.9	0.13	1461
Doncaster	B.P.F. services	14,150	18,503	20,250	4,353	30.8	1,747	9.4	0.18	337
Rotherham	B.P.F. services	15,229	18,067	18,606	2,838	18.6	539	3	0.33	532
Barnsley	B.P.F. services	8,734	12,792	13,875	4,058	46.5	1,083	8.5	0.10	149
Bolsover	B.P.F. services	3,227	3,864	3,933	637	19.7	70	1.8	0.02	8
Chesterfield	B.P.F. services	6,192	6,391	6,076	199	3.2	-315	-4.9	0.34	222
Derbyshire Dales	B.P.F. services	3,082	2,858	2,777	-224	-7.3	-81	-2.8	0.18	75
NE Derbyshire	B.P.F. services	3,279	3,232	3,421	-47	-1.4	190	5.9	0.02	10
Bassetlaw	B.P.F. services	4,625	6,888	7,504	2,263	48.9	616	8.9	0.15	109
SCR Mean	Construction	4,127	3,973	4,503	-155	-3.8	531	13.4	0.08	177
Sheffield	Construction	10,150	8,182	8,579	-1,968	-19.4	397	4.9	0.07	857

Continued on next page

Table C.1 – *Continued from previous page*

District	Sector	2010 Jobs	2015 Jobs	2020 Jobs	Historic Change (2010-2015)	Historic Change %	Futuristic Change (2015 - 2020)	Futuristic Change %	Vacanies per working age population (%)	Number of vacancies
Doncaster	Construction	7,211	6,543	7,157	-668	-9.3	614	9.4	0.16	305
Rotherham	Construction	6,777	6,223	6,941	-554	-8.2	718	11.5	0.09	144
Barnsley	Construction	4,060	4,869	5,954	809	19.9	1,085	22.3	0.08	114
Bolsover	Construction	1,854	2,146	2,697	292	15.7	551	25.7	0.01	6
Chesterfield	Construction	1,476	2,036	2,474	560	37.9	438	21.5	0.16	106
Derbyshire Dales	Construction	1,684	1,522	1,759	-162	-9.6	236	15.5	0.11	47
NE Derbyshire	Construction	1,915	1,980	2,275	65	3.4	295	14.9	0.02	10
Bassetlaw	Construction	2,020	2,252	2,694	232	11.5	442	19.6	0.01	6
SCR Mean	Creative and Digital Industries	2,870	2,825	2,962	-56	-1.9	138	4.9	0.12	229
Sheffield	Creative and Digital Industries	11,928	13,024	13,617	1,096	9.2	592	4.5	0.10	1204
Doncaster	Creative and Digital Industries	2,079	2,089	2,083	10	0.5	-7	-0.3	0.14	266
Rotherham	Creative and Digital Industries	2,736	2,847	2,973	111	4.1	126	4.4	0.11	176
Barnsley	Creative and Digital Industries	1,680	1,419	1,418	-261	-15.5	0	0	0.06	85
Bolsover	Creative and Digital Industries	1,531	952	1,166	-579	-37.8	214	22.4	0.02	10
Chesterfield	Creative and Digital Industries	2,443	1,995	1,985	-448	-18.3	-10	-0.5	0.17	109
Derbyshire Dales	Creative and Digital Industries	1,121	1,037	1,015	-169	-15.1	-22	-2.1	0.38	157
NE Derbyshire	Creative and Digital Industries	1,431	1,041	1,291	-390	-27.3	249	23.9	0.01	3
Bassetlaw	Creative and Digital Industries	885	1,015	1,112	130	14.7	97	9.6	0.07	50
SCR Mean	Education	8,062	8,172	7,999	109	1.4	-172	-2.1	0.54	1119
Sheffield	Education	27,045	31,173	31,571	4,128	15.3	398	1.3	0.44	5176
Doncaster	Education	11,003	10,204	9,937	-799	-7.3	-267	-2.6	0.71	1354
Rotherham	Education	9,392	9,099	8,858	-293	-3.1	-241	-2.6	0.65	1055
Barnsley	Education	7,126	7,192	6,999	66	0.9	-193	-2.7	0.75	1128
Bolsover	Education	2,538	2,337	2,069	-201	-7.9	-268	-11.5	0.03	13

Continued on next page

Table C.1 – *Continued from previous page*

District	Sector	2010 Jobs	2015 Jobs	2020 Jobs	Historic Change (2010-2015)	Historic Change %	Futuristic Change (2015 - 2020)	Futuristic Change %	Vacanies per working age population (%)	Number of vacancies
Chesterfield	Education	4,883	4,414	4,058	-469	-9.6	-357	-8.1	1.12	732
Derbyshire Dales	Education	3,025	2,323	1,997	-702	-23.2	-326	-14	0.61	255
NE Derbyshire	Education	3,831	2,743	2,585	-1,088	-28.4	-158	-5.7	0.04	24
Bassetlaw	Education	3,719	4,061	3,920	342	9.2	-141	-3.5	0.47	333
SCR Mean	Utilities	698	798	858	101	14.4	60	7.5	0.03	55
Sheffield	Utilities	1,407	1,874	2,048	467	33.2	173	9.2	0.02	214
Doncaster	Utilities	849	1,279	1,310	430	50.6	31	2.4	0.04	68
Rotherham	Utilities	1,273	1,574	1,818	301	23.6	244	15.5	0.05	81
Barnsley	Utilities	387	469	584	82	21.2	115	24.5	0.02	30
Bolsover	Utilities	203	438	360	235	115.8	-79	-18	0.00	0
Chesterfield	Utilities	157	213	227	56	35.7	14	6.6	0.11	74
Derbyshire Dales	Utilities	649	181	216	-468	-72.1	35	19.5	0.02	9
NE Derbyshire	Utilities	437	172	184	-265	-60.6	12	7	0.00	1
Bassetlaw	Utilities	918	985	977	67	7.3	-8	-0.9	0.02	16
SCR Mean	Health & Social care	12,571	13,331	14,085	761	6.1	754	5.7	1.08	1789
Sheffield	Health & Social care	39,316	44,588	48,313	5,272	13.4	3,725	8.4	0.58	6703
Doncaster	Health & Social care	18,882	21,742	22,744	2,860	15.1	1,002	4.6	1.37	2606
Rotherham	Health & Social care	13,259	13,483	14,289	224	1.7	807	6	1.31	2107
Barnsley	Health & Social care	12,892	12,642	13,316	-250	-1.9	673	5.3	1.02	1532
Bolsover	Health & Social care	2,683	2,809	2,955	126	4.7	146	5.2	0.23	111
Chesterfield	Health & Social care	11,015	10,904	11,074	-111	-1	170	1.6	2.07	1355
Derbyshire Dales	Health & Social care	3,342	2,850	2,965	-492	-14.7	116	4.1	1.81	756
NE Derbyshire	Health & Social care	3,800	3,712	3,804	-88	-2.3	92	2.5	0.12	73
Bassetlaw	Health & Social care	7,948	7,254	7,305	-694	-8.7	52	0.7	1.22	858
SCR Mean	Leisure, Tourism and Sport	6,509	6,958	7,125	450	6.9	167	2.4	0.36	560
Sheffield	Leisure, Tourism and Sport	20,841	21,845	22,465	1,004	4.8	620	2.8	0.22	2580
Doncaster	Leisure, Tourism and Sport	10,433	10,480	10,598	47	0.5	118	1.1	0.27	520
Rotherham	Leisure, Tourism and Sport	6,834	7,436	7,623	602	8.8	187	2.5	0.28	444
Barnsley	Leisure, Tourism and Sport	6,601	6,806	6,951	205	3.1	144	2.1	0.20	294
Bolsover	Leisure, Tourism and Sport	1,513	1,957	2,119	444	29.3	162	8.3	0.11	55
Chesterfield	Leisure, Tourism and Sport	3,125	3,218	3,332	93	3	114	3.6	0.55	360
Derbyshire Dales	Leisure, Tourism and Sport	4,110	5,108	5,214	998	24.3	106	2.1	1.29	540
NE Derbyshire	Leisure, Tourism and Sport	2,165	2,412	2,377	247	11.4	-34	-1.4	0.04	21
Bassetlaw	Leisure, Tourism and Sport	2,956	3,363	3,447	407	13.8	85	2.5	0.32	224

Continued on next page

Table C.1 – *Continued from previous page*

District	Sector	2010 Jobs	2015 Jobs	2020 Jobs	Historic Change (2010-2015)	Historic Change %	Futuristic Change (2015 - 2020)	Futuristic Change %	Vacanies per working age population (%)	Number of vacancies
SCR Mean	Logistics	2,854	3,023	3,297	169	5.9	274	9.1	0.16	234
Sheffield	Logistics	6,136	5,490	5,932	-646	-10.5	442	8	0.06	698
Doncaster	Logistics	6,439	6,837	7,672	398	6.2	836	12.2	0.19	362
Rotherham	Logistics	3,556	3,324	3,328	-232	-6.5	4	0.1	0.19	313
Barnsley	Logistics	1,826	4,211	5,184	2,385	130.6	973	23.1	0.11	165
Bolsover	Logistics	1,224	2,345	2,706	1,121	91.6	361	15.4	0.07	33
Chesterfield	Logistics	1,756	1,846	2,009	90	5.1	163	8.8	0.39	256
Derbyshire Dales	Logistics	1,307	698	597	-609	-46.6	-101	-14.5	0.14	59
NE Derbyshire	Logistics	813	771	812	-42	-5.2	40	5.2	0.01	5
Bassetlaw	Logistics	2,627	1,684	1,432	-943	-35.9	-252	-15	0.31	218
SCR Mean	Manufacturing	9,199	10,004	9,571	805	8.7	-432	-4.3	0.14	221
Sheffield	Manufacturing	21,909	24,626	23,010	2,717	12.4	-1,616	-6.6	0.07	850
Doncaster	Manufacturing	9,564	10,143	9,365	579	6.1	-778	-7.7	0.15	278
Rotherham	Manufacturing	12,330	14,667	14,057	2,337	19	-610	-4.2	0.11	185
Barnsley	Manufacturing	10,473	12,502	12,159	2,029	19.4	-342	-2.7	0.12	177
Bolsover	Manufacturing	4,796	4,464	4,210	-332	-6.9	-254	-5.7	0.01	5
Chesterfield	Manufacturing	5,785	4,988	4,709	-797	-13.8	-279	-5.6	0.39	259
Derbyshire Dales	Manufacturing	4,895	4,770	4,592	-125	-2.6	-178	-3.7	0.21	88
NE Derbyshire	Manufacturing	5,788	5,446	5,429	-342	-5.9	-17	-0.3	0.04	22
Bassetlaw	Manufacturing	7,249	8,426	8,612	1,177	16.2	186	2.2	0.18	128
SCR Mean	Mining and Quarrying	226	164	139	-62	-27.5	-25	-15	0.00	4
Sheffield	Mining and Quarrying	13	71	72	58	446.2	1	1.4	0.00	29
Doncaster	Mining and Quarrying	602	598	411	-4	-0.7	-187	-31.3	0.00	5
Rotherham	Mining and Quarrying	471	121	149	-350	-74.3	28	22.8	0.00	1
Barnsley	Mining and Quarrying	15	36	36	21	140	0	1.3	0.00	0
Bolsover	Mining and Quarrying	30	37	39	7	23.3	2	4.8	0.00	0
Chesterfield	Mining and Quarrying	0	43	44	43	0	2	4.2	0.00	0
Derbyshire Dales	Mining and Quarrying	406	378	362	-28	-6.9	-16	-4.2	0.00	0
NE Derbyshire	Mining and Quarrying	50	74	69	24	48	-5	-6.5	0.00	0
Bassetlaw	Mining and Quarrying	450	119	72	-331	-73.6	-47	-39.4	0.00	0
SCR Mean	Public admin. and Defence	5,089	3,564	3,509	-1,525	-30	-56	-1.6	0.03	52
Sheffield	Public admin. and Defence	13,691	11,904	11,565	-1,787	-13.1	-339	-2.8	0.02	235
Doncaster	Public admin. and Defence	6,702	4,481	4,485	-2,221	-33.1	4	0.1	0.03	57
Rotherham	Public admin. and Defence	6,993	5,637	5,940	-1,356	-19.4	303	5.4	0.03	46

Continued on next page

Table C.1 – *Continued from previous page*

District	Sector	2010 Jobs	2015 Jobs	2020 Jobs	Historic Change (2010-2015)	Historic Change %	Futuristic Change (2015 - 2020)	Futuristic Change %	Vacanies per working age population (%)	Number of vacancies
Barnsley	Public admin. and Defence	5,204	2,690	2,457	-2,514	-48.3	-233	-8.6	0.04	60
Bolsover	Public admin. and Defence	996	759	795	-237	-23.8	36	4.7	0.01	5
Chesterfield	Public admin. and Defence	2,886	1,878	1,868	-1,008	-34.9	-9	-0.5	0.01	9
Derbyshire Dales	Public admin. and Defence	6,902	2,752	2,275	-4,150	-60.1	-477	-17.3	0.05	22
NE Derbyshire	Public admin. and Defence	430	417	510	-13	-3	94	22.5	0.01	3
Bassetlaw	Public admin. and Defence	2,000	1,563	1,681	-437	-21.9	118	7.5	0.05	32
SCR Mean	Science and Research	237	320	371	83	34.9	50	15.8	0.06	64
Sheffield	Science and Research	719	1,470	1,824	751	104.5	354	24.1	0.02	185
Doncaster	Science and Research	179	123	97	-56	-31.3	-27	-21.5	0.01	26
Rotherham	Science and Research	700	384	351	-316	-45.1	-34	-8.8	0.02	25
Barnsley	Science and Research	113	106	105	-7	-6.2	-1	-1.3	0.01	14
Bolsover	Science and Research	65	104	142	39	60	37	35.8	0.00	0
Chesterfield	Science and Research	59	115	129	56	94.9	14	12.2	0.47	306
Derbyshire Dales	Science and Research	131	208	248	77	58.8	40	19.4	0.03	13
NE Derbyshire	Science and Research	93	181	211	88	94.6	30	16.5	0.00	0
Bassetlaw	Science and Research	77	190	229	113	146.8	40	21	0.00	3
SCR Mean	Transportation	1,015	906	922	-109	-10.7	16	1.7	0.00	9
Sheffield	Transportation	2,958	3,333	3,400	375	12.7	68	2	0.00	41
Doncaster	Transportation	2,781	1,127	901	-1,654	-59.5	-227	-20.1	0.02	36
Rotherham	Transportation	1,054	1,161	1,178	107	10.2	17	1.4	0.00	4
Barnsley	Transportation	614	746	864	132	21.5	118	15.9	0.00	2
Bolsover	Transportation	127	248	330	121	95.3	82	33	0.00	0
Chesterfield	Transportation	529	548	603	19	3.6	55	10.1	0.00	1
Derbyshire Dales	Transportation	309	323	324	14	4.5	1	0.4	0.00	0
NE Derbyshire	Transportation	175	184	199	9	5.1	15	8.1	0.00	0
Bassetlaw	Transportation	590	485	498	-105	-17.8	13	2.7	0.00	1
SCR Mean	Wholesale and Retail	12,892	13,467	13,935	575	4.5	468	3.5	0.30	510
Sheffield	Wholesale and Retail	39,464	40,770	42,258	1,306	3.3	1,488	3.7	0.18	2062
Doncaster	Wholesale and Retail	20,693	19,689	19,809	-1,004	-4.9	120	0.6	0.41	774
Rotherham	Wholesale and Retail	14,789	14,582	15,021	-207	-1.4	439	3	0.27	443
Barnsley	Wholesale and Retail	10,709	11,193	11,772	484	4.5	580	5.2	0.27	409
Bolsover	Wholesale and Retail	4,652	6,163	6,675	1,511	32.5	512	8.3	0.06	28
Chesterfield	Wholesale and Retail	9,186	10,467	10,710	1,281	13.9	243	2.3	0.67	442
Derbyshire Dales	Wholesale and Retail	4,830	5,219	5,414	389	8.1	195	3.7	0.44	182

Continued on next page

Table C.1 – *Continued from previous page*

District	Sector	2010 Jobs	2015 Jobs	2020 Jobs	Historic Change (2010-2015)	Historic Change %	Futuristic Change (2015 - 2020)	Futuristic Change %	Vacanies per working age population (%)	Number of vacancies
NE Derbyshire	Wholesale and Retail	3,698	4,215	4,448	517	14	233	5.5	0.03	18
Bassetlaw	Wholesale and Retail	8,006	8,904	9,309	898	11.2	406	4.6	0.33	234

