

# Birmingham Skills: supply and demand

## Contents

Summary.....	5
Current labour market and skills .....	12
Earnings, Employment and Qualification matrix by occupation, West Midlands.....	30
Current Vacancy and FE subject match analysis .....	33
Employer views and needs .....	37
Employment projections: growth sectors by occupation and qualification for the West Midlands.....	43
Data sources .....	55

## Index of Charts

Chart 1 Employment rate, working age: West Midland authorities, 2014/2015.....	12
Chart 2 Employment rates by age, 2014/2015 .....	12
Chart 3 Employment trends, working age, 2010 to 2015 .....	13
Chart 4 Employment rates, English core cities, working age, 2014/2015.....	14
Chart 5 Workplace employment by sector, working age: Birmingham, 2014 .....	15
Chart 6 Claiming out of work benefits, working age: Birmingham, 2000 to 2015 ....	19
Chart 7 Out of work benefit rates, working age: Core Cities, February 2015 .....	20
Chart 8 Unadjusted claimant rates, working age: English core cities, August 2015 .	21
Chart 9 Unadjusted claimant rates, 16-24: English core cities, August 2015.....	22
Chart 10 Percentage of pupils achieving 5+ A*-C grades including English and mathematics GCSEs .....	24
Chart 11 Qualification levels by English core cities, all working age, 2014.....	25
Chart 12 Qualification levels by English core cities, working age employed, 2014 ...	25
Chart 13 Qualification levels by English core cities, working age workless, 2014.....	26
Chart 14 Qualification levels, Birmingham, percentage change by economic activity, 2010-2014.....	27
Chart 15 Average qualification levels by ethnic group, 16 and over, Birmingham, 2011 .....	28

Chart 16 Incidence of vacancies by occupation, 2013 .....	37
Chart 17 Incidence of hard to fill vacancies by occupation, 2013 .....	38
Chart 18 Incidence of skills shortage vacancies by occupation, 2013 .....	39
Chart 19 Skills found difficult to obtain from applicants, 2013 .....	40
Chart 20 Skills lacking among 16 year old school leavers, 2013.....	41
Chart 21 Actions taken to overcome difficulties finding candidates to fill hard to fill vacancies, 2013 .....	42
Chart 22 Business and other services, employment to 2022.....	43
Chart 23 Manufacturing, employment to 2022 .....	44
Chart 24 Process, plant and machine operatives, employment to 2022.....	45
Chart 25 Skilled metal, electrical and electronic trades, employment to 2022 .....	45
Chart 26 Science, research, engineering and technology professionals, employment to 2022 .....	45
Chart 27 Wholesale and retail, employment to 2022.....	46
Chart 28 Information technology, employment to 2022 .....	47
Chart 29 Public administration, employment to 2022.....	48
Chart 30 Education, employment to 2022 .....	49
Chart 31 Health and social work, employment to 2022 .....	50
Chart 32 Construction, employment to 2022 .....	51
Chart 33 Employment change by main sectors, West Midlands, 2022 .....	52

## **Index of Tables**

Table 1 Employment rates by age, 2014/2015 .....	13
Table 2 Employment trends, English core cities, working age, 2010 to 2015 .....	14
Table 3 Workplace employment trends by sector, working age: Birmingham, 2009 to 2014 .....	15
Table 4 Workplace employment trends by sector, working age: Birmingham, 2009 to 2014. Index (2009 = 100).....	16
Table 5 Employment by occupation and sector, workplace based, working age: Birmingham, 2010 to 2015 .....	17
Table 6 Employment rates by ethnic group, working age, Apr 2014-Mar 2015 .....	18
Table 7 Employment rates by disability, working age, Apr 2014-Mar 2015 .....	18
Table 8 Claiming out of work benefits, working age: Birmingham, 2000 to 2015....	19
Table 9 Out of work benefit rates, working age: English core cities, February 2015	20
Table 10 Unadjusted claimant rates, working age: English core cities, August 2015	21
Table 11 Unadjusted claimant rates, 16-24: English core cities, August 2015.....	22
Table 12 Work Programme figures, Birmingham, cumulative to June 2015 .....	23
Table 13 Percentage of pupils achieving 5+ A*-C grades including English and mathematics GCSEs .....	24

Table 14 Qualification levels by English core cities, working age by economic activity, 2014 .....	26
Table 15 Qualification levels, English core cities, percentage change by economic activity, 2010-2014 .....	27
Table 16 Overall FE and Skills Participation by level and age, learner volumes in Birmingham .....	28
Table 17 Skills Funding Agency Allocations 2015/2016 .....	29
Table 18 Rising job numbers and rising wages, 2011 to 2014 .....	30
Table 19 Rising job numbers and falling wages, 2011 to 2014 .....	30
Table 20 Falling job numbers and rising wages, 2011 to 2014 .....	31
Table 21 Falling job numbers and wages, 2011 to 2014 .....	31
Table 22 Insufficient sample for jobs and earnings but worth noting for Qualification levels .....	32
Table 23 Number of vacancies by occupation, September 2014 to September 2015	33
Table 24 Vacancy to student match by subject area, September 2014 to September 2015. For FE colleges within the Birmingham City boundary. ....	35
Table 25 Incidence of vacancies by occupation, 2013.....	37
Table 26 Incidence of hard to fill vacancies by occupation, 2013.....	38
Table 27 Incidence of skills shortage vacancies by occupation, 2013.....	39
Table 28 Skills found difficult to obtain from applicants, 2013 .....	40
Table 29 Skills lacking among 16 year old school leavers, 2013.....	41
Table 30 Actions taken to overcome difficulties finding candidates to fill hard to fill vacancies, 2013 .....	42
Table 31 Business and other services, employment to 2022.....	43
Table 32 Qualification requirement to 2022 (000's) .....	43
Table 33 Manufacturing, employment to 2022 .....	44
Table 34 Qualification requirement to 2022 (000's) .....	44
Table 35 Wholesale and retail, employment to 2022 .....	46
Table 36 Qualification requirement to 2022 (000's) .....	46
Table 37 Information technology, employment to 2022 .....	47
Table 38 Qualification requirement to 2022 (000's) .....	47
Table 39 Public administration, employment to 2022.....	48
Table 40 Qualification requirement to 2022 (000's) .....	48
Table 41 Education, employment to 2022 .....	49
Table 42 Qualification requirement to 2022 (000's) .....	49
Table 43 Health and social work, employment to 2022 .....	50
Table 44 Qualification requirement to 2022 (000's) .....	50
Table 45 Construction, employment to 2022 .....	51
Table 46 Qualification requirement to 2022 (000's) .....	51
Table 47 Change in qualification levels needed for predicted change in occupational structure, West Midlands .....	52

Table 48 Employment forecasts by Occupation, Birmingham, 2013-2025 .....	53
Table 49 HS2 Build Phase (job Years), West Midlands .....	54
Table 50 HS2 Post Build Phase (New Jobs per Year), West Midlands .....	54

## Summary

Birmingham has the second lowest employment rate amongst the English Core Cities and the highest unemployment claimant rate (see Chart 4 and Chart 8)

There are currently 700,000 working age residents in Birmingham<sup>1</sup>, of which:

- 431,000 are in employment – an employment rate of 61.6% (UK = 72.6%)
- Just over 50,000 who are unemployed – an ILO unemployment rate of 10.2% (UK = 6%)
- 218,000 who are economically Inactive – 31% of the working age population (UK = 23%)

There are just over 100,000 claiming out of work benefits<sup>2</sup>, of which:

- 30,000 are currently claiming Jobseekers Allowance (JSA) – 30% of all claimants (GB = 20%)
- 56,000 claiming Employment Support Allowance (ESA) – 55% of all claimants (GB = 65%)

To half the employment rate gap between Birmingham and the National rate an additional 70,000 jobs would be needed by 2025<sup>3</sup>. These additional jobs would need to come from:

- The predicted increase in the working age population of 45,000, of which 31,000 would be employed at the target employment rate of 67%
- Those who are 'economically inactive' which currently number over 200,000 with 53,000 wanting a job
- 20,000 who are ILO unemployed but not claiming JSA, of which we can expect to reduce by at least 5,000

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<sup>1</sup> Annual Population Survey March 2015, NOMIS

<sup>2</sup> DWP benefit claimant statistics, working age client groups, NOMIS

<sup>3</sup> Target rate is 67% - half way to the UK rate of 72.6%. In 2025 the working age population is set increase by 45,000 to 746,000 (ONS sub regional population projections). Therefore to achieve the target employment rate 500,000 residents will need to be in employment: an increase of 70,000 jobs to be filled by Birmingham residents.

- A reduction in the number of people claiming Jobseekers Allowance – currently 31,000 people which if reduced to the average for English Core Cities would mean 9,000 more in work
- A reduction in the number of people claiming ESA – there are 11,000 people in the ESA Work Related Activity Group which could be reduced by around 6,000.

The GBSLEP has a target of 119,000 private sector jobs to be created between 2010 and 2020. The figure includes both jobs created directly through the activities of the LEP but also all other job growth in the local economy. To date (2014) 85,173 jobs have been created - 47,769 of these were in Birmingham. Of the 33,827 jobs required to meet the target in 2020, we would expect around 18,600 to be in the city.

## Productive people, Productive businesses

Gross Value Added (GVA) per worker is a common measure of productivity. Figures show a relatively positive picture, with Birmingham performing better compared to other English core cities apart from Bristol, Leeds and Manchester<sup>4</sup>. In 2012, GVA per worker was just over £44K. The highest rate for English Core Cities was £49K for Bristol and the lowest was £41K for Nottingham.

One of the city's successes has been rising numbers of pupils achieving 5 or more GCSEs at A\*-C and Birmingham's performance now outstrips the England and core cities averages. Attainment rates of 5 GCSEs including English and maths are in line with the national average – see Table 13.

Nearly 16% of all working age residents in Birmingham have no qualifications and this rises to 27% for workless people – the 2<sup>nd</sup> highest after Liverpool when compared to other English Core Cities. Birmingham has the 2<sup>nd</sup> lowest proportion of working age residents with a level 4 or above qualification (when compared to other Core Cities in England - see Table 14). Forecasts (see Table 47) show a major shift in the current qualification levels is needed to meet the changes in employment. For the West Midlands there needs to be a 24% increase in those holding a level 4 or above qualification with a fall in lower levels, especially those with no qualifications (26% less) and level 1 qualifications (18% less).

To match the national average of people qualified to Level 3 and above (often used as definition of a 'world class' workforce), an **additional 78,500 residents will need to be upskilled** over the next 10 years. Increasingly qualified young people

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<sup>4</sup> Birmingham Local Economic Assessment, 2014

(under 19) will account for 13% of these but this means that 68,000 adults (19 and over who are currently below level 3) will need to improve their qualifications.

Currently 10,000 adults (aged 19 and over on a level 3 course, 2013/14) undertake some form of education and training each year (see Table 16), therefore an additional 7,000 adults are needed to undertake training or participate in education at level 3 to meet the target.

## **Reducing disadvantage**

In boosting the employment rate we also want to reduce the employment rate gaps for disabled people and ethnic minorities.

Ethnic minority people of working age have an employment rate of 51% compared to 68% for the white population – an ethnic minority employment rate gap of 17 percentage points. This is significantly above the national gap of 12.5 percentage points - see Table 6.

The employment rate for disabled people in Birmingham is 33% compared to an employment rate for non-disabled people of 69% - a disabled employment rate gap of 36 percentage points. This is slightly above the national gap of 33 percentage points - see Table 7.

The Government is committed to halving the disabled employment rate gap over the next five years. In Birmingham this will mean helping 19,000 disabled people either stay in work or find work, of which around 6,000 could come from those on ESA.

## **What do Birmingham employers need?**

By matching Further Education subject areas to relevant occupations (i.e. those subjects that offer a possible route to a career) we can see the ratio between the number of Birmingham students by subject and the number of vacancies linked to that subject – see Table 24.

This ratio doesn't only show a mismatch between Further Education subjects and vacancies but also a mismatch between allied subjects at the Higher Education level, which are needed to satisfy some of the demand. For colleges within Birmingham City the highest mismatch ratios are for the following subjects:

- Nursing and Subjects and Vocations Allied to Medicine
- Marketing and Sales
- Economics

- Public Services
- Manufacturing Technologies
- Teaching and Lecturing
- Retailing and Wholesaling
- Other Languages, Literature and Culture
- ICT Practitioners.

A similar analysis<sup>5</sup> of **Higher Education subjects** (for Birmingham Universities) shows that:

- In percentage terms, the largest areas of shortfall are in Business and Administrative studies, where annual student numbers are over 50 per cent below the forecast demand, and in Medicine and Dentistry, where there was a shortfall of over 40 per cent.
- There were five subject areas where there appeared to be an oversupply of provision. These were: Mass Communications and Documentation; Physical Sciences; Languages; Biological Sciences; Historical and Philosophical studies.
- Furthermore, on leaving University a relatively high proportion of graduates in these subjects do not work in a related industry, and instead work in lower skilled jobs, such as administrative, sales and customer service occupations. This was particularly so for Mass Communications and Documentation, and Historical and philosophical studies, and less so for Physical and Biological Sciences.
- Recent trends in first year student numbers suggest that provision is reducing in those areas of oversupply where graduates are most likely to end up working in lower skilled and lower paid jobs
- There has been growth in a number of Science, Technology, Engineering and Mathematics (STEM) subjects, reflecting the strategic importance of STEM to the national economy.

Many of the in-demand occupations need higher qualification levels but employers will also need occupations below the manager and professional level. Local employers have reported that they find it difficult to fill vacancies in Birmingham for Administrative, clerical and Sales/customer service occupations – see Chart 17 and Chart 19.

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<sup>5</sup> CESI, Future skills priorities for Birmingham and the West Midlands, 2014 – A report Birmingham City University



## Who will employers be recruiting in the future?

Most new jobs in the West Midlands will primarily come from the private sector as reductions in public spending continue, although the public sector will still be the largest employer.

Chart 33 shows employment numbers for West Midlands<sup>6</sup> major sectors. The Chart shows both 'replacement demand' (new workers needed to replace those retiring or leaving the labour market) and 'expansion demand' (new jobs as a result of economic growth). Replacement demand is the most significant factor in the demand for new labour, but with some sectors showing strong expansion demand. These figures do not include employment projections for HS2, which is predicted to generate 65,000 jobs in the West Midlands up to 2022 – mostly spread over the manufacturing and construction sectors – see Table 49.

The following describes job growth and qualifications needed for the major sectors in Birmingham (figures below 10,000 should be used with caution).

**Business and financial services:** Birmingham needs more of its residents to take up jobs in this sector as it is the biggest growth sector. Growth will be due to higher level occupations requiring higher level qualifications. Administrative, secretarial and elementary opportunities will still be available due to replacement demand. Overall, there will be 350,000 job openings in this sector by 2022 made up of 76,000 new jobs in the West Midlands. Of these, it is estimated there will be 19,000 new jobs to be filled in Birmingham by 2022 and 71,000 jobs to replace workers who are retiring or leaving the labour market.

**Advanced Engineering/Manufacturing:** Recent trends show an increase in employment in the West Midlands, with a large increase in Process, Plant and Machine Operative and Skilled trade jobs. However, long-term forecasts show a fall due to advances in new technology. Currently future demand for STEM qualifications will outstrip supply plus precise technical skills will be mixed with more general aptitudes for project management and problem solving as factories become more technologically advanced. Overall, it is predicted that there will be 82,000 job openings in this sector by 2022 in the West Midlands - a fall of 20,000 from present levels – this is mostly made up of a fall in skilled trades and plant, process and machine operative occupations. Of these, it is predicted that there will be 11,000 job openings in this sector up to 2022 in Birmingham. However, total employment will fall from present levels.

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<sup>6</sup> The lowest geographical level this analysis can be done

For **HS2** a large majority of jobs will be in the civil engineering field with the construction of the tunnels, structures and stations, each of which account for broadly one-fifth of all jobs. Specialist railway engineering jobs only account for around 11% of projected employment, although these are on average more highly skilled.

**Information technology:** This sector demands highly qualified people. Evidence shows that many students are doing basic IT courses which are needed for administrative roles but more need to move into higher level courses if demand for specific IT skills such as website analytics is to be satisfied. Overall, there will be 37,000 job openings in this sector by 2022 including 14,000 new jobs. Of these there will be 7,000 job openings in this sector by 2022 in Birmingham including 4,000 new jobs.

Analysis of recent vacancies show that if people are looking to move up to becoming a Senior Web Developer then having programming skills using specialist software will give a job seeker a good chance of being interviewed for the job.

**Wholesale and retail:** Expansion in this sector will largely be due to an increase in professional and managerial positions and therefore those with higher qualifications. However this is a good sector for those with lower level qualifications as the level of churn means opportunities at the entry level for sales assistants and cashiers. Forecasts show a total of 172,000 job openings by 2022 but only 11,000 new jobs with the rest made up of job replacement. In Birmingham there will be a total of 29,000 job openings by 2022, but only 2,000 new jobs with the rest replacing retiring workers.

**Education:** Demand for more professional teaching positions is increasing and therefore an increased demand for level 3 and above qualifications but especially degrees and higher (Masters). Caring occupations within the sector are in demand: these could be at the nursery level or student welfare officers for those with special education needs. Forecasts show 90,000 job openings in this sector by 2022, a loss of 7,000 jobs on present levels in the West Midlands. For Birmingham, forecasts show 21,000 job openings by 2022, a loss of 2,000 jobs on present levels.

**Health and Social Work:** Demand for more professional and managerial positions in the Health sector is increasing and therefore an increased demand for Level 4 and above qualifications. Again, higher qualified caring roles are in demand and will make up 75% of the predicted 39,000 new jobs in this sector by 2022. Overall, there will be 186,000 job openings in this sector. Of these 42,000 will be in Birmingham, including 9,000 new jobs.

**Construction:** It is predicted there will be 80,000 job openings in this sector by 2022 - a net growth of 19,000 new jobs from present levels. It is predicted there will be 15,000 job openings in Birmingham which includes 4,000 new jobs. Growth will be due to an increase in skilled trade occupations and professional. Self employed will make up to 36% of total employment. According to the Construction Industry Training Board (CITB) shorter term growth (the next five years) will be led by investment in the private housing and commercial sectors, this means that demand for some trades will be higher than others. Jobs in demand in the West Midlands in the next five years include:

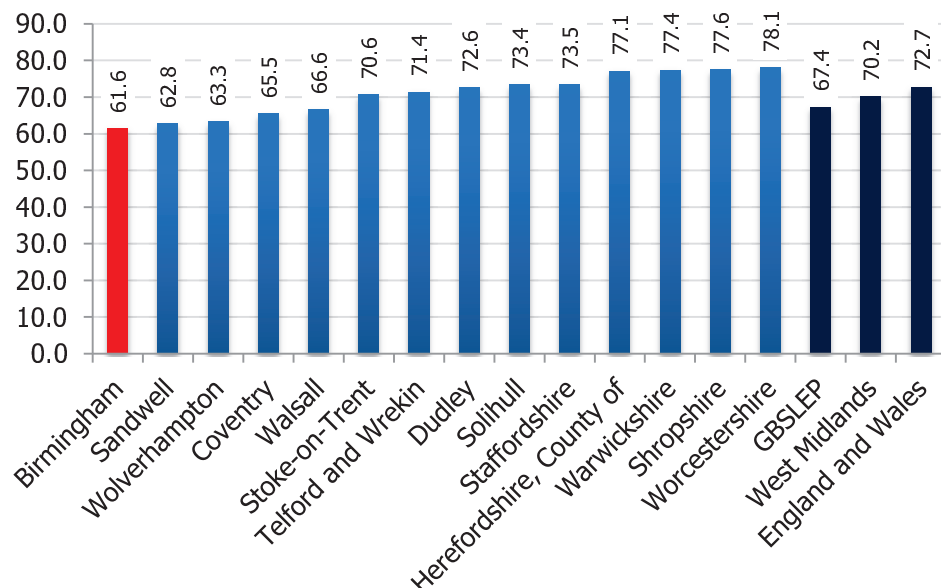
- Wood trades and interior fit-out
- Electricians
- Bricklayers
- Building envelope specialists
- Construction process managers.

