West Yorkshire Combined Authority

Labour Market Analysis

West Yorkshire

June 2022

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This report provides an assessment of West Yorkshire's skills needs based on a detailed analysis of the supply and demand of skills together with evidence of mismatch and market failure.

A key purpose of the analysis is to inform local policy and strategy development but it also has wider applications; for example, it can be used to inform the curriculum strategies of local institutions and to underpin local careers information and advice practice.

The local labour market remains in a state of flux as it continues to recover from the impact of the pandemic and faces the emerging challenges arising from the cost of living crisis and the war in Ukraine. The report considers the influence of these factors but also focuses on the underlying strengths and weaknesses of the local labour market, some of which are structural in nature and will continue to have a bearing on its future performance.

The local landscape

Local action on employment and skills aims to contribute to improvements in wider economic performance, particularly around productivity, earnings and employment. It also seeks to foster greater inclusion in terms of opportunities to participate in and benefit from employment. This report provides an overview of the current performance of the economy and labour market in these areas.

Contextual indicators suggest that the West Yorkshire area needs to improve the way in which skills are developed and utilised to address deficits around productivity and pay, although progress also depends on strengthening the demand-side of the West Yorkshire economy.

In common with most areas in the north of England, West Yorkshire's **productivity** level is below the national average and the gap has not narrowed over the last decade. The quality of the area's skills base is an important factor in this.

Pay levels are also lower than the national average, reflecting this weak productivity performance. At £565 per week, gross median pay for full-time jobs in West Yorkshire is only 92% of the national average. This relative position has remained largely unchanged in the last 20 years. The area faces a significant low pay challenge, with 18% of jobs paying below the Real Living Wage, rising to 22% in Kirklees. The proportion of jobs falling below this threshold is reducing over time, however, reflecting changes to the National Minimum Wage and National Living Wage. West Yorkshire's overall pay deficit mainly reflects a gap at the upper end of the pay distribution: the best-paid workers in West Yorkshire are paid less than their national counterparts.

The latest national data shows that pay is growing quickly in nominal terms as a result of tight labour market conditions but real pay (excluding bonuses) is now falling due to increasing inflation.

West Yorkshire faces a **gender pay gap**[1] of 16%, the same as the national average.

Pockets of acute **deprivation** are widespread across West Yorkshire – it has twice its "fair share" of the most deprived neighbourhoods nationally - and deprivation is particularly prevalent in Bradford and Leeds. Education, skills and training deprivation is a key issue, with Bradford, Wakefield and Leeds facing the biggest challenges. Adult skills deprivation is more commonplace in all West Yorkshire local authorities with the exception of Leeds, where education, skills and training deprivation affecting children and young people is more widespread.

West Yorkshire's **employment rate** has grown steadily in recent years, although there are some signs of a modest decline coinciding with the pandemic. There was a bigger decline in the national employment rate associated with COVID-19, which has led to a convergence of rates with West Yorkshire for the first time since before the financial crisis.

In terms of **employment status**, local employment growth has principally come from employee and full-time jobs in recent years. The longer-term increases in part-time and non-permanent jobs have stalled.

The official ILO[2] rate of **unemployment** grew in West Yorkshire in response to the pandemic but more timely national and Yorkshire and the Humber figures show that unemployment is now on a sustained downward path against this measure, and has returned to the pre-COVID rate.

West Yorkshire's **claimant count** increased sharply during the health crisis, peaking in March 2021. It has fallen steadily since then but remains well above pre-pandemic levels at the time of writing. Bradford's claimant rate is one of the highest of any local authority in England.

In terms of **commuting flows**, West Yorkshire is largely self-contained, with nine out of 10 residents working within the area and nine out of 10 jobs in the area being undertaken by local residents. However, there are substantial commuting flows both in and out of West Yorkshire and a net commuting inflow, overall. The most significant sources of inward commuters into West Yorkshire are Barnsley, Harrogate and Selby, followed by York and Doncaster. Leeds is the principal destination for these inward commuters. Clearly,

[1] The gender pay gap is calculated as the difference between average hourly earnings (excluding overtime) of men and women as a proportion of average hourly earnings (excluding overtime) of men's earnings.

[2] The number of unemployed people in the UK is measured by the Labour Force Survey (LFS) and includes people who meet the international definition of unemployment specified by the International Labour Organisation (ILO). This ILO definition defines unemployed people as being: without a job, have been actively seeking work in the past four weeks and are available to start work in the next two weeks; or out of work, have found a job and are waiting to start it in the next two weeks.

commuting has been severely disrupted by COVID-19 and there is great uncertainty about future travel-to-work behaviour.

Demand for skills

The report provides an overview of the demand for skills in the area, based on the profile of jobs locally and the skills required to do those jobs. It considers the current picture and the way in which the pattern of demand is expected to develop in the future. The fundamental question that it addresses is: what skills are needed by employers and the local economy, both now and in the future?

This question has been made more difficult to answer by COVID-19, the effects of which continue to be felt as the economy re-adjusts during its recovery phase. Brexit also has major implications for the pattern of labour and skills demand in the area.

The sectoral make-up of employment in a local area is an important determinant of the workforce skills that are required. The three **biggest sectors** in West Yorkshire's employment base are *Health and social care* (13%), *Manufacturing* (10%) and *Business administration and support services* (10%).

The local employment base has several distinct **sectoral specialisms**. Most notably manufacturing and financial services are key strengths of the local employment base, accounting for a larger share of total employment than at national level. The local share of employment accounted for by the public sector is slightly above the national average, whilst Leeds has a strong representation of knowledge-intensive services employment.

Overall, West Yorkshire has a **deficit of high skilled employment:** 48% of people are employed in higher skilled roles locally, versus a national average of 50%. This deficit of workers in higher skilled occupations extends to employment in most industry sectors in the local area, reflecting relatively low value business activities, low productivity and an associated weak demand for skills locally.

In absolute terms, *Administrative*, *Elementary admin and service* and *Business and public service associate professional* roles are the **biggest occupations** in West Yorkshire. In terms of specific **occupational specialisms**, the local area's employment base is distinguished by a relatively large proportion of people employed in *Administrative*, *Customer service*, *Caring personal service* and *Process, plant and machine operative* roles.

Service activities have been the main source of net employment growth in the West Yorkshire economy in recent years. The business service categories of *Administrative and support services*, *Professional scientific and technical activities* and *Transportation and storage* had the highest net employment growth followed by the largely consumer-facing sectors of *Wholesale and retail* and *Accommodation and food services*. *Manufacturing* and *Construction* also grew over the period.

More timely national data shows the impact of the pandemic on the pattern of sectoral employment. Key sectors, including *Manufacturing*, *Construction*, *Accommodation and food service* and *Wholesale and retail* still have lower employment than pre-pandemic,

although they mostly show signs of ongoing recovery. Aside from *Health and social work* and *Public administration*, which grew during the pandemic, *Information and communication*, *Professional, scientific and technical* and *Transportation and storage* have seen the strongest recovery in employment terms.

Occupations experiencing significant employment growth in recent years are mainly high skilled, including:

- ***Science, research, engineering and technology professionals*** (largely driven by growth in digital professionals)
- ***Business and public service associate professionals*** (with finance and investment analysts and advisers, sales / account managers, human resources specialists all seeing strong growth)
- ***Business, media & public service professionals*** (partly driven by increased employment for *Business and financial project management professionals)*

At intermediate level employment in ***Caring personal service*** and ***Administrative*** occupations has also grown.

Elementary administration and service employment has fallen, particularly in hospitality-related roles as has employment in ***retail*** sales roles. The impact of the pandemic is at least partly responsible for these declines, although the downward trend in retail employment is believed to be partly due to structural factors. ***Secretarial*** employment also continues to see long-term structural decline.

Online job postings data provide an insight into the level and **profile of current job openings**.

The level of recruitment activity in the local labour market was profoundly affected by the COVID-19 lockdown. However, the count of online job postings for job openings in West Yorkshire recovered to pre-pandemic levels by the autumn of 2020 and has grown since then, gathering momentum with the re-opening of the economy in summer 2021. There was a brief dip in postings resulting from the Omicron variant and the “Plan B” restrictions announced in December 2021 but growth soon resumed, with the count of postings reaching new heights in early 2022. West Yorkshire has seen a stronger recovery than nationally throughout this period. The count of postings recorded for March 2022 in West Yorkshire was 175% higher than in March 2020 compared with 93% higher at national level.

The sectoral profile of vacancies appears to be returning to that seen pre-pandemic. Some sectors, most notably *Accommodation and food service*, *Arts, entertainment and recreation* and *Retail* experienced a sharp decline in postings in 2020-21, as activities were restricted during prolonged lockdown periods. However, the negatively affected sectors have expanded recruitment activity during 2021-22 and the overall profile of online job postings has broadly returned to the pre-pandemic picture. *Health and social work*, *Manufacturing* and *Education* are the sectors with the largest volume of postings in absolute terms.

The **occupations that have seen the fastest growth in absolute terms compared with pre-pandemic** are as follows:

- *Science, research, engineering and technology professionals* (Programmers and software development professionals and IT business analysts saw the biggest growth in this category)
- *Business, media & public service professionals* (with biggest growth for management consultants, accountants, solicitors and project management professionals).
- *Administrative* (with largest growth in demand for business admin roles and book-keepers).
- *Business, media & public service professionals* (with notable growth for human resource specialists, marketing specialists, finance / investment analysts / advisers and sales executives / managers.
- *Caring personal service* (with the biggest growth in absolute terms for care workers / home carers, teaching assistants and nursing auxiliaries).

The **individual detailed occupations in greatest demand** currently, based on online job postings, are drawn from a diverse range, covering health, care, digital and administration. Communication is the "baseline" skill that is in the greatest demand by far in terms of employers' job postings, followed by skills such as organisational skills, planning, creativity and problem solving. Customer service, team working / collaboration, teaching and sales are the specialist skills in greatest demand.

Analysis of job postings also provides an insight into the profile of demand for **green economy skills**. The number of postings for jobs requiring green skills has grown rapidly in 2020 and 2021 in West Yorkshire. The ranking of occupations requiring green skills is dominated by STEM roles, including engineers, scientists and technicians of various kinds; but it also contains project managers, sales managers, and skilled trades like electricians.

The analysis also shows that specialised roles are increasing coming to the fore, such as environmental engineer and enviromental scientist. But in the main this analysis points to the greening of existing occupations – green skills becoming more important rather than the emergence of novel job roles with an explicit focus on climate and environmental issues.

Around two-thirds of employers have **upskilling needs** in West Yorkshire, driven by new working practices, new technology / equipment and regulatory requirements. Employers are most likely to say that managers need upskilling. The types of skills employers believe need to be developed across the workforce are a combination of operational skills, including job specific skills and product / service knowledge; complex analytical skills such as problem solving; and digital skills including digital literacy and advanced IT skills. Functional literacy and numeracy skills are also highlighted.

The most recent Working Futures study dates from before the COVID-19 crisis. Based on this study the **main sectoral sources of net job growth** in West Yorkshire over the next decade are forecast to be service-based, in the form of *Health and social work*, *Professional services* and *Support services*. The industries with the poorest prospects

based on the forecasts are mainly drawn from the manufacturing and primary sectors of the economy. Key employment sectors like hospitality and wholesale and retail are forecast to see small net declines in absolute terms but are projected to have very large recruitment needs linked to replacement demands. Clearly, since these forecasts were produced, the prospects for these sectors have undoubtedly weakened markedly as a result of the current crisis.

The same projections indicate that higher skilled occupations will continue to see the strongest net growth in employment, whilst middle skilled administrative and manual roles will continue to see net decline. Caring roles are projected to be a second key source of net job growth. COVID-19 could have an impact on this pattern of change, reinforcing existing trends and offsetting others.

Replacement demands will reinforce net growth in higher skilled occupations and caring roles, leading to strong recruitment needs in these areas. However, because replacement demands are expected to generate the vast majority of job openings over the next decade rather than net growth, they will also serve to offset net declines in other occupational areas, ensuring that most occupational areas will see a positive recruitment requirement over the next decade. The broad-based nature of the future recruitment requirement is a key message for those planning education and training provision within institutions and for individuals making careers choices.

The evidence suggests that higher skilled occupations are likely to be largely resistant to **automation**, reflecting the importance of skills such as creativity and social intelligence to these jobs, which are more difficult to computerise. The jobs at greatest risk are lower-skilled elementary occupations, semi-skilled operatives, some skilled trades and administrative roles. Not only are these occupations of greatest risk of being automated but their “compatible” occupations (which require similar knowledge and skills) are also high risk. Workers in these roles face a situation in which their skills are required in fewer jobs, and the jobs in which they could use their skills face a similarly high risk of automation. Hence, they will require more retraining to find an occupation that is at lower risk. The challenge is a particularly significant one for West Yorkshire since its employment is disproportionately concentrated in many of these at-risk occupations.

Supply of skills

What are the trends in the supply of people and what is coming through the pipeline of the education and training system of West Yorkshire? How inclusive is the supply-side: are there groups that face barriers to employment and learning opportunities?

West Yorkshire’s overall population of working age is growing, at a rate below the national average, although Leeds and Wakefield have seen strong population growth in the last decade. Projections indicate that the number of young people aged 16-24 will grow strongly in the coming decade.

A key supply issue is the decline in **participation in the labour force** linked to the effects of the pandemic, which contributes to current recruitment difficulties. Although sufficiently timely data is not available for West Yorkshire, Yorkshire and the Humber analysis shows a substantial fall in economic activity and rising inactivity. This growth in worklessness is

being driven by fewer older people in work and more people out of work due to long-term ill health.

The profile of the labour force is changing. **Older people** have become increasingly important over time as a source of labour supply. Two-thirds of the increase in employment in recent years has been among people aged 50-64 and the number of over-65s in employment has increased rapidly. The number of **disabled people** in employment has also increased in recent years, both locally and nationally. Nonetheless, there is a continuing employment rate gap for key groups, including the disabled, people from ethnic minorities as well as older people. There is a risk that this could be perpetuated and intensified by the COVID-19 crisis.

One of the key challenges facing West Yorkshire is its relatively **weak skills base**. Although the region saw a sharp improvement its qualification profile in 2020 there continues to be a deficit of people with high level qualifications and a relatively large proportion of people with no qualifications or low-level qualifications. The situation differs considerably at local authority level with Wakefield facing the most severe challenges while Leeds outperforms the national picture in key respects. West Yorkshire's skills / qualification deficit extends to the employed as well as the unemployed.

The **low attainment of young people** in West Yorkshire perpetuates the area's weak skills base: they are significantly less likely than the national average to achieve either level 2 or level 3 equivalent qualifications by the age of 19. Much of this underperformance is concentrated in Bradford, Leeds and Wakefield. Disadvantaged pupils are much less likely to achieve qualifications by the age of 19 and Calderdale and Leeds have the widest attainment gaps in West Yorkshire at level 2.

The COVID-19 crisis continued to have a negative effect on the skills pipeline in 2020/21 academic year, both locally and nationally. **Apprenticeship** starts for West Yorkshire residents fell slightly in 2020/21 academic year following a substantial decline in the previous year and were 23% lower than pre-pandemic (2018/19) and 38% lower than at their peak in 2015/16.

Some segments of apprenticeship provision continued to decline, most notably for under-19s, intermediate apprenticeships and starts in Wakefield. At subject level, there were substantial falls for *Engineering and Manufacturing Technologies* and *Construction, Planning and the Built Environment.* Starts at higher level grew strongly and there was also growth for *Health, Public Services and Care* and *Information and Communication Technology* subjects.

Higher apprenticeship starts, which are largely funded through the levy, grew by 27% during 2020/21. Apprenticeships at levels 4, 6 and 7 grew strongly in terms of starts, by 46%, 35% and 32% respectively; with starts at level 5 growing by 6%. Higher apprenticeships remain narrowly focused in subject terms, with 78% of starts concentrated in *Business, administration and law* (primarily management apprenticeships) and *Health, public services and care*. Apprenticeship provision in technical areas like *Construction*, *Engineering* and *Information Technology* remains relatively small, limiting work-based progression routes into higher level roles in these areas.

Access to apprenticeships for disadvantaged young people continues to be an issue, particularly in view of the widespread nature of deprivation in parts of West Yorkshire. Although West Yorkshire has an above average apprenticeship entry rate overall following both Key Stage 4 and Key Stage 5 disadvantaged pupils are less likely to enter an apprenticeship than other pupils.

Acute **gender segregation** across subject areas and **under-representation of people from ethnic minorities**, particularly with regard to young apprenticeships are further issues relating to the inclusiveness of apprenticeships locally, as well as nationally.