D Secondary Schools in SCR

Table D.1: Secondary Schools in SCR and Ofsted Ratings

Establishment name	LA	Type	Rating
Abbey School	Rotherham	Special School	No Ofsted assessment published
All Saints' Catholic High School	Sheffield	Academy	Good
Anthony Gell School	Derbyshire	Maintained School	Good
Armthorpe Academy	Doncaster	Academy	Requires Improvement
Ash Hill Academy	Doncaster	Academy	Requires Improvement
Ashgate Croft School	Derbyshire	Special School	Outstanding
Aston Academy	Rotherham	Academy	Good
Balby Carr Community Academy	Doncaster	Academy	Requires Improvement
Barnsley Academy	Barnsley	Academy	Requires Improvement
Bents Green School	Sheffield	Special School	Good
Birley Community College	Sheffield	Maintained School	Requires Improvement
Bradfield School	Sheffield	Academy	Good
Brinsworth Academy	Rotherham	Academy	Good
Brookfield Academy Trust	Derbyshire	Academy	Good
Campsmount (A Co-Operative Academy)	Doncaster	Academy	Requires Improvement
Carlton Community College	Barnsley	Maintained School	No Ofsted assessment published
Chaucer School	Sheffield	Academy	Inadequate
Clifton Community School	Rotherham	Maintained School	Inadequate
Coppice School	Doncaster	Special School	Good
Darton College	Barnsley	Maintained School	Good
De Warenne Academy	Doncaster	Academy	Requires Improvement
Dinnington High School	Rotherham	Academy	Good
Don Valley Academy and Performing Arts College	Doncaster	Academy	Inadequate
Doncaster School for the Deaf	Doncaster	Special School	Good
Dove School	Barnsley	Special School	No Ofsted assessment published
Dronfield Henry Fanshawe School	Derbyshire	Maintained School	Outstanding
Ecclesfield School	Sheffield	Academy	Good
Eckington School	Derbyshire	Maintained School	Requires Improvement
Fir Vale School Academy Trust	Sheffield	Academy	Good
Firth Park Academy	Sheffield	Academy	Good
Forge Valley School	Sheffield	Academy	No Ofsted assessment published
Frederick Gent School	Derbyshire	Maintained School	Requires Improvement
Fullerton House School	Doncaster	Special School	No Ofsted assessment published
Greenacre School	Barnsley	Special School	No Ofsted assessment published
Greenacre School	Barnsley	Special School	Outstanding
Hall Cross Academy	Doncaster	Academy	Good
Handsworth Grange Community Sports College	Sheffield	Maintained School	Good
Hasland Hall Community School	Derbyshire	Maintained School	Good
Heatherwood School	Doncaster	Special School	Outstanding

Continued on next page

Table D.1 – *Continued from previous page*

Establishment name	LA	Type	Rating
Heritage High School	Derbyshire	Maintained School	Requires Improvement
Heritage Park Community School	Sheffield	Special School	Good
High Storrs School	Sheffield	Maintained School	Good
Highfields School	Derbyshire	Maintained School	Good
Hilltop School	Rotherham	Special School	Good
Hinde House 3-16 School	Sheffield	Academy	Good
Holgate Meadows Community Special School	Sheffield	Special School	Good
Holly House Special School	Derbyshire	Special School	Good
Holy Trinity	Barnsley	Maintained School	Good
Horizon Community College	Barnsley	Maintained School	Good
Hungerhill School	Doncaster	Academy	Outstanding
Kelford School	Rotherham	Special School	Good
King Ecgbert School	Sheffield	Academy	Outstanding
King Edward VII School	Sheffield	Maintained School	Good
Kirk Balk Academy	Barnsley	Academy	No Ofsted assessment published
Kirk Balk Community College	Barnsley	Maintained School	No Ofsted assessment published
Lady Manners School	Derbyshire	Maintained School	Good
Maltby Academy	Rotherham	Academy	Good
Meadowhead School Academy Trust	Sheffield	Academy	Good
Mexborough Academy	Doncaster	Academy	No Ofsted assessment published
Milton School	Rotherham	Special School	Outstanding
Netherthorpe School	Derbyshire	Academy	Good
Netherwood Advanced Learning Centre	Barnsley	Maintained School	Requires Improvement
Newfield Secondary School	Sheffield	Academy	No Ofsted assessment published
Newman School	Rotherham	Special School	Good
North Ridge Community School	Doncaster	Special School	Requires Improvement
Notre Dame High School	Sheffield	Academy	Outstanding
Oakwood High School	Rotherham	Academy	Good
Oasis Academy Don Valley	Sheffield	Academy	No Ofsted assessment published
Outwood Academy Adwick	Doncaster	Academy	Outstanding
Outwood Academy Carlton	Barnsley	Academy	No Ofsted assessment published
Outwood Academy City	Sheffield	Academy	No Ofsted assessment published
Outwood Academy Danum	Doncaster	Academy	Requires Improvement
Outwood Academy Newbold	Derbyshire	Academy	No Ofsted assessment published
Outwood Academy Portland	Nottinghamshire	Academy	Outstanding
Outwood Academy Shafton	Barnsley	Academy	No Ofsted assessment published
Outwood Academy Valley	Nottinghamshire	Academy	Good
Paces High Green School for Conductive Education	Sheffield	Special School	Outstanding
Park House School	Barnsley	Special School	No Ofsted assessment published
Parkside Community School	Derbyshire	Maintained School	Requires Improvement
Parkwood E-Act Academy	Sheffield	Academy	Good
Penistone Grammar School	Barnsley	Maintained School	Good
Pennine View School	Doncaster	Special School	Good
Queen Elizabeth's Grammar School	Derbyshire	Academy	Good
Rawmarsh Community School	Rotherham	Academy	No Ofsted assessment published
Retford Oaks Academy	Nottinghamshire	Academy	Requires Improvement
Ridgewood School	Doncaster	Academy	Good
Rossington All Saints Academy	Doncaster	Academy	Good
Saint Pius X Catholic High School A Specialist School in Humanities	Rotherham	Maintained School	Good

Continued on next page

Table D.1 – *Continued from previous page*

Establishment name	LA	Type	Rating
Serlby Park Academy	Nottinghamshire	Academy	Good
Seven Hills School	Sheffield	Special School	Outstanding
Shafton Advanced Learning Centre	Barnsley	Maintained School	No Ofsted assessment published
Sheffield Park Academy	Sheffield	Academy	Good
Sheffield Springs Academy	Sheffield	Academy	Requires Improvement
Shirebrook Academy	Derbyshire	Academy	Outstanding
Silverdale School	Sheffield	Academy	Outstanding
Sir Thomas Wharton Community College	Doncaster	Academy	Inadequate
Springwell Community College	Derbyshire	Maintained School	Requires Improvement
Springwell Special Academy	Barnsley	Academy	Outstanding
St Bernard's Catholic High School	Rotherham	Academy	Outstanding
St Giles School	Nottinghamshire	Special School	Good
St Mary's Catholic High School, A Catholic Voluntary Academy	Derbyshire	Academy	Outstanding
Stocksbridge High School	Sheffield	Maintained School	Requires Improvement
Stone Hill School	Doncaster	Special School	Outstanding
Stubbin Wood School	Derbyshire	Special School	Outstanding
Swinton Community School	Rotherham	Maintained School	Good
Talbot Specialist School	Sheffield	Special School	Outstanding
Tapton School	Sheffield	Academy	Outstanding
The Bolsover School	Derbyshire	Academy	Requires Improvement
The Dearne Advanced Learning Centre	Barnsley	Maintained School	Requires Improvement
The Elizabethan Academy	Nottinghamshire	Academy	Good
The Hayfield School	Doncaster	Academy	Good
The McAuley Catholic High School	Doncaster	Academy	Outstanding
The Robert Ogden School	Barnsley	Special School	No Ofsted assessment published
The Willows School	Rotherham	Special School	Good
Thrybergh Academy and Sports College	Rotherham	Academy	Good
Tibshelf Community School	Derbyshire	Maintained School	Good
Trinity Academy	Doncaster	Academy	Requires Improvement
Tupton Hall School	Derbyshire	Maintained School	Requires Improvement
Tuxford Academy	Nottinghamshire	Academy	Outstanding
UTC Sheffield	Sheffield	Academy	Good
UTC Sheffield Olympic Legacy Park	Sheffield	Free School- UTC	No Ofsted assessment published
Wales High School	Rotherham	Academy	Good
Wath Comprehensive School : A Language College	Rotherham	Maintained School	Good
Westfield School	Sheffield	Maintained School	Requires Improvement
Whittington Green School	Derbyshire	Maintained School	Requires Improvement
Wickersley School and Sports College	Rotherham	Academy	Outstanding
Wingfield Academy	Rotherham	Academy	Requires Improvement
Winterhill School	Rotherham	Maintained School	Good
XP School	Doncaster	Academy	No Ofsted assessment published
Yewlands Technology College	Sheffield	Academy	Inadequate

E Further Education Statistics

Table E.1: Qualification statistics of 19 year olds achieving Level 2 or 3 in SCR (2014/15).

	Population of 19 years olds			Percentage of 19 year olds qualified to Level 2			Percentage of 19 year olds qualified to Level 2 with English and Maths			Percentage of 19 year olds qualified to Level 3		
	Not eligible for FSM	Eligible for FSM	Total	Not eligible for FSM	Eligible for FSM	Total	Not eligible for FSM	Eligible for FSM	Total	Not eligible for FSM	Eligible for FSM	Total
England	**482,090**	**80,535**	**562,620**	**88.4**	**71.9**	**86.0**	**71.7**	**45.2**	**67.9**	**60.9**	**36.4**	**57.4**
Derbyshire	7,405	890	8,295	87.5	66.5	85.3	71.3	39.9	68.0	57.6	23.7	54.0
Nottinghamshire	7,735	1,005	8,740	85.7	64.0	83.2	70.1	39.1	66.5	53.8	23.8	50.4
Barnsley	2,100	470	2,570	85.6	63.7	81.6	68.5	38.6	63.0	51.2	21.2	45.7
Doncaster	2,920	565	3,485	84.6	64.5	81.3	67.7	39.1	63.0	51.9	25.6	47.7
Rotherham	3,000	530	3,530	85.9	64.0	82.7	71.2	40.7	66.7	55.4	29.7	51.5
Sheffield	4,565	870	5,435	85.7	65.1	82.4	70.5	40.0	65.6	59.2	35.5	55.4
SCR Estimate	**17,003**	**2,977**	**19,981**	**85.9**	**64.7**	**82.7**	**70.0**	**39.6**	**65.5**	**55.6**	**28.2**	**51.5**

Source: Department for Education

Table E.2: Number of 19 year olds achieving Level 2 in Maths and English in SCR.

	Percentage of 19 year olds attaining GCSE A*-C or other Level 2 qualifications in English and maths, for those who had not achieved this level by age 16	Number of 19 year olds attaining GCSE A*-C or other Level 2 qualifications in English and maths, for those who had not achieved this level by age 16
England	**22.3**	**48,460**
Derbyshire	22.2	705
Nottinghamshire	17.0	535
Derbyshire in SCR (44%) [1]	-	310
Nottinghamshire in SCR (15%) [1]	-	80
Barnsley	31.6	395
Doncaster	17.5	245
Rotherham	18.1	230
Sheffield	19.7	420
SCR Estimate	**21.0** [2]	**1,680**

Source: Department for Education

1: SCR statistics have been estimated using 16-18 population statistics.

2: This SCR percentage is only an average of percentages (i.e. not a weighted average) due to lack of availability of 16-year old population statistics

F Further Education and Training Provision by Sector Subject Area

Table F.1: Education and Training: The breakdown of provision by Tier 1 and Tier 2 levels in SCR in 2014/15. Numbers are rounded and may not necessarily add up correctly. Source: SFA LEP datacube

Learning Aim Sector Subject Area Tier	Starts	Achievements
01 - Health, Public Services and Care	**21,920**	**19,650**
01 - Health, Public Services and Care	<10	20
01.1 - Medicine and Dentistry	130	40
01.2 - Nursing and Subjects and Vocations Allied to Medicine	790	730
01.3 - Health and Social Care	16,500	14,940
01.4 - Public Services	2,670	2,240
01.5 - Child Development and Well Being	1,840	1,680
02 - Science and Mathematics	**9,920**	**7,280**
02.1 - Science	4,350	3,270
02.2 - Mathematics and Statistics	5,570	4,010
03 - Agriculture, Horticulture and Animal Care	**2,670**	**2,210**
03 - Agriculture, Horticulture and Animal Care	<10	<10
03.1 - Agriculture	430	360
03.2 - Horticulture and Forestry	830	720
03.3 - Animal Care and Veterinary Science	1,130	910
03.4 - Environmental Conservation	270	220
04 - Engineering and Manufacturing Technologies	**14,780**	**17,940**
04 - Engineering and Manufacturing Technologies	20	50
04.1 - Engineering	3,810	3,370
04.2 - Manufacturing Technologies	1,860	1,820
04.3 - Transportation Operations and Maintenance	9,100	12,710
05 - Construction, Planning and the Built Environment	**8,310**	**7,410**
05 - Construction, Planning and the Built Environment	<10	50
05.1 - Architecture	<10	<10
05.2 - Building and Construction	8,280	7,350
05.3 - Urban, Rural and Regional Planning	30	10
06 - Information and Communication Technology	**10,410**	**8,680**
06.1 - ICT Practitioners	1,760	1,400
06.2 - ICT for Users	8,650	7,280
07 - Retail and Commercial Enterprise	**13,430**	**11,970**
07 - Retail and Commercial Enterprise	<10	30
07.1 - Retailing and Wholesaling	1,220	1,160
07.2 - Warehousing and Distribution	1,220	1,140
07.3 - Service Enterprises	5,520	4,840
07.4 - Hospitality and Catering	5,460	4,800
08 - Leisure, Travel and Tourism	**6,120**	**5,540**

Table F.1: *(continued - Education and Training)*

Learning Aim Sector Subject Area Tier	Starts	Achievements
08 - Leisure, Travel and Tourism	<10	<10
08.1 - Sport, Leisure and Recreation	5,530	5,060
08.2 - Travel and Tourism	590	480
09 - Arts, Media and Publishing	**12,210**	**10,640**
09 - Arts, Media and Publishing	<10	<10
09.1 - Performing Arts	2,330	2,040
09.2 - Crafts, Creative Arts and Design	7,790	6,890
09.3 - Media and Communication	2,070	1,700
09.4 - Publishing and Information Services	20	<10
10 - History, Philosophy and Theology	**1,170**	**970**
10 - History, Philosophy and Theology	20	20
10.1 - History	770	640
10.2 - Archaeology and Archaeological Sciences	90	90
10.3 - Philosophy	140	80
10.4 - Theology and Religious Studies	160	140
11 - Social Sciences	**1,890**	**1,430**
11 - Social Sciences	230	140
11.1 - Geography	360	310
11.2 - Sociology and Social Policy	950	700
11.3 - Politics	150	120
11.4 - Economics	200	170
12 - Languages, Literature and Culture	**7,710**	**5,940**
12.1 - Languages, Literature and Culture of the British Isles	6,930	5,290
12.2 - Other Languages, Literature and Culture	740	630
12.3 - Linguistics	40	20
13 - Education and Training	**2,560**	**2,050**
13 - Education and Training	<10	<10
13.1 - Teaching and Lecturing	870	650
13.2 - Direct Learning Support	1,690	1,400
14 - Preparation for Life and Work	**92,160**	**70,300**
14 - Preparation for Life and Work	<10	20
14.1 - Foundations for Learning and Life	54,710	35,550
14.2 - Preparation for Work	37,450	34,740
15 - Business, Administration and Law	**10,540**	**8,980**
15 - Business, Administration and Law	<10	30
15.1 - Accounting and Finance	1,440	940
15.2 - Administration	3,460	3,320
15.3 - Business Management	4,840	4,110
15.4 - Marketing and Sales	50	20
15.5 - Law and Legal Services	750	560
U - Unknown	**8,750**	**8,880**
X - Not Applicable	**5,840**	**6,310**
Grand Total	**230,390**	**196,170**

G Tier3 Statistics for F.E. Education & Training

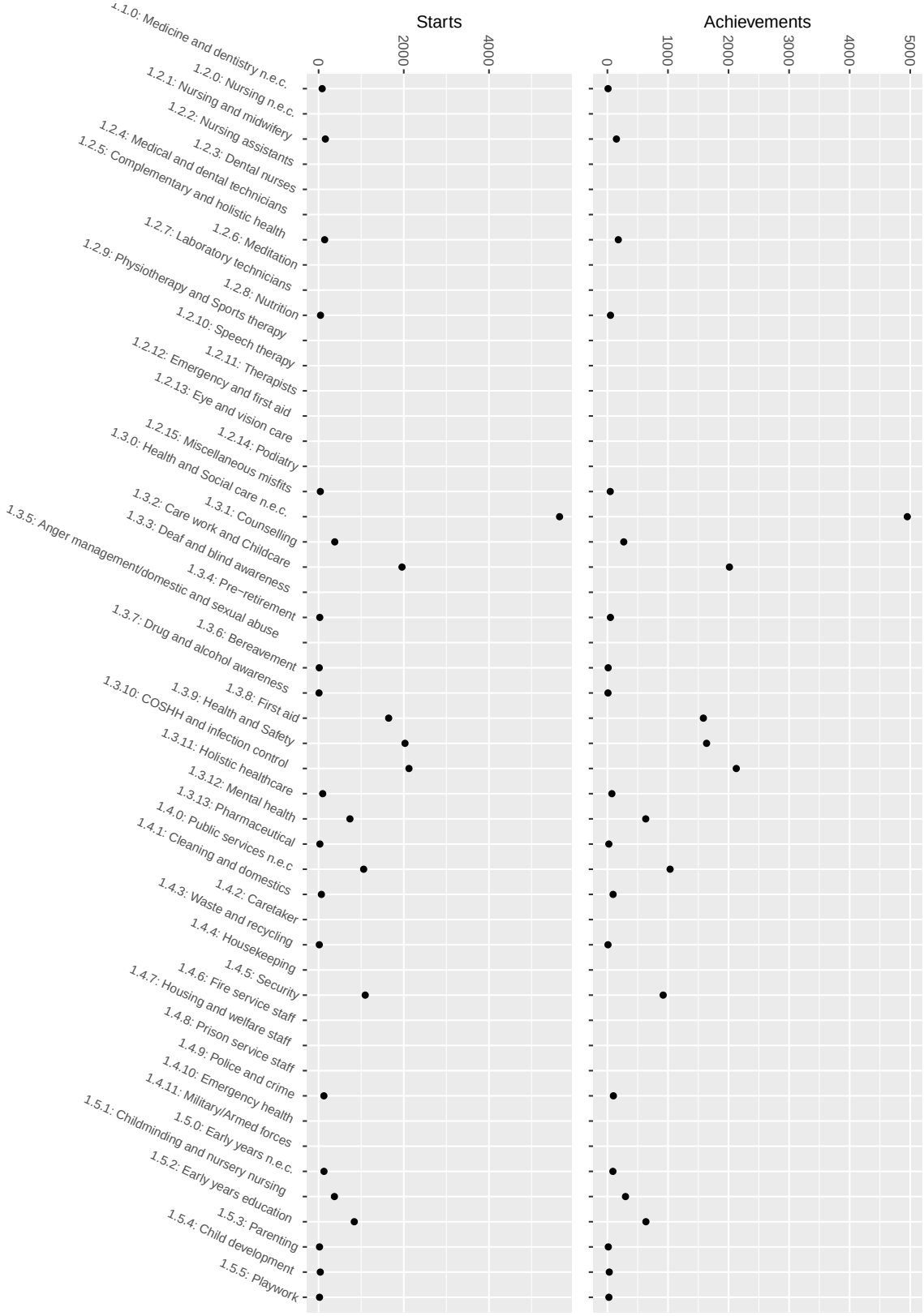


Figure G.1: Breakdown of Tier 1 "Health, Public Services and Care" into Tier 3 levels. Learning Aim References (x axis) against starts (bottom panel) and achievements (top panel) for 2014.