**HS2** should also have a major impact in this sector. Projections show an additional 65,000 jobs could be created up to 2014 during the build phase of the project. A large proportion of HS2 construction jobs will be on a contract basis, which means that the actual labour requirement is unlikely to greatly exceed 10,000 jobs in any one year. These jobs will be primarily in the fields of design, project management, civil engineering construction and specialist railway engineering

# Current labour market and skills

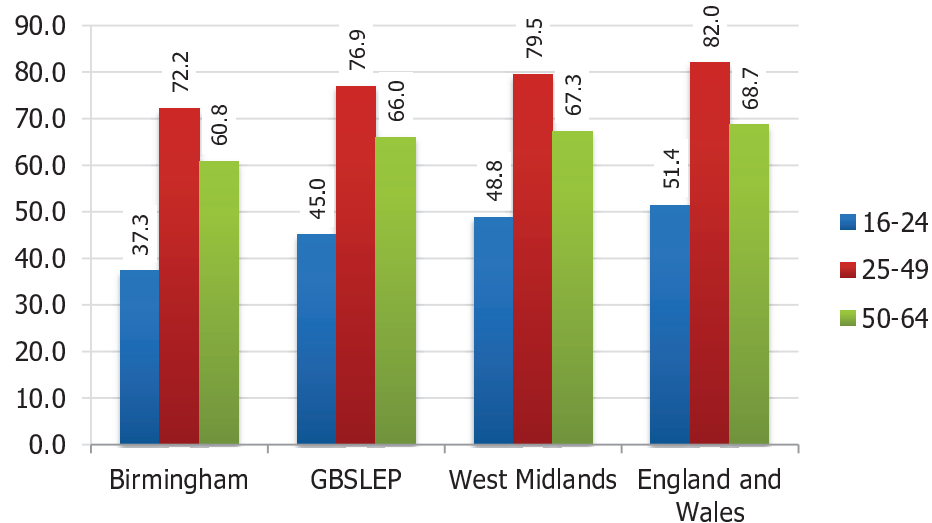
## Employment

**Chart 1 Employment rate, working age: West Midland authorities, 2014/2015**



Source: Annual population survey – resident based via NOMIS. Rates as a proportion of working age population.

**Chart 2 Employment rates by age, 2014/2015**

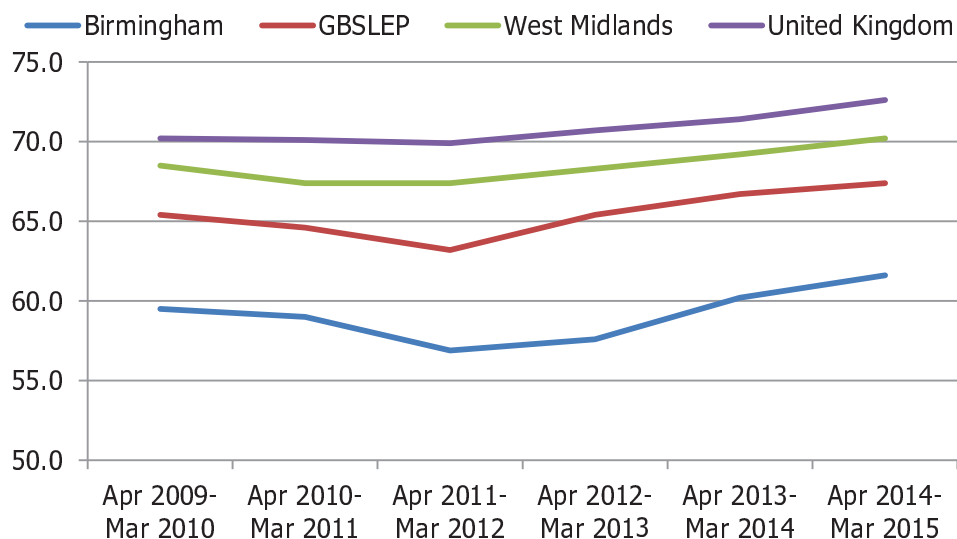


Source: Annual population survey – resident based via NOMIS. Rates as a proportion of working age population.

**Table 1 Employment rates by age, 2014/2015**

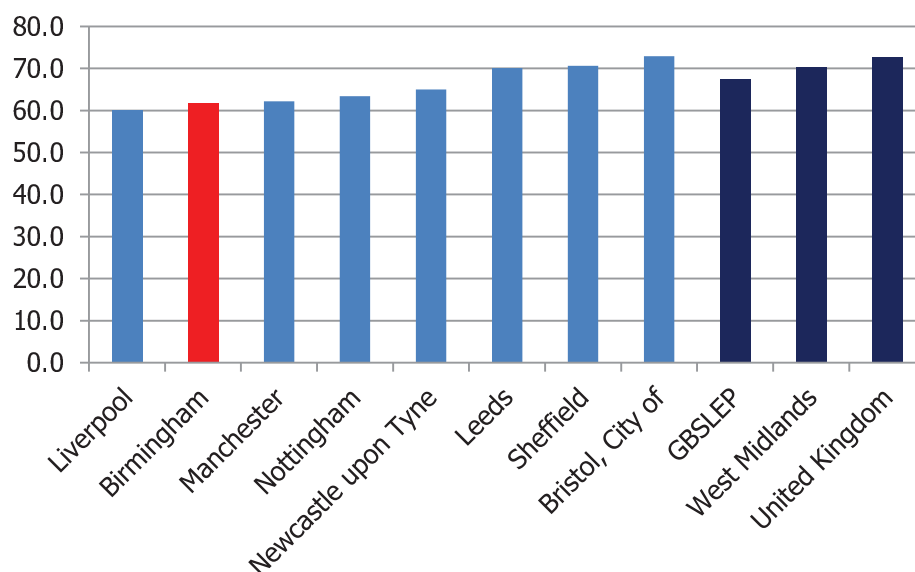
Area	Age group			
	16-64	16-24	25-49	50-64
Birmingham	61.6	37.3	72.2	60.8
Sandwell	62.8	38.1	74.1	59.1
Wolverhampton	63.3	36.4	71.7	64.1
Coventry	65.5	42.5	74.6	66.6
Walsall	66.6	40.7	76.1	65.5
Stoke-on-Trent	70.6	59.3	80.4	58.5
Telford and Wrekin	71.4	55.6	78.2	68.9
Dudley	72.6	61.4	78.2	68.5
Solihull	73.4	42.5	84.1	74.4
Staffordshire	73.5	57.8	82.3	68.4
Herefordshire, County of	77.1	63.3	84.3	72.1
Warwickshire	77.4	53.9	88.7	71.4
Shropshire	77.6	52.9	87.5	74.2
Worcestershire	78.1	64.3	86.8	71.9
GBSLEP	67.4	45.0	76.9	66.0
West Midlands	70.2	48.8	79.5	67.3
England and Wales	72.7	51.4	82.0	68.7

Source: Annual population survey – resident based via NOMIS. Rates as a proportion of working age population.

**Chart 3 Employment trends, working age, 2010 to 2015**

Source: Annual population survey – resident based via NOMIS.

**Chart 4 Employment rates, English core cities, working age, 2014/2015**



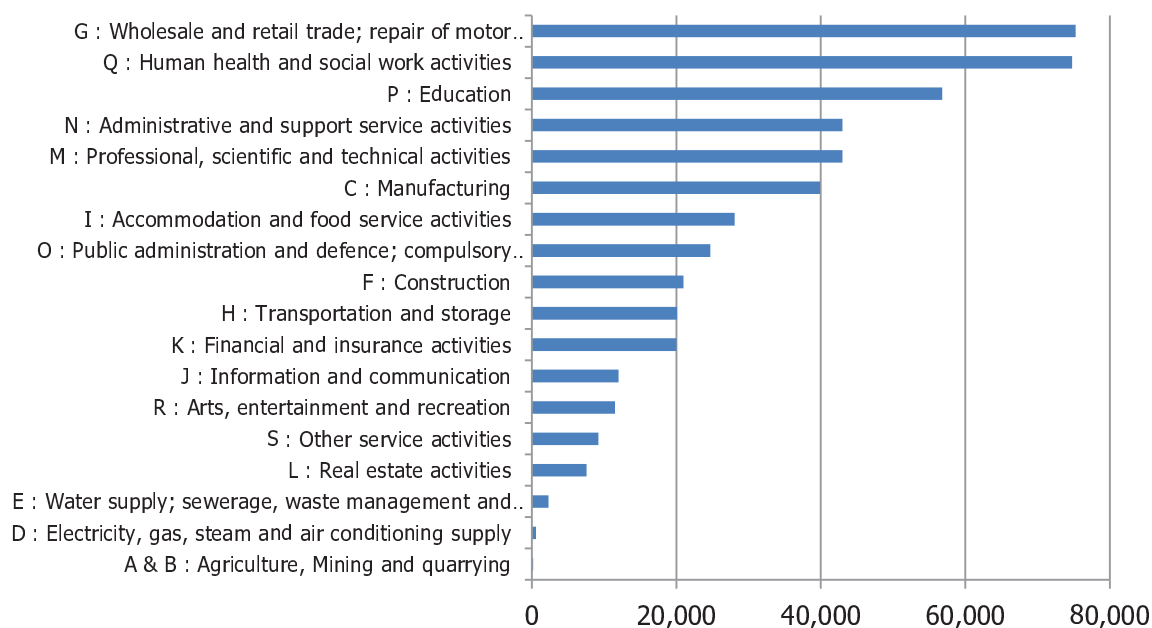
Source: Annual population survey – resident based via NOMIS.

**Table 2 Employment trends, English core cities, working age, 2010 to 2015**

	Apr 2009- Mar 2010	Apr 2010- Mar 2011	Apr 2011- Mar 2012	Apr 2012- Mar 2013	Apr 2013- Mar 2014	Apr 2014- Mar 2015
Liverpool	60.3	59.9	59.6	60.2	61.2	60.0
Birmingham	59.5	59.0	56.9	57.6	60.2	61.6
Manchester	58.2	58.9	58.8	61.2	62.0	62.2
Nottingham	57.0	54.2	59.6	59.0	59.9	63.4
Newcastle upon Tyne	60.2	64.5	62.8	60.6	60.3	65.0
Leeds	68.8	69.3	67.4	68.8	69.0	70.1
Sheffield	65.8	66.3	63.9	69.0	68.7	70.6
Bristol, City of	71.5	74.8	69.9	71.1	70.0	72.9
GBSLEP	65.4	64.6	63.2	65.4	66.7	67.4
West Midlands	68.5	67.4	67.4	68.3	69.2	70.2
United Kingdom	70.2	70.1	69.9	70.7	71.4	72.6

Source: Annual population survey – resident based via NOMIS.

**Chart 5 Workplace employment by sector, working age: Birmingham, 2014**



Source: Business Register and Employment Survey (BRES)

**Table 3 Workplace employment trends by sector, working age: Birmingham, 2009 to 2014**

Sector sections	2009	2010	2011	2012	2013	2014
A & B : Agriculture, Mining and quarrying	-	-	-	100	-	200
C : Manufacturing	39,900	40,300	37,100	36,900	39,300	39,900
D : Electricity, gas supply	-	1,000	1,200	1,300	1,600	600
E : Water supply	2,600	2,700	2,700	2,500	2,500	2,300
F : Construction	18,900	18,600	18,300	16,500	16,000	21,000
G : Wholesale and retail trade; repair of motor vehicles and motorcycles	69,800	68,600	66,000	71,100	70,600	75,300
H : Transportation and storage	18,500	18,100	24,100	19,800	17,800	20,100
I : Accommodation and food service	25,800	22,600	25,500	26,600	26,500	28,100
J : Information and communication	13,300	13,000	10,700	10,300	11,100	12,000
K : Financial and insurance activities	27,300	26,100	27,100	27,200	24,600	20,000
L : Real estate activities	6,200	5,500	7,200	7,700	7,400	7,600
M : Professional, scientific and technical	30,400	29,100	33,500	35,400	38,100	43,000
N : Administrative and support service	36,200	36,500	42,200	40,600	41,200	43,000
O : Public administration and defence	32,000	24,500	33,000	29,800	34,400	24,700
P : Education	56,000	65,800	48,300	46,900	53,100	56,800
Q : Human health and social work activities	64,000	67,900	70,800	73,700	74,200	74,800
R : Arts, entertainment and recreation	7,800	9,700	9,300	9,600	9,800	11,500
S : Other service activities	8,600	7,100	9,100	8,100	9,700	9,200
T : Activities of households as employers	-	-	-	-	-	-
U : Activities of extraterritorial bodies	-	-	-	-	-	-
<b>Total</b>	<b>458,500</b>	<b>457,100</b>	<b>466,200</b>	<b>464,100</b>	<b>477,800</b>	<b>490,300</b>

Source: Business Register and Employment Survey (BRES)

**Table 4 Workplace employment trends by sector, working age:  
Birmingham, 2009 to 2014. Index (2009 = 100)**

Sector sections	2009	2010	2011	2012	2013	2014
A & B : Agriculture, Mining and quarrying	-	-	-	-	-	-
C : Manufacturing	100	101	93	92	98	100
D : Electricity, gas supply	-	-	-	-	-	-
E : Water supply	100	104	104	96	96	88
F : Construction	100	98	97	87	85	111
G : Wholesale and retail trade; repair of motor vehicles and motorcycles	100	98	95	102	101	108
H : Transportation and storage	100	98	130	107	96	109
I : Accommodation and food service	100	88	99	103	103	109
J : Information and communication	100	98	80	77	83	90
K : Financial and insurance activities	100	96	99	100	90	73
L : Real estate activities	100	89	116	124	119	123
M : Professional, scientific and technical	100	96	110	116	125	141
N : Administrative and support service	100	101	117	112	114	119
O : Public administration and defence	100	77	103	93	108	77
P : Education	100	118	86	84	95	101
Q : Human health and social work activities	100	106	111	115	116	117
R : Arts, entertainment and recreation	100	124	119	123	126	147
S : Other service activities	100	83	106	94	113	107
T : Activities of households as employers	-	-	-	-	-	-
U : Activities of extraterritorial bodies	-	-	-	-	-	-
<b>Total</b>	<b>100</b>	<b>100</b>	<b>102</b>	<b>101</b>	<b>104</b>	<b>107</b>

Source: Business Register and Employment Survey (BRES)



**Table 5 Employment by occupation and sector, workplace based, working age: Birmingham, 2010 to 2015**

Total employment 2009-10							
Occupation \ Sector	Manufacturing	Construction	Distribution, hotels & restaurants	Transport & Communication	Banking finance & insurance etc.	Public admin education & health	Total
Managers, Directors and Senior Officials	6,600	5,100	12,200	1,400	9,400	10,400	48,600
Professional Occupations	4,600	4,000	1,200	8,400	17,900	63,900	105,000
Associate Prof & Tech Occupations	7,000	2,900	5,200	4,200	18,400	26,100	70,300
Administrative and Secretarial Occupations	4,200	2,100	9,000	3,300	22,000	21,100	65,700
Skilled Trades Occupations	9,700	16,800	6,300	1,700	2,900	1,900	40,600
Caring, Leisure and Other Service Occupations	-	-	-	1,400	2,400	47,300	56,300
Sales and Customer Service Occupations	-	900	23,100	1,600	8,300	2,700	37,300
Process, Plant and Machine Operatives	6,300	3,700	5,100	15,200	1,500	2,000	34,800
Elementary occupations	4,000	1,700	14,200	3,400	9,100	15,300	50,600
All	42,400	37,200	76,300	40,600	91,900	190,700	509,200
Total employment 2014-15							
Occupation \ Sector	Manufacturing	Construction	Distribution, hotels & restaurants	Transport & Communication	Banking finance & insurance etc.	Public admin education & health	Total
Managers, Directors and Senior Officials	5,300	3,500	10,900	2,900	10,200	10,300	45,800
Professional Occupations	4,400	6,700	1,600	9,300	19,400	75,000	122,200
Associate Prof & Tech Occupations	9,600	2,000	6,400	5,600	19,300	27,300	78,200
Administrative and Secretarial Occupations	5,600	2,300	4,900	6,500	17,800	22,700	64,600
Skilled Trades Occupations	14,600	13,000	9,300	2,600	4,500	3,000	49,300
Caring, Leisure and Other Service Occupations	-	-	1,200	-	1,500	41,600	52,800
Sales and Customer Service Occupations	1,700	-	27,700	2,500	8,500	1,600	42,000
Process, Plant and Machine Operatives	14,000	4,300	5,600	12,600	2,000	2,200	42,400
Elementary occupations	5,300	700	21,900	4,800	9,800	12,500	57,100
All	60,500	32,500	89,500	46,800	93,000	196,200	554,400
Change from 2009-10 to 2014-15							
Occupation \ Sector	Manufacturing	Construction	Distribution, hotels & restaurants	Transport & Communication	Banking finance & insurance etc.	Public admin education & health	Total
Managers, Directors and Senior Officials	-1,300	-1,600	-1,300	1,500	800	-100	-2,800
Professional Occupations	-200	2,700	400	900	1,500	11,100	17,200
Associate Prof & Tech Occupations	2,600	-900	1,200	1,400	900	1,200	7,900
Administrative and Secretarial Occupations	1,400	200	-4,100	3,200	-4,200	1,600	-1,100
Skilled Trades Occupations	4,900	-3,800	3,000	900	1,600	1,100	8,700
Caring, Leisure and Other Service Occupations	-	-	-	-	-900	-5,700	-3,500
Sales and Customer Service Occupations	-	-	4,600	900	200	-1,100	4,700
Process, Plant and Machine Operatives	7,700	600	500	-2,600	500	200	7,600
Elementary occupations	1,300	-1,000	7,700	1,400	700	-2,800	6,500
All	18,100	-4,700	13,200	6,200	1,100	5,500	45,200

Source: Annual population survey - workplace analysis via NOMIS.

Highest employment and change Lowest employment and change

**Table 6 Employment rates by ethnic group, working age, Apr 2014-Mar 2015**

	white	ethnic minority	Percentage point GAP	mixed ethnic group	Indians	Pakistanis/ Bangladeshis	Black or black British	other ethnic group
Sheffield	74.6	50.6	<b>24.0</b>	63.2	69.4	51.5	54.3	39.2
<b>Birmingham</b>	<b>68.5</b>	<b>51.1</b>	<b>17.4</b>	<b>70.1</b>	<b>64.7</b>	<b>43.3</b>	<b>54.8</b>	<b>44.4</b>
Newcastle upon Tyne	67.0	52.7	<b>14.3</b>	76.2	51.6	54.5	48.5	51.7
Nottingham	66.8	53.0	<b>13.8</b>	77.2	46.0	47.0	56.5	48.0
Liverpool	61.7	48.8	<b>12.9</b>	32.1	63.0	54.6	51.0	40.8
Bristol, City of	74.8	63.2	<b>11.6</b>	73.3	85.2	61.1	61.7	43.7
Leeds	71.7	60.9	<b>10.8</b>	61.9	70.9	58.1	58.0	59.2
Manchester	65.0	56.7	<b>8.3</b>	58.1	81.3	54.2	59.8	47.7
GBSLEP	72.4	52.8	<b>19.6</b>	69.5	66.1	45.5	56.5	44.0
West Midlands	73.4	55.6	<b>17.8</b>	60.3	66.8	47.6	57.4	47.3
United Kingdom	74.3	61.8	<b>12.5</b>	64.3	71.1	51.9	62.9	60.3

Source: Annual population survey – resident based via NOMIS.