Participation in **adult education** also fell in West Yorkshire in 2020/21. The level of participation on Education and Training courses fell by 1,240 (-3%) in 2020/21 following a 16% fall in the previous year. Community Learning was hardest hit with a fall in participation of 5,960 (-38%) following a 25% decline in 2019/20. The biggest falls in Education and Training enrolments (in absolute terms) were in *Preparation for Life and Work, Information and Communication Technology and Retail and Commercial Enterprise:* (with big falls in *Hospitality and Catering*, *Retailing and Wholesaling* and *Warehousing and Distribution*). There was growth for *Health, Public Services and Care*, *Business, Administration and Law* (strong growth in Administration enrolments) and *Engineering and Manufacturing Technologies*. But *Health, public services and care* is the only subject area with a higher level of enrolments in 2020/21 than in 2018/19 (pre-pandemic).

Much of the decline seen in 2020/21 (as well as in 2019/20) was concentrated in learning aims at below level 2. There was a decline in enrolments for all types of basic skills provision during the academic year.

West Yorkshire has a significant **higher education footprint** with 92,900 student enrolments at its higher education institutions during the 2018/19 academic year. The total number of student enrolments at West Yorkshire institutions has remained stable in recent years, whilst the number of UK-domiciled qualifiers (graduates) has also been stable at around 23 to 24,000 per annum.

The **subject profile** of qualifiers from West Yorkshire's HEIs is somewhat different to the national picture, particularly with reference to subjects in key skill shortage areas. Architecture, building and planning and Computer science both account for smaller proportions of total qualifiers than is the case nationally, although Engineering and technology contributes a similar proportion as nationally. Conversely, West Yorkshire is above average in terms of Subjects allied to medicine (including nursing), Social studies and Creative arts and design.

Attraction and retention of graduates in the regional economy is key to maximising the economic benefits of higher education. West Yorkshire has a strong positive net inflow of higher education students (i.e. the number of people who come to West Yorkshire to study substantially exceeds the number of people from West Yorkshire who go elsewhere to study). However, a minority of employed graduates take up jobs in the area. In 2017/18, around 45% of employed qualifiers from West Yorkshire institutions were in employment in Yorkshire and the Humber 15 months after graduation, with 22% in employment in West Yorkshire itself. The extent to which qualifiers are retained in West Yorkshire and the wider Yorkshire and the Humber region varies by subject. Computer science has a high

retention rate, while Engineering and technology, Mathematical sciences and Physical sciences have low retention rates.

Inclusive access to higher education is an issue both locally and nationally. Overall entry rates into HE are slightly lower for West Yorkshire than nationally, with wide variations in rates at local authority level. The local authorities with the lowest overall entry rates, namely Wakefield and Leeds, also have very low entry rates for disadvantaged pupils who are eligible for free school meals (FSM). The gap in HE entry rates between disadvantaged and non-disadvantaged pupils is 21 percentage points in West Yorkshire (24% versus 45%) but rises to 27% in Wakefield. Even though the entry rate into HE has seen an upward trend for all groups in recent years, this has not led to a sustained reduction in the progression rate gap between FSM and other pupils.

Investment in training by employers is crucial to developing the local skills base, since the vast majority of the 2030 workforce are already in employment. Employers already make a substantial investment in this area, estimated at £1.6bn per annum in West Yorkshire. However, less than two-thirds (62%) of employers provide training, with 61% of staff receiving training. There has been no sign in recent years of an improvement in performance against these indicators. In sectoral terms, *Business services*, *Wholesale and retail* and *Health and social care* are responsible for the largest volumes of training (days of training) with the latter sectoral having the highest prevalence (% of staff trained).

However, it is important to **view training behaviour in the context of business need**: 39% of local employers acknowledge that they under-invest in training from this perspective. The key constraints relate to a lack of funds for training and an inability to spare staff time for training rather than the availability of suitable externally-provided training provision. The key challenge is to make the case for training as a business investment that will deliver suitable returns in the form of improved business performance.

Although employer survey data indicates that a similar proportion of local employees as national receive training data from the Annual Population Survey (a household survey) indicates that local people are less likely to participate in job-related training and this has been the case for a sustained period. Moreover, there is **unequal access to job-related training**. For the period July 2019 to June 2020, 15% of local people received training in the previous 13 week period compared with the national average of 19%. Some workforce groups are significantly less likely to undertake job-related training than others both locally and nationally, with a potential impact on prospects for pay and progression. For example, workers who are already qualified to a high level (level 4+) are almost twice as likely to receive training than their less qualified colleagues.

Work experience and work inspiration are important ways in which the world of business can engage with education, supporting an effective transition into the world of work by helping individuals to understand and meet the requirements of employers. By contributing to improved career-readiness and employability these activities have a positive influence on local labour supply. Although most employers consider that relevant work experience is an important factor in recruitment decisions, only 36% of Leeds City Region employers offer work experience placements. A small minority of employers (11%) offer work inspiration activities such as careers talks, site visits, mentoring, mock interviews, enterprise competitions and input to curriculum.

Mapping supply and demand

Where skills mismatches are acute and persistent, there can be significant implications for business performance. This kind of market failure presents a policy priority but also offers an opportunity for individuals considering their career options to target areas of unmet demand.

The number of unemployed people per vacancy is a key measure of the **tightness of the labour market**, showing the number of jobless people who are actively seeking and available for work relative to the number of opportunities open to them. West Yorkshire has seen a steady fall in the claimant count in West Yorkshire since March 2021 and a steep increase in the count of online job postings, particularly since the re-opening of the economy in summer 2021. At the height of the pandemic the number of claimants per job opening soared to more than 10 but it had fallen to less than two by early 2022.

Employer surveys indicate that **labour shortages** are widespread. National data show that *Accommodation and food service* employers are most likely to report shortages but that the incidence is also relatively high for *Arts and entertainment and recreation* as well as *Construction* and *Manufacturing*. Data from West and North Yorkshire Chamber of Commerce's economic survey supports the picture of labour shortages being widespread locally.

Skill shortages are vacancies that are difficult to fill due to a lack of candidates with the required skills. Just under a quarter of vacancies in West Yorkshire are skill shortages – vacancies that are hard-to-fill due a lack of candidates with the required skills. The data suggest that there is a particularly high prevalence of shortages in Wakefield.

Shortages are most common in skilled trades occupations, followed by associate professional / technical and professional occupations. The skills that employers find most difficult to obtain from applicants are principally specialist, job-specific skills and knowledge required to perform the role (for 59% of shortage vacancies). However, other skills including customer handling, team-working and time management are also highlighted. Drilling down into the more detailed **occupational pattern of shortages** across Yorkshire and the Humber, those occupations in which shortages are most acute, include, at professional level, nurses, health professionals, engineering professionals and digital professionals; and for skilled trades, electrical and electronic trades and vehicle trades.

Skills gaps are another form of skills mismatch and come about when existing employees within an organisation are not fully proficient in their job and are not able to make the required contribution to the achievement of business or public service objectives. The pattern of skills gaps provides a useful indication of employers' needs in terms of workforce development.

Around one in seven (15%) of employers in West Yorkshire are affected by a lack of proficiency among existing staff. There are approximately 51,000 gaps, equivalent to around 5% of total employment in the area. This is similar to the national picture, in terms of the proportions of employers and workers affected by skills gaps. The prevalence of skills gaps (in terms of the volume of gaps presented as a proportion of total employment)

is broadly similar across the five local authorities of West Yorkshire, although it is somewhat higher in Calderdale and slightly lower in Kirklees and Wakefield.

Three sectors of the local economy have the highest prevalence of skills gaps: *Business services*, *Education* and *Hotels and restaurants*. Together with *Wholesale and retail* these four sectors contribute more than 60% of all skills gaps. Employers in West Yorkshire are most likely to report deficits in respect of administrative and secretarial staff, skilled trades, lower-skilled elementary staff and sales and customer service staff.

People in higher skilled roles are less likely to have skills gaps, with the key exception of managers. **Gaps in management proficiency are an issue for a significant proportion of organisations** with major implications for wider workforce development and business performance.

Many skills gaps pertain to operational skills (often firm-specific knowledge and skills) and are caused by staff turnover and the need to train new recruits. However, some gaps are driven by deficits of complex analytical skills and digital skills. Many workers with skills gaps need to improve their soft skills, in areas such as time management, team working, customer handling skills and persuading / influencing others.

There is evidence of continuing **structural joblessness** in West Yorkshire, underpinned by a mismatch between the skills of the jobless and the profile of labour demand in the local economy. Many of the jobless have an occupational background in low-skilled roles but some of these are currently subject to labour shortages as the economy recovers from the pandemic.

Higher skilled occupations have been the main source of employment growth both locally and nationally in recent years. An indicative comparison of demand (in the form of employment in higher skilled occupations) and supply (in the form of economically active people qualified at level 4 and above) shows that **demand for higher level skills continues to outstrip supply**.

However, this does not mean that all people with higher level qualifications are seeing their skills being fully utilised. Just under a third of employers say they employ **workers whose skills are in advance of those required for the job**, whereas a quarter of people working in non-graduate roles are qualified to a high level.

There are **marked differences between the subject profile of qualifiers from local HE institutions and the profile of local labour market demand**, although it should be borne in mind that the HE sector serves a national labour market to a large extent and the skills developed through study in HE can be applicable across a wide range of occupations. There are several subject areas where the proportion of qualifiers is small compared with the proportion of job openings in related occupations. These include *Computer science* and *Architecture, building and planning* but the most notable is *Business and administration*. Conversely, there are other subject areas where the proportion of qualifiers outweighs the proportion of related job openings; the most notable examples being *Creative arts and design*, *Mass communications and documentation* and *Social studies*. The proportion of people who qualify in *Science, engineering and technology* also

outweighs demand for directly related roles in the labour market but other evidence, including that relating to earnings, shows that there is strong demand for these skills.

The pandemic has had a significant impact on the subject profile of apprenticeship starts in the 2019/20 and 2020/21 academic years, changing the balance between the profile of apprenticeship provision relative to the profile of employment. *Health, public services and care* has increased its share of starts whilst some subjects, most notably *Engineering and manufacturing technologies* have seen a sharp fall. This has led to an apparent imbalance between the profile of provision and the profile of the local employment base, which may prove to be short-term.

With regard to adult education, the proportion of enrolments significantly outweighs employment for *Health, public services and care.* Conversely, there are areas that are under-represented in terms of FE starts, most notably *Business administration and law*, *ICT practitioners*, *Engineering and manufacturing technologies* and *Retail and commercial enterprise.*

To some extent the employment profile of **EU migrant workers** reflects a mismatch between the skills and labour requirements of employers and the available supply of indigenous workers. In spite of the UK's departure from the EU, migrant workers from the EU continue to be an important element within the local and national labour force, accounting for 5% of people in employment in Yorkshire and Humber and 8% across England. EU migrants continue to be strongly represented in *Manufacturing*, *Wholesale and retail*, *Transport and storage* and *Health and social work* sectors and routine and lower-skilled occupations.

1 Introduction

What skills are needed to support the development of the local economy, to enable people to fulfil their career potential and to promote inclusion?

This document provides an assessment of skills needs across West Yorkshire, taking into account the level and nature of labour demand and the sufficiency of skills available in the local area in meeting this demand, as well as highlighting instances of market failure and skills mismatches. It considers current skills needs and those that are likely to emerge in future.

Rich and comprehensive intelligence is needed by the various groups in the labour market in order for them to make informed decisions about employment and skills. In undertaking a labour market analysis the aim is to add value by supplying intelligence for the following purposes:

- To support strategy and policy development, particularly around areas of market failure in the local labour market that require intervention.
- To influence the focus / profile of local learning delivery with reference to evidence of labour market demand and the wider learning supply picture.
- To inform careers choices by individuals by providing clear and robust information on labour market opportunities.
- To inform action by local employers (including through collaborative action) to address the skill needs of business.
- To support policy development and action on skills by local authority districts within West Yorkshire.

Ultimately, we are seeking to use intelligence to get the right people with the right skills in the right place to support economic growth and individual progression and well-being.

1.1 Employment and Skills Plan

The analysis contained in the report takes account of local policy priorities. The West Yorkshire Combined Authority has set out its priorities for employment and skills for 2021-2025 in its Employment and Skills Framework.

The two headline priorities within the Employment and Skills Plan are to:

- Raise the bar on high level skills
- Provide more and better apprenticeships.

The Plan also has a series of supporting priorities around:

- Enhancing employability to enable people to access jobs and realise their potential
- Building workforce skills and attracting talent
- Fostering improved engagement between education and business.

The development and dissemination of high quality labour market intelligence is a key cross-cutting element of the Employment and Skills Plan. This includes the use of intelligence to inform careers choice, to support entry into employment for adults and to shape learning delivery and investment in local learning infrastructure.

The priorities highlighted above are used as important reference points throughout this report, in terms of the progress that is being made and the key issues that remain to be addressed.

1.2 Skills Advisory Panels

The government's policy on Skills Advisory Panels (SAPs) reinforces the importance of local labour market analysis and clearly defines the context for decision making and action by local partnerships with regard to employment and skills issues.

The aim of SAPs is to ensure that local areas can get the skills they need by setting out priorities for action and investment by local partners.

Local enterprise partnerships and Combined Authorities across England have put in place Skills Advisory Panels, each comprising employers, skills providers and local government - pooling their knowledge on skills and labour market needs and working together to understand and address key local challenges. The Combined Authority's Employment and Skills Committee serves as the Skills Advisory Panel for Leeds City Region.

SAPs reach an evidence-based view on local skills needs drawing on intelligence about the labour market, using that understanding as a basis for actions to improve the responsiveness of the local skills system. This document is intended to serve as a central element of that evidence base for West Yorkshire.

Led by Employer Representative Bodies, Local Skills Improvement Plans (LSIPs) are part of a suite of reforms launched in DfE's "Skills for Jobs" White Paper that aim to put employers more firmly at the heart of the skills system. As LSIPs are rolled out across the country, Skills Advisory Panels will continue to influence the behaviour of local partners and feed intelligence to central government, including to sectoral focussed skills teams and the national-level Skills and Productivity Board (SPB). This report is intended to contribute to the available evidence base for the development of West Yorkshire's LSIP.

1.3 Devolution

The Election of the West Yorkshire Mayor, Tracy Brabin, provides an unprecedented opportunity to make progress on employment and skills issues as part of a devolved approach to transforming the regional economy. It gives local control of at least £1.8 billion of funding to be spent on the things that make a difference to the people of West Yorkshire, including substantial funding for adult education. We can use our understanding of regional needs to inform decision-making and the development of tailored employment and skills solutions. The devolution deal includes responsibility for the £65m Adult Education Budget (AEB) , to fund training programmes for West Yorkshire residents aged 19+, providing them with the skills needed for entering and sustaining work, an apprenticeship / traineeship, or other further learning.

Several of the Mayor's pledges directly address employment and skills issues, whilst most others have an employment and skills dimension.

Mayoral Pledges

10 Pledges to West Yorkshire:

- Create 1,000 well paid, skilled jobs for young people.
- Prioritise skills and training to ensure everyone in West Yorkshire has the skills they need to secure work.
- Support local businesses and be champion for our regional economy.
- Lead a Creative New Deal to ensure our creative industries are part of the broader recovery strategy.
- Appoint an Inclusivity Champion to work to ensure that the region's recovery benefits us all.
- Recruit 750 more frontline police officers and staff to fight crime.
- Put keeping women and girls safe at the heart of my policing plan.
- Bring buses back under public control, introduce simpler fares, contactless ticketing and greener buses.
- Build 5,000 sustainable homes including council houses and affordable homes
- Tackle the climate emergency and protect our environment.

Work is well under way to support the delivery of the mayoral pledges and to ensure full integration with the Employment and Skills Framework. Rich intelligence on local skills needs will be essential to making the most of the opportunities arising out of devolution.

1.4 West Yorkshire

The prime focus of this report is the West Yorkshire is a combined authority and metropolitan county which consists of five local authorities: City of Bradford, Calderdale, Kirklees, City of Leeds and City of Wakefield.

The region is the economic and geographic heart of Yorkshire and an essential component of the Northern Powerhouse. Lying at the centre of the UK, within one hour's drive of 7 million people, it comprises 1.6% of the land area of England.

West Yorkshire is a vibrant, internationally-significant economy, with a population of over 2.3 million, output of £58bn, 95,000 private sector businesses and an employed workforce of 1.1m.

Bradford and Leeds have the highest population density of the five local authority areas (1,473 and 1.438 people per square kilometre respectively), followed by Kirklees and Wakefield (1,076 and 1,029 respectively). Calderdale has the lowest population density by far with a figure of 581, although this still exceeds the Yorkshire and the Humber and national averages (357 and 432).