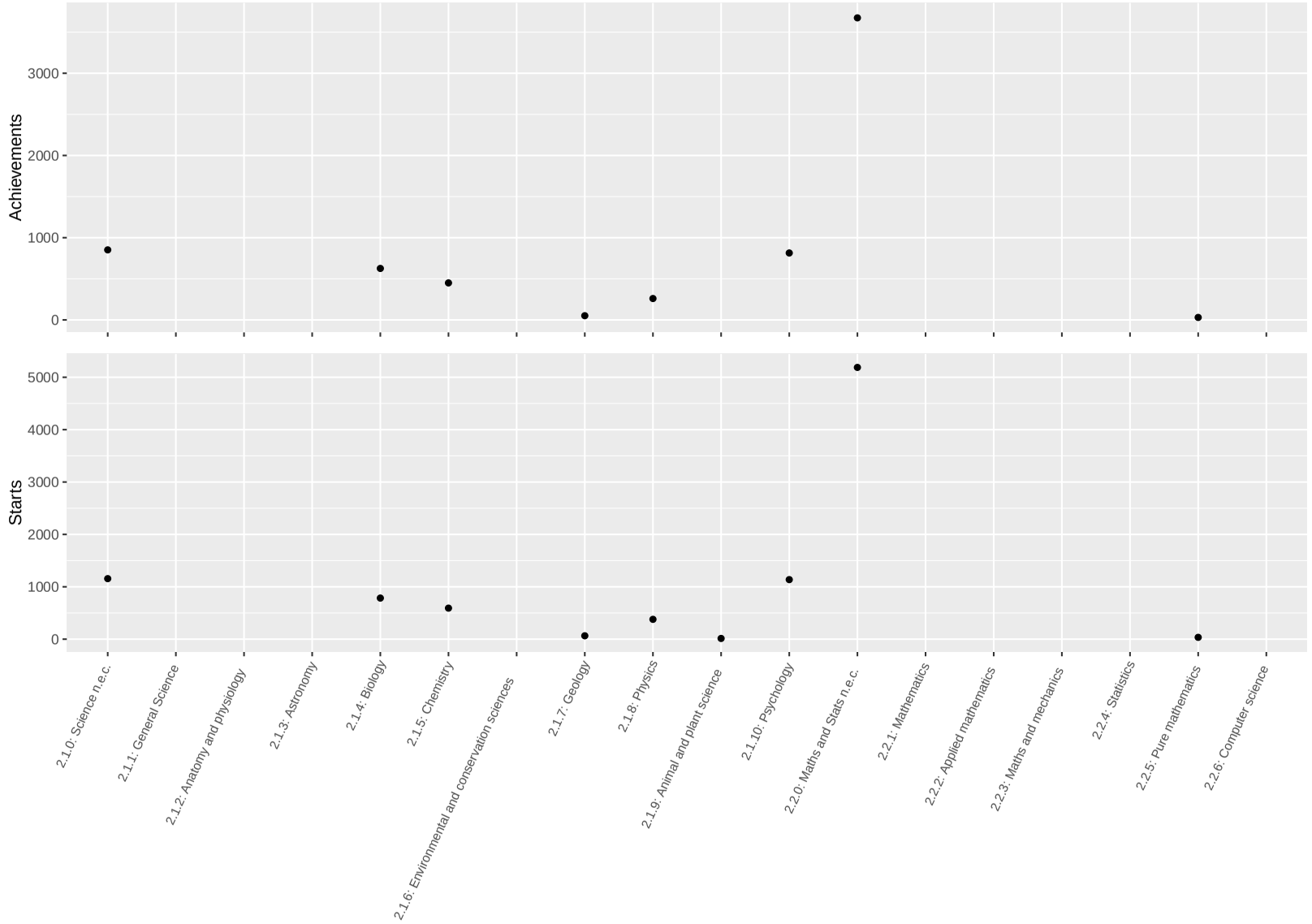


Figure G.2: Breakdown of Tier 1 Level 2 "Science and Maths' into Tier 3 levels. Learning Aim References (x axis) against starts (bottom panel) and achievements (top panel) for 2014.

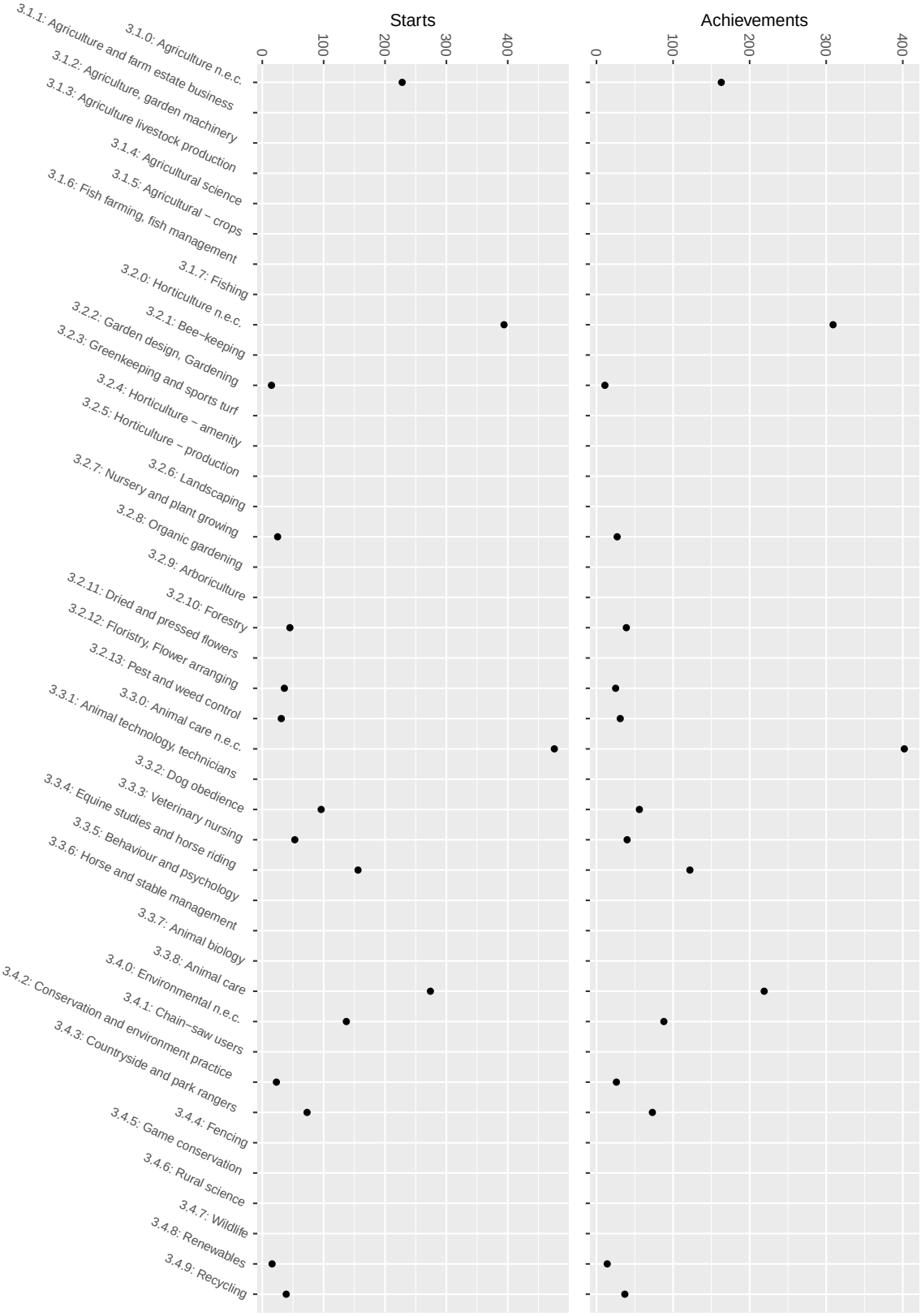


Figure G.3: Breakdown of Tier 1 Level 3 "Agriculture, Horticulture and Animal Care" into Tier 3 levels. Learning Aim References (x axis) against starts (bottom panel) and achievements (top panel) for 2014.

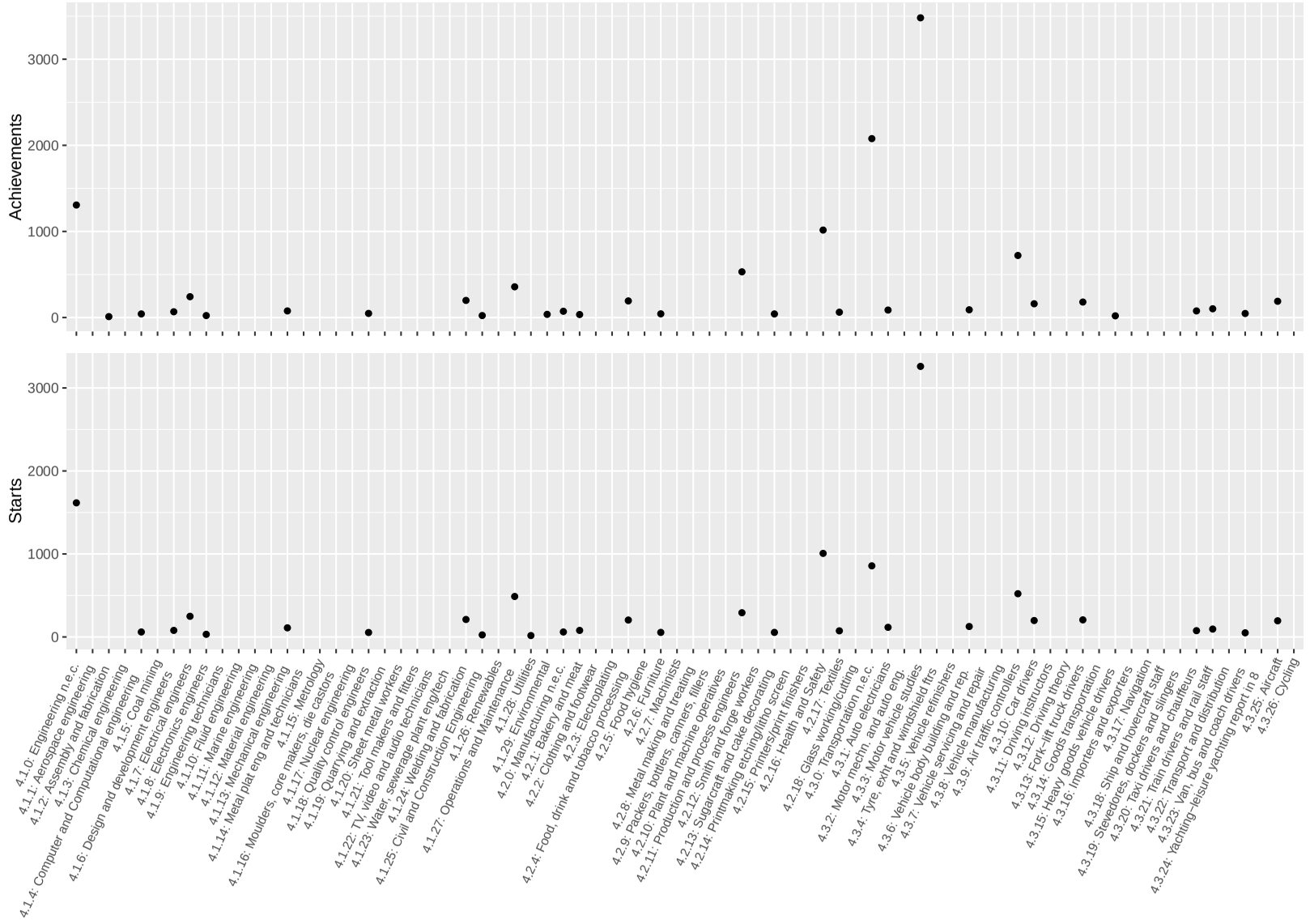


Figure G.4: Breakdown of Tier 1 Level 4 “Engineering and Manufacturing Technologies” into Tier 3 levels. Learning Aim References (x axis) against starts (bottom panel) and achievements (top panel) for 2014.

Figure G.5: Breakdown of Tier 1 Level 5 "Construction, Planning and the Built Environment" into Tier 3 levels. Learning Aim References (x axis) against starts (bottom panel) and achievements (top panel) for 2014.

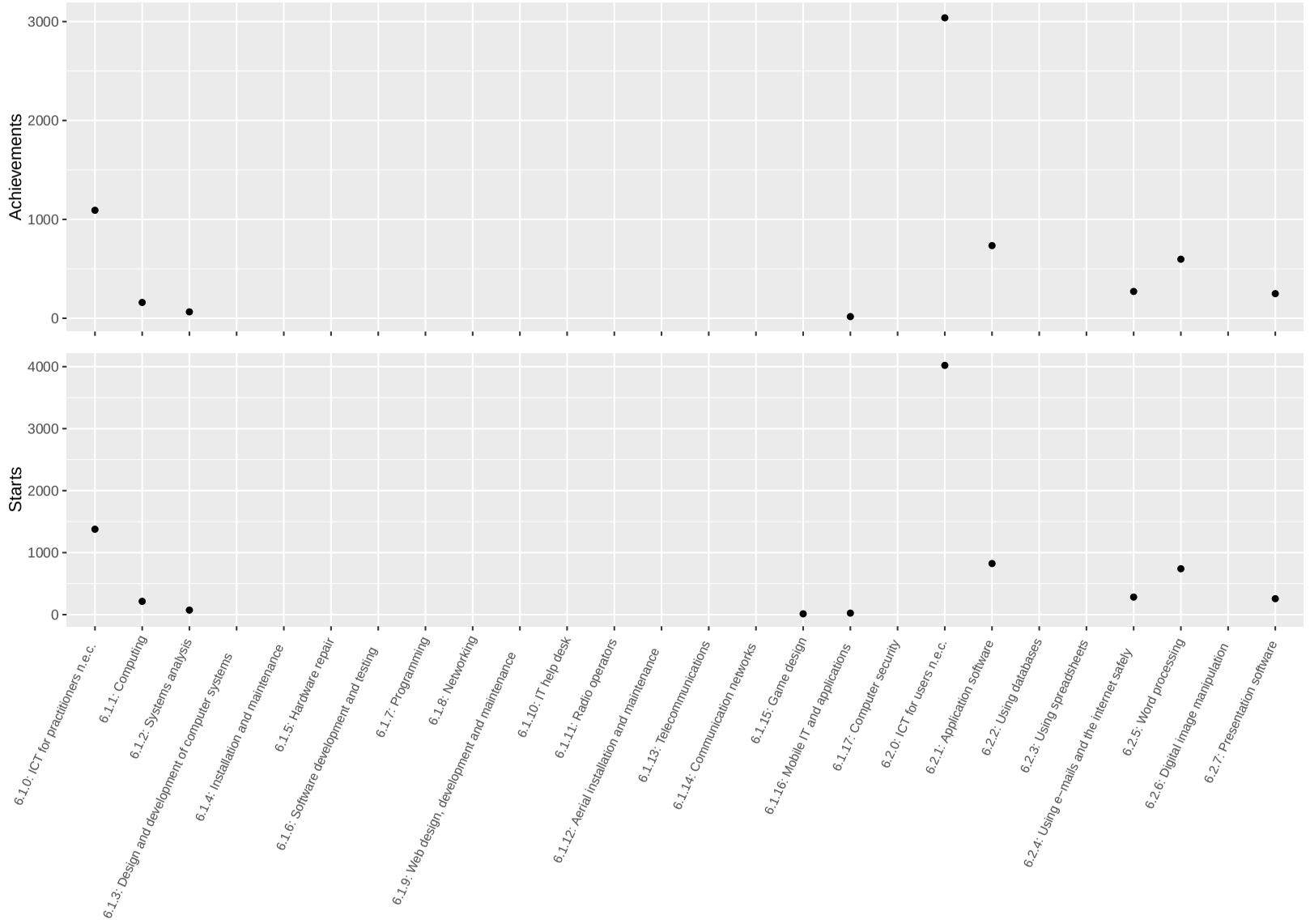


Figure G.6: Breakdown of Tier 1 Level 6 “Information and Communication Technology” into Tier 3 levels. Learning Aim References (x axis) against starts (bottom panel) and achievements (top panel) for 2014.