**Table 7 Employment rates by disability, working age, Apr 2014-Mar 2015**

	EA core or work-limiting disabled	EA core disabled	work-limiting disabled	All disabled	not EA core or work-limiting disabled	Percentage point GAP
Liverpool	25.7	24.9	19.0	23.4	71.0	<b>47.6</b>
Leeds	43.2	42.6	34.1	40.5	76.7	<b>36.2</b>
<b>Birmingham</b>	<b>35.0</b>	<b>34.3</b>	<b>30.7</b>	<b>33.5</b>	<b>69.4</b>	<b>35.9</b>
Manchester	38.0	36.5	30.9	35.4	70.4	<b>35.0</b>
Sheffield	45.9	44.2	36.0	42.6	77.1	<b>34.5</b>
Bristol, City of	47.8	47.6	41.4	45.9	78.3	<b>32.4</b>
Newcastle upon Tyne	41.8	40.5	34.0	39.1	71.5	<b>32.4</b>
Nottingham	40.6	39.8	34.3	38.5	69.6	<b>31.1</b>
GBSLEP	39.5	38.1	33.1	37.2	74.5	<b>37.3</b>
West Midlands	44.9	43.3	37.6	42.2	76.5	<b>34.3</b>
United Kingdom	48.2	46.4	41.1	45.5	78.5	<b>33.0</b>

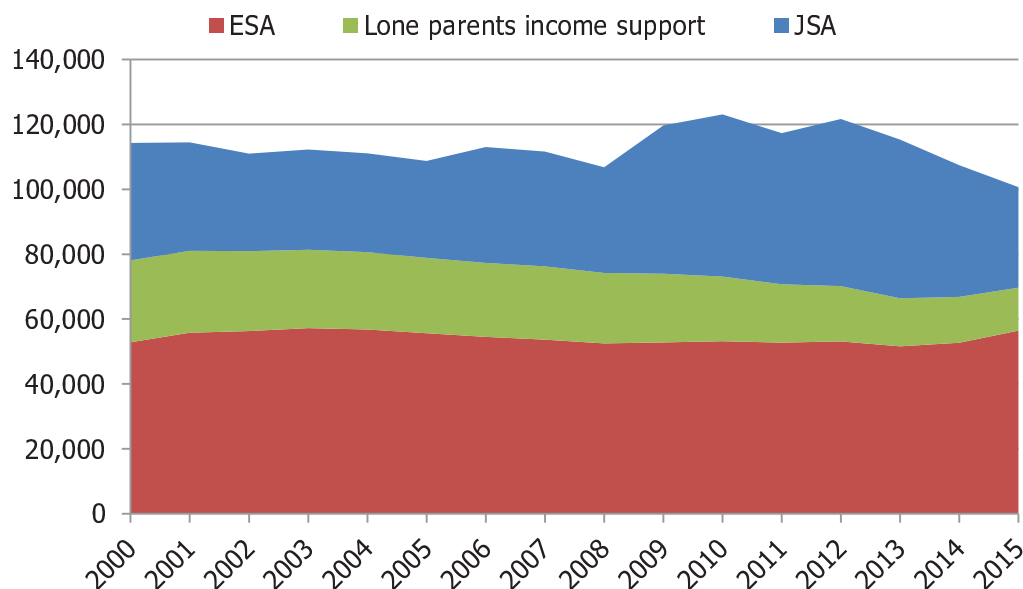
EA Core disabled includes those who have a long-term disability which substantially limits their day-to-day activities.

Work-limiting disabled includes those who have a long-term disability which affects the kind or amount of work they might do.

Source: Annual population survey – resident based via NOMIS.

## Unemployment

**Chart 6 Claiming out of work benefits, working age: Birmingham, 2000 to 2015**



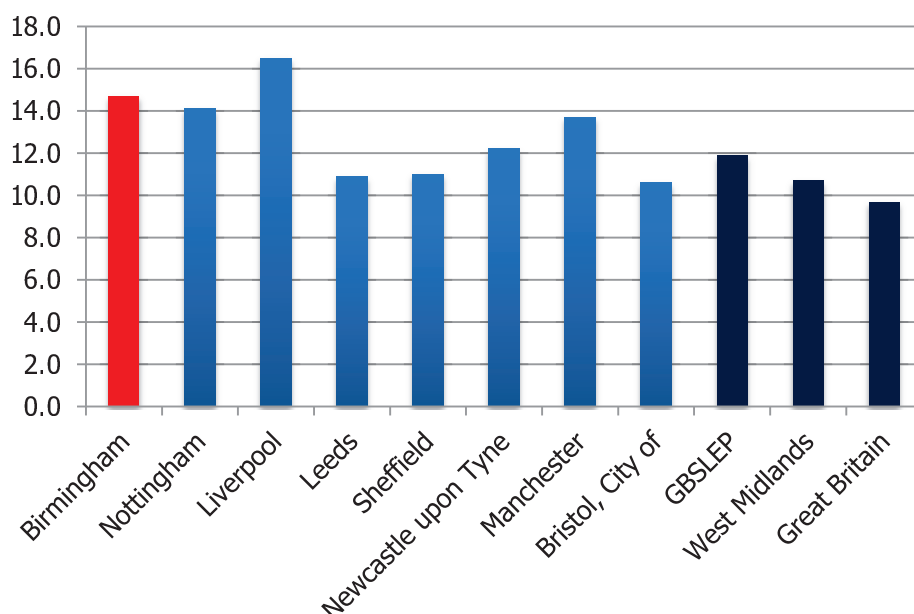
**Table 8 Claiming out of work benefits, working age: Birmingham, 2000 to 2015**

Date	job seeker		ESA and incapacity benefits		lone parent		others on income related benefit		out-of-work benefits	
	number	%	number	%	number	%	number	%	number	%
2000	36,190	5.9	52,870	8.6	25,250	4.1	5,730	0.9	120,040	19.6
2001	33,430	5.4	55,810	9.1	25,250	4.1	5,450	0.9	119,940	19.5
2002	30,070	4.8	56,320	9.1	24,630	4.0	5,100	0.8	116,120	18.7
2003	30,900	4.9	57,230	9.1	24,150	3.8	4,600	0.7	116,880	18.6
2004	30,460	4.8	56,810	8.9	23,840	3.8	4,430	0.7	115,540	18.2
2005	29,870	4.6	55,660	8.6	23,230	3.6	4,560	0.7	113,320	17.5
2006	35,730	5.5	54,530	8.4	22,790	3.5	4,180	0.6	117,230	18.0
2007	35,380	5.4	53,680	8.1	22,590	3.4	4,290	0.7	115,930	17.6
2008	32,580	4.9	52,520	7.9	21,710	3.3	4,740	0.7	111,560	16.7
2009	45,690	6.8	52,820	7.9	21,180	3.1	4,650	0.7	124,340	18.5
2010	49,990	7.3	53,190	7.8	19,930	2.9	4,870	0.7	127,980	18.8
2011	46,590	6.7	52,760	7.6	17,980	2.6	4,600	0.7	121,930	17.7
2012	51,510	7.4	53,130	7.6	17,050	2.4	4,000	0.6	125,690	18.0
2013	48,910	7.0	51,610	7.4	14,820	2.1	3,630	0.5	118,980	17.0
2014	40,590	5.8	52,720	7.5	14,140	2.0	3,280	0.5	110,730	15.8
2015	31,000	4.4	56,450	8.1	13,240	1.9	2,880	0.4	103,560	14.8

Source: DWP benefit statistics via NOMIS, Work and Pensions Longitudinal Study (WPLS).

Rate = Proportion of resident population aged 16-64 estimates.

**Chart 7 Out of work benefit rates, working age: Core Cities, February 2015**



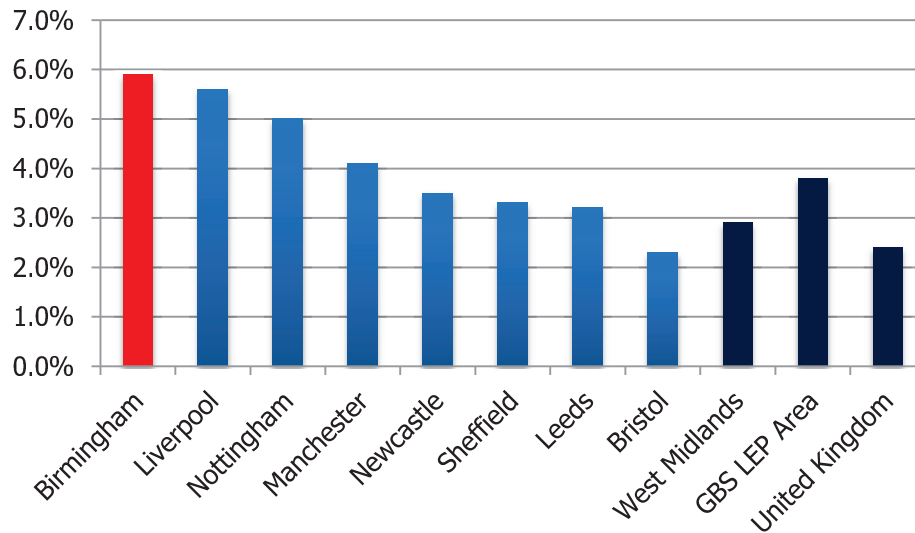
**Table 9 Out of work benefit rates, working age: English core cities, February 2015**

Area	Job seeker		ESA and incapacity benefits		Lone parent		Others on income related benefit		Total out-of-work benefits	
	number	%	number	%	number	%	number	%	number	%
Birmingham	31,000	4.4	56,450	8.0	13,240	1.9	2,880	0.4	103,560	14.7
Nottingham	8,620	3.9	17,160	7.8	4,180	1.9	820	0.4	30,780	14.1
Liverpool	10,140	3.1	36,220	11.2	5,770	1.8	1,320	0.4	53,450	16.5
Leeds	14,730	2.9	32,160	6.4	6,610	1.3	1,700	0.3	55,200	10.9
Sheffield	10,540	2.8	24,490	6.6	4,580	1.2	1,220	0.3	40,830	11.0
Newcastle upon Tyne	5,270	2.7	15,450	7.8	2,810	1.4	720	0.4	24,250	12.2
Manchester	8,860	2.4	33,330	9.1	6,620	1.8	1,450	0.4	50,250	13.7
Bristol, City of	5,960	2.0	21,070	7.0	3,980	1.3	760	0.3	31,770	10.6
GBSLEP	38,360	3.1	86,540	6.9	18,950	1.5	4,360	0.3	148,210	11.9
West Midlands	87,470	2.5	237,250	6.6	47,150	1.3	11,800	0.3	383,670	10.7
Great Britain	785,480	2.0	2,526,360	6.3	448,100	1.1	116,580	0.3	3,876,520	9.7

Source: DWP benefit statistics via NOMIS, Work and Pensions Longitudinal Study (WPLS).

Rate = Proportion of resident population aged 16-64 estimates.

**Chart 8 Unadjusted claimant rates, working age: English core cities, August 2015**



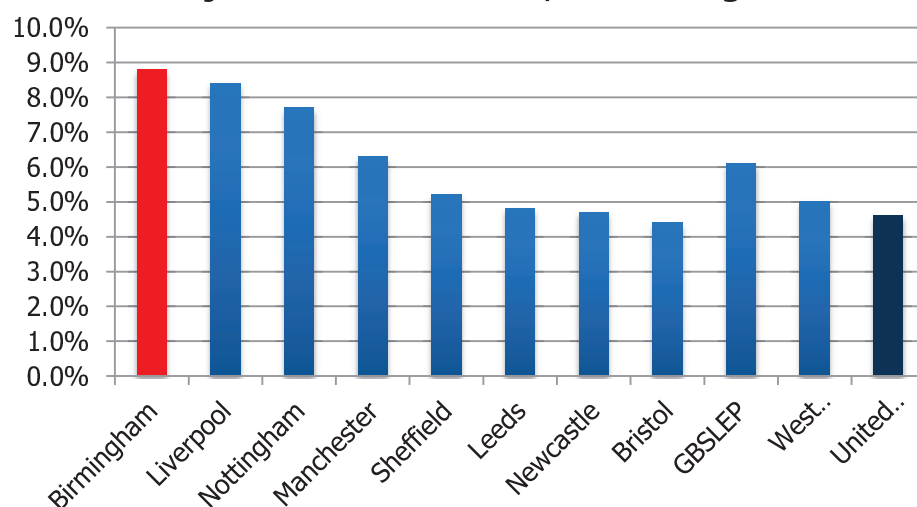
**Table 10 Unadjusted claimant rates, working age: English core cities, August 2015**

Area	JSA Claimants	Out of Work UC Claimants	Total Claimant Unemployed		
			Number	Claimant Proportion	Claimant Rate
Birmingham	26,652	2,752	29,404	4.2%	5.9%
Liverpool	7,842	4,518	12,360	3.8%	5.6%
Nottingham	7,690	7	7,697	3.5%	5.0%
Manchester	6,879	3,496	10,375	2.9%	4.1%
Newcastle	4,385	536	4,921	2.5%	3.5%
Sheffield	9,686	14	9,700	2.6%	3.3%
Leeds	12,492	14	12,506	2.5%	3.2%
Bristol	5,363	17	5,380	1.8%	2.3%
West Midlands	73,294	5,661	78,955	2.2%	2.9%
GBS LEP Area	32,354	3,380	35,734	2.9%	3.8%
United Kingdom	708,613	77,571	786,184	1.9%	2.4%

Source: DWP experimental benefit statistics, August 2015. JSA claimants via NOMIS, UC claimants via StatXplore. This new claimant count measure is now available via NOMIS too.

Claimant proportion: claimants divided by working age population.

Claimant rate: claimants divided by economically active working age residents.

**Chart 9 Unadjusted claimant rates, 16-24: English core cities, August 2015****Table 11 Unadjusted claimant rates, 16-24: English core cities, August 2015**

Area	JSA Claimants	Out of Work UC Claimants	Total Claimant Unemployed		
			Number	Claimant Proportion	Claimant Rate
Birmingham	4,860	1,549	6,409	4.8%	8.8%
Liverpool	1,155	1,817	2,972	4.4%	8.4%
Nottingham	1,880	5	1,885	3.0%	7.7%
Manchester	1,080	1,439	2,519	2.9%	6.3%
Sheffield	2,300	5	2,305	2.8%	5.2%
Leeds	2,850	13	2,863	2.8%	4.8%
Newcastle	840	285	1,125	2.2%	4.7%
Bristol	1,145	5	1,150	1.9%	4.4%
GBSLEP	6,130	1,911	8,041	4.0%	6.1%
West Midlands	14,685	3,194	17,879	3.3%	5.0%
United Kingdom	145,870	37,584	183,454	3.1%	4.6%

Source: DWP experimental benefit statistics, August 2015. JSA claimants via NOMIS, UC claimants via StatXplore

Claimant proportion: claimants divided by population aged 16-24.

Claimant rate: claimants divided by economically active residents aged 16-24.

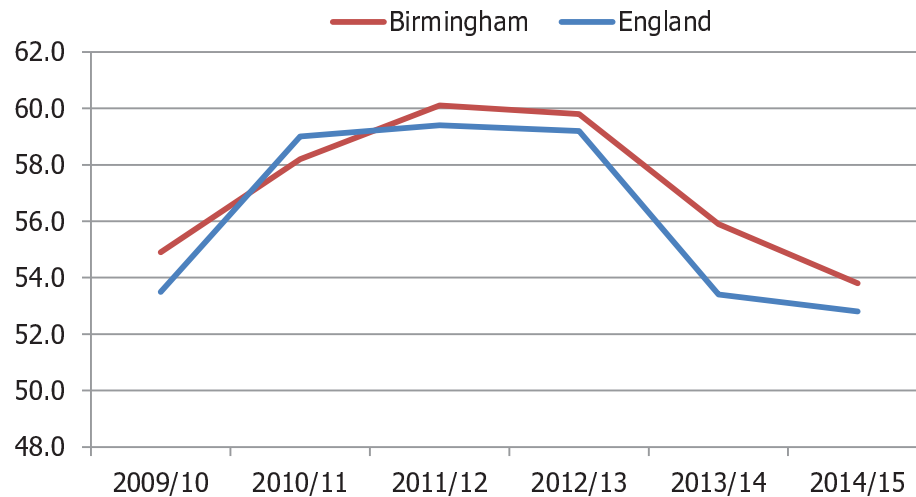
**Table 12 Work Programme figures, Birmingham, cumulative to June 2015**

Payment group													
	Total	JSA 18 to 24	JSA 25 and over	JSA Early Entrants	JSA Ex-Incapacity Benefit	ESA Volunteers	New ESA claimants: Excluding 12 Month prognosis claimants	New ESA claimants:12 Month prognosis claimants only	ESA Ex-Incapacity Benefit	IB/IS Volunteers	JSA Prison Leavers	All JSA	All ESA
<b>Cumulative referrals</b>													
Birmingham	59,160	11,280	25,390	14,090	650	1,140	3,250	1,340	760	70	1,180	52,590	6,490
Newcastle upon Tyne	11,920	2,460	5,990	1,210	180	280	620	440	400	-	350	10,190	1,740
Manchester	24,130	4,090	10,340	3,890	600	730	1,520	1,270	770	30	890	19,810	4,290
Liverpool	27,100	5,210	12,910	2,960	470	620	1,220	1,620	1,230	10	860	22,410	4,690
Sheffield	21,070	4,300	8,070	5,160	300	370	1,100	560	600	-	610	18,440	2,630
Leeds	28,570	5,450	14,440	3,250	480	210	1,610	1,190	610	10	1,320	24,940	3,620
Nottingham	18,570	3,510	7,250	3,920	420	760	1,070	510	650	30	440	15,540	2,990
Bristol, City of	14,170	2,360	6,660	1,700	260	520	1,020	710	610	50	290	11,270	2,860
English core Cities	145,530	27,380	65,660	22,090	2,710	3,490	8,160	6,300	4,870	130	4,760	122,600	22,820
GB	1,757,540	304,740	745,470	306,240	34,140	66,010	114,060	76,830	58,730	2,970	48,360	1,438,950	315,630
<b>Proportion of total</b>													
Birmingham		19%	43%	24%	1%	2%	5%	2%	1%	0%	2%	89%	11%
Newcastle upon Tyne		21%	50%	10%	2%	2%	5%	4%	3%	-	3%	85%	15%
Manchester		17%	43%	16%	2%	3%	6%	5%	3%	0%	4%	82%	18%
Liverpool		19%	48%	11%	2%	2%	5%	6%	5%	0%	3%	83%	17%
Sheffield		20%	38%	24%	1%	2%	5%	3%	3%	-	3%	88%	12%
Leeds		19%	51%	11%	2%	1%	6%	4%	2%	0%	5%	87%	13%
Nottingham		19%	39%	21%	2%	4%	6%	3%	4%	0%	2%	84%	16%
Bristol, City of		17%	47%	12%	2%	4%	7%	5%	4%	0%	2%	80%	20%
English core Cities		19%	45%	15%	2%	2%	6%	4%	3%	0%	3%	84%	16%
GB		17%	42%	17%	2%	4%	6%	4%	3%	0%	3%	82%	18%
<b>Job outcome rate</b>													
Birmingham	25%	34%	26%	25%	15%	10%	13%	6%	4%	14%	10%	27%	10%
Newcastle upon Tyne	27%	33%	29%	31%	22%	11%	15%	9%	5%	-	9%	29%	10%
Manchester	26%	34%	31%	26%	22%	10%	13%	9%	5%	33%	15%	30%	10%
Liverpool	25%	34%	28%	27%	17%	6%	14%	7%	3%	-	16%	29%	8%
Sheffield	25%	33%	29%	26%	17%	5%	11%	5%	3%	-	11%	28%	7%
Leeds	24%	30%	26%	27%	19%	10%	14%	9%	3%	-	11%	26%	10%
Nottingham	25%	32%	29%	25%	19%	8%	13%	10%	3%	33%	16%	28%	9%
Bristol, City of	23%	30%	27%	25%	15%	10%	12%	6%	3%	20%	7%	27%	8%
English core Cities	25%	32%	28%	26%	19%	8%	13%	8%	4%	23%	13%	28%	9%
GB	26%	35%	30%	28%	20%	10%	14%	7%	4%	23%	14%	30%	10%