Leeds has the highest job density in West Yorkshire, with 0.97 jobs[3] per head of working-age resident population, well above the average for the region (0.80) and the national average (0.85). Wakefield (0.80) and Calderdale (0.79) are in line with the West Yorkshire average, whereas Bradford (0.68) and Kirklees (0.64) are much lower in terms of job density.

[3] This is a workplace-based measure of jobs.

2 The local landscape

This section provides important context to the analysis of local skills needs by examining the area's performance against high level economic and labour market indicators, including productivity, pay, employment and deprivation. These are the things that we need to positively influence through action on employment and skills if the wider vision for West Yorkshire, around prosperity, the fulfilment of individual potential and inclusion, is to be realised.

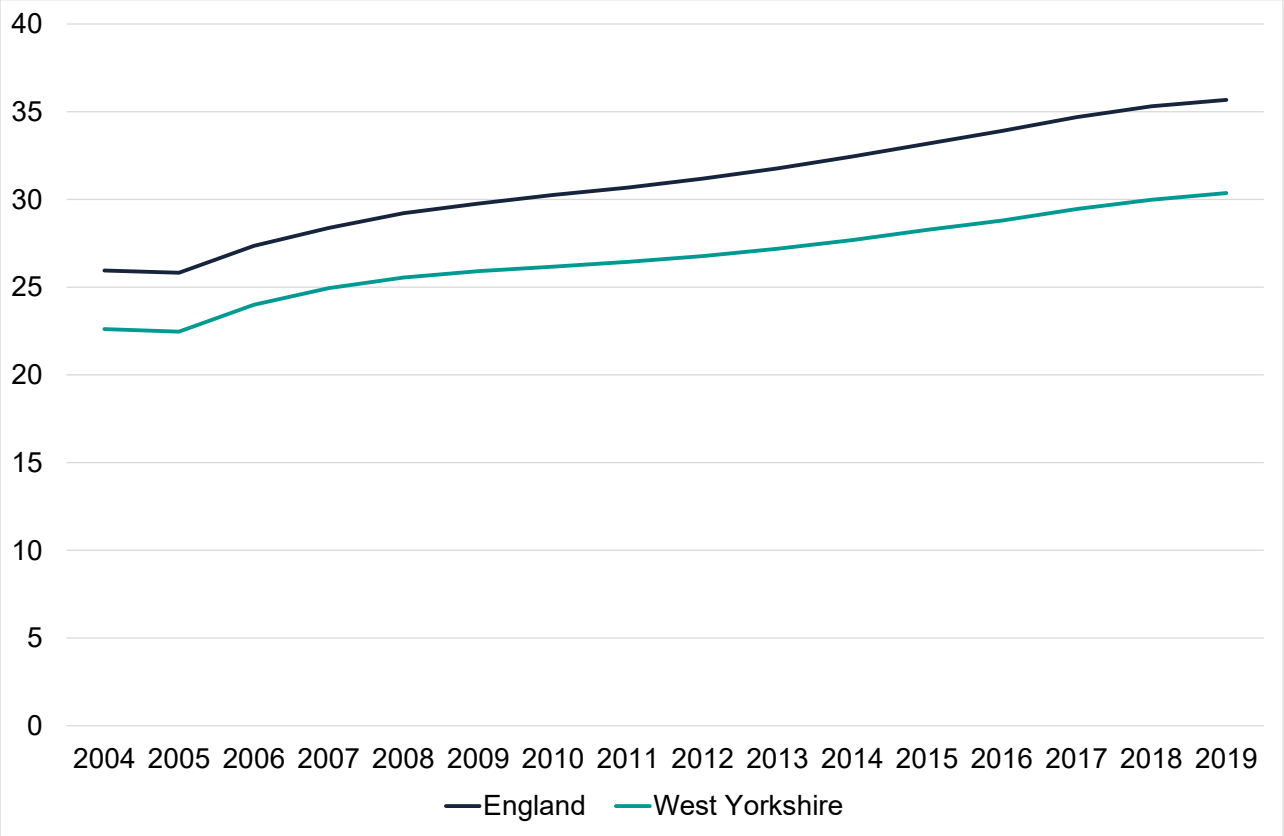
2.1 Productivity

West Yorkshire's position on skills has a direct impact on its performance on productivity, pay and employment and hence on the overall level of prosperity in the area.

West Yorkshire under-performs on productivity

Increased productivity is the main contributor to growth in the wider economy and provides the foundation for improvements in living standards.

Figure 1: Productivity trend: nominal (smoothed) GVA per hour worked (£)



Source: ONS Subregional Productivity July 2021 release, Office for National Statistics

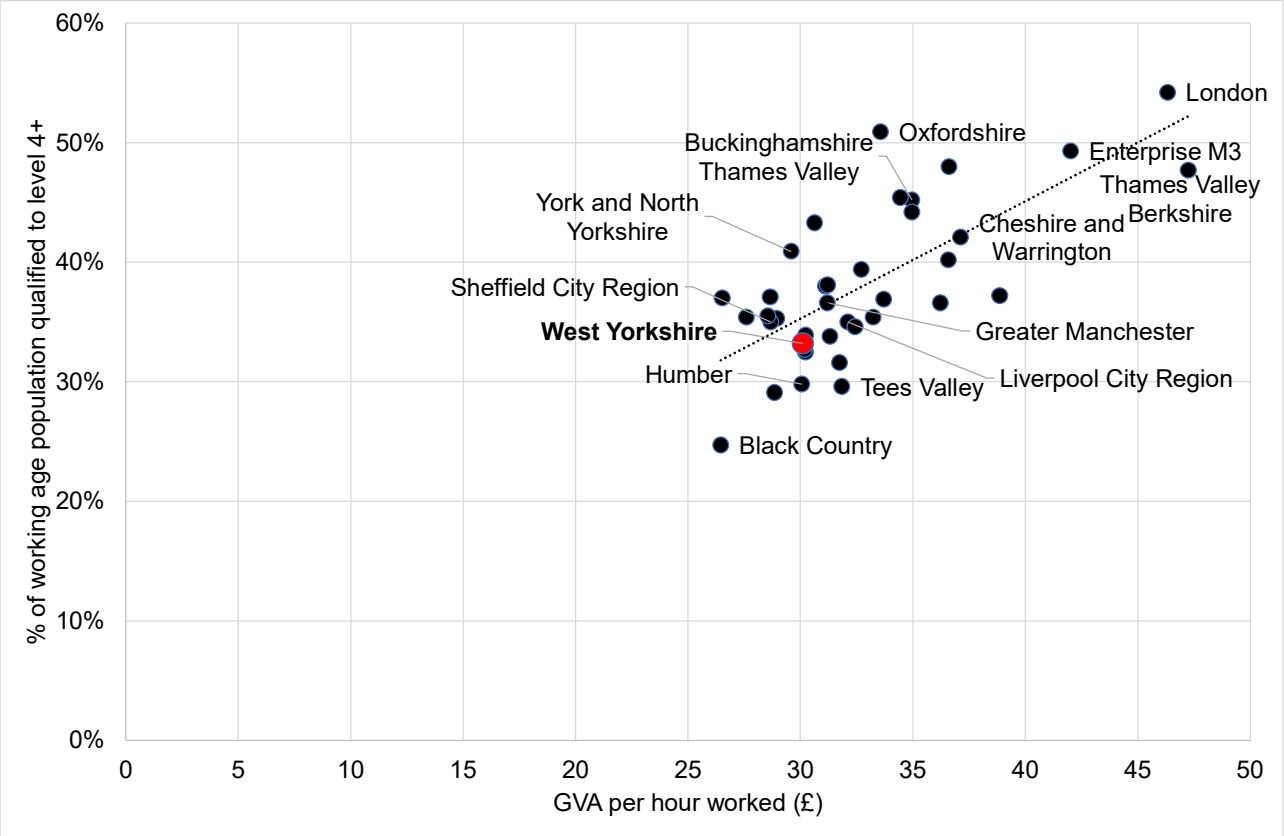
Although productivity in West Yorkshire has followed an upward trend in recent years, in current price terms, there is no sign of an improvement in the region's relative performance

compared with the national average. Output per hour worked in West Yorkshire fell from 88% of the England average in 2007 to 85% in 2019, indicating that local productivity growth has lagged the rate of growth seen nationally and the gap in productivity performance has widened. All local authorities in West Yorkshire have a level of productivity that is below the West Yorkshire average, except Leeds; its output per hour of £33.26 is still only 94% of the national average.

If West Yorkshire's productivity level could be raised to match the England average it would mean an increase of more than £10bn in the size of the local economy.

The national average productivity figure is skewed by the performance of London, where output per hour worked is £46.38, 54% higher than West Yorkshire's figure. West Yorkshire's productivity level is in line with most parts of the north of England, although it is slightly behind Greater Manchester (£31.20 per hour) and Merseyside (£32.10) and well behind Cheshire (£37.10). These comparator areas also have slightly higher average annual growth rates over the last decade than West Yorkshire.

Figure 2: Skills and productivity performance by LEP area



Source: Annual Population Survey; ONS LEP level estimates of productivity

A simple illustration of the link between productivity performance and skills is presented in the above figure which plots the performance of LEP areas against two variables – productivity (output per hour) and higher-level skills (the proportion of the working age population qualified at level 4 and above). This shows the strong relationship between the two. West Yorkshire is positioned towards the bottom-left of the chart, indicating relatively

low productivity combined with low skills. The top right area, indicating high productivity and a strong skills base, is mainly occupied by areas from London and the South East.

Raising the skills of the local workforce, as well as improving the way in which they are utilised in the workplace, as part of a comprehensive strategy for the local economy, can help to address this productivity deficit. The literature suggests that overall increases in skills or higher levels of skills are associated with greater area productivity and that differences in performance between UK regions and sub-regions can be partially attributed to differences in skills and in the occupational composition of employment[4]. In particular, management skills can affect the productivity of a firm through developing and implementing market strategy, managing technical and organisational change, and effectively utilising workforce skills[5].

2.2 Pay

Productivity is closely linked to pay and therefore to living standards: more productive firms pay higher wages.

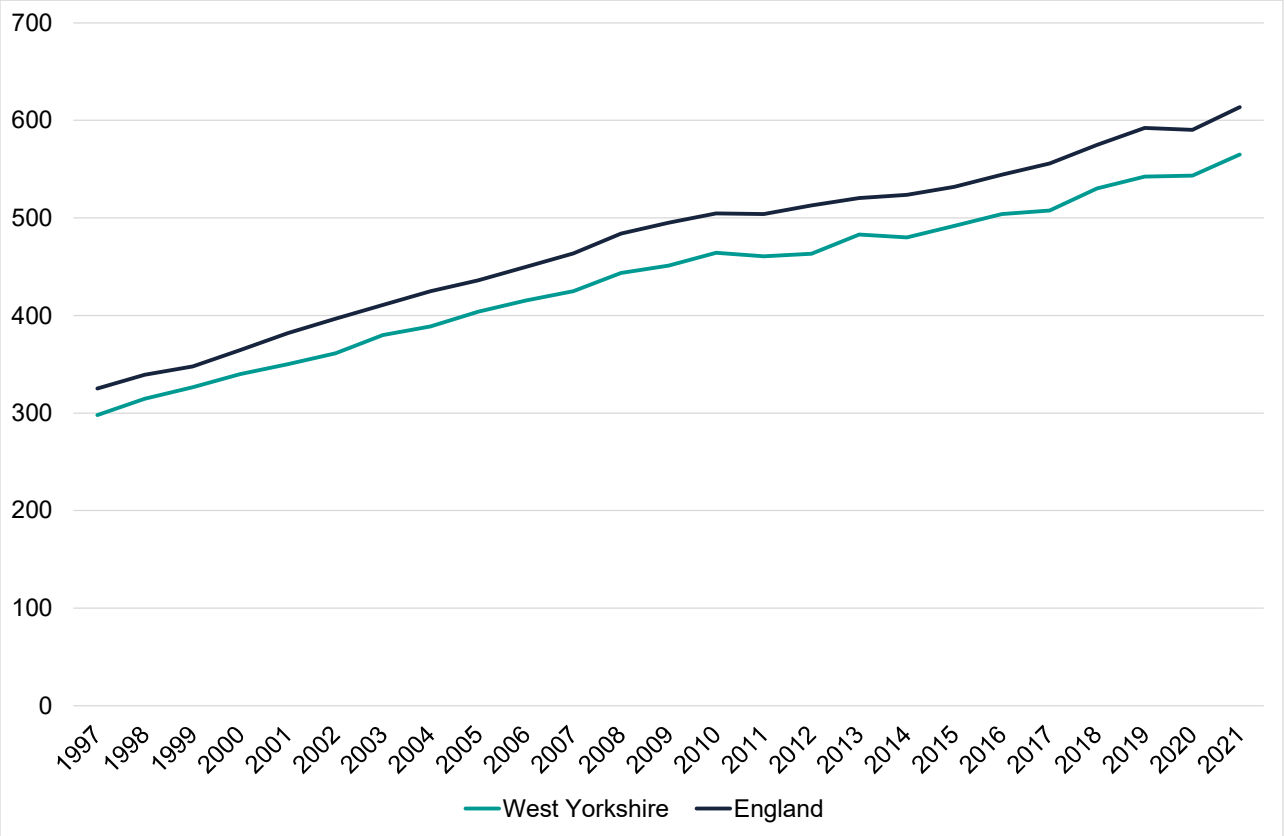
Local pay is below the national average

The local productivity deficit is reflected in the pay situation. Median gross weekly pay for full-time jobs in West Yorkshire is £565, 92% of the England average. At local authority level this varies between £528 in Kirklees (86% of the national average) to £595 in Leeds (97% of the national average).

[4] Gambin, L, Green, A.E. and Hogarth, T. (2009), 'Exploring the links between skills and productivity: Final Report', Institute for Employment Research, University of Warwick for the East Midlands Development Agency

[5] Bender, S, Bloom, N, Card, D, Van Reenen, J and Wolter, S (2016), 'Management Practices, Workforce Selection, and Productivity', Centre for Economic Performance, CEP Discussion Paper Number 1,416, March 2016

Figure 3: Trend in median weekly gross pay for full-time workers (£)



Note: Workplace-based estimates
Source: Annual Survey of Hours and Earnings

West Yorkshire's median level of pay has increased steadily over time, growing by an average of 2% per annum in the last 10 years in nominal terms. However, its position relative to the national average has remained steady throughout this period with no narrowing of the pay gap.

We need to turn to UK data in order to examine the current situation regarding real pay i.e. when the effects of inflation are factored in. Current tight labour market conditions appear to be feeding through into higher nominal pay, with regular pay growth above 4% and seemingly higher rates of growth in (private sector) industries with higher vacancies. However, soaring inflation is pushing regular pay negative in real terms while total pay remains just positive due to high bonus payments in the private sector.

A significant proportion of jobs in West Yorkshire pay below the Real Living Wage

Eighteen per cent of local jobs, almost 170,000 in absolute terms, pay less than the Living Wage Foundation's Living Wage rate, which is intended to reflect the level of pay people

need to get by[6]. In Kirklees, 22% of jobs fall below the Living Wage threshold, the biggest proportion in West Yorkshire.

The issue of low pay and lack of pay progression remain entrenched in the labour market, with the majority of low-paid workers remaining permanently stuck in low pay or cycling in and out of higher pay.

However, there are signs of improvement. There was a fall of two percentage points in the proportion of jobs paying below the Real Living Wage between 2020 and 2021 and this follows previous falls in recent years. By comparison, 24% of jobs paid below this level in 2016.

What's driving the reduction in low pay against this measure? It coincides with recent increases in the National Minimum Wage (NMW) and National Living Wage (NLW) rates. The improvement also coincides with the additional increase in the NMW for those aged 23 and 24 years, who join those aged 25 years and over in receiving the NLW in 2021.