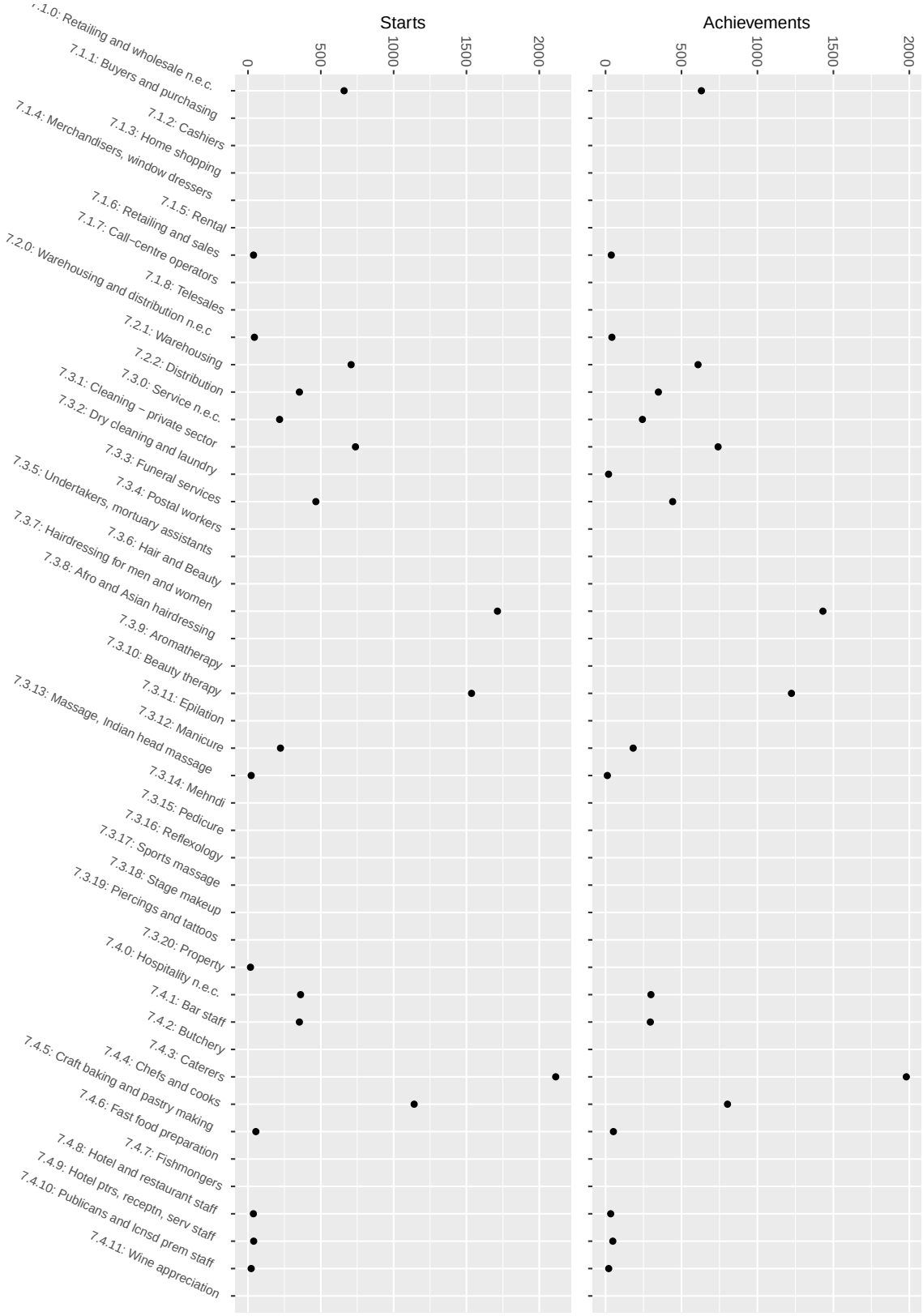


Figure G.7: Breakdown of Tier 1 Level 7 "Retail and Commercial Enterprise" into Tier 3 levels. Learning Aim References (x axis) against starts (bottom panel) and achievements (top panel) for 2014.

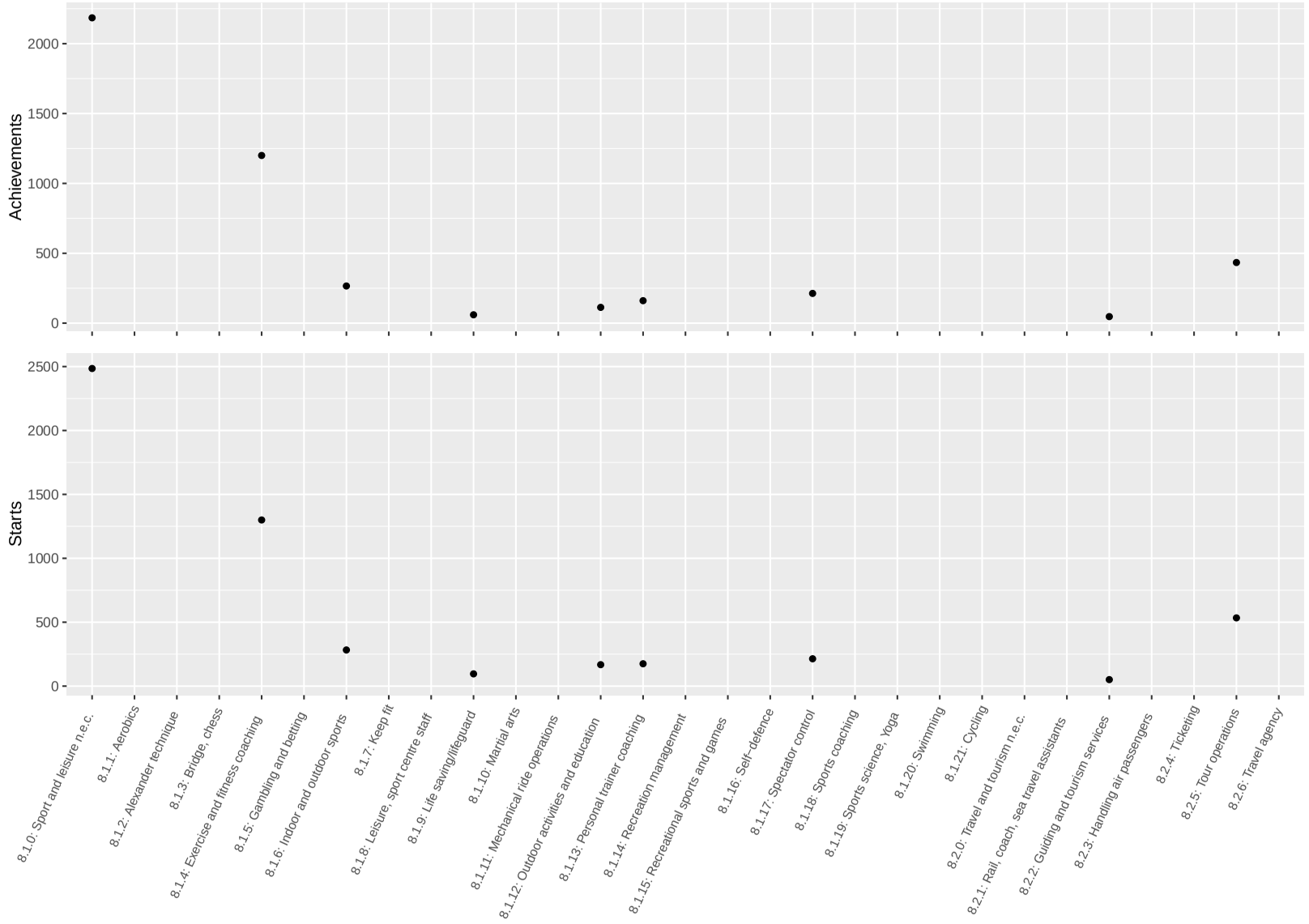


Figure G.8: Breakdown of Tier 1 Level 8 “Leisure, Travel and Tourism” into Tier 3 levels. Learning Aim References (x axis) against starts (bottom panel) and achievements (top panel) for 2014.

Figure G.9: Breakdown of Tier 1 Level 9 "Arts, Media and Publishing" into Tier 3 levels. Learning Aim References (x axis) against starts (bottom panel) and achievements (top panel) for 2014.

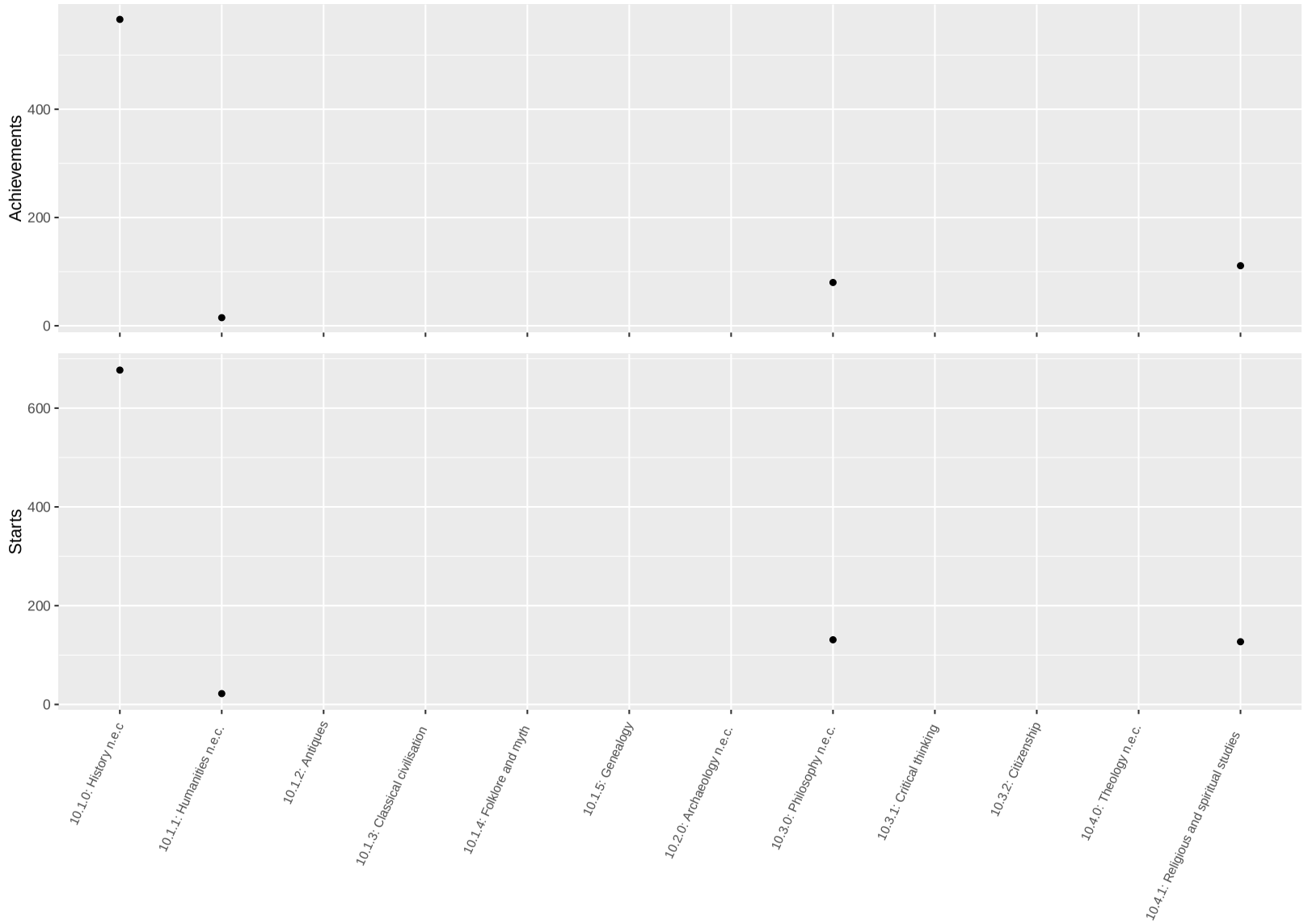


Figure G.10: Breakdown of Tier 1 Level 10 “History, Philosophy and Theology” into Tier 3 levels. Learning Aim References (x axis) against starts (bottom panel) and achievements (top panel) for 2014.

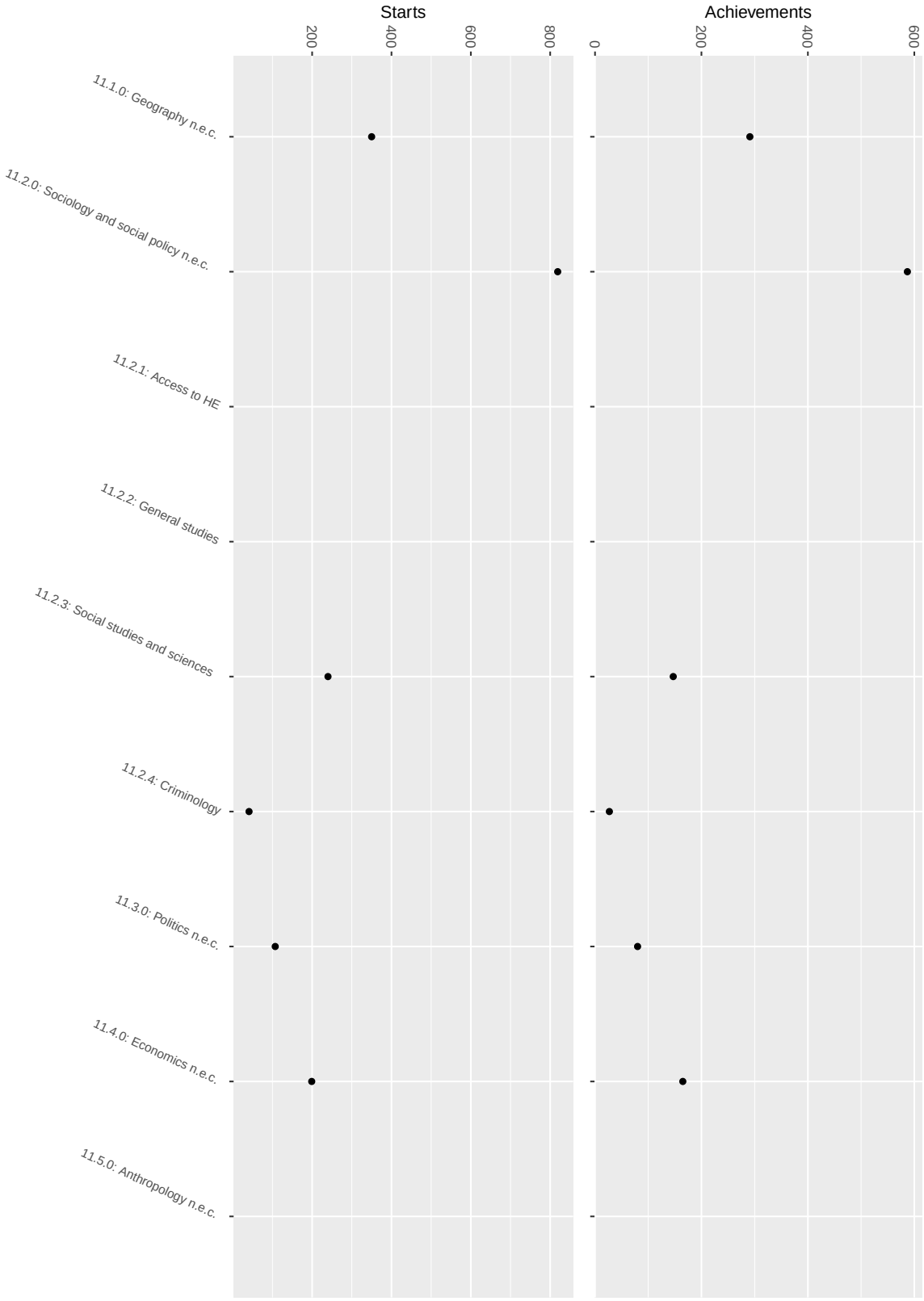


Figure G.11: Breakdown of Tier 1 Level 11 "Social Sciences" into Tier 3 levels. Learning Aim References (x axis) against starts (bottom panel) and achievements (top panel) for 2014.