Source: DWP Work Programme tabtool. Job outcome rate is cumulative job outcomes as a proportion of cumulative referrals

## Qualification levels

**Chart 10 Percentage of pupils achieving 5+ A\*-C grades including English and mathematics GCSEs**



Source: DfE, key stage 4 attainment data

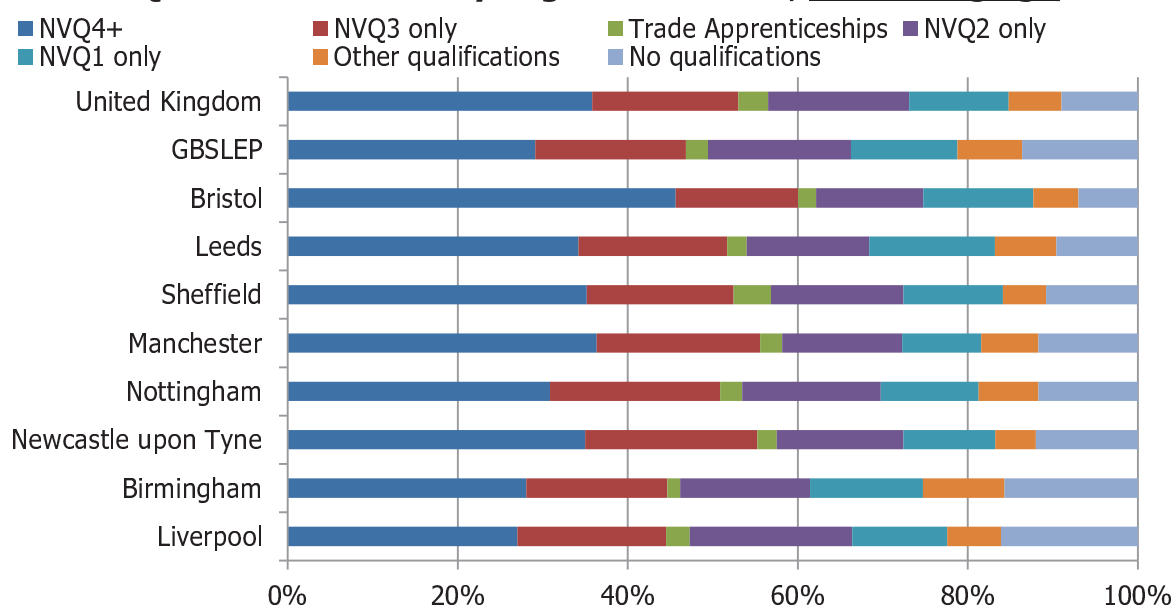
**Table 13 Percentage of pupils achieving 5+ A\*-C grades including English and mathematics GCSEs**

	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
Leeds	50.6	53.7	55.0	57.3	51.0	54.1
Newcastle upon Tyne	49.5	52.6	55.9	57.3	57.4	53.9
<b>Birmingham</b>	<b>54.9</b>	<b>58.2</b>	<b>60.1</b>	<b>59.8</b>	<b>55.9</b>	<b>53.8</b>
Bristol, City of	46.2	50.2	51.6	52.3	55.2	53.4
Sheffield	49.2	49.4	55.6	57.3	53.9	53.1
Liverpool	53.0	55.0	56.8	56.0	49.9	48.1
Manchester	45.7	51.8	53.2	53.1	51.4	46.0
Nottingham	44.2	46.7	49.6	50.3	44.6	41.5
<b>England</b>	<b>53.5</b>	<b>59.0</b>	<b>59.4</b>	<b>59.2</b>	<b>53.4</b>	<b>52.8</b>

Source: DfE, key stage 4 attainment data

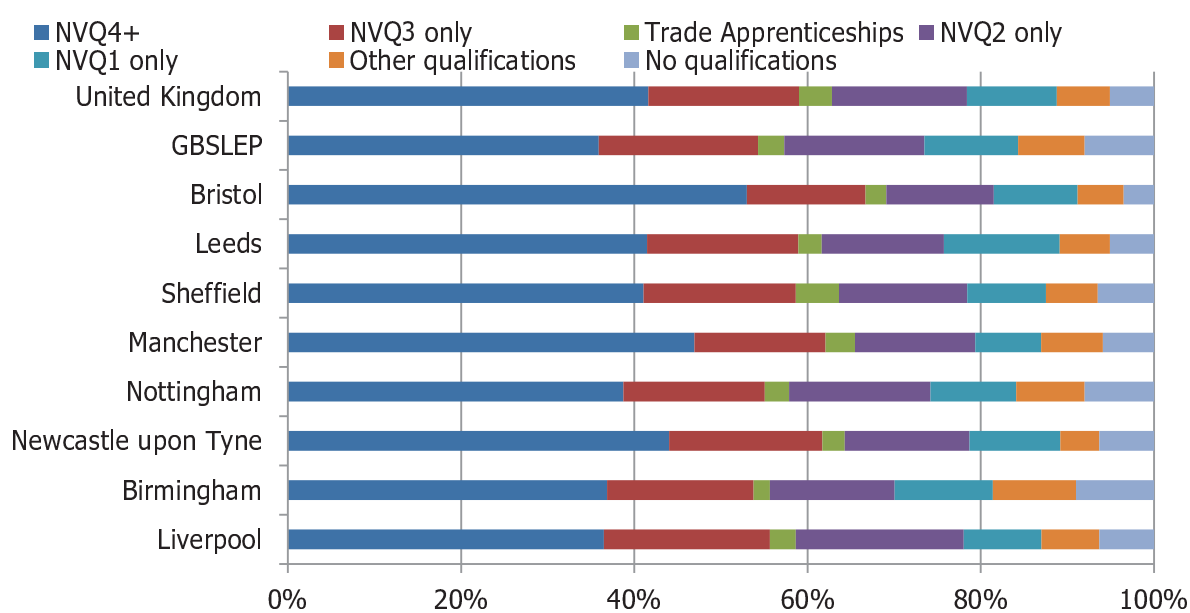


**Chart 11 Qualification levels by English core cities, all working age, 2014**



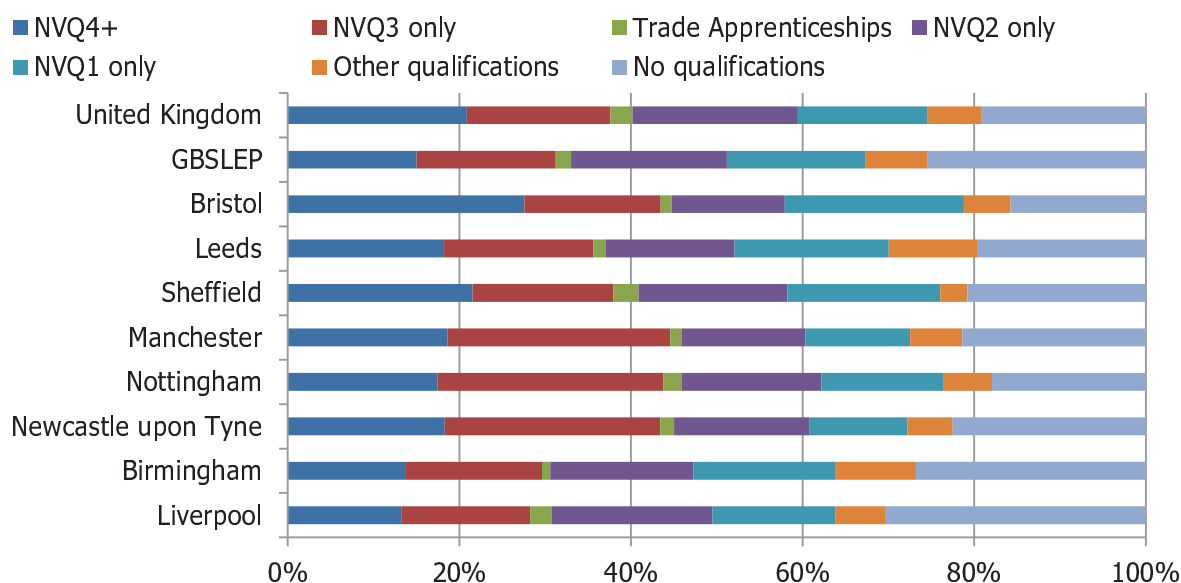
Source: Annual Population Survey, ONS via NOMIS, Jan 2014 to Dec 2014.

**Chart 12 Qualification levels by English core cities, working age employed, 2014**



Source: Annual Population Survey, ONS via NOMIS, Jan 2014 to Dec 2014.

**Chart 13 Qualification levels by English core cities, working age workless, 2014**



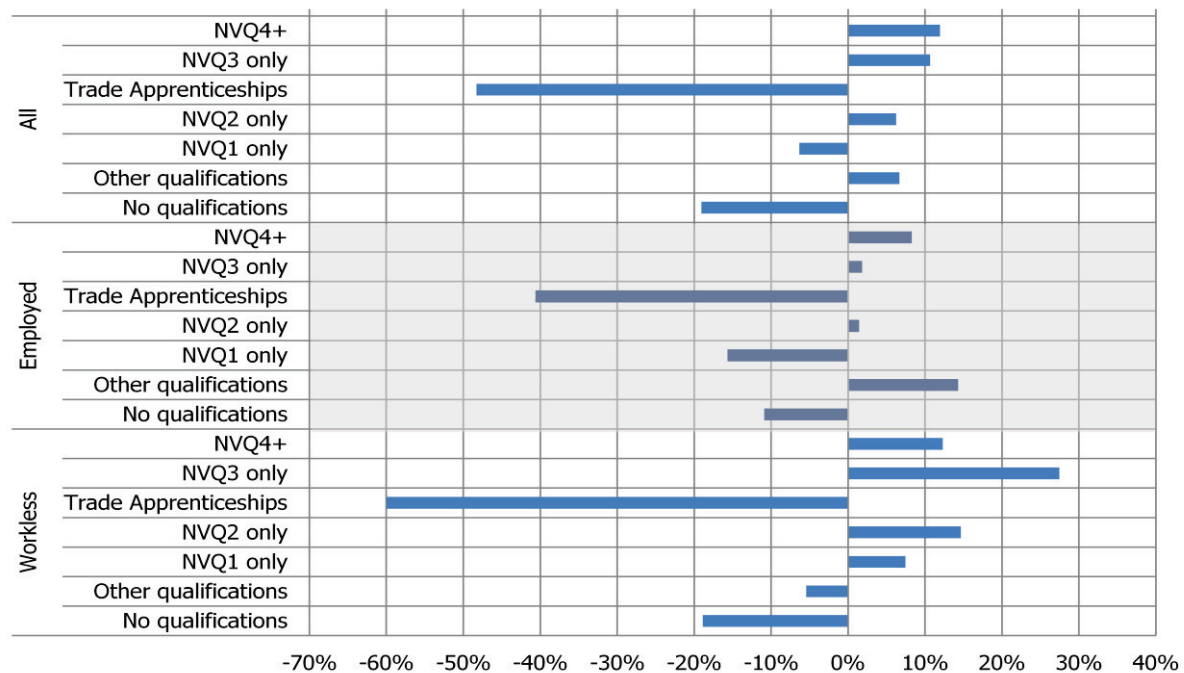
Source: Annual Population Survey, ONS via NOMIS, Jan 2014 to Dec 2014.

**Table 14 Qualification levels by English core cities, working age by economic activity, 2014**

		Birmingham	Liverpool	Newcastle upon Tyne	Nottingham	Manchester	Sheffield	Leeds	Bristol	GBSLEP	United Kingdom
All	NVQ4+	28.1	27.0	35.0	30.8	36.3	35.2	34.2	45.6	29.1	35.8
	NVQ3 only	16.6	17.5	20.3	20.0	19.2	17.3	17.5	14.4	17.7	17.2
	Trade Apprenticeships	1.5	2.8	2.3	2.6	2.6	4.4	2.3	2.1	2.6	3.5
	NVQ2 only	15.3	19.1	14.9	16.3	14.1	15.6	14.4	12.6	16.8	16.6
	NVQ1 only	13.3	11.2	10.8	11.5	9.3	11.7	14.8	12.9	12.5	11.7
	Other qualifications	9.6	6.3	4.8	7.0	6.7	5.1	7.2	5.3	7.6	6.2
	No qualifications	15.7	16.1	12.0	11.7	11.7	10.8	9.6	7.0	13.6	9.0
Employed	NVQ4+	36.8	36.5	44.0	38.7	46.9	41.1	41.5	53.0	35.9	41.6
	NVQ3 only	16.9	19.2	17.7	16.3	15.1	17.6	17.5	13.7	18.4	17.4
	Trade Apprenticeships	1.9	3.0	2.6	2.8	3.4	5.0	2.7	2.4	3.0	3.8
	NVQ2 only	14.4	19.4	14.4	16.3	13.9	14.8	14.1	12.4	16.2	15.6
	NVQ1 only	11.3	9.0	10.5	9.9	7.6	9.1	13.4	9.7	10.8	10.4
	Other qualifications	9.6	6.7	4.5	7.9	7.1	6.0	5.8	5.3	7.7	6.1
	No qualifications	9.0	6.3	6.3	8.0	5.9	6.5	5.1	3.5	8.0	5.1
Workless	NVQ4+	13.7	13.2	18.3	17.4	18.6	21.5	18.2	27.6	15.0	20.9
	NVQ3 only	15.9	15.0	25.2	26.3	26.0	16.4	17.4	15.9	16.2	16.7
	Trade Apprenticeships	1.0	2.5	1.6	2.1	1.3	3.0	1.5	1.3	1.8	2.6
	NVQ2 only	16.7	18.7	15.8	16.3	14.5	17.3	15.0	13.2	18.2	19.3
	NVQ1 only	16.5	14.4	11.4	14.3	12.2	17.9	18.0	20.9	16.1	15.1
	Other qualifications	9.4	5.8	5.3	5.6	6.1	3.1	10.3	5.5	7.2	6.4
	No qualifications	26.8	30.3	22.6	17.9	21.4	20.8	19.7	15.8	25.5	19.1

Source: Annual Population Survey, ONS via NOMIS, Jan 2014 to Dec 2014.

**Chart 14 Qualification levels, Birmingham, percentage change by economic activity, 2010-2014**

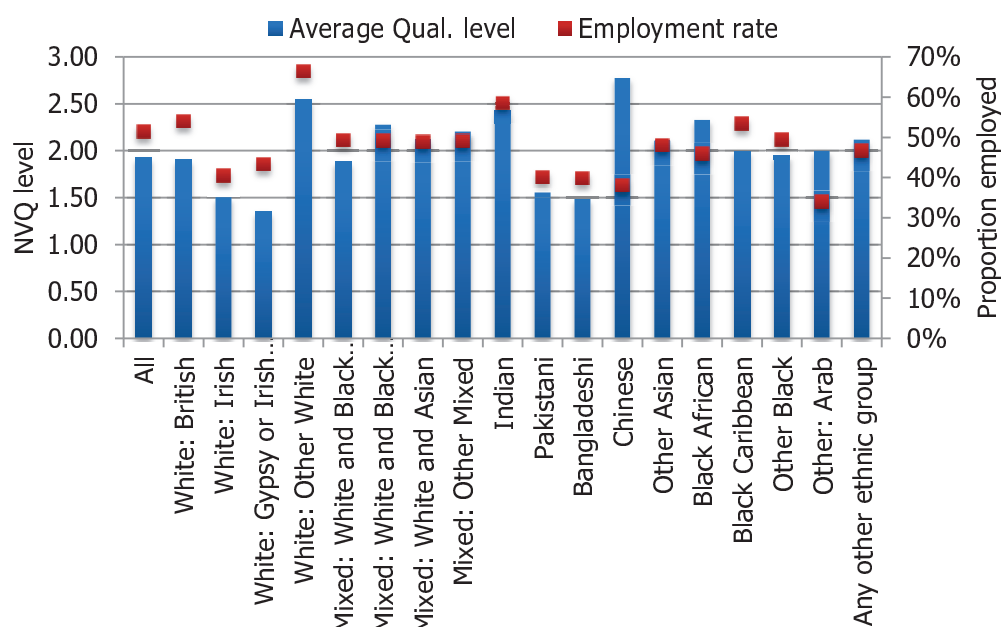


**Table 15 Qualification levels, English core cities, percentage change by economic activity, 2010-2014**

		Birmingham	Liverpool	Newcastle upon Tyne	Nottingham	Manchester	Sheffield	Leeds	Bristol	GBSLEP	United Kingdom
All	NVQ4+	12%	16%	25%	23%	9%	7%	19%	23%	13%	15%
	NVQ3 only	11%	0%	7%	12%	22%	5%	2%	-3%	14%	10%
	Trade Apprenticeships	-48%	8%	-38%	-26%	4%	13%	-44%	-30%	-30%	-13%
	NVQ2 only	6%	0%	-6%	9%	19%	8%	-9%	-17%	3%	2%
	NVQ1 only	-6%	-15%	-3%	-2%	-6%	-7%	-2%	28%	-15%	-9%
	Other qualifications	7%	-11%	-52%	-38%	-43%	-19%	-14%	-45%	-6%	-26%
	No qualifications	-19%	-7%	-5%	-26%	-23%	-20%	-10%	-32%	-14%	-22%
Employed	NVQ4+	8%	16%	21%	13%	2%	2%	14%	26%	9%	12%
	NVQ3 only	2%	12%	11%	-1%	6%	7%	2%	-6%	8%	7%
	Trade Apprenticeships	-41%	7%	-42%	-45%	31%	16%	-43%	-27%	-30%	-14%
	NVQ2 only	1%	-1%	-11%	-1%	24%	1%	-8%	-13%	2%	0%
	NVQ1 only	-16%	-31%	-1%	-7%	-13%	-11%	0%	-7%	-18%	-10%
	Other qualifications	14%	8%	-50%	-11%	-25%	-5%	-29%	-50%	-4%	-26%
	No qualifications	-11%	-36%	-16%	-6%	-23%	-17%	4%	-29%	-9%	-24%
Workless	NVQ4+	12%	21%	35%	24%	34%	17%	57%	22%	15%	23%
	NVQ3 only	27%	-17%	5%	34%	44%	2%	0%	4%	29%	17%
	Trade Apprenticeships	-60%	9%	-35%	31%	-45%	-1%	-50%	-41%	-29%	-17%
	NVQ2 only	15%	2%	4%	26%	15%	21%	-10%	-25%	7%	9%
	NVQ1 only	7%	9%	-4%	10%	4%	4%	-5%	124%	-8%	-6%
	Other qualifications	-5%	-31%	-54%	-60%	-60%	-50%	17%	-23%	-13%	-28%
	No qualifications	-19%	5%	6%	-28%	-18%	-16%	-17%	-39%	-12%	-17%

Source: Annual Population Survey, ONS via NOMIS, Jan 2010 - Dec 2014 to Jan 2014 - Dec 2014.

**Chart 15 Average qualification levels by ethnic group, 16 and over, Birmingham, 2011**



Source: Census 2011. Aged 16 and over. Employment proportions are for those aged 16 and over who are economically active.

Average qualification is weighted by numbers with each level of qualification. Apprenticeships have been classified at NVQ level 2.5. No qualifications = 0.1.