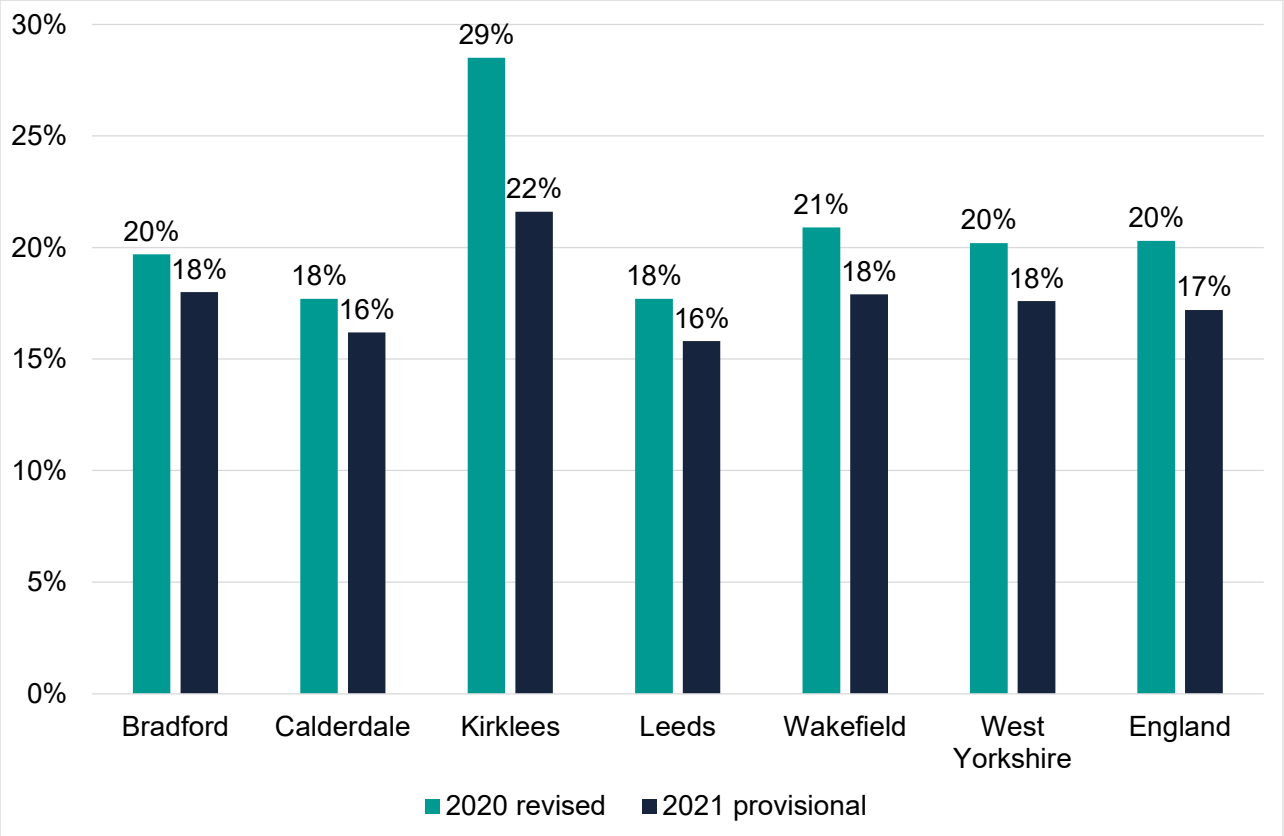
West Yorkshire's gender pay gap is the same as the England average

West Yorkshire faces a significant gender pay gap[7]. The overall pay gap for all employee jobs locally is 16%, the same as the national average. The size of this gap partly reflects the fact that women are more likely than men to work in part-time roles which attract a lower hourly rate of pay. However, at 10% the gap for full-time jobs is smaller but still substantial, and slightly above the national average.

[6] The applicable Real Living Wage Rate for 2021 was £9.50 for people working in the UK, outside London.

[7] The gender pay gap is calculated as the difference between average hourly earnings (excluding overtime) of men and women as a proportion of average hourly earnings (excluding overtime) of men's earnings.

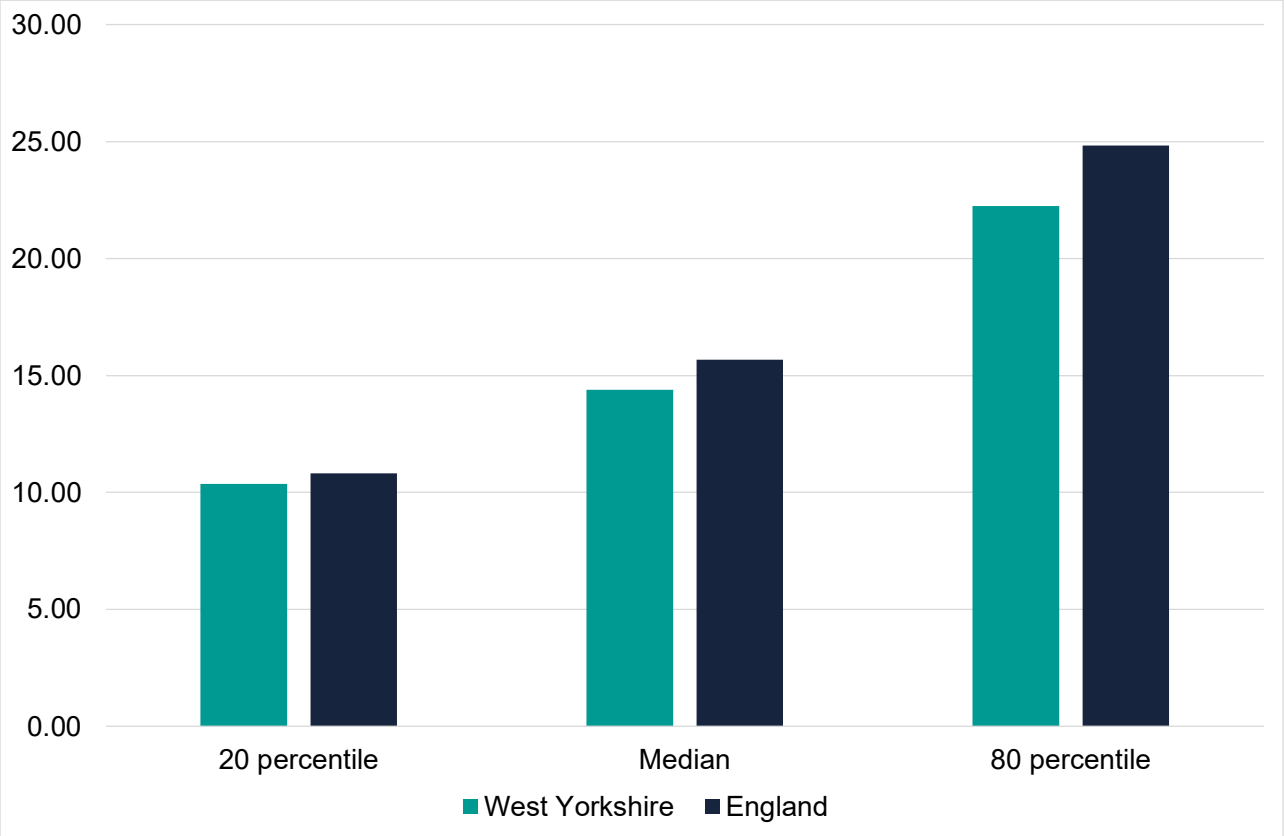
Figure 4: Proportion of employee jobs paying below the Real Living Wage (as defined by the Living Wage Foundation)



Note: Workplace-based estimates
Source: Annual Survey of Hours and Earnings 2021

The gender pay gap for all jobs is highest in Calderdale and Kirklees at 18% and lowest in Wakefield at 14%. Bradford is the same as the West Yorkshire and national average and Leeds slightly below at 15%. Bradford, Leeds and Wakefield have negative gender pay gaps for part-time workers. This shows that male part-time workers in these local authorities are low-paid relative to their female counterparts.

Figure 5: Distribution of gross hourly pay (£) for full-time jobs, 2021



Source: Annual Survey of Hours and Earnings (ASHE), provisional data - Office for National Statistics

The pay level for jobs at the 20th percentile in West Yorkshire is 96% of the equivalent national figure; however, at the 80th percentile it is only 90% of the national figure (falling to 84% in Kirklees and 86% in Bradford). Even in Leeds, where median pay is 97% of the England figure, the level of pay at the 80th percentile is only 93% of the equivalent figure for England.

This indicates that the highest paid jobs in the region are paid significantly less than the highest paid jobs nationally and this is the main source of the overall pay gap. This, in turn, reflects the under-representation of jobs in the highest skilled and highest paid occupations in the region. This is important because it is the highest paid and most productivity workers who drive productivity growth. According to ONS analysis at UK level over half of the growth in mean labour productivity between 1998 and 2019 was because of the top 10% of workers by labour productivity.

Pay inequality (the gap between the highest and lowest paid) is less pronounced in West Yorkshire than nationally, however. The ratio of pay at the 80th percentile to pay at the 20th percentile is 2.1 in West Yorkshire compared with an England average of 2.3.

The median rate of hourly pay for full-time jobs is similar at West Yorkshire level for both workplace and residence measures but there are variations at local authority level. Most notably, workplace pay is 5% lower than residence-based pay in Kirklees, indicating that a substantial number of residents travel out of Kirklees to relatively well-paid jobs. The

opposite is true for Wakefield, where workplace pay is 5% higher, implying that people are travelling into Wakefield to undertake better-paid jobs.

2.3 Deprivation

As well as improving the performance of the local economy we also need to ensure that everyone in the local community has the opportunity to participate in high quality employment and benefit from growth.

Skills deficits play a part in neighbourhood-level deprivation

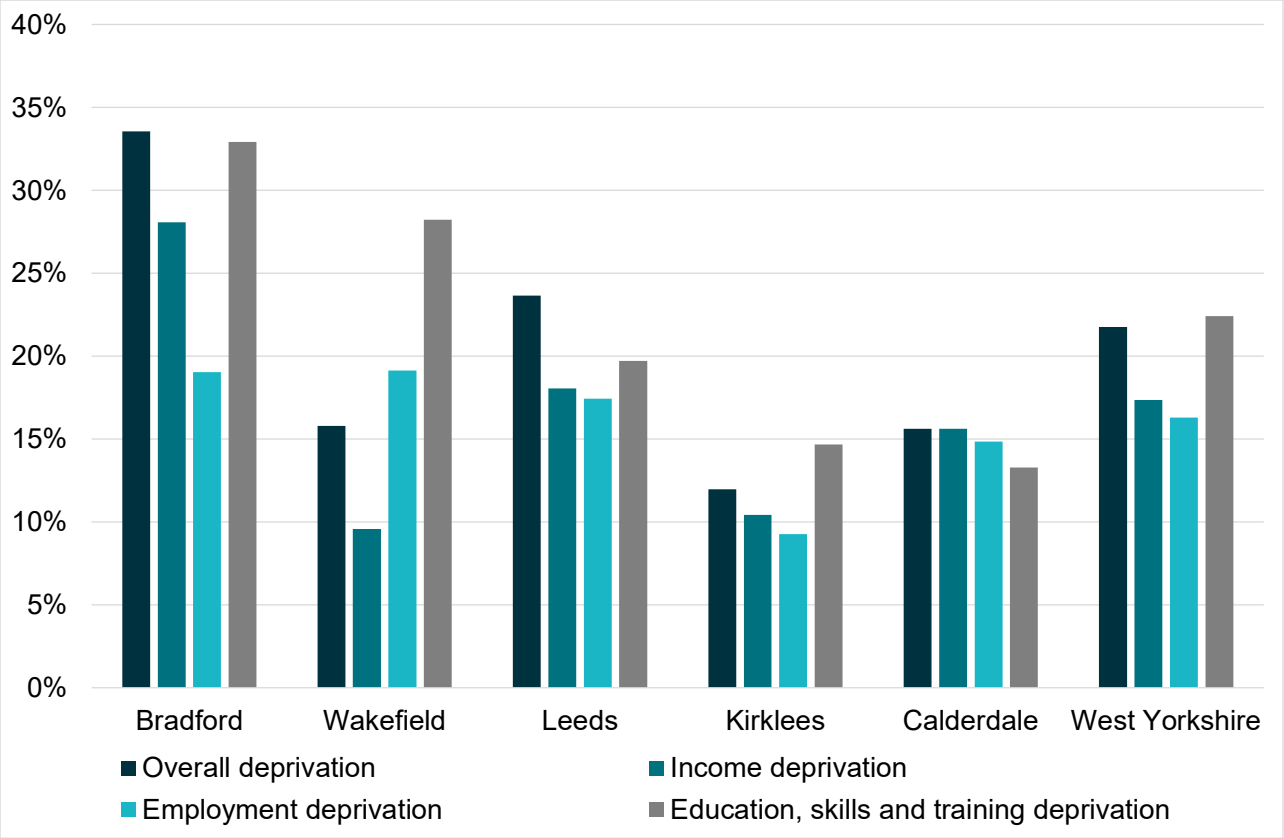
One key challenge is to address concentrated deprivation at neighbourhood level. According to the English indices of deprivation 2019[8], 22% of neighbourhoods in West Yorkshire are among the 10% most deprived nationally, more than twice the share one would expect. There are 302 acutely deprived neighbourhoods in West Yorkshire that fall into this category.

A domain of deprivation within the IMD is education and skills deprivation, which mainly relates to attainment and skills in the population – both of young people and adults.

Again, 22% of West Yorkshire neighbourhoods are in the worst 10% nationally on this measure. Moreover, 83% of West Yorkshire neighbourhoods that fall within the most deprived overall are also classed among the most deprived 10% in terms of education, skills and training, showing the strong correspondence between the two.

[8] The English indices of deprivation measure relative deprivation in small areas in England called lower-layer super output areas. The index of multiple deprivation is the most widely used of these indices.

Figure 6: Proportion of neighbourhoods in 10% most deprived nationally by domain of deprivation and district



Note: The Education, Skills and Training Domain measures the lack of attainment and skills in the local population.
Source: Department of Communities and Local Government, Index of Multiple Deprivation 2019

Performance on deprivation varies markedly at district level. Bradford and Leeds face the most widespread acute deprivation in terms of the proportion of neighbourhoods falling into the 10% most deprived nationally. In Bradford the figure is 34% and in Leeds 24%.

Focusing on Education, skills and training deprivation, Bradford again has the most widespread problem (33% of all neighbourhoods in the 10% most deprived nationally) but Wakefield is the second highest with 28%, followed by Leeds with 20%.

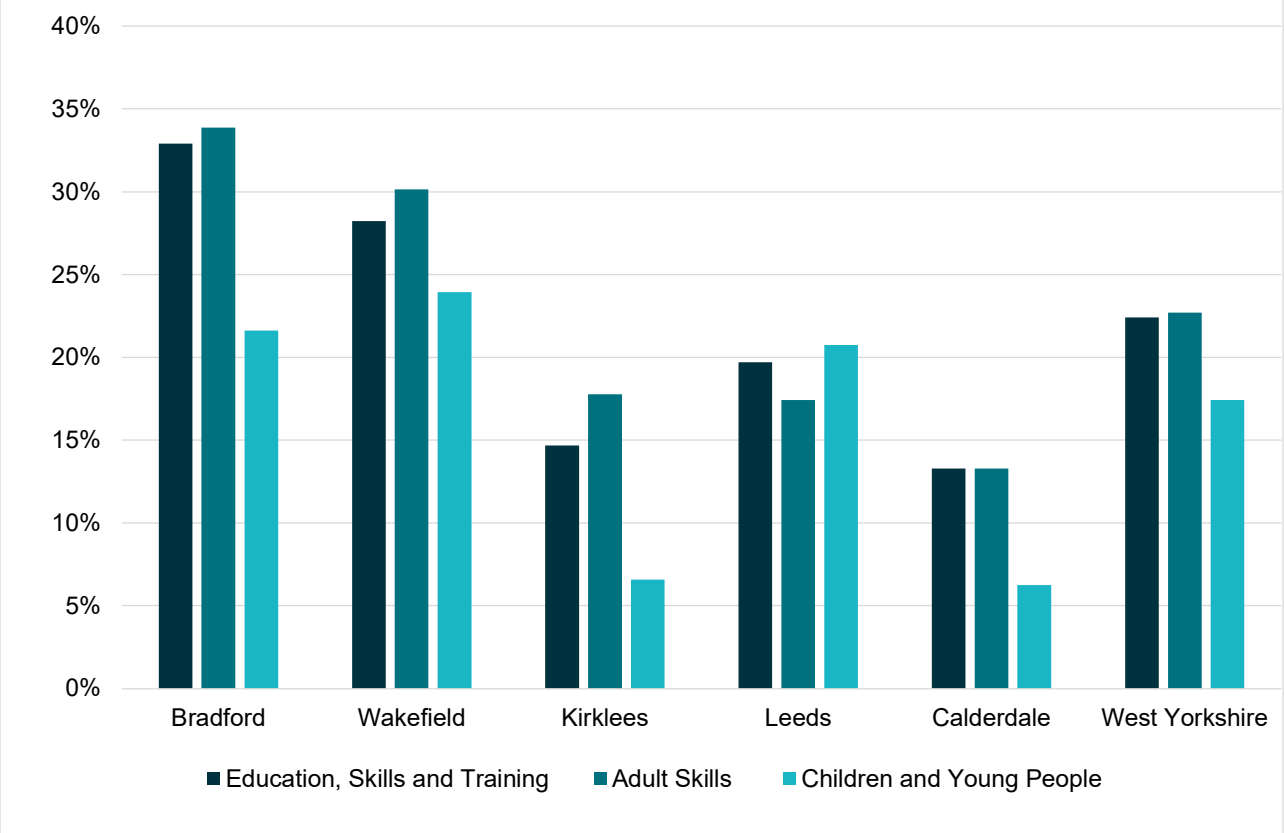
Skills deprivation relating to adults is a key issue for West Yorkshire

The Education, skills and training domain of the IMD comprises two sub-domains – one focusing on children and young people and one relating to adult skills[9], providing further insight into the character of this aspect of deprivation.