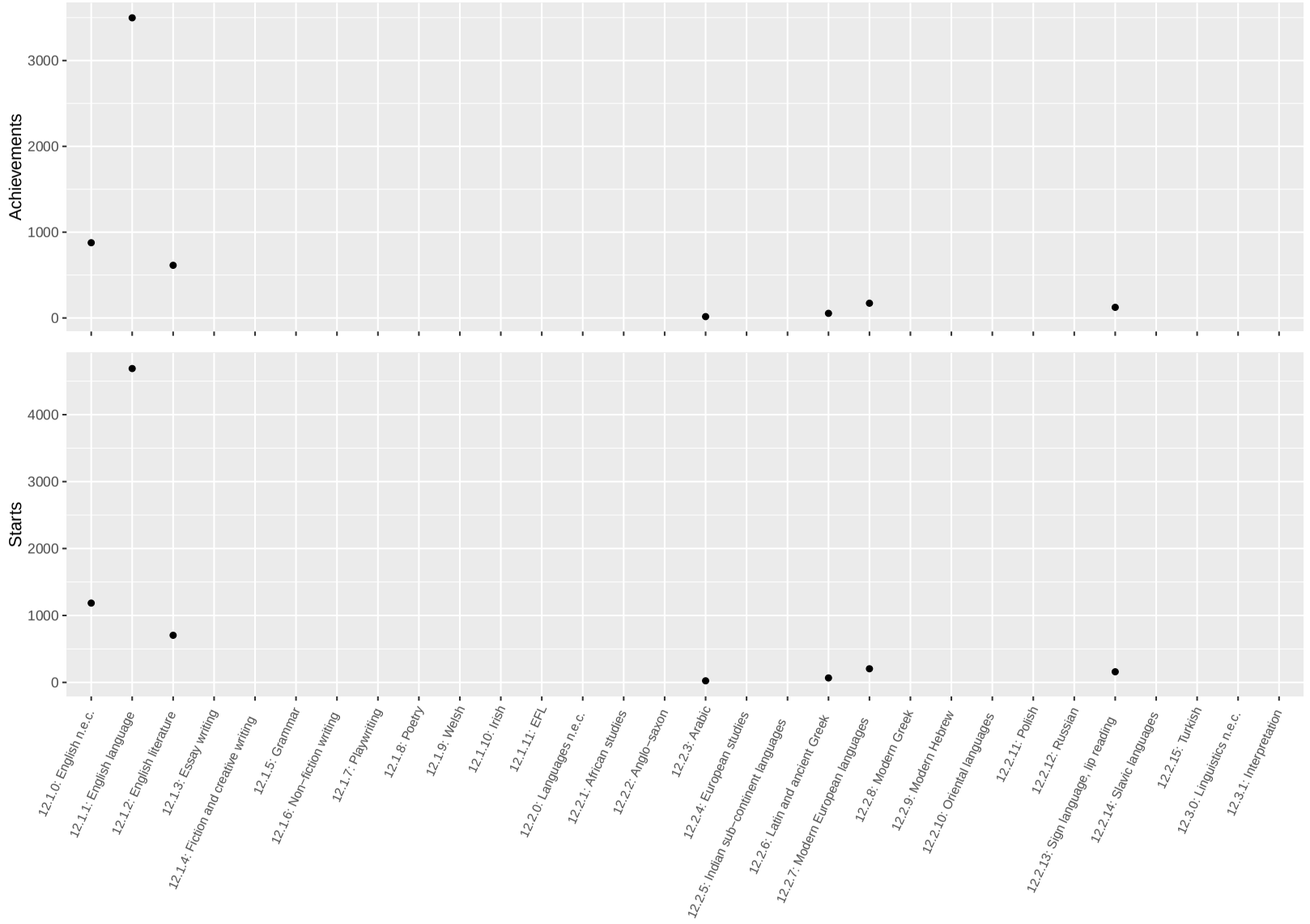


Figure G.12: Breakdown of Tier 1 Level 12 “Languages, Literature and Culture” into Tier 3 levels. Learning Aim References (x axis) against starts (bottom panel) and achievements (top panel) for 2014.

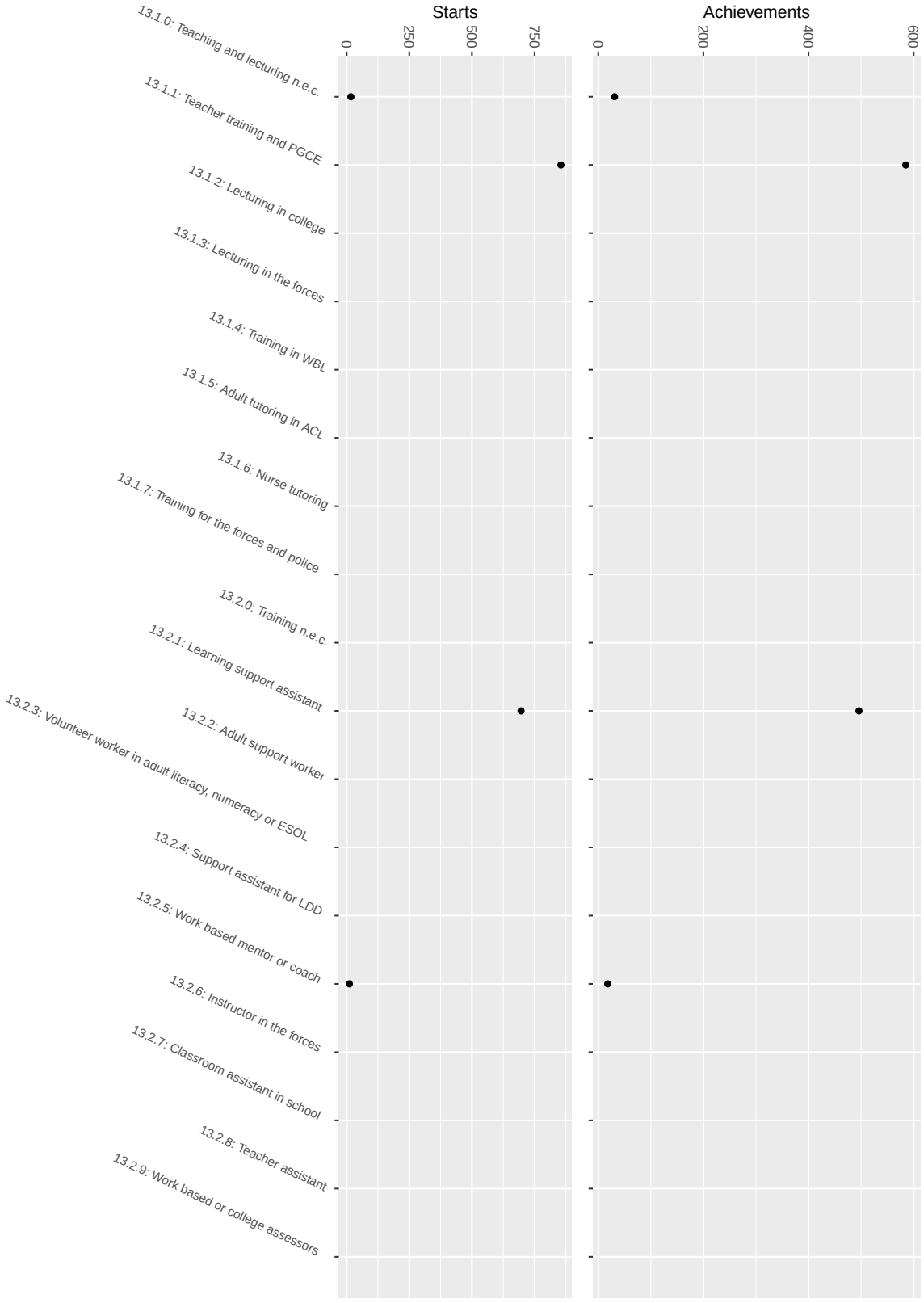


Figure G.13: Breakdown of Tier 1 Level 13 "Education and Training" into Tier 3 levels. Learning Aim References (x axis) against starts (bottom panel) and achievements (top panel) for 2014.

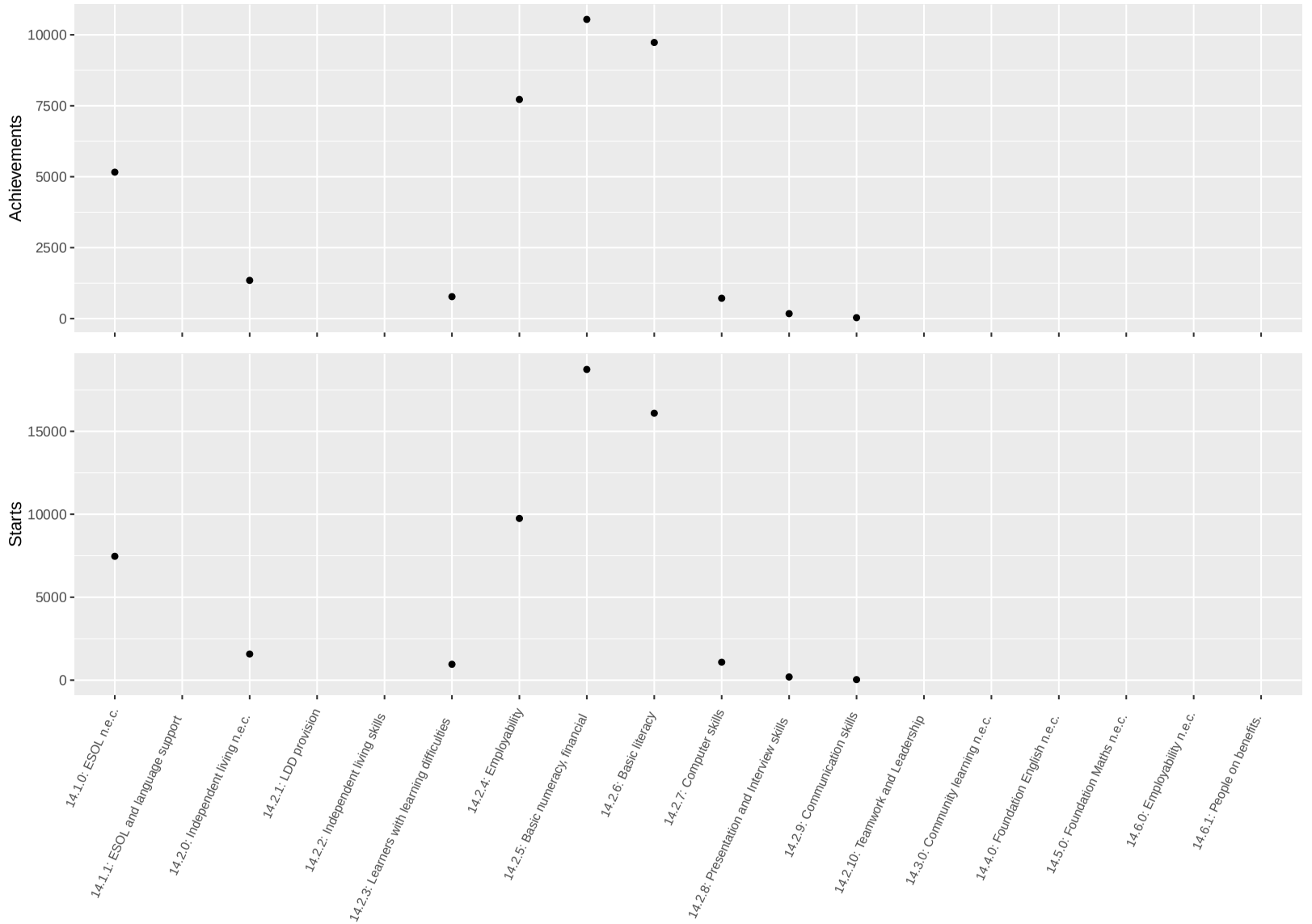


Figure G.14: Breakdown of Tier 1 Level 14 “Preparation for Life and Work” into Tier 3 levels. Learning Aim References (x axis) against starts (bottom panel) and achievements (top panel) for 2014.

Figure G.15: Breakdown of Tier 1 Level 15 "Business, Administation and Law" into Tier 3 levels. Learning Aim References (x axis) against starts (bottom panel) and achievements (top panel) for 2014.

H Apprenticeship Statistics by Framework

Table H.1: Apprenticeships: The breakdown of provision by Tier 1 and Tier 2 levels in SCR in 2014/15. Numbers are rounded and may not necessarily add up correctly. Source: SFA LEP datacube

Framework Sector Subject Area Tier	Starts	Achievements
01 - Health, Public Services and Care	**4,460**	**2,200**
01.3 - Health and Social Care	3,860	1,770
01.4 - Public Services	90	80
01.5 - Child Development and Well Being	510	350
02 - Science and Mathematics	**10**	**20**
02.1 - Science	10	20
03 - Agriculture, Horticulture and Animal Care	**310**	**230**
03.1 - Agriculture	50	40
03.2 - Horticulture and Forestry	120	60
03.3 - Animal Care and Veterinary Science	130	120
03.4 - Environmental Conservation	<10	<10
04 - Engineering and Manufacturing Technologies	**3,370**	**1,770**
04.1 - Engineering	540	280
04.2 - Manufacturing Technologies	2,030	950
04.3 - Transportation Operations and Maintenance	800	530
05 - Construction, Planning and the Built Environment	**840**	**470**
05.2 - Building and Construction	840	470
06 - Information and Communication Technology	**360**	**230**
06.1 - ICT Practitioners	290	190
06.2 - ICT for Users	70	40
07 - Retail and Commercial Enterprise	**3,990**	**2,040**
07.1 - Retailing and Wholesaling	730	440
07.2 - Warehousing and Distribution	780	300
07.3 - Service Enterprises	1,190	730
07.4 - Hospitality and Catering	1,280	580
08 - Leisure, Travel and Tourism	**420**	**380**
08.1 - Sport, Leisure and Recreation	400	370
08.2 - Travel and Tourism	20	10
09 - Arts, Media and Publishing	**90**	**50**
09.1 - Performing Arts	<10	<10
09.2 - Crafts, Creative Arts and Design	70	30
09.3 - Media and Communication	20	20
09.4 - Publishing and Information Services	<10	<10
13 - Education and Training	**360**	**200**
13.1 - Teaching and Lecturing	40	<10
13.2 - Direct Learning Support	320	190
15 - Business, Administration and Law	**7,170**	**3,490**
15.1 - Accounting and Finance	440	240
15.2 - Administration	4,260	2,330

Table H.1: *(continued - Apprenticeships)*

Framework Sector Subject Area Tier	Starts	Achievements
15.3 - Business Management	2,120	800
15.4 - Marketing and Sales	340	120
15.5 - Law and Legal Services	10	<10
Grand Total	**21,380**	**11,080**

With Figure 9.7a. the apprenticeship data is given by Tier 2, this was mapped into our defined sectors manually, for reference this is given below as Table H.2. This may present limitations, as apprenticeships in engineering may likely also be classified into the utilities or construction sectors. An alternative plot is also given as Figure H.1, using the raw Tier 1s along the x axis.