**Table 16 Overall FE and Skills Participation by level and age, learner volumes in Birmingham**

		2009/10	2010/11	2011/12	2012/13	2013/14
Under 19	Total	26,190	27,410	26,990	25,800	23,540
	Full Level 2	6,580	7,840	9,060	7,560	6,900
	Full Level 3	9,160	9,880	9,460	10,580	10,420
19 and over	Total	82,910	74,790	80,740	84,480	73,520
	Full Level 2	23,880	24,630	26,050	26,560	22,950
	Full Level 3	10,230	10,260	10,940	11,510	9,510
All ages	Total	109,090	102,200	107,730	110,280	97,070
	Full Level 2	30,460	32,480	35,110	34,120	29,850
	Full Level 3	19,390	20,140	20,400	22,100	19,930

Source: SFA, Individualised Learner Records.

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**Table 17 Skills Funding Agency Allocations 2015/2016**

	Adult Skills Budget 2015/16	16-18 Apprenticeships and Agency funded 16-18 Traineeships 2015/16	Community Learning 2015/16	19+ Discretionary Learner Support 2015/16	24+ Advanced Learning Loans Facility & Bursary 2015/16	Age Facility 2015/16
Birmingham colleges	£49,145,941	£5,185,452	£6,327,829	£5,496,274	£12,011,032	£696,000
GBSLEP Total	£62,926,831	£10,217,577	£6,879,678	£6,192,611	£16,846,256	£1,296,000

Source: SFA. The figures for Birmingham refers to FE colleges only and do not include allocations for other training providers.

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## Earnings, Employment and Qualification matrix by occupation, West Midlands

**Table 18 Rising job numbers and rising wages, 2011 to 2014**

Occupation (3 digit SOC)	Qualification level	Increase in jobs	Increase in earnings
Welfare Professionals	3.8	27.3%	13.1%
Nursing and Midwifery Professionals	3.7	22.2%	1.3%
Information Technology and Telecommunications Professionals	3.6	10.8%	5.0%
Functional Managers and Directors	3.6	9.3%	10.9%
Science, Engineering and Production Technicians	3.4	27.3%	1.7%
Production Managers and Directors	3.4	7.9%	6.1%
Sales, Marketing and Related Associate Professionals	3.3	1.6%	8.7%
Engineering Professionals	3.3	19.2%	9.1%
Public Services and Other Associate Professionals	3.3	10.3%	2.1%
Administrative Occupations-Government and Related Organisations	3.3	15.8%	1.4%
Administrative Occupations-Finance	3.0	2.2%	6.1%
Other Administrative Occupations	2.8	7.8%	7.0%
Managers and Directors in Transport and Logistics	2.7	15.4%	1.2%
Caring Personal Services	2.6	8.0%	4.2%
Other Elementary Services Occupations	2.5	16.3%	29.4%
Metal Machining, Fitting and Instrument Making Trades	2.4	4.5%	8.9%
Hairdressers and Related Services	2.3	20.0%	6.1%
Sales Related Occupations	2.3	25.0%	12.0%
Assemblers and Routine Operatives	2.1	20.0%	3.3%
Elementary Storage Occupations	2.1	6.3%	9.0%
Elementary Cleaning Occupations	1.8	13.7%	6.4%

**Table 19 Rising job numbers and falling wages, 2011 to 2014**

Occupation (3 digit SOC)	Qualification level	Increase in jobs	Static or fall in earnings
Health Professionals	3.9	13.6%	-4.4%
Business, Research and Administrative Professionals	3.6	10.0%	-0.1%
Information Technology Technicians	3.5	21.4%	-5.7%
Health Associate Professionals	3.3	40.0%	
Leisure and Travel Services	2.4	12.5%	
Plant and Machine Operatives	2.2	27.3%	
Housekeeping and Related Services	1.9	12.5%	-10.0%
Mobile Machine Drivers and Operatives	1.8	14.3%	-4.1%

**Table 20 Falling job numbers and rising wages, 2011 to 2014**

<b>Occupation (3 digit SOC)</b>	<b>Qualification level</b>	<b>Static or fall in jobs</b>	<b>Increase in earnings</b>
Business, Finance and Related Associate Professionals	3.4	0.0%	0.7%
Protective Service Occupations	3.4	-6.3%	6.0%
Financial Institution Managers and Directors	3.3	-25.0%	9.1%
Childcare and Related Personal Services	3.0	-8.9%	3.1%
Administrative Occupations-Records	2.9	0.0%	7.8%
Electrical and Electronic Trades	2.8	-19.4%	6.4%
Secretarial and Related Occupations	2.8	-8.5%	3.1%
Managers and Directors in Retail and Wholesale	2.8	-28.6%	5.8%
Administrative Occupations: Office Managers and Supervisors	2.7	-5.6%	4.7%
Sales Assistants and Retail Cashiers	2.5	-4.0%	4.7%
Food Preparation and Hospitality Trades	2.3	0.0%	5.0%
Elementary Administration Occupations	2.3	-31.6%	6.9%
Construction and Building Trades	2.3	-5.0%	9.8%
Sales Supervisors	2.2	-30.0%	10.0%
Process Operatives	2.1	0.0%	5.7%
Road Transport Drivers	2.0	0.0%	1.7%
Elementary Process Plant Occupations	2.0	0.0%	4.8%

**Table 21 Falling job numbers and wages, 2011 to 2014**

<b>Occupation (3 digit SOC)</b>	<b>Qualification level</b>	<b>Static or fall in jobs</b>	<b>Fall in earnings</b>
Teaching and Educational Professionals	3.8	-13.4%	-2.7%
Welfare and Housing Associate Professionals	3.5	-21.7%	-4.0%
Customer Service Managers and Supervisors	3.2	0.0%	-0.1%
Managers and Proprietors in Other Services	3.0	-22.2%	-7.2%
Customer Service Occupations	2.7	0.0%	-0.8%
Elementary Agricultural Occupations	2.3	0.0%	-0.7%

**Table 22 Insufficient sample for jobs and earnings but worth noting for Qualification levels**

<b>Occupation (3 digit SOC)</b>	<b>Qualification level</b>	<b>Increase in jobs</b>	<b>Increase in earnings</b>
Legal Professionals	4.0		5.5%
Therapy Professionals	4.0		4.6%
Design Occupations	4.0		3.8%
Natural and Social Science Professionals	4.0		3.5%
Health and Social Services Managers and Directors	4.0		0.6%
Chief Executives and Senior Officials	4.0		
Librarians and Related Professionals	4.0		
Architects, Town Planners and Surveyors	3.9		
Research and Development Managers	3.8		19.2%
Legal Associate Professionals	3.8		
Managers and Proprietors in Health and Care Services	3.6		
Transport Associate Professionals	3.3		
Quality and Regulatory Professionals	3.3		
Media Professionals	3.2		
Senior Officers in Protective Services	3.1		
Conservation and Environmental associate professionals	3.0		
Conservation and Environment Professionals	3.0		-11.4%
Managers and Proprietors in Hospitality and Leisure Services	3.0		6.1%
Sports and Fitness Occupations	2.9		
Artistic, Literary and Media Occupations	2.9		
Construction and Building Trades Supervisors	2.9		9.4%
Draughtspersons and Related Architectural Technicians	2.8		3.5%
Skilled Metal, Electrical and Electronic Trades Supervisors	2.8		4.8%
Managers and Proprietors in Agriculture Related Services	2.6		
Elementary Security Occupations	2.5	-16.7%	
Animal Care and Control Services	2.4		
Metal Forming, Welding and Related Trades	2.3		
Vehicle Trades	2.3		4.6%
Other Skilled Trades	2.2		-4.4%
Cleaning and Housekeeping Managers and Supervisors	2.2		
Agricultural and Related Trades	2.2		0.6%
Textiles and Garments Trades	2.2		
Other Drivers and Transport Operatives	2.1		
Printing Trades	2.1		0.1%
Building Finishing Trades	2.0		12.1%
Elementary Construction Occupations	1.8		19.9%
Elementary Sales Occupations	1.6		
Construction Operatives	1.2		-18.7%

Source: Labour Force Survey and Annual Survey of Hours and Earnings.



## Current Vacancy and FE subject match analysis

**Table 23 Number of vacancies by occupation, September 2014 to September 2015**

<b>Occupation (3 digit)</b>	<b>Job Vacancies</b>
<b>354</b> Sales, Marketing and Related Associate Professionals	12,185
<b>213</b> Information Technology and Telecommunications Professionals	11,522
<b>231</b> Teaching and Educational Professionals	11,180
<b>223</b> Nursing and Midwifery Professionals	6,113
<b>353</b> Business, Finance and Related Associate Professionals	6,108
<b>356</b> Public Services and Other Associate Professionals	6,104
<b>415</b> Other Administrative Occupations	5,336
<b>821</b> Road Transport Drivers	5,305
<b>522</b> Metal Machining, Fitting and Instrument Making Trades	5,113
<b>612</b> Childcare and Related Personal Services	5,112
<b>614</b> Caring Personal Services	4,859
<b>242</b> Research and Administrative Professionals	4,794
<b>524</b> Electrical and Electronic Trades	4,218
<b>711</b> Sales Assistants and Retail Cashiers	4,095
<b>212</b> Engineering Professionals	4,092
<b>721</b> Customer Service Occupations	3,682
<b>531</b> Construction and Building Trades	3,680
<b>412</b> Finance	3,564
<b>313</b> Information Technology Technicians	3,368
<b>221</b> Health Professionals	3,321
<b>421</b> Secretarial and Related Occupations	3,176
<b>923</b> Elementary Cleaning Occupations	3,113
<b>413</b> Records	2,805
<b>311</b> Science, Engineering and Production Technicians	2,770
<b>822</b> Mobile Machine Drivers and Operatives	2,620
<b>543</b> Food Preparation and Hospitality Trades	2,594
<b>122</b> Managers and Proprietors in Hospitality and Leisure Services	2,292
<b>913</b> Elementary Process Plant Occupations	2,070
<b>927</b> Other Elementary Services Occupations	2,053
<b>523</b> Vehicle Trades	1,971
<b>926</b> Elementary Storage Occupations	1,822
<b>323</b> Welfare and Housing Associate Professionals	1,780
<b>813</b> Assemblers and Routine Operatives	1,767
<b>341</b> Artistic, Literary and Media Occupations	1,731
<b>811</b> Process Operatives	1,611
<b>912</b> Elementary Construction Occupations	1,588
<b>812</b> Plant and Machine Operatives	1,465
<b>521</b> Metal Forming, Welding and Related Trades	1,247

<b>Occupation (3 digit)</b>	<b>Job Vacancies</b>
<b>712</b> Sales Related Occupations	1,165
<b>532</b> Building Finishing Trades	1,155
<b>246</b> Quality and Regulatory Professionals	1,102
<b>924</b> Elementary Security Occupations	1,090
<b>814</b> Construction Operatives	1,026
<b>211</b> Natural and Social Science Professionals	1,023
<b>342</b> Design Occupations	979
<b>124</b> Managers and Proprietors in Health and Care Services	876
<b>119</b> Managers and Directors in Retail and Wholesale	824
<b>622</b> Hairdressers and Related Services	793
<b>312</b> Draughtspersons and Related Architectural Technicians	744
<b>222</b> Therapy Professionals	724
<b>416</b> Office Managers and Supervisors	702
<b>921</b> Elementary Administration Occupations	658
<b>321</b> Health Associate Professionals	531
<b>244</b> Welfare Professionals	529
<b>352</b> Legal Associate Professionals	514
<b>713</b> Sales Supervisors	474
<b>511</b> Agricultural and Related Trades	413
<b>241</b> Legal Professionals	402
<b>621</b> Leisure and Travel Services	395
<b>624</b> Cleaning and Housekeeping Managers and Supervisors	393
<b>247</b> Media Professionals	378
<b>541</b> Textiles and Garments Trades	374
<b>533</b> Construction and Building Trades Supervisors	369
<b>411</b> Government and Related Organisations	322
<b>542</b> Printing Trades	320
<b>344</b> Sports and Fitness Occupations	278
<b>214</b> Conservation and Environment Professionals	274
<b>118</b> Health and Social Services Managers and Directors	265
<b>823</b> Other Drivers and Transport Operatives	239
<b>121</b> Managers and Proprietors in Agriculture Related Services	155
<b>911</b> Elementary Agricultural Occupations	136
<b>925</b> Elementary Sales Occupations	101
<b>613</b> Animal Care and Control Services	98
<b>351</b> Transport Associate Professionals	52
<b>245</b> Librarians and Related Professionals	24
<b>355</b> Conservation and Environmental associate professionals	4
<b>Total vacancies</b>	<b>172,127</b>

LAMP analysis, Monster and CESI

**Table 24 Vacancy to student match by subject area, September 2014 to September 2015. For FE colleges within the Birmingham City boundary.**

<b>Subject area and subject code</b>	<b>Vacancies</b>	<b>Students</b>	<b>Vacancy to student ratio</b>
1.2 Nursing and Subjects and Vocations Allied to Medicine	23,825	190	125.4
15.4 Marketing and Sales	23,255	410	56.7
11.3 Politics	6,426	130	49.4
11.4 Economics	14,466	300	48.2
1.4 Public Services	42,178	1,140	37.0
15.5 Law and Legal Services	22,120	850	26.0
4.2 Manufacturing Technologies	48,577	1,900	25.6
10.1 History	11,180	550	20.3
10.4 Theology and Religious Studies	11,904	610	19.5
13.1 Teaching and Lecturing	21,785	1,220	17.9
7.1 Retailing and Wholesaling	31,082	1,830	17.0
3.1 Agriculture	802	50	16.0
12.2 Other Languages, Literature and Culture	18,827	1,320	14.3
6.1 ICT Practitioners	41,447	2,920	14.2
9.3 Media and Communication	32,548	2,740	11.9
8.2 Travel and Tourism	4,135	510	8.1
9.2 Crafts, Creative Arts and Design	29,861	3,880	7.7
15.1 Accounting and Finance	32,144	4,370	7.4
11.2 Sociology and Social Policy	10,979	1,600	6.9
3.4 Environmental Conservation	3,282	590	5.6
2.1 Science	37,554	6,810	5.5
2.2 Mathematics and Statistics	22,308	4,210	5.3
15.3 Business Management	51,849	10,740	4.8
1.5 Child Development and Well Being	24,101	5,100	4.7
4.1 Engineering	26,323	5,910	4.5
3.2 Horticulture and Forestry	708	160	4.4
4.3 Transportation Operations and Maintenance	17,049	6,850	2.5
7.4 Hospitality and Catering	17,620	8,070	2.2
15.2 Administration	34,199	16,400	2.1
9.1 Performing Arts	2,710	1,370	2.0
1.3 Health and Social Care	33,122	21,640	1.5
5.2 Building and Construction	9,664	7,510	1.3
8.1 Sport, Leisure and Recreation	13,002	11,330	1.1
7.3 Service Enterprises	3,387	8,470	0.4
6.2 ICT for Users	20,226	52,820	0.4
7.2 Warehousing and Distribution	876	2,400	0.4
3.3 Animal Care and Veterinary Science	98	410	0.2
12.1 Languages, Literature and Culture of the British Isles	378	4,700	0.1

LAMP analysis, Monster and CESI

**Notes:**

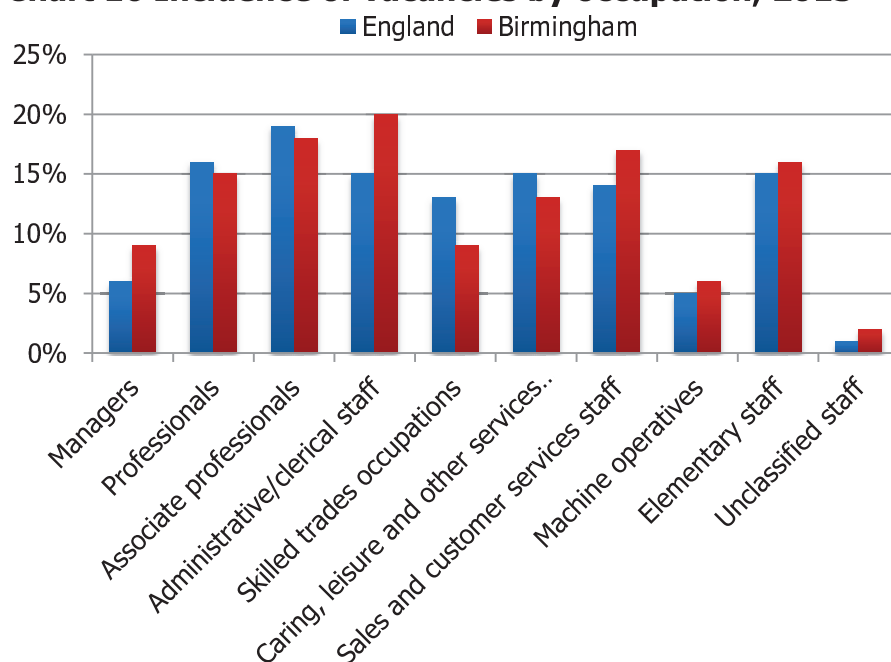
- 1) Does not include those students doing courses under the subject areas 'Foundations for Learning and Life' and 'Preparation for Work'.

- 2) FE subject areas have been matched to relevant occupations (i.e. those subjects that offer a possible route to various occupations). Different subjects could offer a route into the same occupation e.g. someone doing a course under the subject 'Child Development and Well Being' could become a Health Professional as could someone doing a course under the subject 'Health and Social Care'. Therefore the total vacancies for Health Professionals have been assigned to both these subject areas. This means adding up the vacancy numbers in the above table will be more than the actual vacancies in the area over the last year. Actual total vacancies can be derived from the table before.
- 3) The ratio is a mismatch measure. It shows the number of vacancies in occupations matched to each subject compared to the number of students doing courses under each subject. The higher the ratio, the higher the mismatch. However, there are certain caveats for some subjects:
- Very few students are doing courses under the subject 'Nursing and Subjects and Vocations Allied to Medicine' hence the high ratio. However, many students studying this subject may be doing so in University Hospitals and other specialist training providers. So it doesn't necessarily mean there is a lack of students.
  - The same can be said for some higher level occupations included under various subjects. For instance some occupations that fall within the Economics, Mathematics or Science subject areas will need degree's, therefore more reliant on HE graduates rather than those doing FE courses. So in this instance these courses should be seen as routes into higher education.
  - Therefore the ratio doesn't only show a mismatch between FE subjects and vacancies but also a mismatch between FE subjects and allied subjects at the HE level: which are needed to satisfy some of the occupation demand.

The above should then help Colleges in the Birmingham City area to think about how they should structure their curriculums in terms of encouraging students to pick the right subjects i.e. those subjects that will give the student the best chance of getting a job either directly or via additional HE education.

## Employer views and needs

**Chart 16 Incidence of vacancies by occupation, 2013**

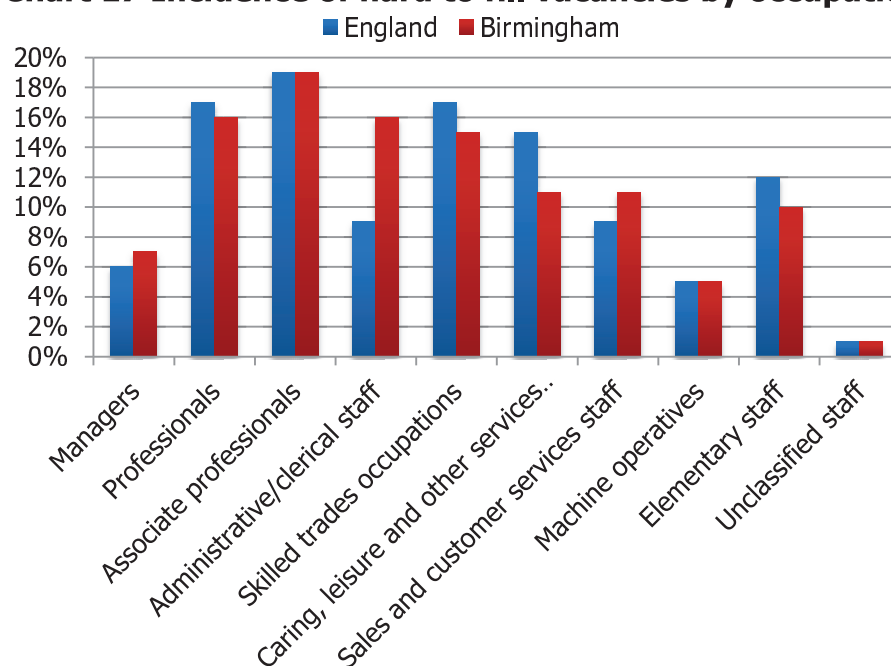


**Table 25 Incidence of vacancies by occupation, 2013**

	England	Birmingham
Managers	6%	9%
Professionals	16%	15%
Associate professionals	19%	18%
Administrative/clerical staff	15%	20%
Skilled trades occupations	13%	9%
Caring, leisure and other services staff	15%	13%
Sales and customer services staff	14%	17%
Machine operatives	5%	6%
Elementary staff	15%	16%
Unclassified staff	1%	2%

Source: Employer Skills Survey 2013, UKCES. Base: All establishments with vacancies.