[9] The Children and Young People sub-domain is based on indicators that include attainment at Key Stages 2 and 4, secondary school absence, staying on rates and entry into higher education. The adult skills domain

Across West Yorkshire a greater proportion of neighbourhoods (23% of the total) face acute deprivation in respect of adult skills rather than relating to children and young people (17%), although the latter is still relatively high. There are also differences at district level.

Figure 7: Proportion of neighbourhoods in 10% most deprived nationally by sub-domain of deprivation and district



Source: Department of Communities and Local Government, Index of Multiple Deprivation 2019

Bradford has fewer neighbourhoods among the 10% most deprived in respect of children and young people than it does in respect of adult skills – and the same is true of Calderdale, Kirklees and Wakefield. For some of these districts the issue of English language proficiency may play a strong part in the prevalence of adult skills deprivation.

This is not to seek to understate issues around children and young people in these districts, however; in both Bradford and Wakefield more than 20% of neighbourhoods are still among the most acutely deprived on this basis.

The reverse position is true of Leeds. A greater proportion of neighbourhoods are among the most deprived with regard to children and young people than for adult skills (the proportions being 17% versus 21%).

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is made up of two indicators relating to adults with low or no qualifications and adults who lack English language proficiency.

Improving the skills pipeline by raising the attainment of young people is a critical priority but in some parts of the region will not be sufficient in view of the issues around adult skills.

2.4 Unemployment

Getting people into work is central to inclusive growth and boosting individual living standards. At the current time, unemployment remains well above pre-pandemic levels (in claimant count terms) even though the worst case scenario of mass unemployment was not realised during the lockdown of the economy.

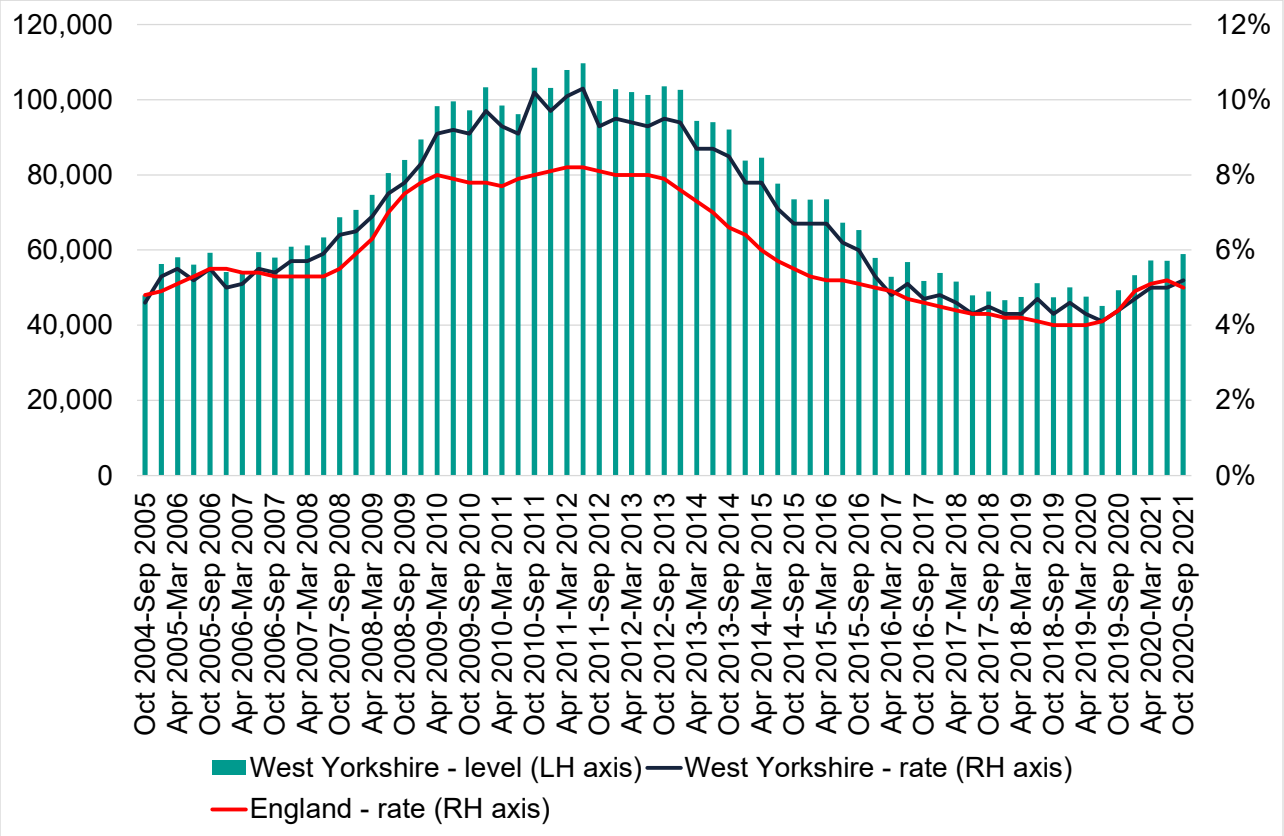
It is difficult to measure the impact of COVID-19 on unemployment in local economies using the official ILO indicator[10]. This is because we are reliant on the Annual Population Survey, which draws on 12 months of survey data for its estimates, meaning that the most recent data (for July 2019 to June 2020) captures only a small portion of the COVID-19 period whilst combining it into an average for a full 12-month period, most of which preceded COVID-19.

West Yorkshire's unemployment rate is currently similar to the national average, based on the ILO measure

According to the Annual Population Survey for October 2020 to September 2021, the official measure of unemployment in West Yorkshire stands at 59,000, 5.2% of the population aged 16-64. This is similar to the national average of 5.0%.

[10] The UK's official definition of unemployment is the one specified by the International Labour Organisation (ILO). This ILO definition defines unemployed people as being: without a job, have been actively seeking work in the past four weeks and are available to start work in the next two weeks or out of work, have found a job and are waiting to start it in the next two weeks.

Figure 8: Trend in ILO unemployment, people aged 16-64



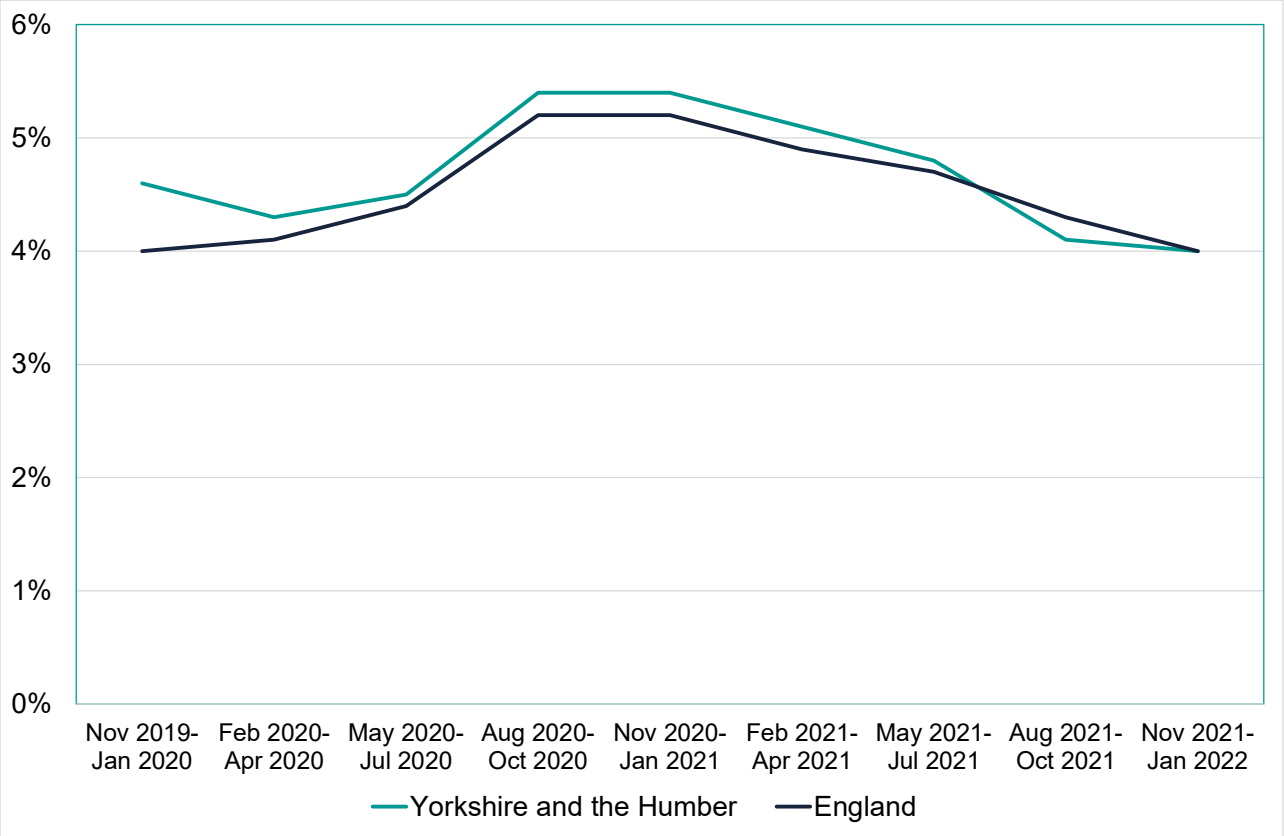
Source: Annual Population Survey

As the figure above shows, the recent unemployment level trend in West Yorkshire is one of strong decline in the middle of the last decade, followed by a more modest rate of decrease and then a relatively small increase as a result of the pandemic. The unemployment rate achieved convergence with the national average in around 2016 and has followed the national trend since then.

The available data from the Annual Population Survey is based on 12-month averages, limiting our ability to track changes in unemployment on a timely basis. The figures point to an increase in the unemployment rate in West Yorkshire of around one percentage point during the pandemic, equivalent to growth of 14,000 in terms of the number of people unemployed. However, these estimates apply to a period which includes late-2020 and early-2021 when we know from national data that unemployment was at its peak.

More timely quarterly data from the Labour Force Survey shows that for England as a whole and for Yorkshire and the Humber the level and rate of unemployment have now returned to their pre-pandemic position and it seems likely that local unemployment has followed a similar trajectory in recent months.

Figure 9: Trend in ILO unemployment, people aged 16-64 (Labour Force Survey)



Source: Labour Force Survey

In addition to the 59,000 people who are unemployed, and who are available for and actively seeking work, consideration needs to be given to people who are economically inactive but who would like a job. According to the Annual Population Survey estimate for October 2020 to September 2021, there were 47,000 people of working age falling into this category in West Yorkshire, around 14% of all economically inactive people in this age group.

2.5 Claimant unemployment

The Claimant Count experimental dataset seeks to measure the number of people claiming benefits (Universal Credit and Jobseekers' Allowance) principally for the reason of being out of work[11]. It provides a more timely picture of joblessness at local level and is therefore a key indicator of the impact of COVID-19 on the labour market.

[11] Enhancements to Universal Credit as part of the UK government's response to the coronavirus mean that an increasing number of people became eligible for unemployment-related benefit support, although still employed. Consequently, changes in the Claimant Count will not be due wholly to changes in the number of people who are unemployed. However, national data suggest that only around 100,000 (or 7%) of the recent growth in the claimant count is accounted for by people in work but with low earnings.

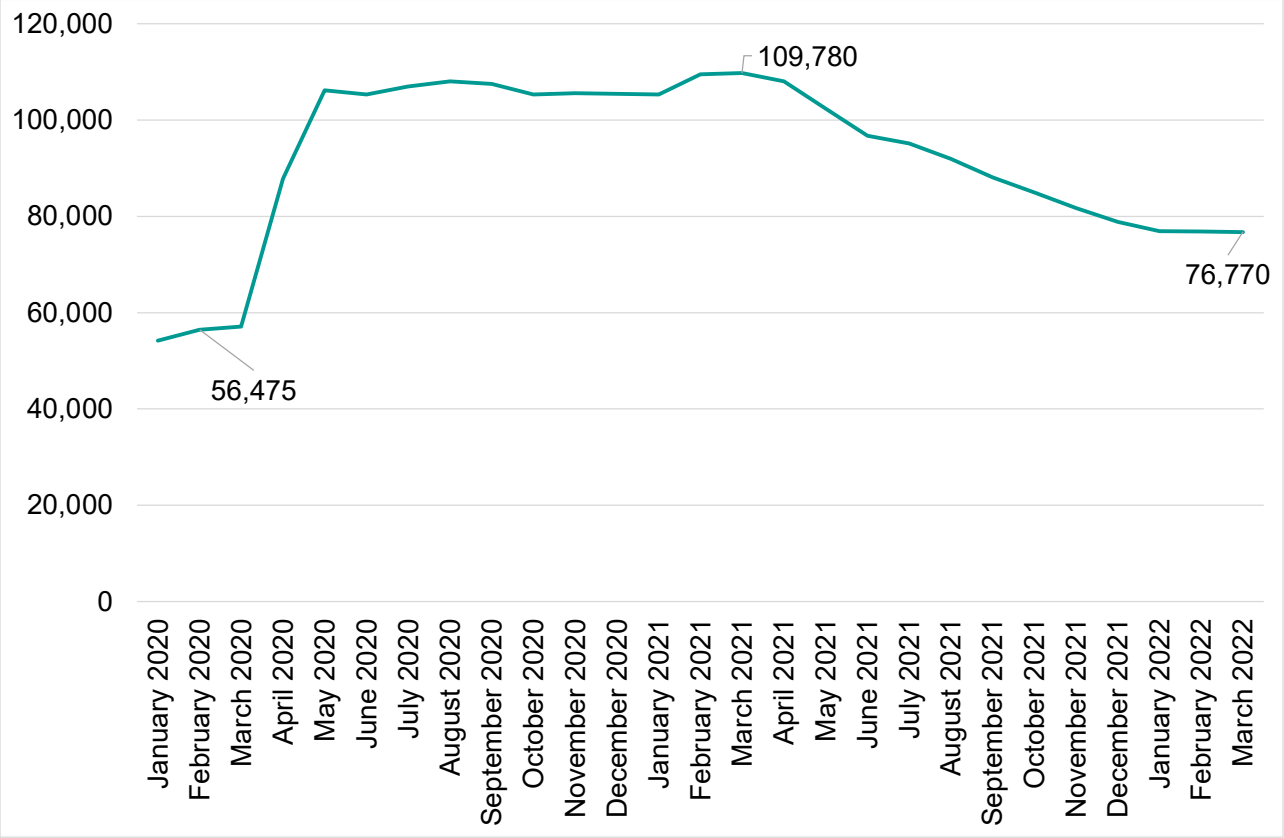
Claimant unemployment has fallen steadily over the last year

The Claimant Count experimental dataset seeks to measure the number of people claiming benefits (Universal Credit and Jobseekers' Allowance) principally for the reason of being out of work[12]. It provides a timely picture of joblessness at local level and is therefore a key indicator of the impact of Covid-19 on the labour market.

The current picture is one of steady improvement

The claimant count registered a large increase in April and May of 2020 as the effects of the pandemic were felt, growing by 49,200 or 86% compared with March of that year. This was followed by a levelling-off for a period of months before the count began to fall from April 2021 onwards. There have been falls each month since then.