Table H.2: Allocation of Tier 2 to Sectors

Tier 1	Tier 2	Sector
01 - Health, Public Services and Care	01.3 - Health and Social Care	Health and Social care
01 - Health, Public Services and Care	01.4 - Public Services	Public administration and Defence
01 - Health, Public Services and Care	01.5 - Child Development and Well Being	Health and Social care
02 - Science and Mathematics	02.1 - Science	Science and Research
03 - Agriculture, Horticulture and Animal Care	03.1 - Agriculture	Agriculture, Forestry and Fishing
03 - Agriculture, Horticulture and Animal Care	03.2 - Horticulture and Forestry	Agriculture, Forestry and Fishing
03 - Agriculture, Horticulture and Animal Care	03.3 - Animal Care and Veterinary Science	B.P.F. services
03 - Agriculture, Horticulture and Animal Care	03.4 - Environmental Conservation	Agriculture, Forestry and Fishing
04 - Engineering and Manufacturing Technologies	04.1 - Engineering	Manufacturing
04 - Engineering and Manufacturing Technologies	04.2 - Manufacturing Technologies	Manufacturing
04 - Engineering and Manufacturing Technologies	04.3 - Transportation Operations and Maintenance	Transportation
05 - Construction, Planning and the Built Environment	05.2 - Building and Construction	Construction
06 - Information and Communication Technology	06.1 - ICT Practitioners	Creative and Digital Industries
06 - Information and Communication Technology	06.2 - ICT for Users	Creative and Digital Industries
07 - Retail and Commercial Enterprise	07.1 - Retailing and Wholesaling	Wholesale and Retail
07 - Retail and Commercial Enterprise	07.2 - Warehousing and Distribution	Logistics
07 - Retail and Commercial Enterprise	07.3 - Service Enterprises	Wholesale and Retail
07 - Retail and Commercial Enterprise	07.4 - Hospitality and Catering	Leisure, Tourism and Sport
08 - Leisure, Travel and Tourism	08.1 - Sport, Leisure and Recreation	Leisure, Tourism and Sport
08 - Leisure, Travel and Tourism	08.2 - Travel and Tourism	Leisure, Tourism and Sport
09 - Arts, Media and Publishing	09.1 - Performing Arts	Creative and Digital Industries
09 - Arts, Media and Publishing	09.2 - Crafts, Creative Arts and Design	Creative and Digital Industries
09 - Arts, Media and Publishing	09.3 - Media and Communication	Creative and Digital Industries
09 - Arts, Media and Publishing	09.4 - Publishing and Information Services	Creative and Digital Industries
13 - Education and Training	13.1 - Teaching and Lecturing	Education
13 - Education and Training	13.2 - Direct Learning Support	Education
15 - Business, Administration and Law	15.1 - Accounting and Finance	B.P.F. services
15 - Business, Administration and Law	15.2 - Administration	B.P.F. services
15 - Business, Administration and Law	15.3 - Business Management	B.P.F. services
15 - Business, Administration and Law	15.4 - Marketing and Sales	B.P.F. services
15 - Business, Administration and Law	15.5 - Law and Legal Services	B.P.F. services

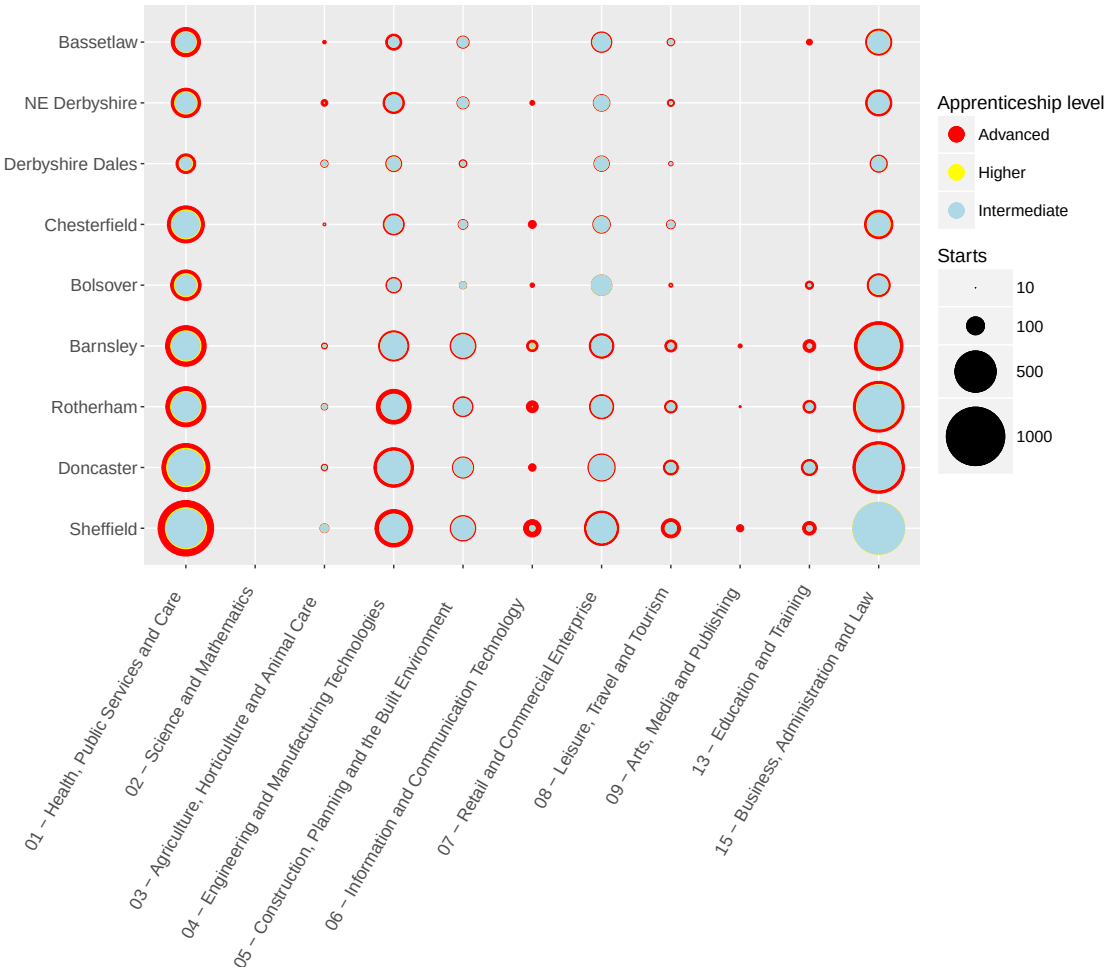


Figure H.1: Apprenticeship starts 2014/15 by level and Tier 1.
Source: SFA LEP data cube

I Company size trends

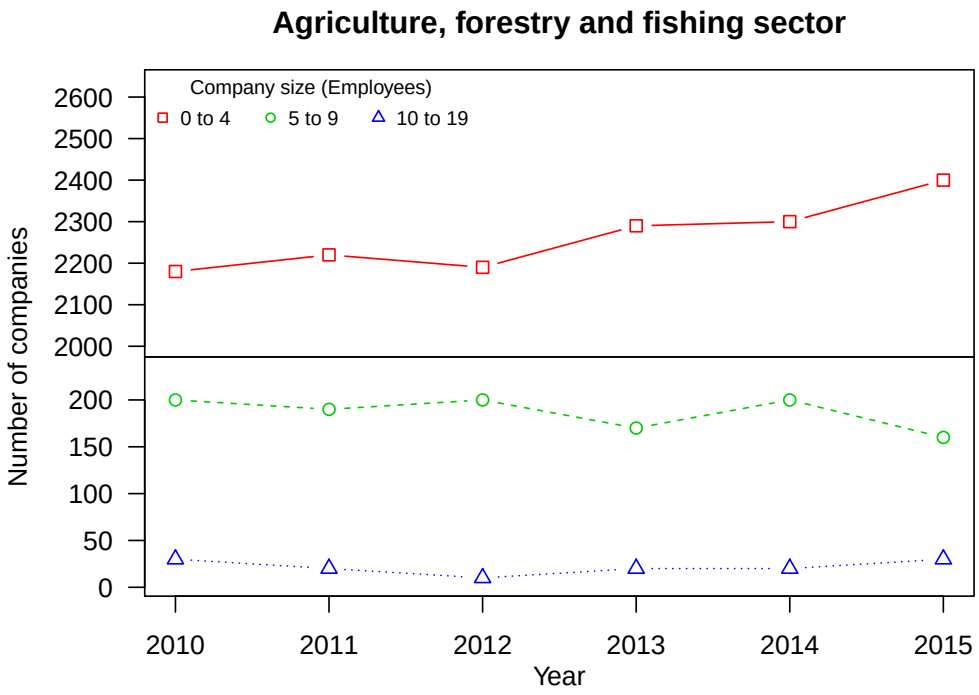


Figure I.1: Number and size of companies in the Agriculture, Forestry and Fishing sector.
Source: IDBR (2015)

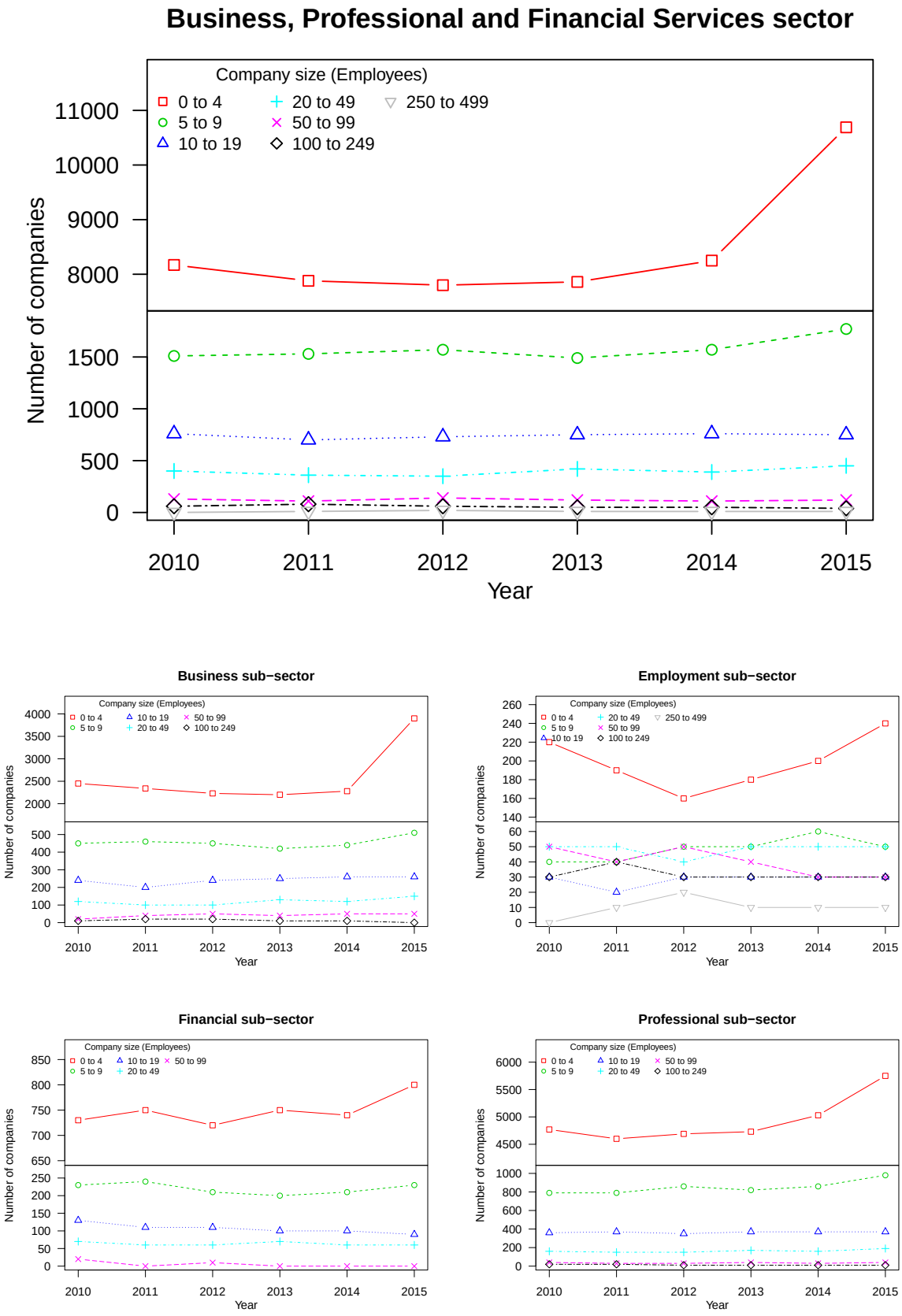


Figure I.2: Number and size of companies in the Business, Professional and Financial Services Sector.

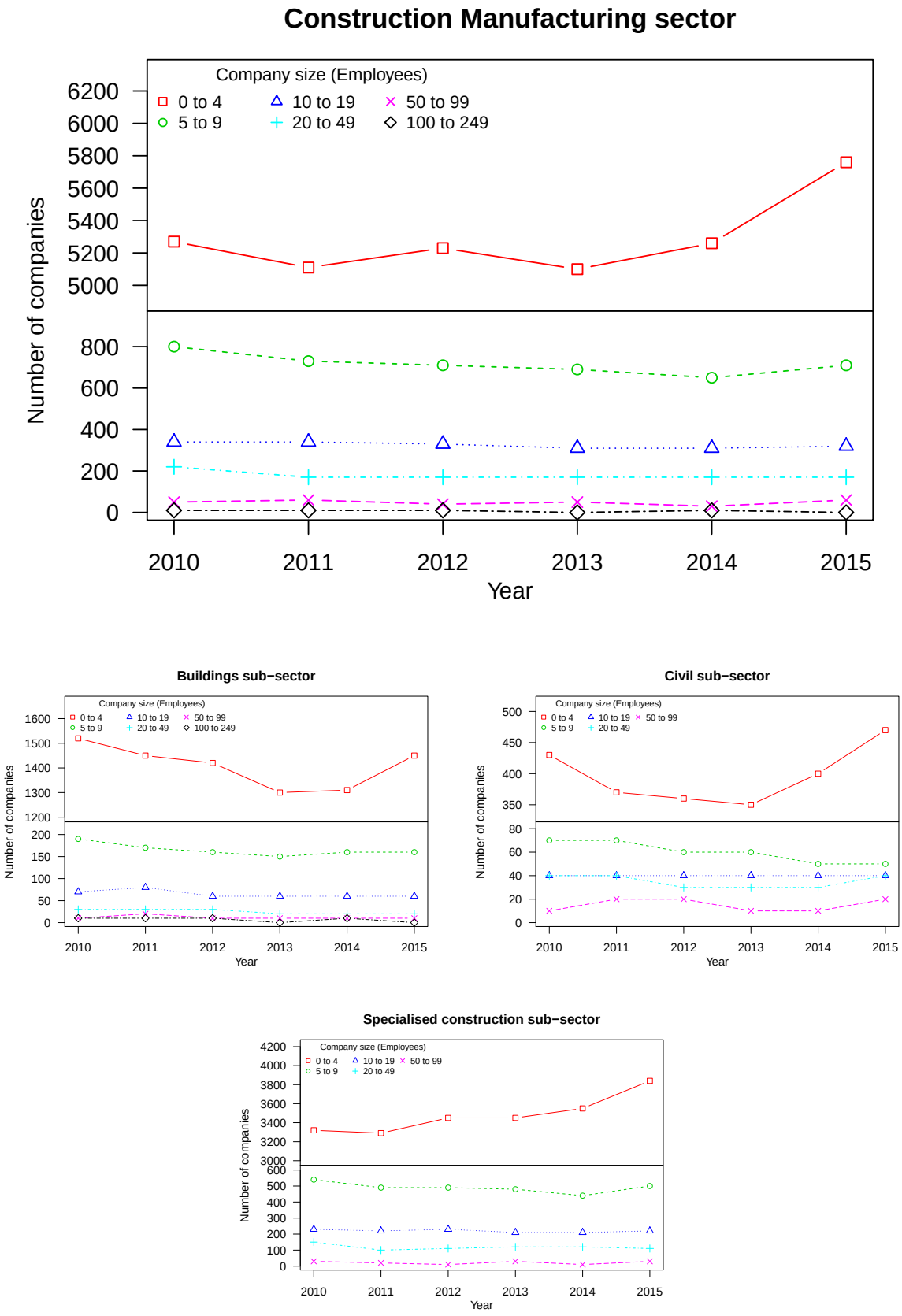


Figure I.3: Number and size of companies in the Construction Sector.

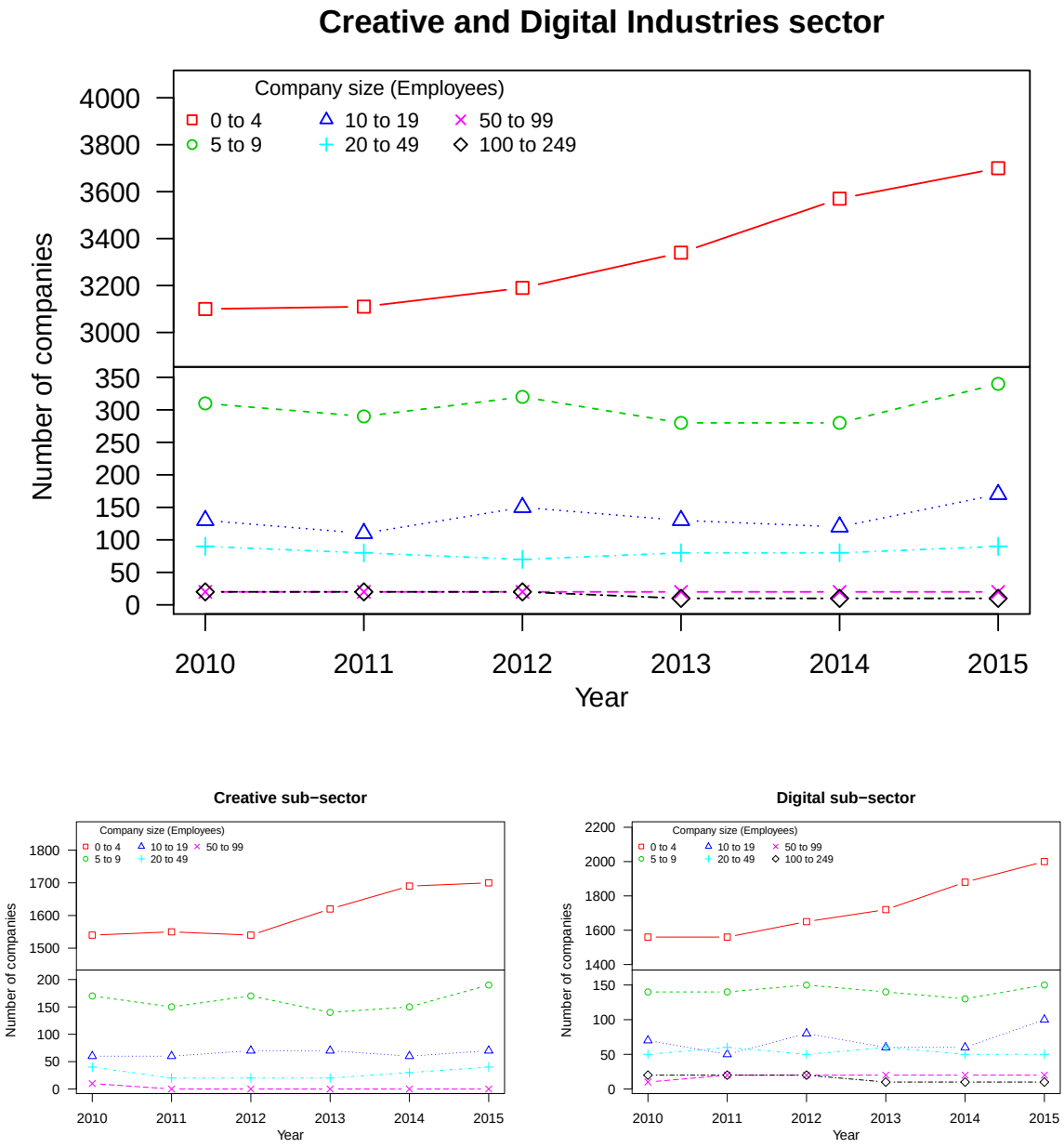


Figure I.4: Number and size of companies in the Creative and Digital Sector.