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**Chart 17 Incidence of hard to fill vacancies by occupation, 2013**

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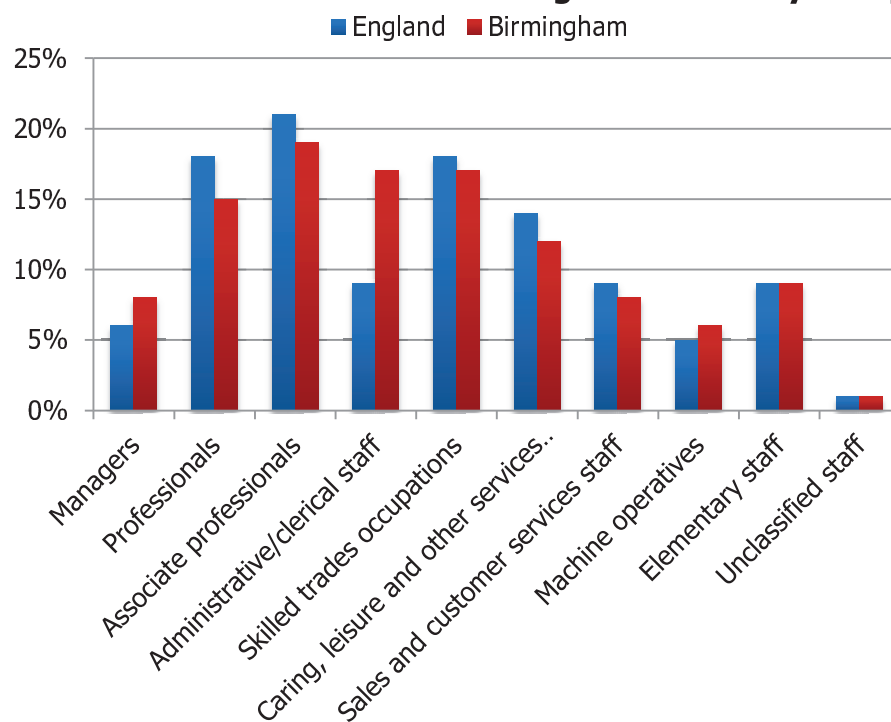
**Table 26 Incidence of hard to fill vacancies by occupation, 2013**

	England	Birmingham
Managers	6%	7%
Professionals	17%	16%
Associate professionals	19%	19%
Administrative/clerical staff	9%	16%
Skilled trades occupations	17%	15%
Caring, leisure and other services staff	15%	11%
Sales and customer services staff	9%	11%
Machine operatives	5%	5%
Elementary staff	12%	10%
Unclassified staff	1%	1%

Source: Employer Skills Survey 2013, UKCES. Base: All with hard to fill vacancies.

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**Chart 18 Incidence of skills shortage vacancies by occupation, 2013**

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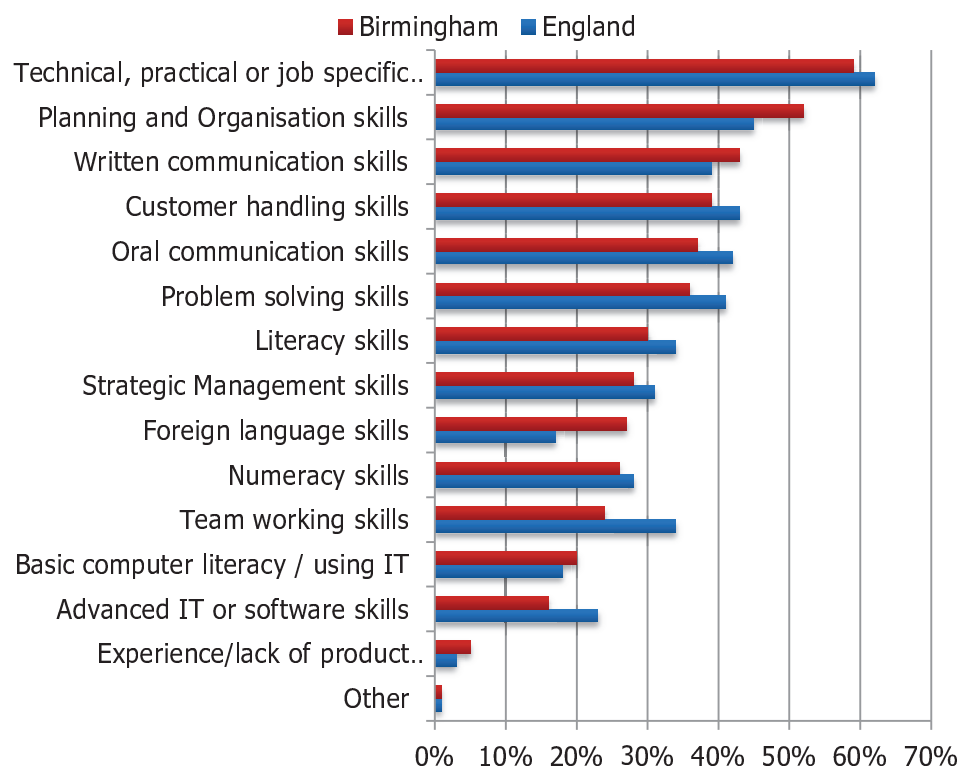
**Table 27 Incidence of skills shortage vacancies by occupation, 2013**

	England	Birmingham
Managers	6%	8%
Professionals	18%	15%
Associate professionals	21%	19%
Administrative/clerical staff	9%	17%
Skilled trades occupations	18%	17%
Caring, leisure and other services staff	14%	12%
Sales and customer services staff	9%	8%
Machine operatives	5%	6%
Elementary staff	9%	9%
Unclassified staff	1%	1%

Source: Employer Skills Survey 2013, UKCES. Base: All with skills shortage vacancies.

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**Chart 19 Skills found difficult to obtain from applicants, 2013**

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**Table 28 Skills found difficult to obtain from applicants, 2013**

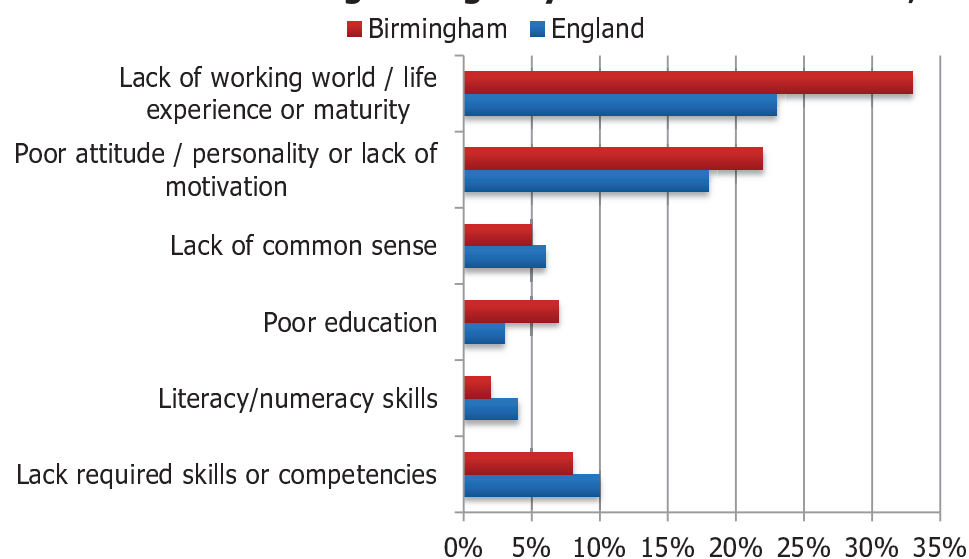
	England	Birmingham
Other	1%	1%
Experience/lack of product knowledge*	3%	5%
Advanced IT or software skills	23%	16%
Basic computer literacy / using IT	18%	20%
Team working skills	34%	24%
Numeracy skills	28%	26%
Foreign language skills	17%	27%
Strategic Management skills	31%	28%
Literacy skills	34%	30%
Problem solving skills	41%	36%
Oral communication skills	42%	37%
Customer handling skills	43%	39%
Written communication skills	39%	43%
Planning and Organisation skills	45%	52%
Technical, practical or job specific skills	62%	59%

Source: Employer Skills Survey 2013, UKCES. Base: All with skills shortage vacancies.

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**Chart 20 Skills lacking among 16 year old school leavers, 2013**

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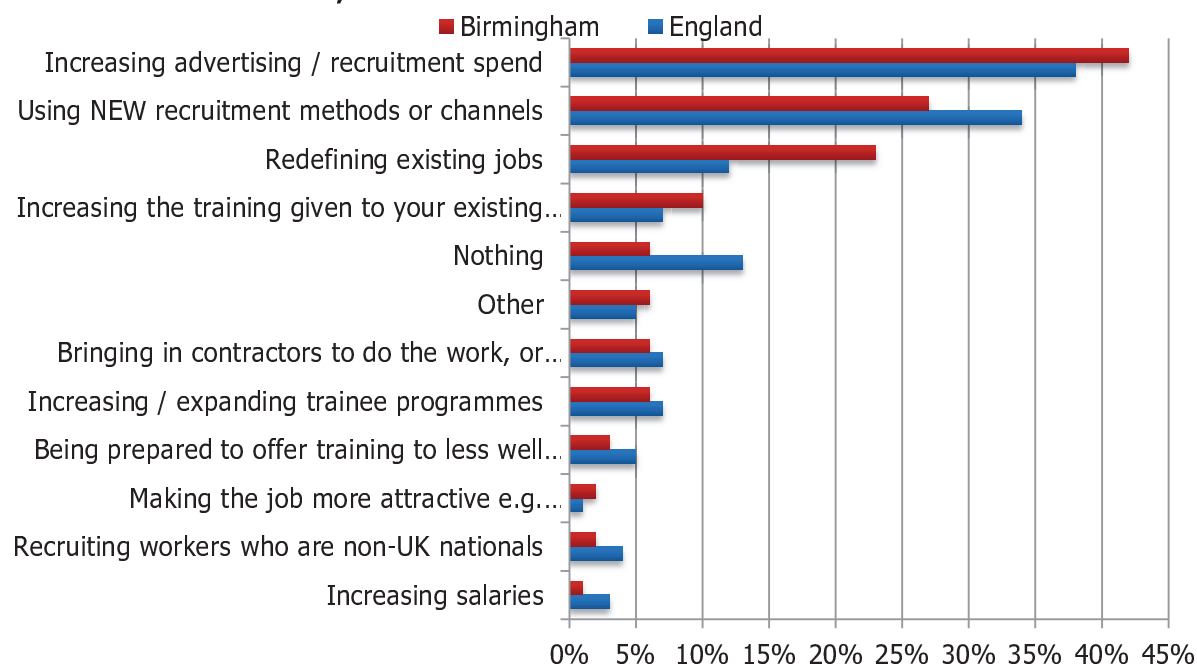
**Table 29 Skills lacking among 16 year old school leavers, 2013**

	England	Birmingham
Lack required skills or competencies	10%	8%
Literacy/numeracy skills	4%	2%
Poor education	3%	7%
Lack of common sense	6%	5%
Poor attitude / personality or lack of motivation	18%	22%
Lack of working world / life experience or maturity	23%	33%

Source: Employer Skills Survey 2013, UKCES. Base: All establishments who have recruited 16 year olds to first job from school in last 2-3 years.

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**Chart 21 Actions taken to overcome difficulties finding candidates to fill hard to fill vacancies, 2013**



**Table 30 Actions taken to overcome difficulties finding candidates to fill hard to fill vacancies, 2013**

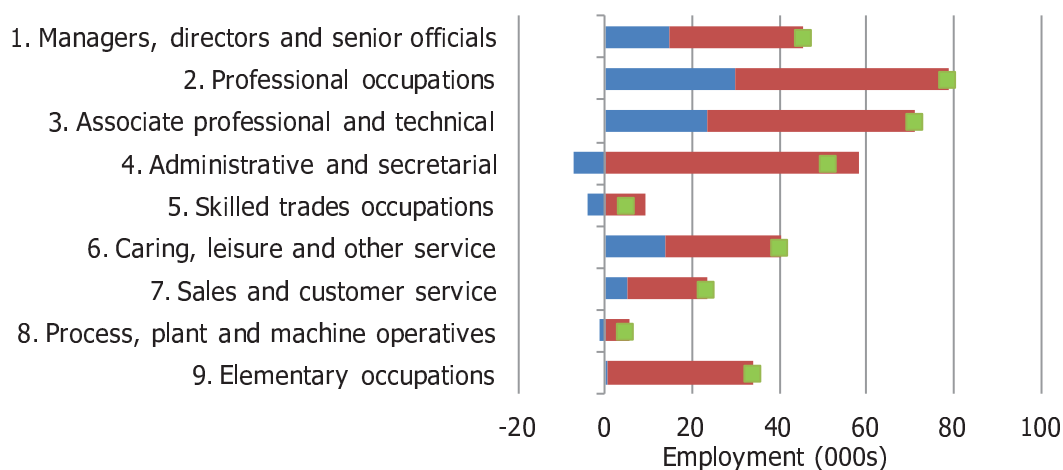
	England	Birmingham
Increasing salaries	3%	1%
Recruiting workers who are non-UK nationals	4%	2%
Making the job more attractive e.g. recruitment incentives, enhanced T&Cs, working hours	1%	2%
Being prepared to offer training to less well qualified recruits	5%	3%
Increasing / expanding trainee programmes	7%	6%
Bringing in contractors to do the work, or contracting it out	7%	6%
Other	5%	6%
Nothing	13%	6%
Increasing the training given to your existing workforce	7%	10%
Redefining existing jobs	12%	23%
Using NEW recruitment methods or channels	34%	27%
Increasing advertising / recruitment spend	38%	42%

Source: Employer Skills Survey 2013, UKCES. Base: All with hard to fill vacancies.

## Employment projections: growth sectors by occupation and qualification for the West Midlands

Source: Working Futures, UKCES. Numbers in **red** indicate a cell below 10,000 and therefore this number should be used with caution.

**Chart 22 Business and other services, employment to 2022**



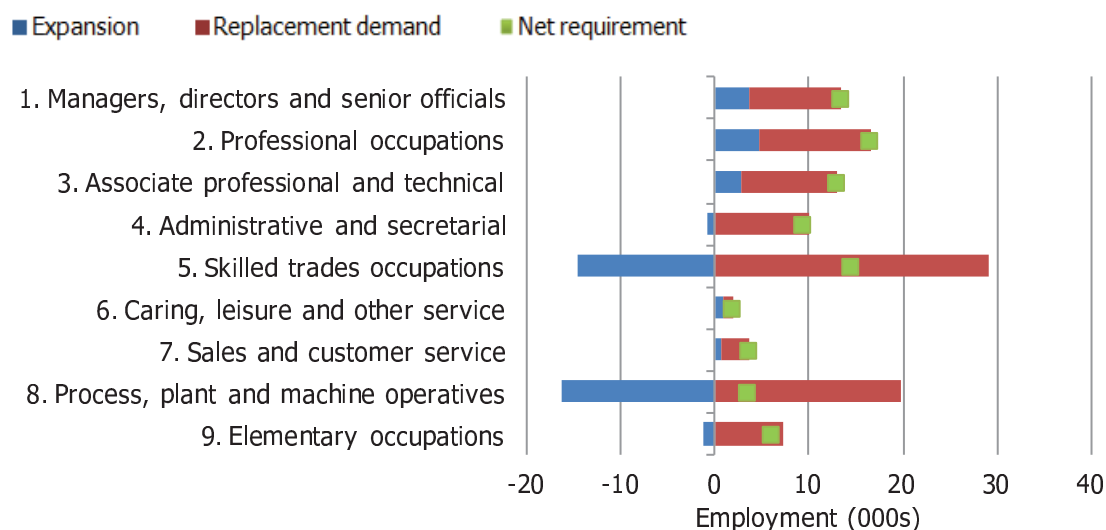
**Table 31 Business and other services, employment to 2022**

Employment Levels (000s)	2012	2017	2022	2012 - 2022		
				Net Change	Replacement Demands	Total Requirement
1. Managers, directors and senior officials	73	81	88	15	31	46
2. Professional occupations	125	143	155	30	49	79
3. Associate professional and technical	125	138	149	23	48	71
4. Administrative and secretarial	131	130	124	-7	58	51
5. Skilled trades occupations	26	24	22	-4	9	5
6. Caring, leisure and other service	53	62	67	14	26	40
7. Sales and customer service	53	56	58	5	18	23
8. Process, plant and machine operatives	15	14	14	-1	6	5
9. Elementary occupations	87	86	88	1	33	34
<b>Total</b>	689	734	764	76	279	354

**Table 32 Qualification requirement to 2022 (000's)**

	Base year 2012	Change 2012-2022	Projected level 2022	Replacement Demand	Total requirement
QCF 7-8	62	45	107	25	70
QCF 4-6	235	79	314	95	174
QCF 3	120	-19	101	48	30
QCF 2	138	-3	135	56	53
QCF 1	90	-11	79	37	25
No Qual	43	-15	28	17	2
<b>Total</b>	689	76	764	279	354

**Chart 23 Manufacturing, employment to 2022**



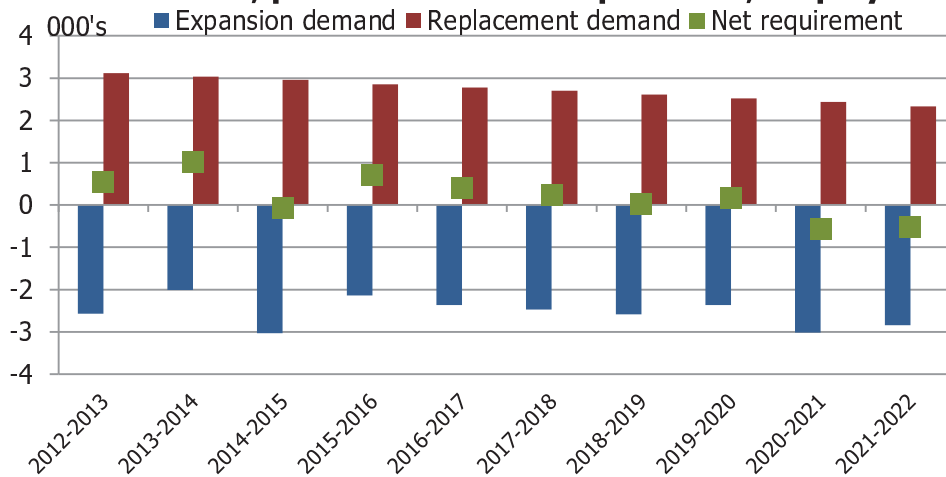
**Table 33 Manufacturing, employment to 2022**