Figure 10: Claimant count, West Yorkshire



Source: Claimant count, ONS

However, as of March 2022 the claimant count was still 20,300 or 36% higher than pre-pandemic (February 2020) in West Yorkshire. Nationally, the count is still 44% higher than before the pandemic. The picture varies between local authorities, ranging from 25%

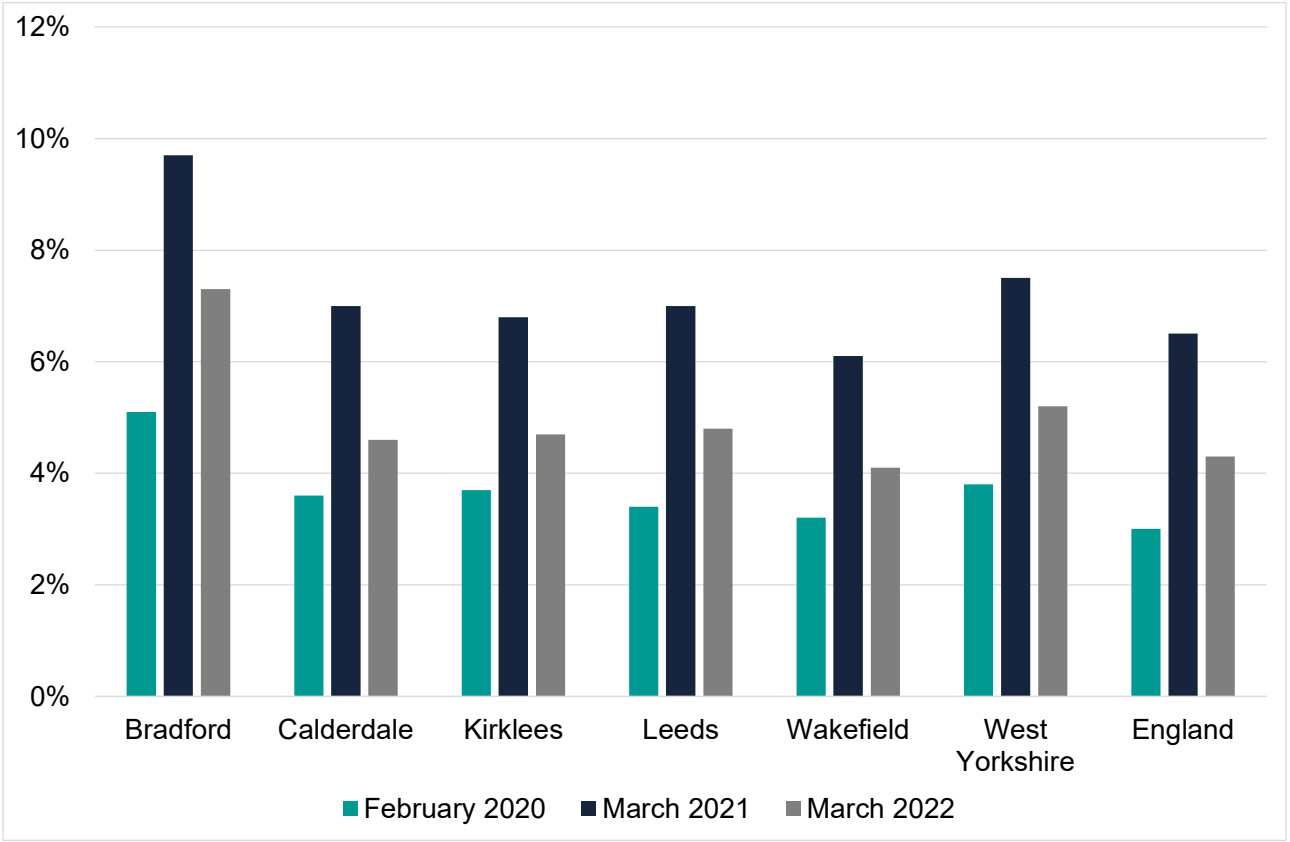
[12] Enhancements to Universal Credit as part of the UK government's response to the coronavirus mean that an increasing number of people became eligible for unemployment-related benefit support, although still employed. Consequently, changes in the Claimant Count will not be due wholly to changes in the number of people who are unemployed. However, national data suggest that only around 100,000 (or 7%) of the recent growth in the claimant count is accounted for by people in work but with low earnings.

higher in Kirklees to 41% higher in Leeds and 43% higher in Bradford, showing different rates of recovery.

The claimant rate is highest in Bradford

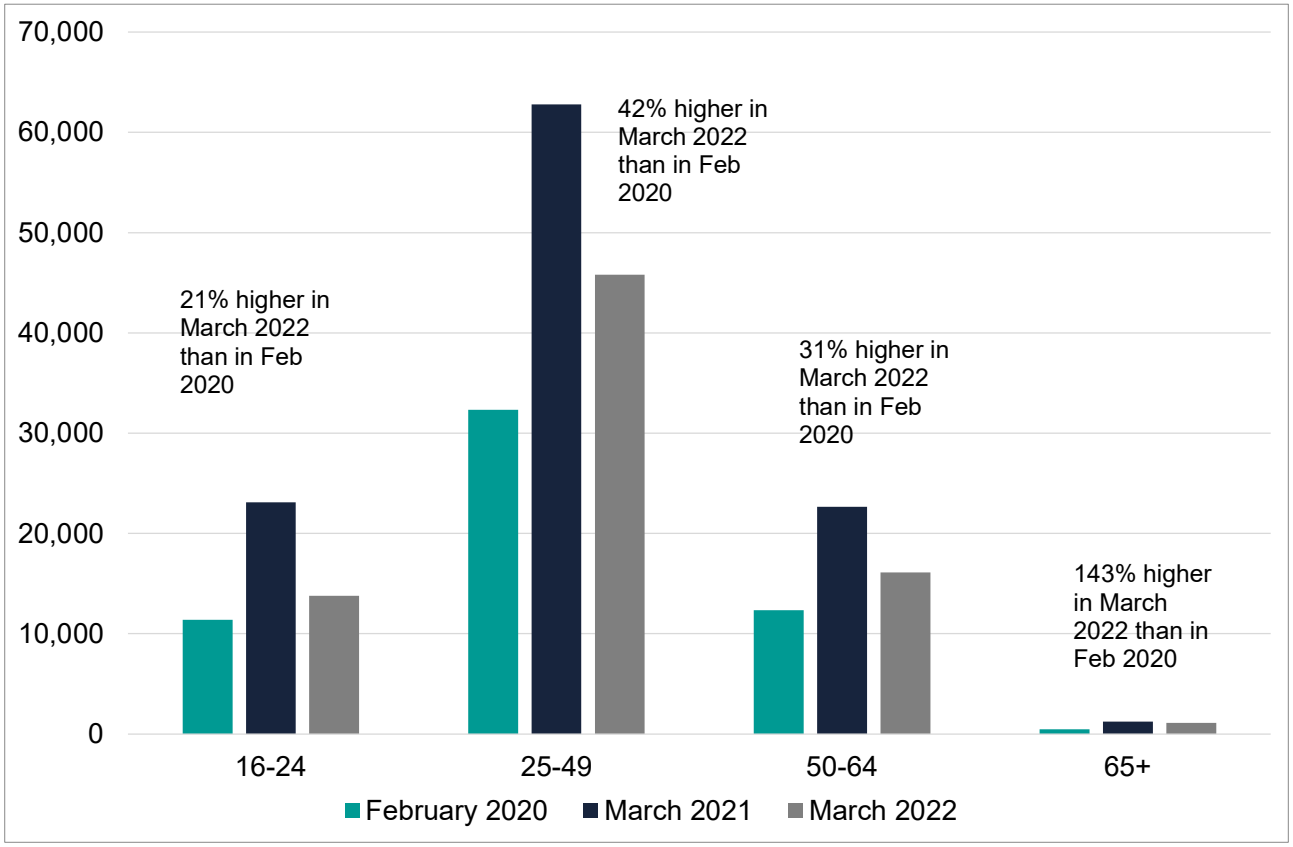
The claimant rate (claimants expressed as a proportion of the population aged 16-64) has remained above the national average in West Yorkshire throughout the pandemic. The current figure of 5.3% is higher than the England rate of 4.4% and all local authorities have rates above the national average, except Wakefield (4.2%). Bradford's rate of 7.4% is the highest in West Yorkshire and among the highest in the country. Claimant rates remain above their pre-pandemic level throughout West Yorkshire.

Figure 11: Claimant rate trend (claimants as a proportion of residents aged 16-64)



Source: ONS claimant count

Figure 12: Claimant unemployment by age, West Yorkshire



Source: ONS claimant count

The claimant count grew fastest among young people at the start of the pandemic but has also recovered more quickly than for other age groups. There are still 21% more young people on the claimant count in March 2022 than in February 2020 but this is lower than the 42% figure for 25-49 year olds and the 31% figure for those aged 50-64.

3 Demand for skills

This section provides an overview of the demand for skills in the West Yorkshire economy, based on the profile of jobs locally and the skills required to do those jobs. It considers the current picture and the way in which the pattern of demand is expected to develop in the future.

3.1 Employment rate

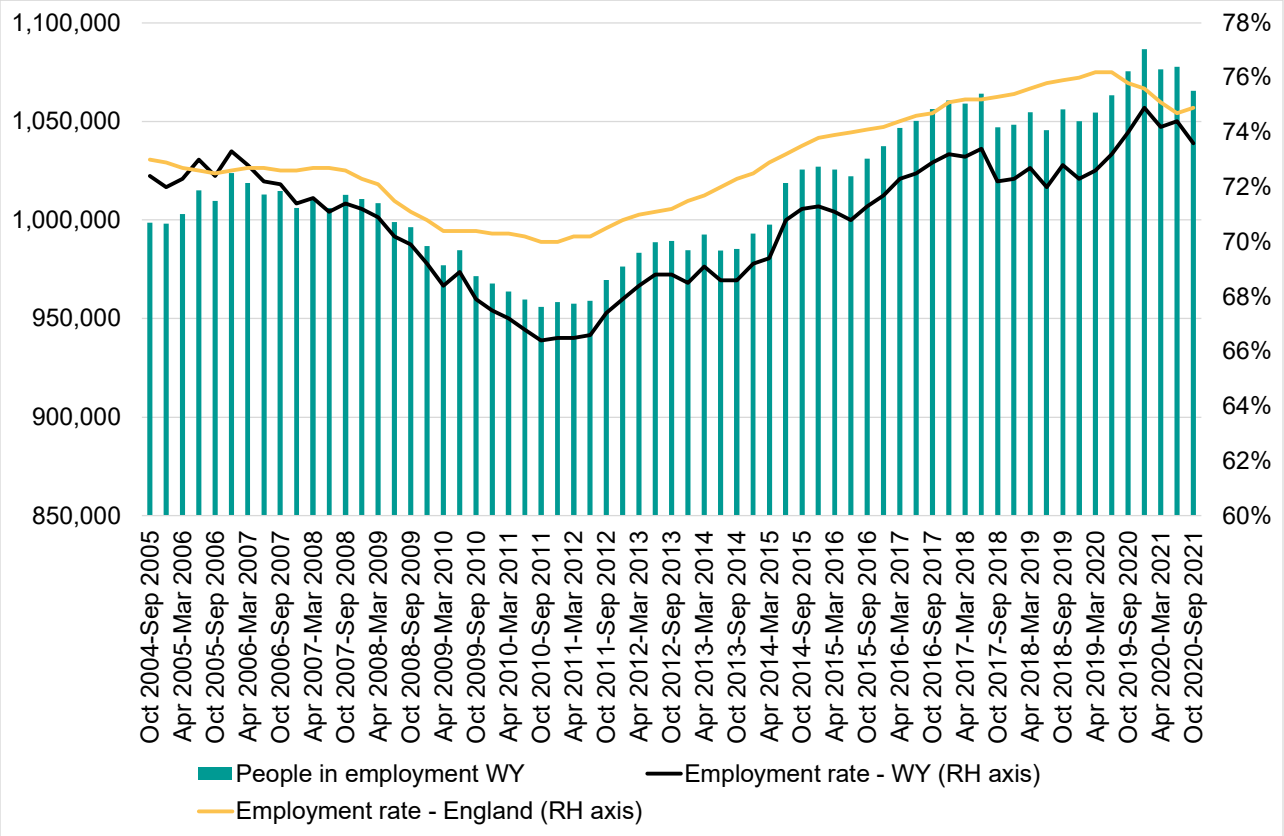
The level of employment is the main indicator of the overall demand for labour in the area. It is difficult to measure the impact of COVID-19 and the subsequent recovery on employment in local economies using official data. This is because we are reliant on the Annual Population Survey, which draws on averages of12 months of survey data for its estimates, concealing significant changes that may be happening in the short-term. More timely national and regional (Yorkshire and the Humber) data has been used to supplement the local data.

West Yorkshire's employment rate was negatively affected by the pandemic

There are 1,066,000 people in employment in West Yorkshire based on data for the October 2020 to September 2021 period. The employment rate in West Yorkshire, expressed as a proportion of the population aged 16-64, is slightly below the national average at 74% (versus 75%). An additional 20,000 people would be in employment in West Yorkshire if the employment rate could be raised to the national average.

The local rate has been consistently lower than the England average over the last 15 years and along with the national average has followed an upward trend since 2012, reflecting the progress of the recovery from the global financial crisis. Between 2013/14 and 2020/21 the level of employment increased by 9% in West Yorkshire, the same rate of growth as seen nationally. A decline in the national employment rate, broadly coinciding with the start of the pandemic, has led to near-convergence with West Yorkshire's rate, although West Yorkshire has also seen some evidence of decline in its level and rate of employment.

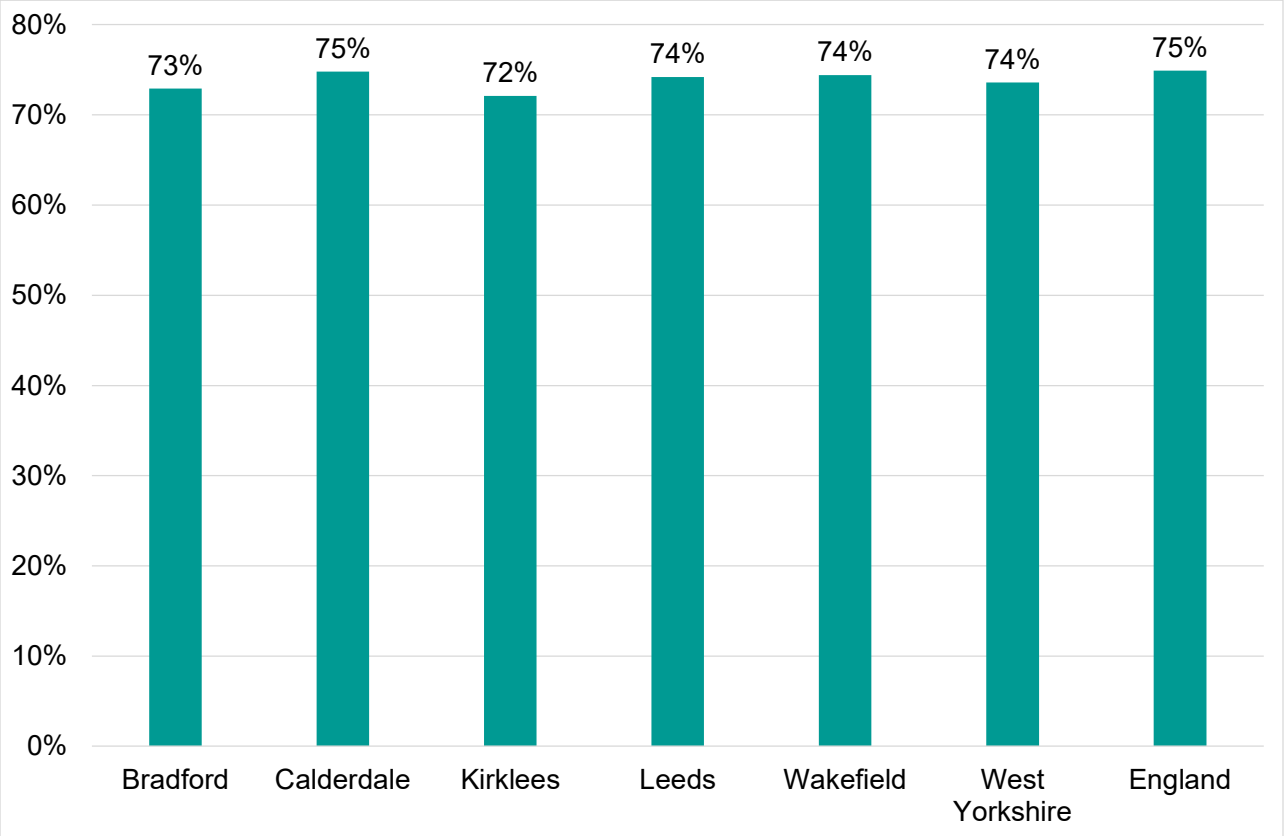
Figure 13: Trend in employment level and employment rate



Source: Annual Population Survey

West Yorkshire's five local authorities have similar employment rates to the West Yorkshire and national averages, according to the latest data. At this spatial level rates have seen a large degree of volatility in recent years, which may partly reflect the margins of error associated with the statistical estimates. Bradford's current rate is somewhat higher than in previous years.