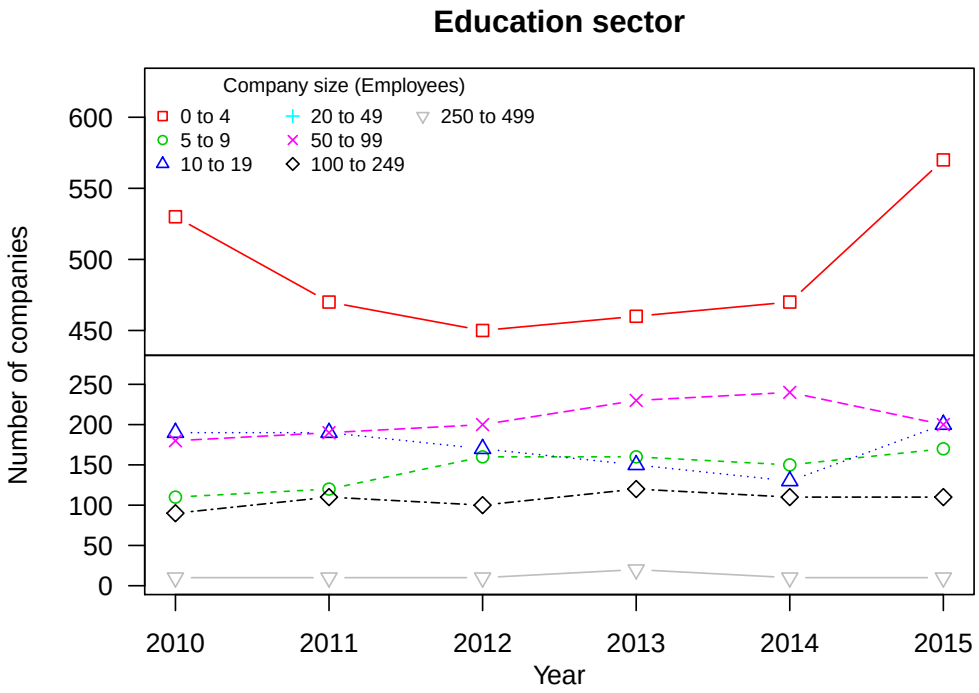


Figure I.5: Number and size of companies in the Education Sector.
Source: IDBR (2015)

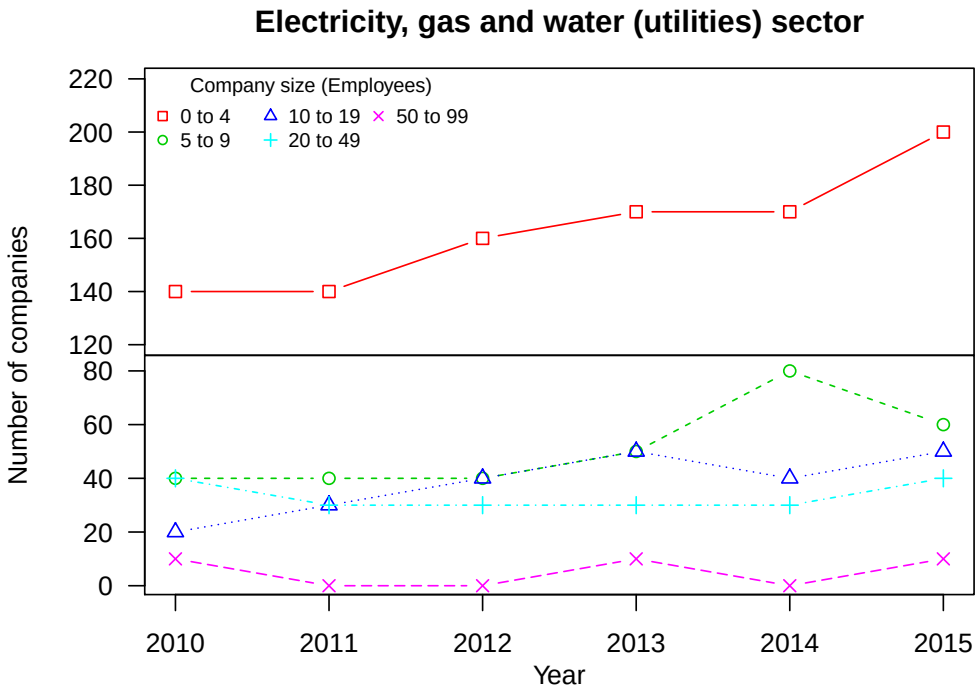


Figure I.6: Number and size of companies in the Electricity, Gas and Water (Utilities) Sector.
Source: IDBR (2015)

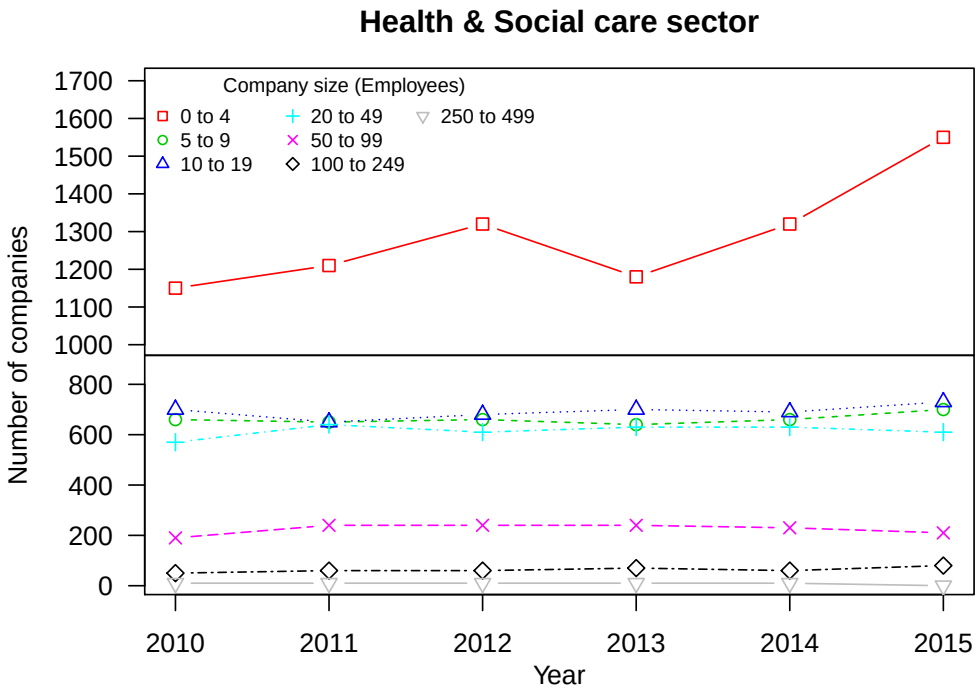


Figure I.7: Number and size of companies in the Health and Social Care Sector. Source: IDBR (2015)

Figure I.8: Number and size of companies in the Leisure, Tourism and Sport Sector.

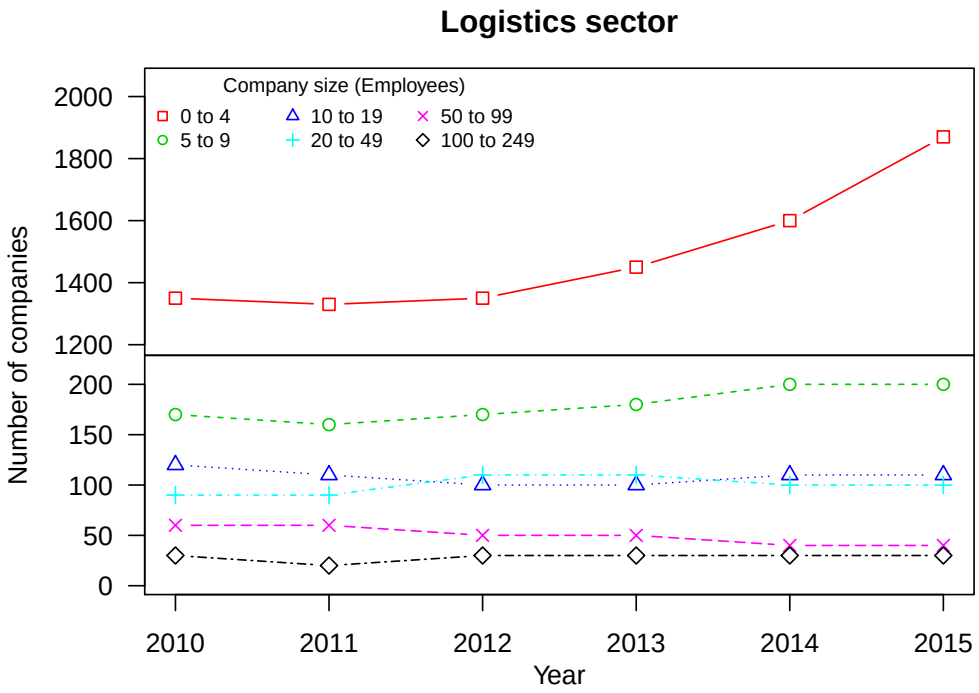


Figure I.9: Number and size of companies in the Logistics Sector.
Source: IDBR (2015)

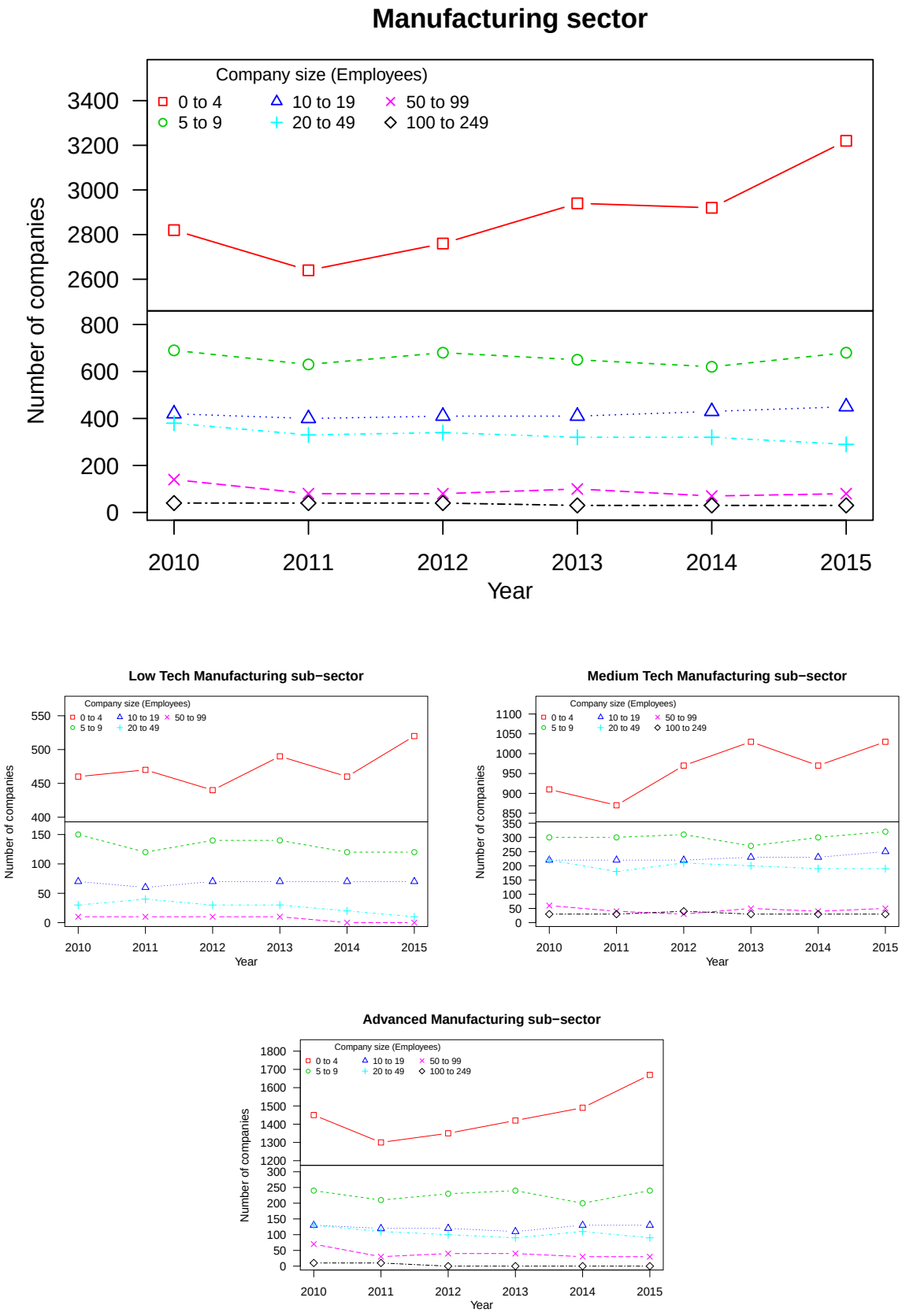


Figure I.10: Number and size of companies in the Manufacturing Sector.

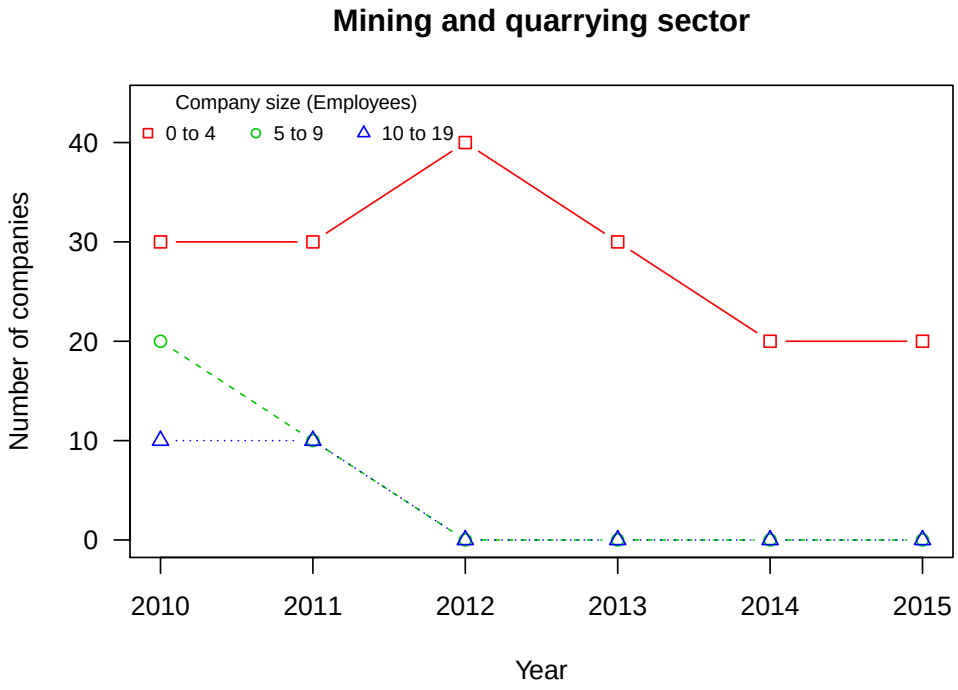


Figure I.11: Number and size of companies in the Logistics Sector.
Source: IDBR (2015)