Employment Levels (000s)	2012	2017	2022	2012 - 2022		
				Net Change	Replacement Demands	Total Requirement
1. Managers, directors and senior officials	26	28	30	4	10	13
2. Professional occupations	35	38	39	5	12	17
3. Associate professional and technical	29	30	32	3	10	13
4. Administrative and secretarial	23	23	22	-1	10	9
5. Skilled trades occupations	94	88	79	-15	29	15
6. Caring, leisure and other service	2	2	3	1	1	2
7. Sales and customer service	9	9	9	1	3	4
8. Process, plant and machine operatives	67	59	50	-16	20	4
9. Elementary occupations	21	20	19	-1	7	6
<b>Total</b>	<b>304</b>	<b>296</b>	<b>284</b>	<b>-20</b>	<b>102</b>	<b>82</b>

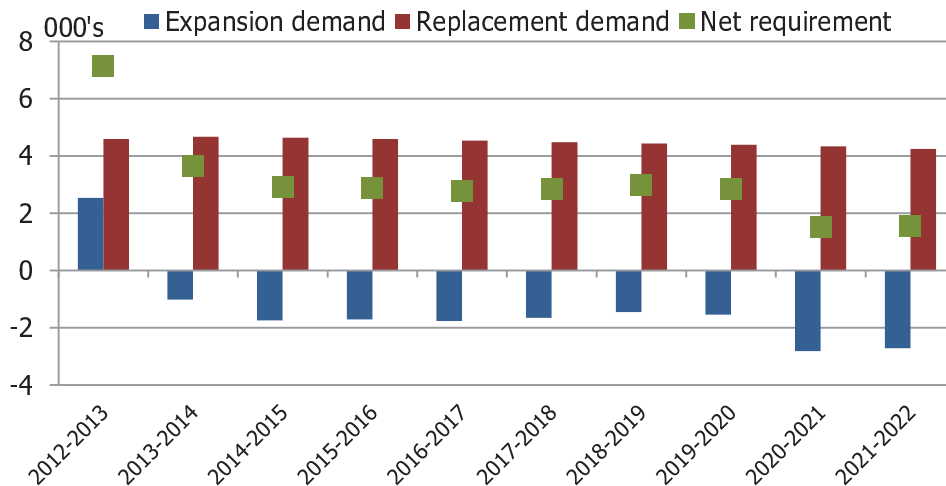
**Table 34 Qualification requirement to 2022 (000's)**

	Base year 2012	Change 2012-2022	Projected level 2022	Replacement Demand	Total requirement
QCF 7-8	13	8	21	4	12
QCF 4-6	70	16	86	23	39
QCF 3	72	-12	60	24	12
QCF 2	72	-6	66	24	18
QCF 1	50	-11	39	17	6
No Qual	28	-15	13	9	-5
<b>Total</b>	<b>304</b>	<b>-20</b>	<b>284</b>	<b>102</b>	<b>82</b>

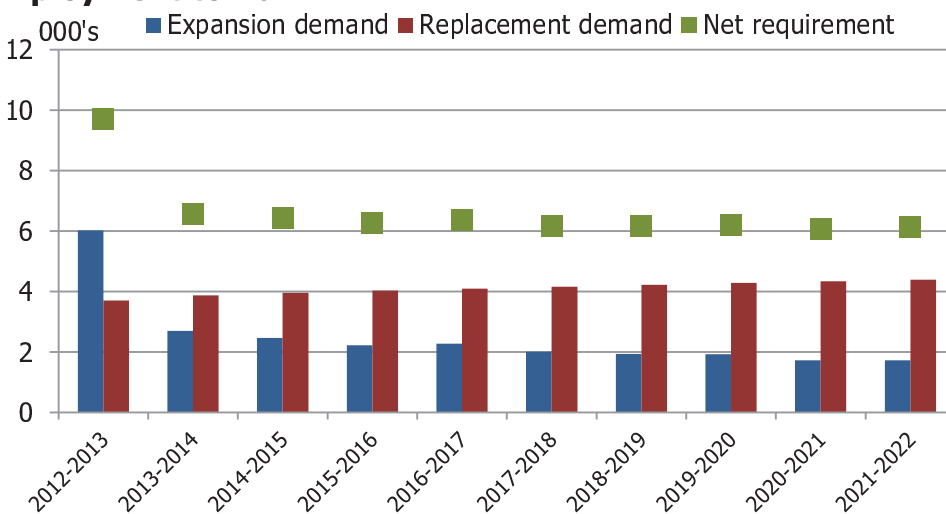
**Chart 24 Process, plant and machine operatives, employment to 2022**

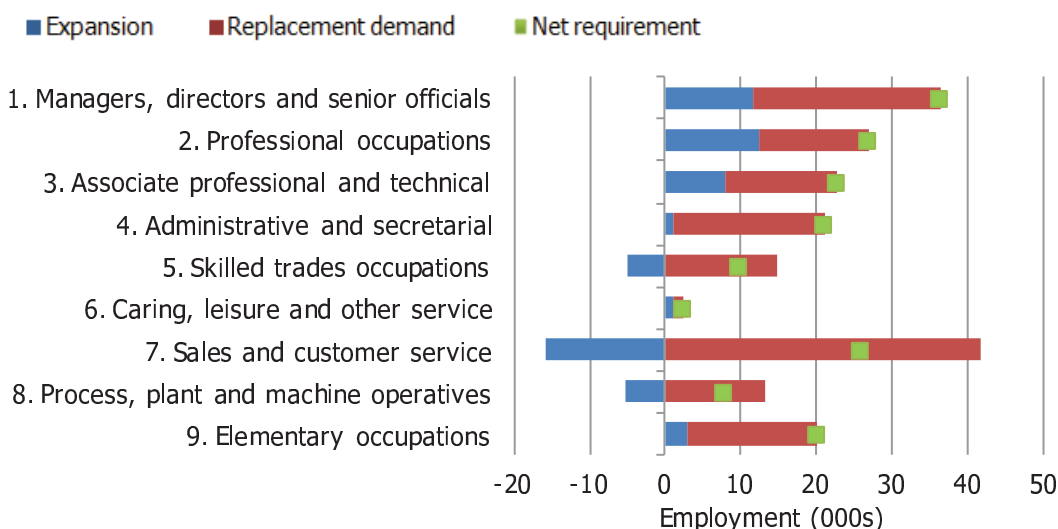


**Chart 25 Skilled metal, electrical and electronic trades, employment to 2022**



**Chart 26 Science, research, engineering and technology professionals, employment to 2022**

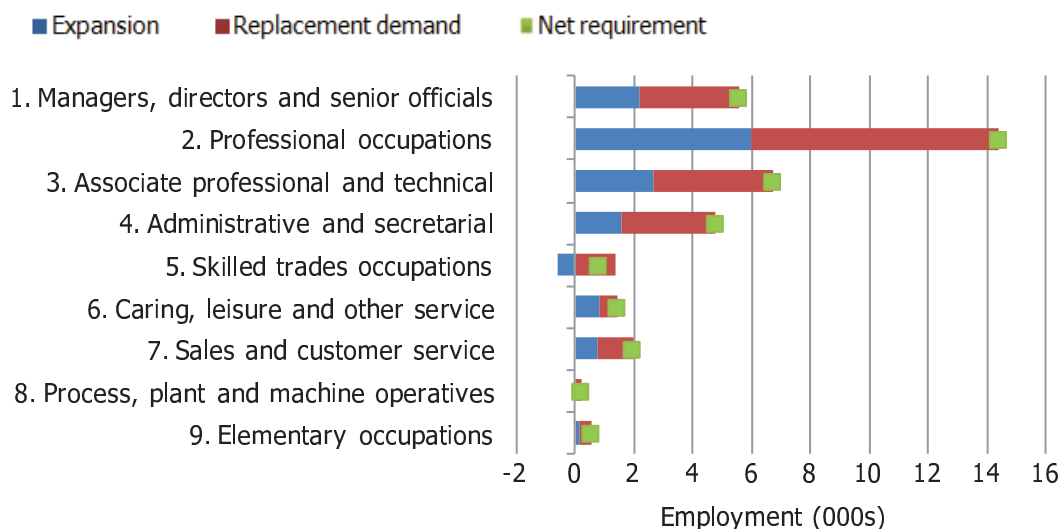


**Chart 27 Wholesale and retail, employment to 2022****Table 35 Wholesale and retail, employment to 2022**

Employment Levels (000s)	2012	2017	2022	2012-2022		
				Net Change	Replacement Demands	Total Requirement
1. Managers, directors and senior officials	59	66	71	12	25	36
2. Professional occupations	33	41	46	12	14	27
3. Associate professional and technical	38	42	46	8	15	23
4. Administrative and secretarial	44	45	45	1	20	21
5. Skilled trades occupations	45	44	40	-5	15	10
6. Caring, leisure and other service	2	3	3	1	1	2
7. Sales and customer service	120	110	105	-16	42	26
8. Process, plant and machine operatives	36	33	31	-5	13	8
9. Elementary occupations	45	46	48	3	17	20
<b>Total</b>	<b>424</b>	<b>431</b>	<b>435</b>	<b>11</b>	<b>161</b>	<b>172</b>

**Table 36 Qualification requirement to 2022 (000's)**

	Base year 2012	Change 2012-2022	Projected level 2022	Replacement Demand	Total requirement
QCF 7-8	10	9	20	4	13
QCF 4-6	78	39	116	30	68
QCF 3	97	-2	95	37	35
QCF 2	116	-2	115	44	43
QCF 1	78	-17	61	30	13
No Qual	44	-17	28	17	0
<b>Total</b>	<b>424</b>	<b>11</b>	<b>435</b>	<b>161</b>	<b>172</b>

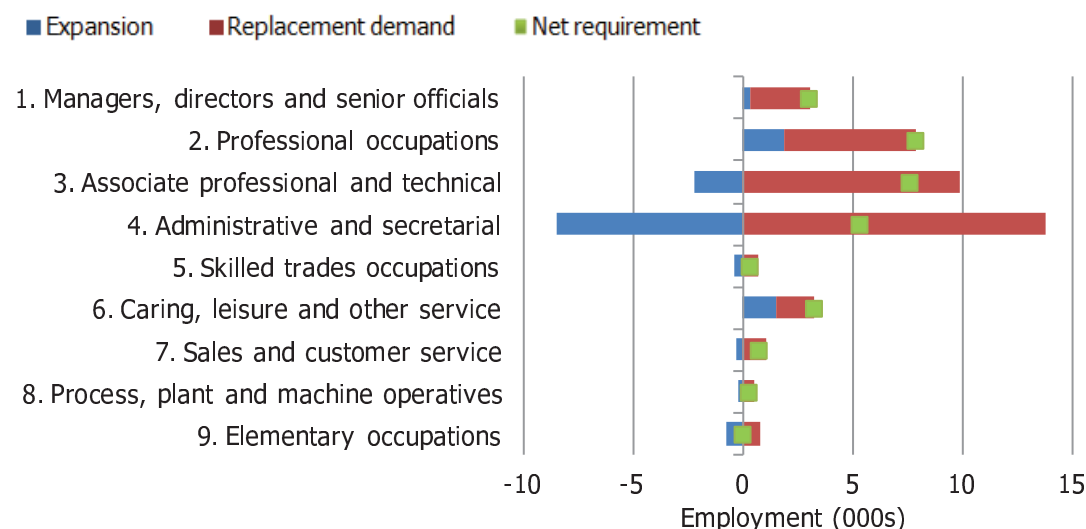
**Chart 28 Information technology, employment to 2022****Table 37 Information technology, employment to 2022**

Employment Levels (000s)	2012	2017	2022	2012-2022		
				Net Change	Replacement Demands	Total Requirement
1. Managers, directors and senior officials	8	10	10	2	3	6
2. Professional occupations	24	29	30	6	8	14
3. Associate professional and technical	11	13	13	3	4	7
4. Administrative and secretarial	6	7	7	2	3	5
5. Skilled trades occupations	4	4	4	-1	1	1
6. Caring, leisure and other service	1	2	2	1	1	1
7. Sales and customer service	3	3	4	1	1	2
8. Process, plant and machine operatives	0	1	1	0	0	0
9. Elementary occupations	1	1	1	0	0	1
<b>Total</b>	<b>58</b>	<b>69</b>	<b>72</b>	<b>14</b>	<b>23</b>	<b>37</b>

**Table 38 Qualification requirement to 2022 (000's)**

	Base year 2012	Change 2012-2022	Projected level 2022	Replacement Demand	Total requirement
QCF 7-8	7	7	14	3	9
QCF 4-6	28	10	37	11	21
QCF 3	8	-2	6	3	1
QCF 2	8	-2	6	3	1
QCF 1	6	0	6	2	3
No Qual	2	1	2	1	1
<b>Total</b>	<b>58</b>	<b>14</b>	<b>72</b>	<b>23</b>	<b>37</b>

**Chart 29 Public administration, employment to 2022**



**Table 39 Public administration, employment to 2022**

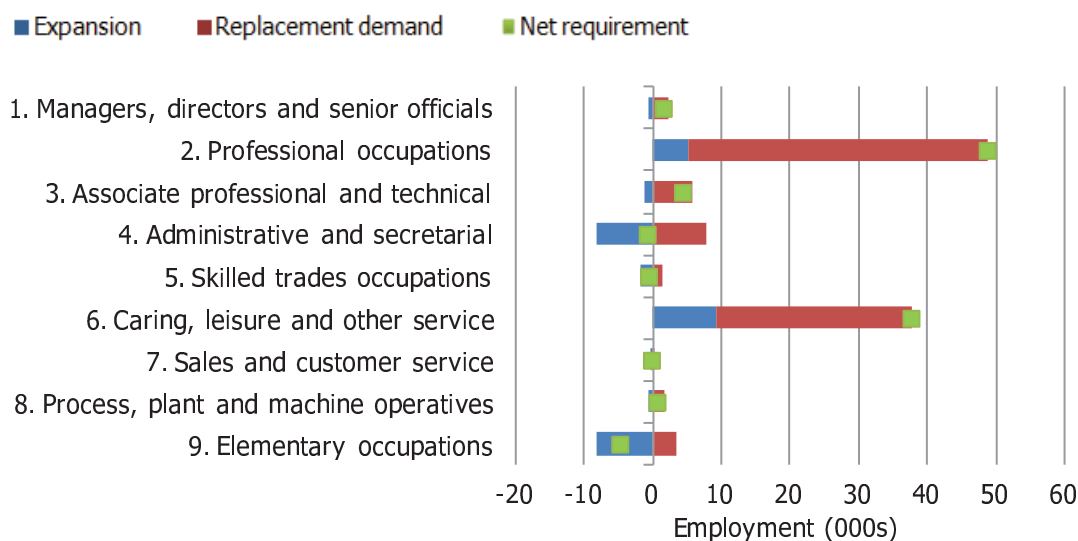
Employment Levels (000s)	2012	2017	2022	2012-2022		
				Net Change	Replacement Demands	Total Requirement
1. Managers, directors and senior officials	7	7	8	0	3	3
2. Professional occupations	16	16	18	2	6	8
3. Associate professional and technical	34	30	32	-2	10	8
4. Administrative and secretarial	36	29	28	-8	14	5
5. Skilled trades occupations	2	2	2	0	1	0
6. Caring, leisure and other service	4	4	5	2	2	3
7. Sales and customer service	3	3	3	0	1	1
8. Process, plant and machine operatives	2	1	1	0	1	0
9. Elementary occupations	3	2	2	-1	1	0
<b>Total</b>	106	94	98	-9	37	29

**Table 40 Qualification requirement to 2022 (000's)**

	Base year 2012	Change 2012-2022	Projected level 2022	Replacement Demand	Total requirement
QCF 7-8	11	4	15	4	8
QCF 4-6	39	5	44	14	19
QCF 3	21	-5	16	8	3
QCF 2	21	-7	15	8	1
QCF 1	10	-5	6	4	-1
No Qual	3	-2	1	1	-1
<b>Total</b>	106	-9	98	37	29



**Chart 30 Education, employment to 2022**



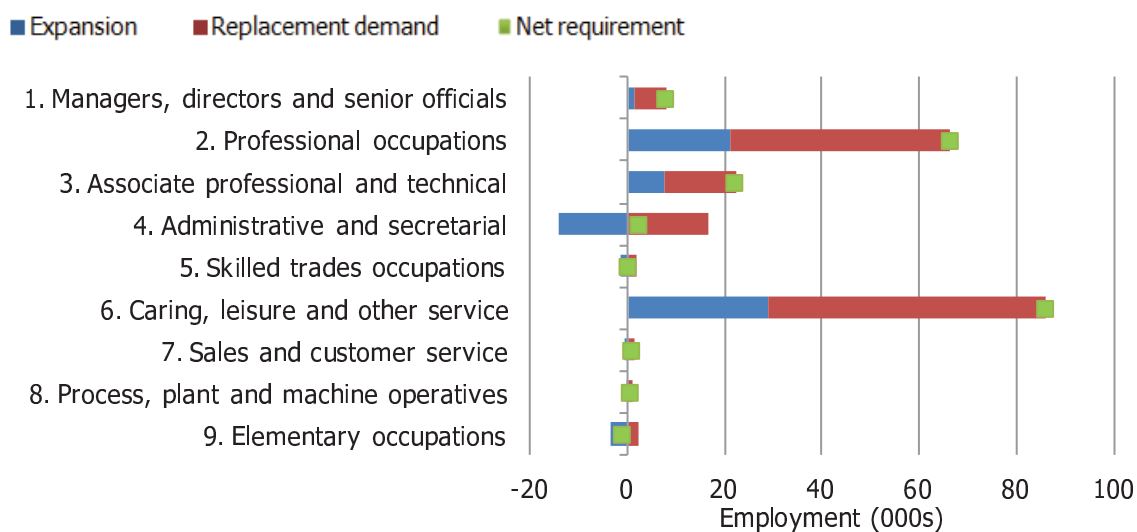
**Table 41 Education, employment to 2022**

Employment Levels (000s)	2012	2017	2022	2012-2022		
				Net Change	Replacement Demands	Total Requirement
1. Managers, directors and senior officials	6	6	5	-1	2	2
2. Professional occupations	105	107	110	5	44	49
3. Associate professional and technical	18	17	16	-1	6	5
4. Administrative and secretarial	20	15	12	-8	8	-1
5. Skilled trades occupations	4	3	3	-2	2	0
6. Caring, leisure and other service	63	68	72	9	29	38
7. Sales and customer service	1	1	1	0	0	0
8. Process, plant and machine operatives	4	4	3	-1	2	1
9. Elementary occupations	12	7	4	-8	3	-5
<b>Total</b>	234	227	227	-7	95	89

**Table 42 Qualification requirement to 2022 (000's)**

	Base year 2012	Change 2012-2022	Projected level 2022	Replacement Demand	Total requirement
QCF 7-8	56	18	74	23	41
QCF 4-6	83	0	83	34	33
QCF 3	37	1	38	15	16
QCF 2	31	-10	21	13	3
QCF 1	20	-11	9	8	-3
No Qual	6	-4	2	3	-2
<b>Total</b>	234	-7	227	95	89

**Chart 31 Health and social work, employment to 2022**



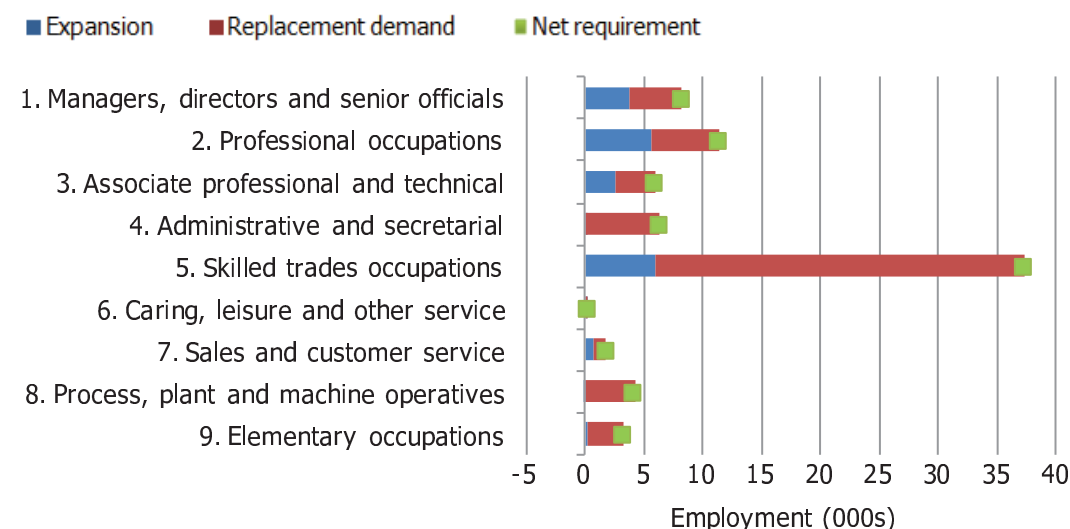
**Table 43 Health and social work, employment to 2022**