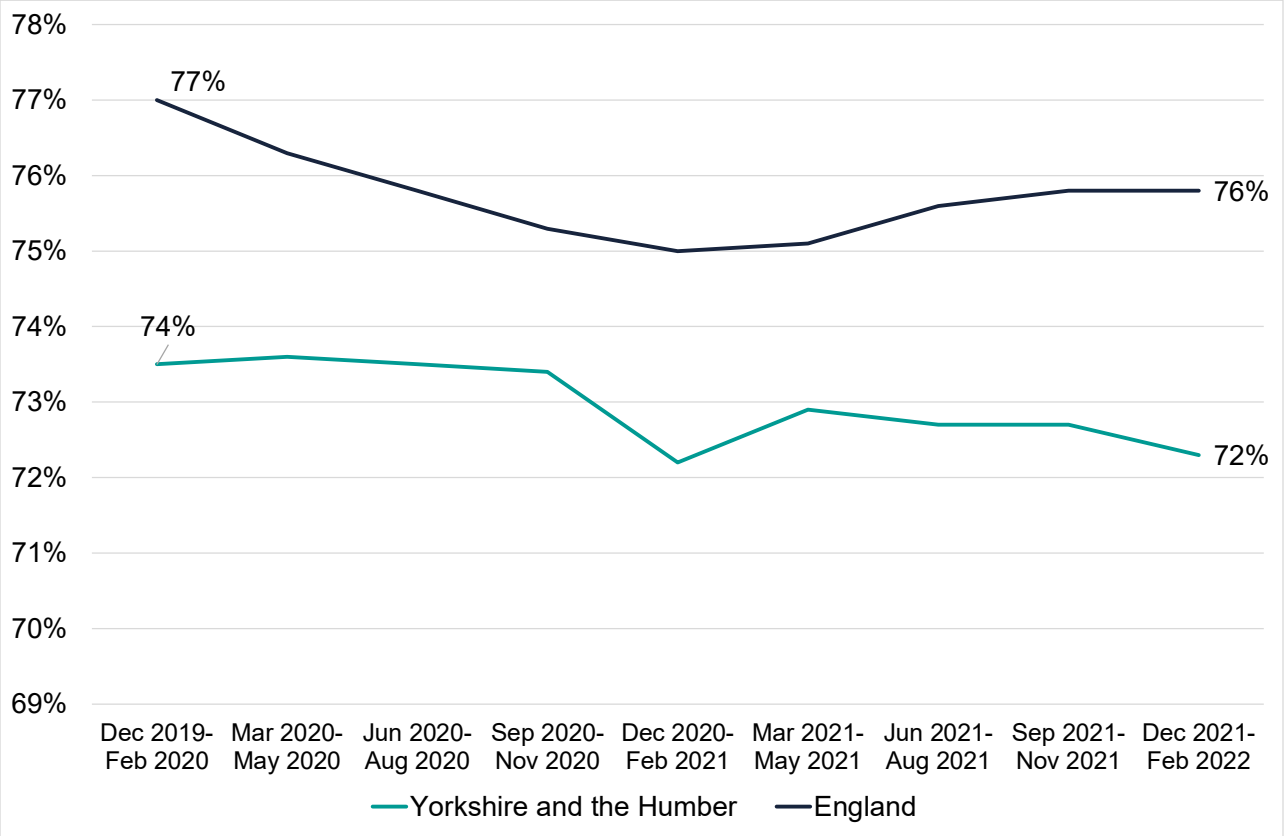
Figure 14: Employment rate by local authority (% of population aged 16-64)



Source: Annual Population Survey, September 2020 to October 2021

Data for the local area does not provide a timely picture of the employment trend. However, data for England and Yorkshire and the Humber provides a more up to date viewpoint.

Figure 15: Trend in employment rate (% of population aged 16-64)



Source: Labour Force Survey, ONS

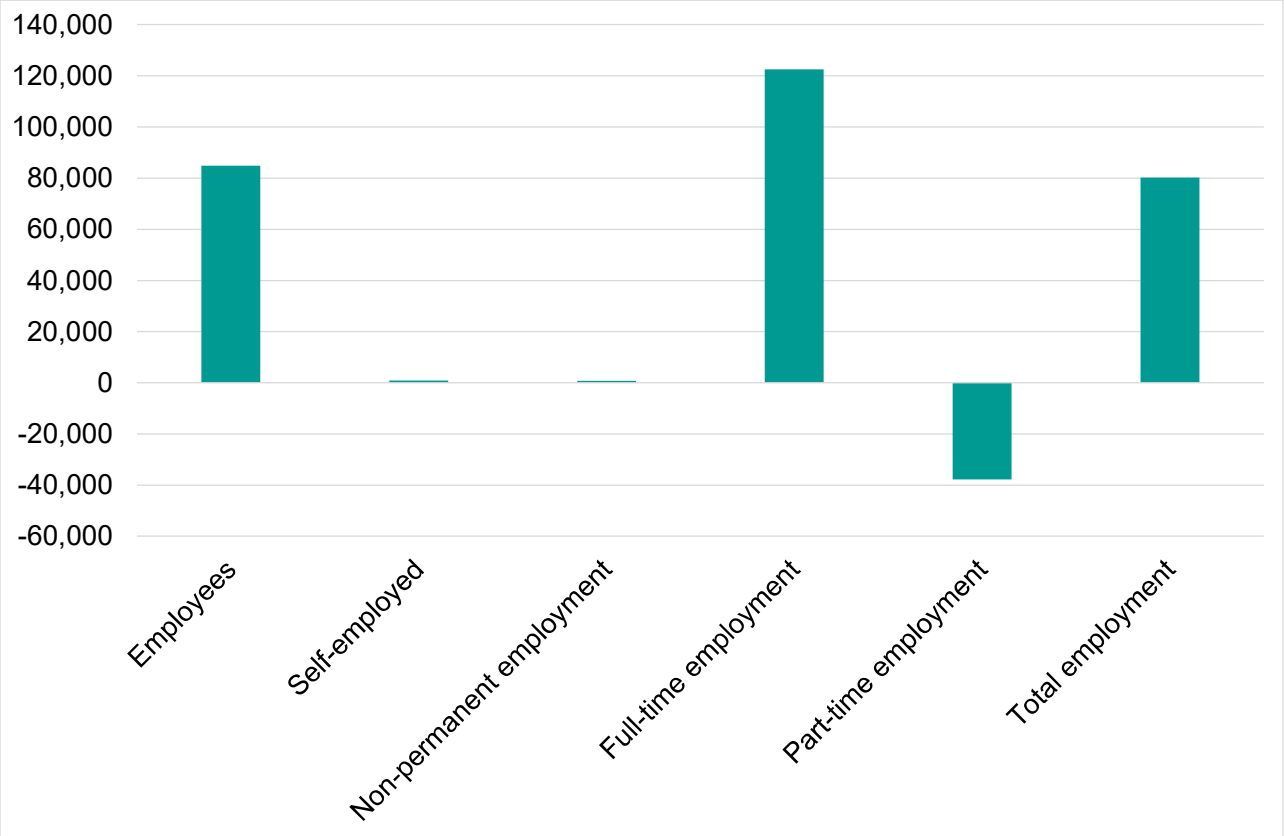
The most recent available data shows that at national level the employment rate began to recover in early 2021 but that as of December 2021 to February 2022 it remains around 1 percentage point below its pre-pandemic level. The latest figure for Yorkshire and the Humber indicates that proportion of people of working age in employment is 2 points below the level observed immediately before the crisis.

Employee jobs and full-time employment have been key contributors to employment growth in the local area in recent years

In overall terms West Yorkshire has seen an upward trend in employment in recent years,; but there is also the question of the nature of the jobs created through that growth. There is a widespread concern about the quality of jobs and in particular the rise of "atypical" forms of employment, including self-employment, part-time employment, temporary employment and zero hours contracts.

As the figure below shows, the strongest areas of growth in absolute terms since 2013/14 have been for employees, with self-employment and non-permanent employment remaining flat. Full-time rather than part-time jobs contributed to net growth over this period, with the latter experiencing net decline.

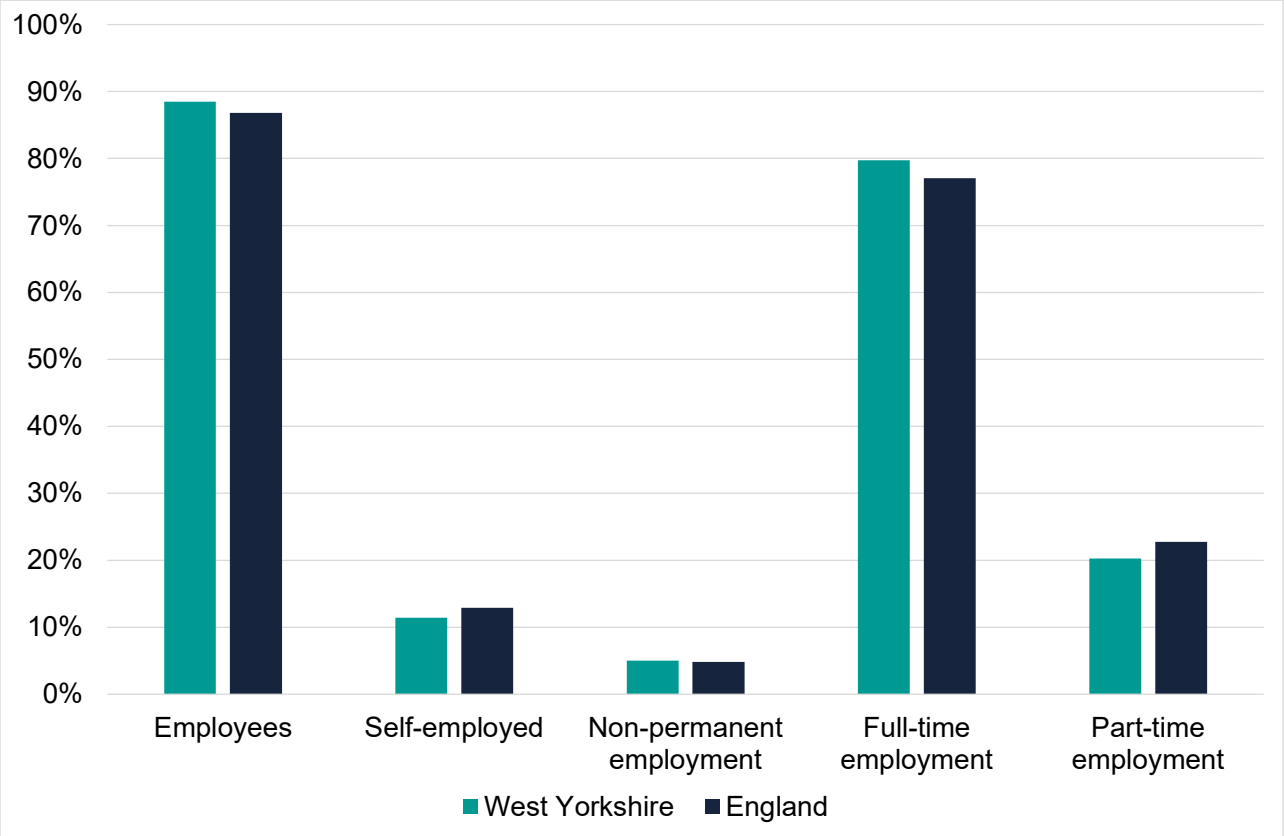
Figure 16: Change in employment by status, West Yorkshire, 2013/14 to 2020/21



Source: Annual Population Survey, September to October periods

West Yorkshire's current employment profile by status is similar to the national average. The key differences are that workers are more likely to be employees and working full-time. The data suggests that local workers are slightly less likely than nationally to be self-employed or working part-time. The proportion employed on a non-permanent basis is similar to the national average in West Yorkshire.

Figure 17: Profile of employment by employment status



Source: Annual Population Survey, September 2020 to October 2021

Published figures are not available at local level in respect of zero hours contracts. People on such contracts account for around 3.0% of all employment across Yorkshire and the Humber[13]. Assuming that West Yorkshire has the same prevalence as regionally this would imply that there are around 32,000 people who are employed on zero hours contracts in West Yorkshire.

3.2 Sectoral employment profile

The sectoral make-up of a local area is an important determinant of the workforce skills that are required. Sectors have distinctive occupational employment structures with implications for skill requirements.

As of 2020 there was a total of 1,179,000 workforce jobs in West Yorkshire, including employee jobs, self-employed jobs and jobs in HM forces. This comprises jobs done by residents and jobs done by workers who commute into the area.

[13] Source: EMP17: People in employment on zero hours contracts, ONS, February 2022

West Yorkshire has employment of 1,068,000 based on data from the Business Register and Employment Survey (BRES), including employees and working owners in PAYE-registered firms.

Among the largest sectors by employment are health and social care and manufacturing

Focusing on the profile of these jobs in absolute terms, the largest broad sectors are Health and social care (141,000 jobs; 13%); and Manufacturing (105,000; 10%); together with Business administration and support services (110,000; 10%). The biggest component of this latter sector is employment agency activity as well as activities like rental and leasing and travel agencies.

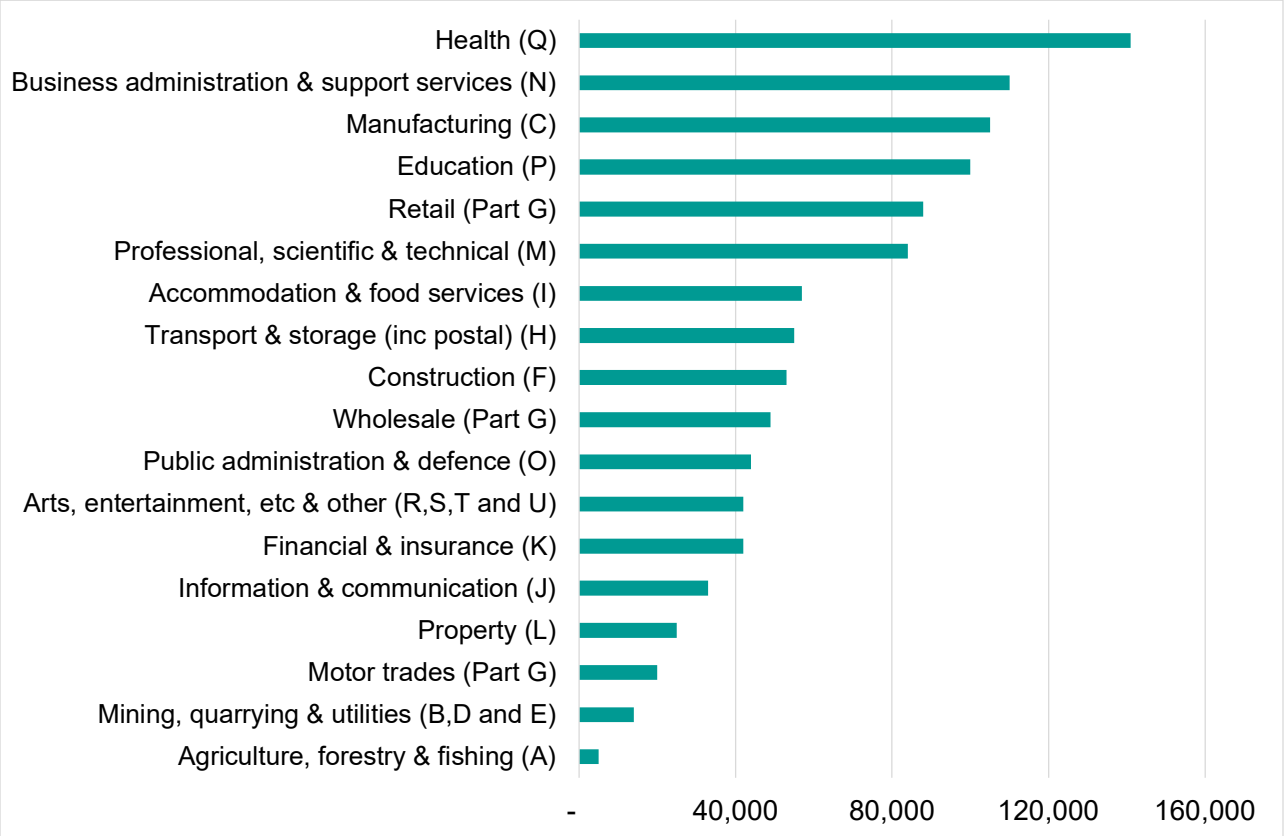
In addition to Health and social care there is also significant further employment in activities that are primarily public sector-based, including Education (100,000; 9%) and Public administration and defence (44,000; 4%).