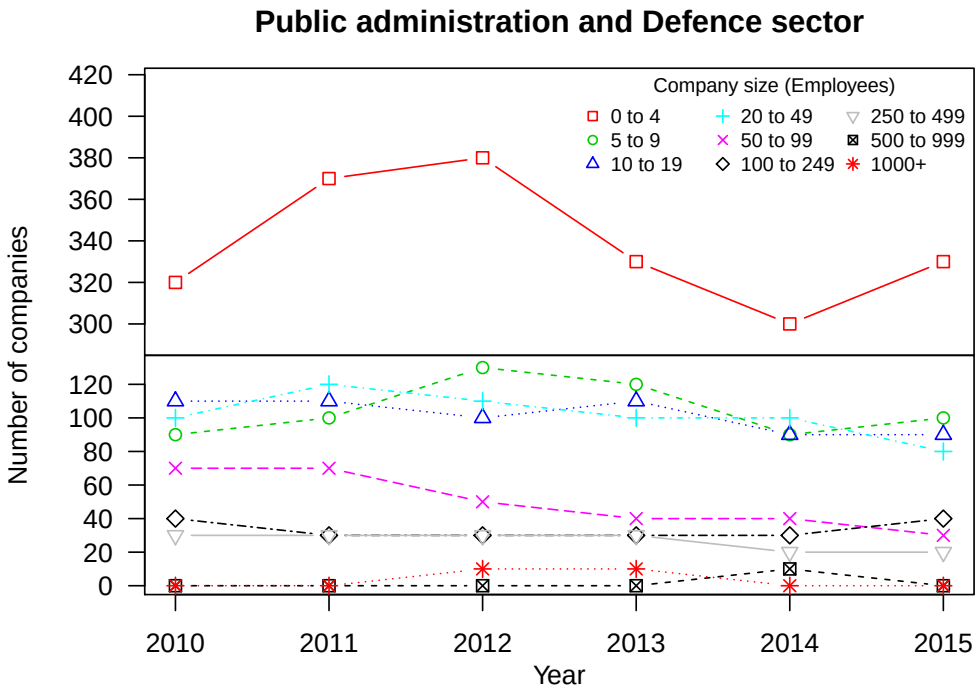


Figure I.12: Number and size of companies in the Public administration and Defence Sector.
Source: IDBR (2015)

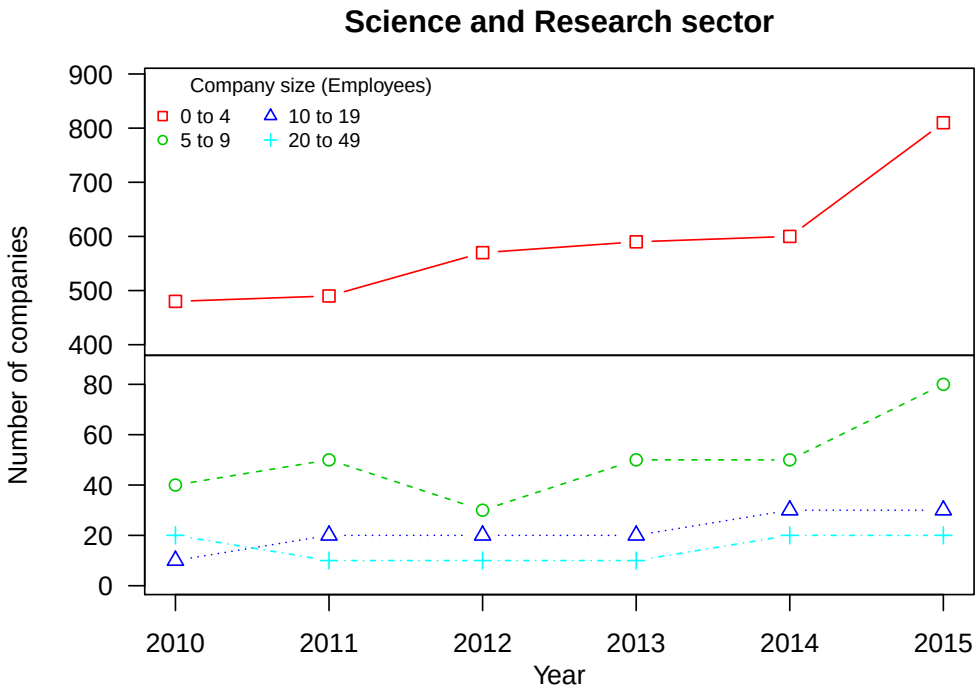


Figure I.13: Number and size of companies in the Science and Research Sector. Source: IDBR (2015)

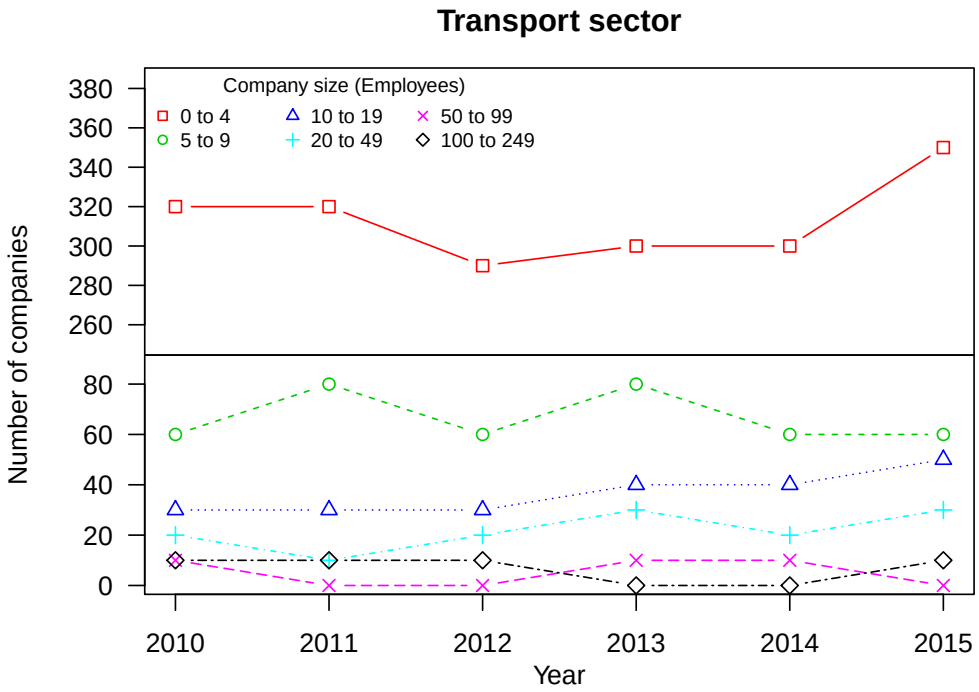


Figure I.14: Number and size of companies in the Transport Sector. Source: IDBR (2015)

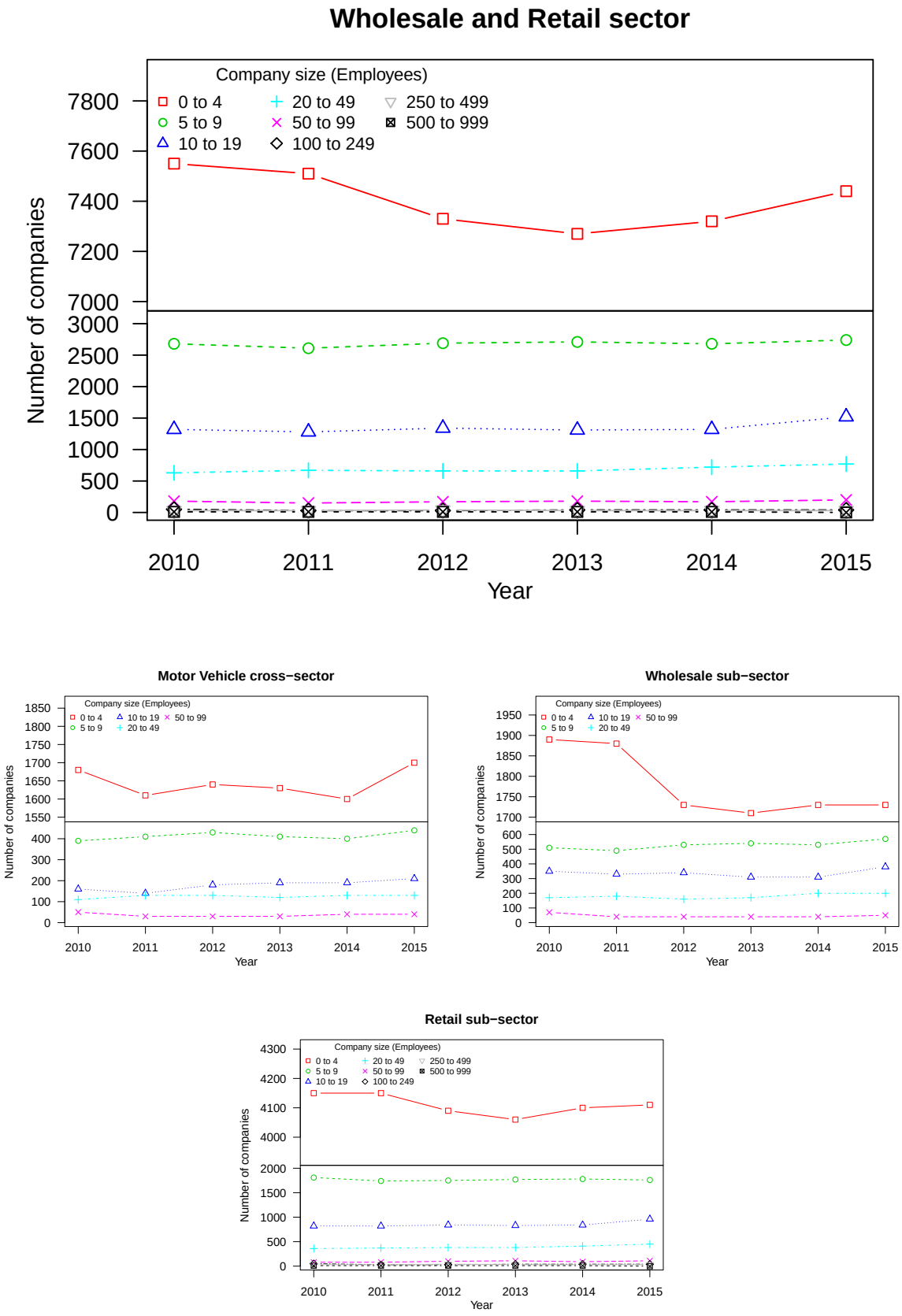


Figure I.15: Number and size of companies in the Manufacturing Sector.

J Niche industries and occupations

Niche industries were analysed in Section 5.12.

Table J.1: Top 30 niche industries in the Sheffield City Region

SIC	Industry	Location quotient (2015)
2571	Manufacture of cutlery	19.46
1910	Manufacture of coke oven products	14.47
2452	Casting of steel	12.45
2320	Manufacture of refractory products	10.97
2313	Manufacture of hollow glass	10.24
2443	Lead, zinc and tin production	9.07
2444	Copper production	8.89
2434	Cold drawing of wire	8.80
2344	Manufacture of other technical ceramic products	8.45
2441	Precious metals production	7.89
0510	Mining of hard coal	7.56
2442	Aluminium production	7.04
1089	Manufacture of other food products n.e.c.	6.47
0990	Support activities for other mining and quarrying	6.31
2573	Manufacture of tools	6.16
2410	Manufacture of basic iron and steel and of ferro-alloys	6.10
2521	Manufacture of central heating radiators and boilers	5.92
4213	Construction of bridges and tunnels	5.60
9522	Repair of household appliances and home and garden equipment	5.38
2593	Manufacture of wire products, chain and springs	5.35
4212	Construction of railways and underground railways	5.22
4920	Freight rail transport	5.06
2011	Manufacture of industrial gases	5.00
2399	Manufacture of other non-metallic mineral products n.e.c.	4.67
2352	Manufacture of lime and plaster	4.67
2733	Manufacture of wiring devices	4.66
2550	Forging, pressing, stamping and roll-forming of metal; powder metallurgy	4.43
2594	Manufacture of fasteners and screw machine products	4.22
3102	Manufacture of kitchen furniture	4.01
2451	Casting of iron	3.93

Source: EMSI Q1 2016 dataset

Table J.2: Top 30 niche occupations in the Sheffield City Region

SOC	Occupation	Location quotient (2015)
8122	Coal mine operatives	4.56
5212	Moulders, core makers and die casters	3.92
5211	Smiths and forge workers	3.58
8117	Metal making and treating process operatives	3.44
8112	Glass and ceramics process operatives	2.69
5237	Rail and rolling stock builders and repairers	2.32
8143	Rail construction and maintenance operatives	2.30
5214	Metal plate workers, and riveters	2.25
7211	Call and contact centre occupations	2.04
8215	Driving instructors	2.02
5311	Steel erectors	1.98
8125	Metal working machine operatives	1.98
5221	Metal machining setters and setter-operators	1.97
8116	Plastics process operatives	1.97
5316	Glaziers, window fabricators and fitters	1.84
5215	Welding trades	1.84
8129	Plant and machine operatives n.e.c.	1.80
5213	Sheet metal workers	1.78
5216	Pipe fitters	1.74
8142	Road construction operatives	1.73
5222	Tool makers, tool fitters and markers-out	1.66
1255	Waste disposal and environmental services managers	1.63
9139	Elementary process plant occupations n.e.c.	1.58
8119	Process operatives n.e.c.	1.55
8133	Routine inspectors and testers	1.54
8111	Food, drink and tobacco process operatives	1.51
8222	Fork-lift truck drivers	1.50
5442	Furniture makers and other craft woodworkers	1.49
9271	Hospital porters	1.47
7113	Telephone salespersons	1.46

Source: EMSI Q1 2016 dataset

K Future growth of all sectors, sub-sectors and cross-sectors

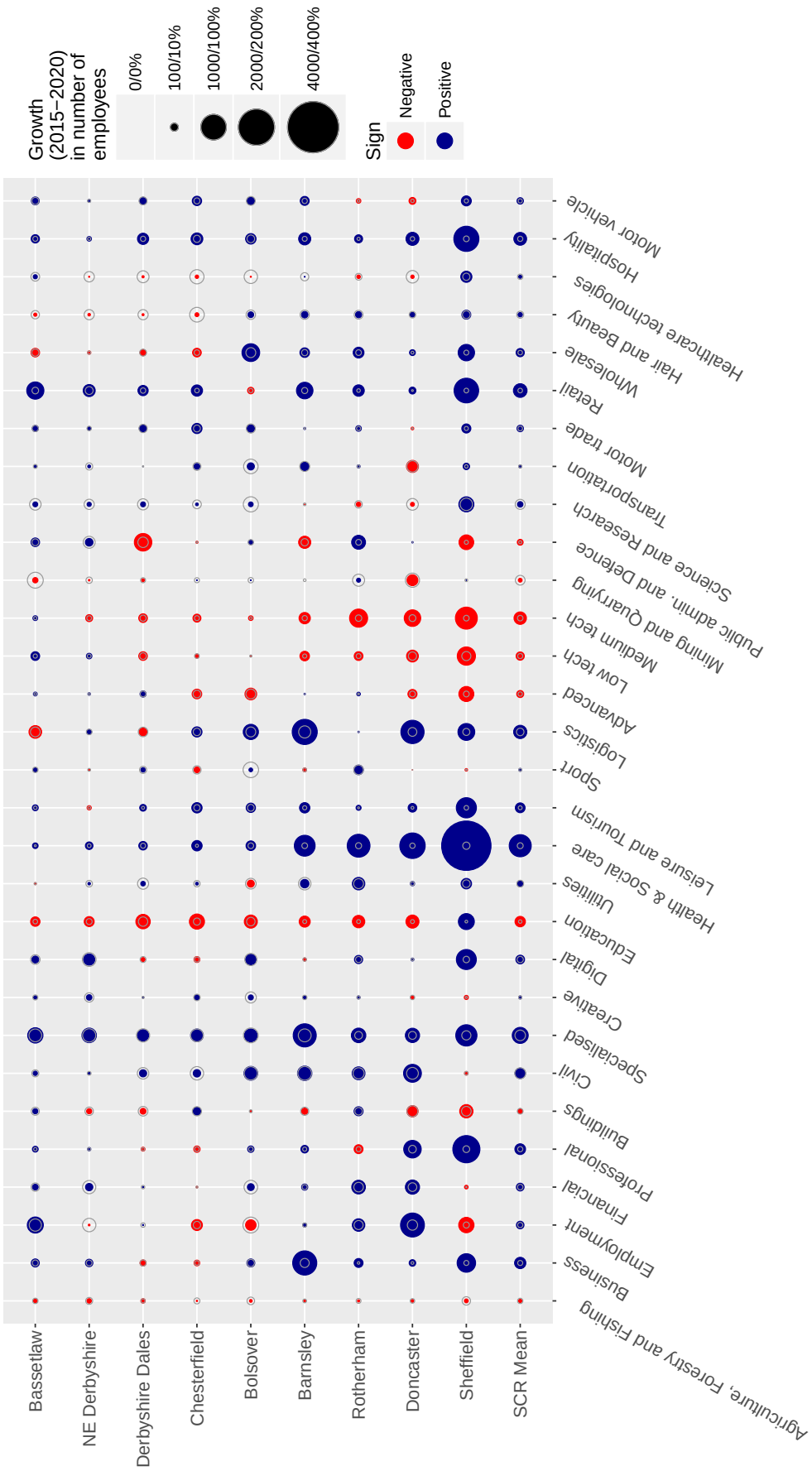


Figure K.1: Future growth of all sub-sectors within the Sheffield City Region by district. Source: EMSI Q1 2016 dataset

List of Figures

List of Tables

List of Projects

European Union
European Structural
and Investment Funds

Sheffield City Region
11 Broad Street West
Sheffield
S1 2BQ
UK

Sheffield
City Region
COMBINED
AUTHORITY