Employment Levels (000s)	2012	2017	2022	2012-2022		
				Net Change	Replacement Demands	Total Requirement
1. Managers, directors and senior officials	16	16	17	2	6	8
2. Professional occupations	108	118	129	21	45	66
3. Associate professional and technical	37	41	45	7	15	22
4. Administrative and secretarial	42	33	27	-14	17	2
5. Skilled trades occupations	5	4	3	-2	2	0
6. Caring, leisure and other service	126	138	155	29	57	86
7. Sales and customer service	5	4	4	-1	2	1
8. Process, plant and machine operatives	2	2	2	0	1	1
9. Elementary occupations	8	5	4	-3	2	-1
<b>Total</b>	<b>349</b>	<b>362</b>	<b>388</b>	<b>39</b>	<b>147</b>	<b>186</b>

**Table 44 Qualification requirement to 2022 (000's)**

	Base year 2012	Change 2012-2022	Projected level 2022	Replacement Demand	Total requirement
QCF 7-8	32	16	48	13	30
QCF 4-6	145	37	182	61	98
QCF 3	67	10	77	28	38
QCF 2	69	1	70	29	30
QCF 1	27	-18	9	11	-7
No Qual	9	-7	3	4	-3

**Chart 32 Construction, employment to 2022**



**Table 45 Construction, employment to 2022**

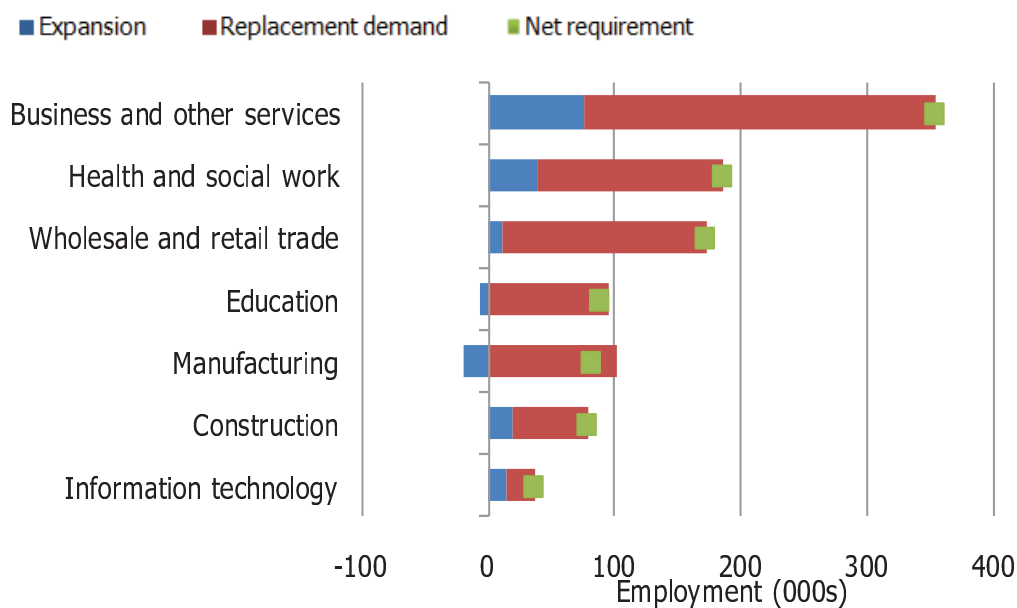
Employment Levels (000s)	2012	2017	2022	2012 - 2022		
				Net Change	Replacement Demands	Total Requirement
1. Managers, directors and senior officials	11	13	15	4	4	8
2. Professional occupations	16	19	21	6	6	11
3. Associate professional and technical	9	10	11	3	3	6
4. Administrative and secretarial	14	14	14	0	6	6
5. Skilled trades occupations	94	97	100	6	31	37
6. Caring, leisure and other service	0	0	0	0	0	0
7. Sales and customer service	3	3	4	1	1	2
8. Process, plant and machine operatives	13	13	13	0	4	4
9. Elementary occupations	9	9	9	0	3	3
<b>Total</b>	168	178	187	19	60	79

**Table 46 Qualification requirement to 2022 (000's)**

	Base year 2012	Change 2012-2022	Projected level 2022	Replacement Demand	Total requirement
QCF 7-8	4	5	9	2	7
QCF 4-6	27	13	40	9	23
QCF 3	50	-3	48	18	15
QCF 2	46	8	54	16	24
QCF 1	26	1	27	9	10
No Qual	15	-5	9	5	0
<b>Total</b>	168	19	187	60	79

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**Chart 33 Employment change by main sectors, West Midlands, 2022**



Source: Working Futures, West Midlands, 2015 to 2022.

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**Table 47 Change in qualification levels needed for predicted change in occupational structure, West Midlands**

NVQ Level <sup>7</sup>	% change needed
Level 4	+24%
Level 3	-6%
Level 2	-2%
Level 1	-18%
No Qual	-26%

Source: Working Futures, West Midlands, 2015 to 2022.

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**Table 48 Employment forecasts by Occupation, Birmingham, 2013-2025**

<b>Occupational Group</b>	<b>2013</b>	<b>2025</b>	<b>Change 2013-2025</b>
Corporate Managers	67,900	79,100	11,200
Managers and Proprietors	14,000	16,300	2,300
Science/Tech Professionals	16,200	21,900	5,700
Health Professionals	7,400	12,800	5,500
Teaching/Research Professionals	42,700	36,800	-6,000
Business/Public service Professionals	16,000	18,600	2,500
Science Associate Professionals	9,700	9,900	200
Health Associate Professionals	39,000	40,100	1,000
Protective Service Occupations	1,500	2,600	1,100
Culture/Media/Sport Occupations	7,200	8,500	1,300
Bus/Public Serv. Assoc Professionals	23,500	31,700	8,200
<b>Higher Skilled Occupations</b>	<b>245,200</b>	<b>278,300</b>	<b>33,100</b>
Admin & Clerical Occupations	33,400	31,200	-2,200
Secretarial & Related Occupations	4,900	2,400	-2,500
Skilled Agricultural Trades	600	800	200
Skilled Metal/Elec Trades	21,100	18,800	-2,300
Skilled Construct. Trades	8,200	7,600	-600
Other Skilled Trades	8,400	4,600	-3,800
Caring Personal Service Occs	43,900	53,800	9,900
<b>Intermediate Skilled Occupations</b>	<b>120,500</b>	<b>119,200</b>	<b>-1,200</b>
Leisure/Other Personal Service Occupations	6,700	7,200	500
Sales Occupations	29,300	26,700	-2,600
Customer Service Occupations	8,200	12,900	4,700
Process Plant & Mach Operatives	26,000	22,200	-3,800
Transport Drivers and Operatives	11,100	12,200	1,100
Elementary: Trades/Plant/Mach	26,200	28,100	1,900
Elementary: Clerical/Service	40,400	35,800	-4,600
<b>Lower Skilled Occupations</b>	<b>147,900</b>	<b>145,200</b>	<b>-2,700</b>
		Net change:	29,200

Source: Local Economy Forecasting Model (LEFM), Cambridge Econometrics

**Table 49 HS2 Build Phase (job Years), West Midlands**

	Total	No Quals	Level 1	Level 2	Level 3	Level 4+	Apprenticeships & Other
2015	837	92	134	142	151	209	109
2016	1,570	173	251	267	283	393	204
2017	7,327	806	1,172	1,246	1,319	1,832	952
2018	13,607	1,497	2,177	2,313	2,449	3,402	1,769
2019	11,514	1,267	1,842	1,957	2,072	2,878	1,497
2020	11,514	1,267	1,842	1,957	2,072	2,878	1,497
2021	8,897	979	1,424	1,512	1,601	2,224	1,157
2022	8,897	979	1,424	1,512	1,601	2,224	1,157
2023	733	81	117	125	132	183	95
2024	105	12	17	18	19	26	14
Avg 2017-2022	10,293	1,133	1,647	1,750	1,852	2,573	1,338
Total 2015-2024	65,000	7,150	10,400	11,050	11,700	16,250	8,450

Source: HS2 Growth Strategy, Solihull Observatory

**Table 50 HS2 Post Build Phase (New Jobs per Year), West Midlands**

	Total	No Quals	Level 1	Level 2	Level 3	Level 4+
2026	4,631	293	548	907	926	1,957
2027	4,631	293	548	907	926	1,957
2028	4,631	293	548	907	926	1,957
2029	4,631	293	548	907	926	1,957
2030	4,631	293	548	907	926	1,957
2031	4,003	253	473	784	800	1,692
2032	4,003	253	473	784	800	1,692
2033	4,003	253	473	784	800	1,692
2034	4,003	253	473	784	800	1,692
2035	4,003	253	473	784	800	1,692
2036	3,434	217	406	673	686	1,451
2037	3,434	217	406	673	686	1,451
2038	3,434	217	406	673	686	1,451
2039	3,434	217	406	673	686	1,451
2040	3,434	217	406	673	686	1,451
2041	4,121	261	487	807	824	1,742
2042	4,121	261	487	807	824	1,742
2043	4,121	261	487	807	824	1,742
2044	4,121	261	487	807	824	1,742
2045	4,121	261	487	807	824	1,742
Annual Avg 2026-2045	4,047	256	479	793	809	1,711
Total 2022-2045	80,940	5,124	9,573	15,853	16,178	34,211

Source: HS2 Growth Strategy, Solihull Observatory

## Data sources

Source	Annual Population Survey, ONS
Indicators used in the report	Economic activity and qualifications at the local authority level.
Smallest geography available	LA
Current Source File	APS, NOMIS
Source Update Frequency	Quarterly
Source Format	API: Excel, Json, CSV, xdmx or Excel from normal NOMIS
Quality and robustness	<a href="#">Link</a>

Source	Business Register and Employment Survey (BRES)
Indicators used in the report	Workplace employment by sector at the local authority level.
Smallest geography available	LA
Current Source File	NOMIS via a state notice
Source Update Frequency	Annual
Source Format	Excel
Quality and robustness	<a href="#">Link (LFS but has section on APS)</a>

Source	DWP Benefit Statistics, Work and Pensions Longitudinal Study (WPLS)
Indicators used in the report	Out of work benefit claimants
Smallest geography available	Lower output areas
Current Source File	NOMIS or DWP Tabtool Updated out of work benefits claimant rates can be found in BCC's Worklessness Briefing downloadable from: <a href="http://www.birmingham.gov.uk/labourmarket">www.birmingham.gov.uk/labourmarket</a>
Source Update Frequency	Quarterly
Source Format	Excel
Quality and robustness	WPLS links benefit and programme information held by DWP on its customers to employment records from HMRC. This dataset is based on 100% of claims so is not subject to any sampling error. In outputs figures are rounded to the nearest 10, and those below 5 are suppressed as statistically unreliable.

Source	Universal Credit experimental statistics
Indicators used in the report	Claimant unemployment: JSA + out of work UC
Smallest geography available	Jobcentre Office
Current Source File	UC statistics from Stat-Xplore + JSA statistics from NOMIS <a href="#">UC statistics summary</a>
	This new claimant count measure is now available via NOMIS too. Updated claimant count (unemployment) benefits claimant rates can be found in BCC's Unemployment Briefing downloadable from: <a href="http://www.birmingham.gov.uk/birminghameconomy">www.birmingham.gov.uk/birminghameconomy</a>
Source Update Frequency	Monthly
Source Format	Excel
Quality and robustness	These statistics have been developed using guidelines set out by the UK Statistics Authority, and are new official statistics undergoing evaluation. They have, therefore, been designated as Experimental Statistics.

Source	DWP Work Programme Statistics
Indicators used in the report	Referrals and Job outcomes by payment group
Smallest geography available	LA
Current Source File	<a href="#">DWP WP Tabtool</a>
Source Update Frequency	Monthly
Source Format	HTML – can be pasted into Excel
Quality and robustness	<p>A standard set of quality assurance procedures are conducted for each statistical release which consist of checking:</p> <ul style="list-style-type: none"> <li>•duplicate, missing or contradictory information</li> <li>•accordance across computer systems (LMS and PRaP) and with management information</li> <li>•trends and variation in characteristic, time series and geographical breakdowns</li> <li>•trends and differences in post payment adjustment factors</li> <li>•dual methodology testing of data visualisation</li> <li>•automated checks against tolerances for a sample of tabulation tool tables</li> </ul> <p>Individual variables remain complete and consistent with existing sources, comparisons across systems remain predominantly within a 0.1% tolerance, including across key breakdowns and time series. In addition to the quality assurance of the statistics, assurance of the underlying administrative data is also carried out. The National Audit Office published a <a href="#">report</a> in August 2013 on their review of the data systems associated with the Work Programme Business Plan Transparency indicator (and therefore all key Work Programme National statistics).</p>

Source	2011 Census
Indicators used in the report	Average qualification levels by ethnic group
Smallest geography available	Lower output areas
Current Source File	NOMIS
Source Update Frequency	Every 10 years
Source Format	Excel
Quality and robustness	The most accurate source for small areas (nearly 100% coverage)

Source	Labour Force Survey, ONS
Indicators used in the report	<p>LFS variable: those entering employment in the last 3 months to show more current demand by qualification i.e. Actual qualifications entering various occupations as opposed to those actually needed for that occupation. Specific variable names within the SPSS file:</p> <p>EMPLen: entered employment in last three months  SOC10m: Occupation classification at the 4 digit level  LEVQUAL11: Highest qualification  GOVTOF2: Region of resident  GORWKR: Region of place of work</p>
Smallest geography available	Region
Current Source File	Data archive (needs registration and project description)
Source Update Frequency	Quarterly
Source Format	SPSS
Quality and robustness	<p>Need to combine four LFS quarters to get robust sample at the regional level for some combination of variables</p> <p><a href="#">Link</a></p>



Source	Annual Survey of Hours and Earnings, ONS
Indicators used in the report	Jobs and wages: growth/decline matrix by 3 or 4 digit SOC
	Table 15: Data on levels, distribution and make-up of earnings and hours worked for London employees by sex and full-time/part-time status in all industries and occupations. Use median earnings by occupation and job number column.
Smallest geography available	Region
Current Source File	<a href="#">ASHE</a>
Source Update Frequency	Annual, updated in November
Source Format	Excel
Quality and robustness	3 digit SOC is more reliable than 4 digit. Total jobs Chart may underestimate count but for the matrix percentages increase/decrease is used so not a major concern

Source	LAMP, Monster and CESI
Indicators used in the report	Real time vacancy statistics by 3 digit SOC occupation
	Student numbers by subject area matched to SOC occupations
Smallest geography available	Individual College
Source Update Frequency	Every month
Quality and robustness	<p>1) Vacancy statistics are derived from the Universal JobMatch database plus job advert scraping from the largest online job sites; software is used to find duplicates where the same job is advertised in multiple job sites. However, not all jobs are advertised on job sites - some jobs (especially at the elementary level) are advertised on shop window job boards, local newspapers etc. and are not captured.</p> <p>2) Warwick University CASCOT software is used to assign job descriptions to SOC occupation codes. This is reliant on job titles and job descriptions.</p> <p>3) Occupation SOC codes are matched to Sector subject areas (SSA) using a method designed by the Institute of Fiscal Studies.</p> <p>4) The number of students doing courses within each SSA comes from SFA college returns.</p> <p>The latest available data on student numbers is used, however, they are usually a year older than the real time vacancy data. Therefore the number of students doing various subjects may have fallen or risen during the time period used for vacancy statistics.</p>

Source	Employer Skills Survey, UKCES
Indicators used in the report	Vacancies by occupation
	Skill demand by occupation and sector local employers
	Specific skill shortages cited by employers
	Unfilled vacancies
Smallest geography available	LA
Data link	<a href="#">Link</a>
Quality and robustness	<a href="#">Link</a>
Source Update Frequency	Bi-annual
Source Format	Excel. API: Json from LMI for All

Source	Working Futures, UKCES
Indicators used in the report	Employment projections by sector, occupation, qualification level Replacement demand (due to mortality, retirement, career moves etc.)
Smallest geography available	LA
Data link	<a href="#">Link</a>
Quality and robustness	<a href="#">Link</a>
Source Update Frequency	Bi-annual
Source Format	Excel. API: Json from LMI for All

Source	Local Economy Forecasting Model (LEFM): Cambridge Econometrics and The Warwick Institute for Employment Research
Indicators used in the report	Employment projections by occupation
Smallest geography available	LA
Quality and robustness	The Baseline scenario projections in LEFM are based on the historical relationship between growth in the local area relative to the region or UK (depending on which area it has the strongest relationship with), on an industry-by-industry basis. The Baseline projections assume that these relationships will continue to hold in the future. Thus, if growth in an industry in the local area (district) outperformed the industry in the West Midlands (or UK) as a whole in the past, then it will be assumed to do so in the future. Similarly, if it underperformed the region (or UK) in the past then it will be assumed to underperform the region (or UK) in the future. The projections for some sectors, in which growth is more closely related to changes in population, are based on historical relationships between growth in output per capita in the local area and output per capita in the region or UK as a whole. These industries are: retail, public administration, education, health, and miscellaneous services (which includes leisure services)
Source Update Frequency	Annual

Source	key stage 4 results, including GCSEs
Indicators used in the report	Percentage of pupils achieving 5+ A*-C grades including English and mathematics GCSEs
Smallest geography available	By School
Current Source File	<a href="#">Link</a>
Source Update Frequency	Annual
Source Format	Excel
Quality and robustness	<a href="#">Link</a>

Source	Skills Funding Agency
Indicators used in the report	Learner volumes
Smallest geography available	Local Authority
Current Source File	<a href="#">Link</a>
Source Update Frequency	Annual
Source Format	Excel
Quality and robustness	Based on Individual Learner Records <a href="#">Link</a>

Source	Skills Funding Agency
Indicators used in the report	Funding Allocations
Smallest geography available	By provider
Current Source File	<a href="#">Link</a>
Source Update Frequency	Annual
Source Format	Excel

Source	HS2 projections. Albion Economics, HS2 Consortium, Solihull Observatory
Indicators used in the report	Employment projections by qualification
Smallest geography available	GBSLEP
	<a href="#">The analysis has drawn upon a wide range of data sources and evidence. A full list of sources and those who have assisted in providing them is included in this linked report.</a>
Quality and robustness	<p>The approach has been to estimate job calculations from 'bottom up' principles wherever possible. Detailed relationships have been developed between cost budgets, physical outputs, wage rates and employment, by type of job and skill level, drawing on a number of evidence sources and 'coalface' industry expertise. This includes NSARE's published work on jobs and skills in the railway industry (although it was not possible to utilise its detailed datasets), as well as benchmark evidence from other High Speed Rail projects, including HS1 and TGV. The approach work and outturn results have benefitted from review by ILG member organisations and been refined in light of such. The calculations utilise disaggregate published budget data from HS2 Ltd based on the March 2012 cost and design freeze, together with other cost information provided from the same source.</p>
Source Update Frequency	<a href="#">One off report</a>