In respect of business-related services, Professional service activities account for employment 84,000 (8%)

Finance and Information and communication are much smaller contributors to employment, with 4% and 3% of total employee jobs respectively – they are modest in relative terms but still substantial areas, with employment of 44,000 and 33,000 respectively.

This analysis also indicates that there is employment of 54,000 in Construction but it should be noted that does not include the full range of self-employment in this sector.

Figure 18: Employment by industry (SIC section), West Yorkshire, 2020



Source: Business Register and Employment Survey, 2020

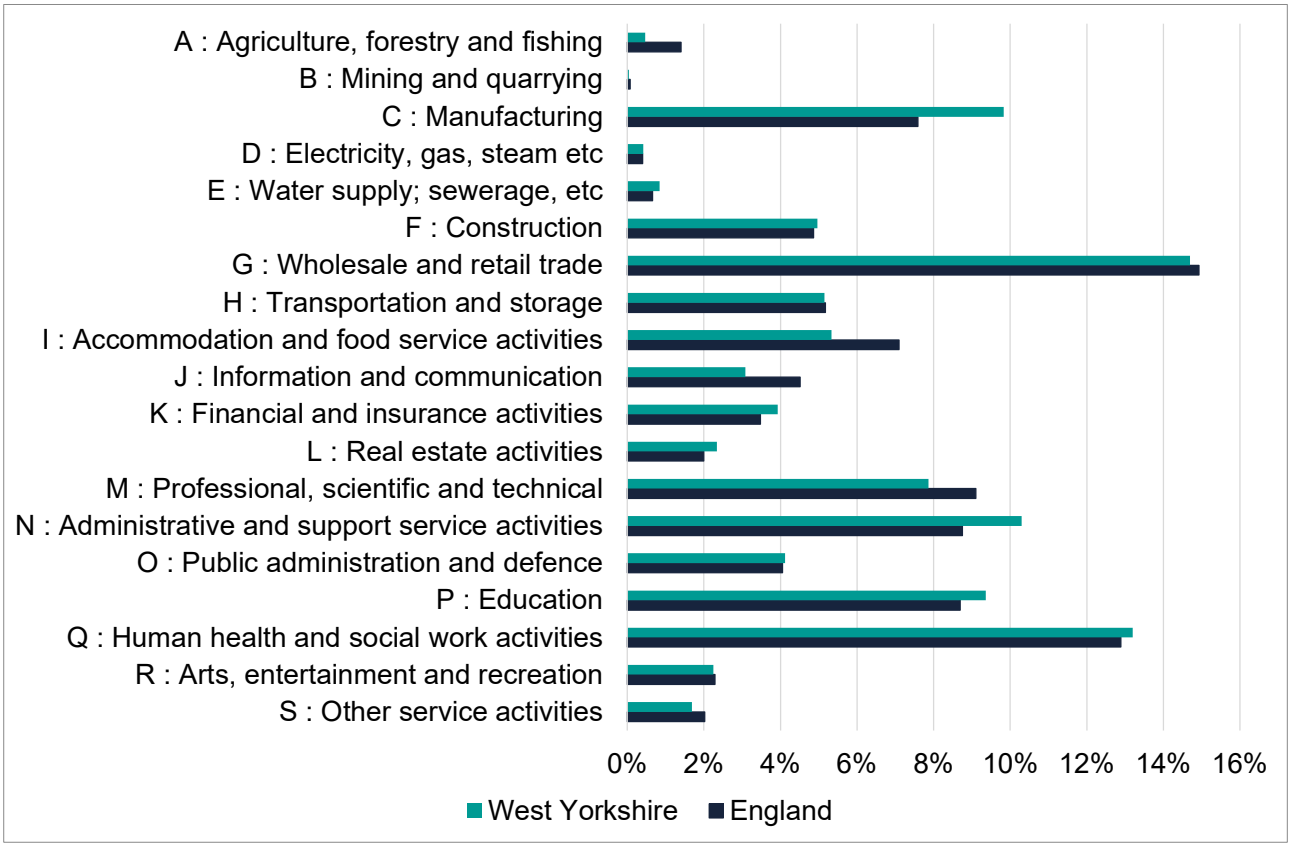
Overall, there are 202,000 public sector employee jobs in West Yorkshire, based on the Office for National Statistics' broader definition. This equates to 19% of total employment, somewhat higher than the national average of 16%. The proportion ranges from 15% in Calderdale to 22% in both Wakefield and Bradford.

West Yorkshire has key specialisms in manufacturing and financial services

How does WY compare with sectoral employment profile at national level?

The figure below compares the employment profile of West Yorkshire by industry sector with that of England, based on the latest available data.

Figure 19: Comparative sectoral employment profile (% of total employment)



Source: Business Register and Employment Survey, 2020

Manufacturing is strongly represented in West Yorkshire. In proportionate terms it is around a third larger than nationally. Manufacturing specialisms in West Yorkshire which are also significant in absolute terms include, manufacture of food, textiles, chemicals, fabricated metal products, machinery and furniture.

Financial service activities account for 42,000 jobs in West Yorkshire and this sector is also strongly represented with a location quotient of 1.11.

As the chart shows there are a number of sectors that account for a small share of jobs in West Yorkshire relative to the national employment profile. *Agriculture* and *Mining* are both small in absolute terms, but *Accommodation and food service* is substantial, even though it only accounts for three-quarters of the job share of its national counterpart.

Other sectors that account for a small share of employment in West Yorkshire compared to nationally are *Information and Communication* and *Professional services* (section M).

Some of the largest sectors in the economy including *Wholesale and retail*, *Construction* and *Public administration* are broadly in line with the national average in terms of their share of local employment.

Knowledge-intensive services are key to prospects for local economies since as highly productive sectors they are an important potential source of growth and are skills-intensive in employment terms. Employment in this area contributes 49% of total employment in West Yorkshire the same proportion as nationally. Wakefield and Kirklees have the lowest proportions of employment in this area, each with 41%, rising to 56% of total employment in Leeds.

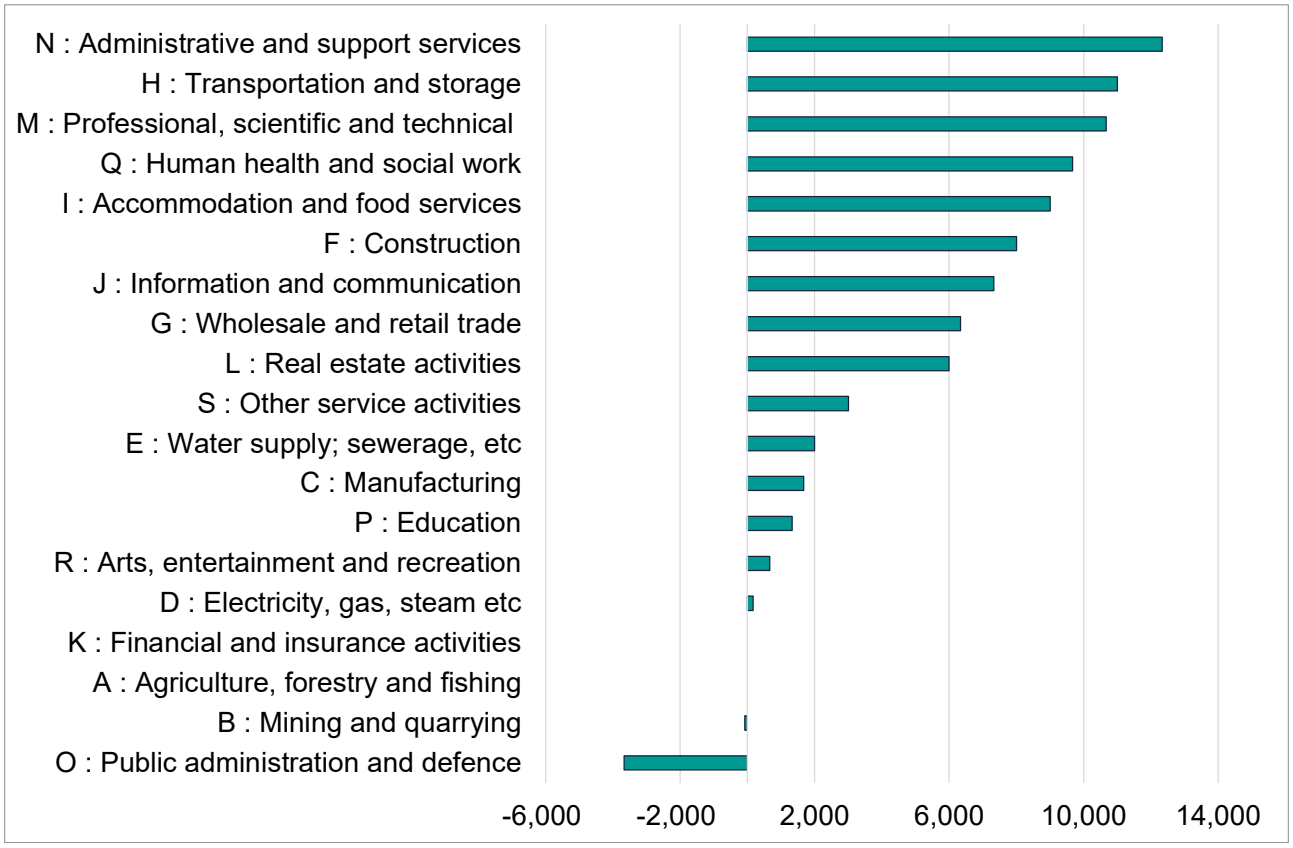
3.3 Patterns of sectoral employment change

The pattern of growth and decline across industry sectors is a key driver of change in terms of skills requirements.

Service activities have been the main sources of recent sectoral employment growth but manufacturing and construction also grew

Jobs data by industry are available for employee jobs but they are subject to volatility over time at local level and therefore two periods of three years each (2012 to 2014 and 2018 to 2020) have been used in order to discern underlying trends. Based on these three year averages the total number of employee jobs grew by 9% or 86,000 between the two periods. This analysis shows that a combination of consumer and business-focused service activities were the main contributors to growth in recent years.

Figure 20: Employment change by industry, 2018 to 2020 versus 2012 to 2014, West Yorkshire



Source: Business Register and Employment Survey

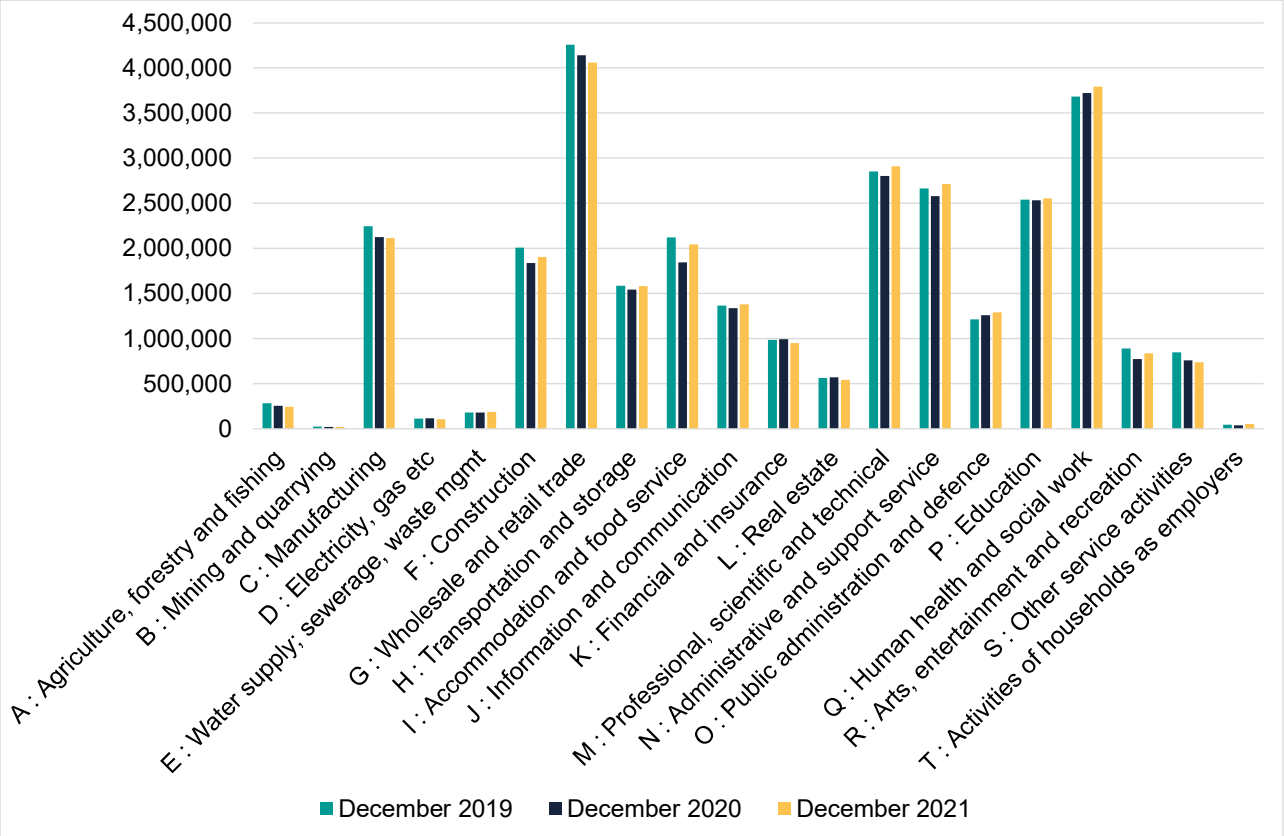
The business service categories of *Administration and support services*, *Transportation and storage* and *Professional scientific and technical activities* had the highest net employment growth followed by *Health* and *Accommodation and food services*. Looking beyond services, *Construction* also grew substantially over this period, as did *Manufacturing*, albeit only to a modest extent.

Only one broad sector saw a notable level of net decline over this period: *Public administration*. However, more timely national data suggests that this sector is likely to have expanded during the pandemic.

The latest national data indicates that some sectors have not fully recovered in employment terms following the pandemic

National data provides a timely and reliable picture of employment trends at sector level, giving an insight into how sectors are recovering following COVID-19. Analysis of the latest Workforce Jobs data shows that some sectors still have significant ground to recover following the pandemic.

Figure 21: Trend in total workforce jobs, England



Note: Total workforce jobs is a sum of employee jobs, self-employment jobs, government-supported trainees, HM forces.
Source: Workforce Jobs, ONS

The number of workforce jobs fell by 3% during the early part of the pandemic, between December 2019 and December 2020. A wide range of sectors shared in the decline, including *Accommodation and food service*, *Manufacturing*, *Construction*, *Wholesale and retail* and *Arts, entertainment and recreation*. Some sectors grew, however, most notably *Public administration* and *Health and social work*.

As the economy adapted and then recovered, employment grew by 2% between December 2020 and December 2021, with most sectors sharing in the growth (with the key exception of *Wholesale and retail*). However, aside from *Public administration*, *Education* and *Health and social work*, only a few sectors currently have employment that is equal to or higher than pre-pandemic; including *Information and communication*, *Professional, scientific and technical*, *Transportation and storage* and *Administrative and support* service.

Manufacturing employment remains 6% below pre-pandemic levels (-134,000), *Construction* 5% below (-102,000), and *Accommodation and food service* 4% below (-76,000). Employment in *Wholesale and retail* continued to decline in this period and is 200,000 below its pre-COVID position.

3.4 Profile of occupational employment

How is employment in West Yorkshire distributed at a detailed occupational level? This gives an insight into the profile of work that people do locally and the skills needed to do that work

Administrative, Elementary admin and service and Business and public service associate professional roles are the biggest occupations in West Yorkshire

The chart below ranks occupational sub-major groups by the level of local employment in each.

The five largest groups, each employing more than 80,000 people in West Yorkshire are:

- *Administrative occupations*, including book-keepers, payroll managers and admin roles in finance and local government, employing 103,000 people.
- *Elementary administration and service* roles (employing 93,000 people), a category which includes hospitality staff such as waiters / waitresses, bar staff and kitchen and catering assistants; cleaners; and elementary storage roles.
- *Business and public service associate professionals* (employing 90,000), a diverse category which includes sales and marketing, human resources, financial and public service roles at the associate professional level.
- *Corporate managers* (employment of 85,000), which comprises management roles from across different parts of the economy, including retail, production managers in manufacturing and construction, financial managers and marketing and sales managers.
- *Caring personal services* (employment of 84,000), which includes care workers and home carers, teaching assistants, nursing auxiliaries and nursery nurses.

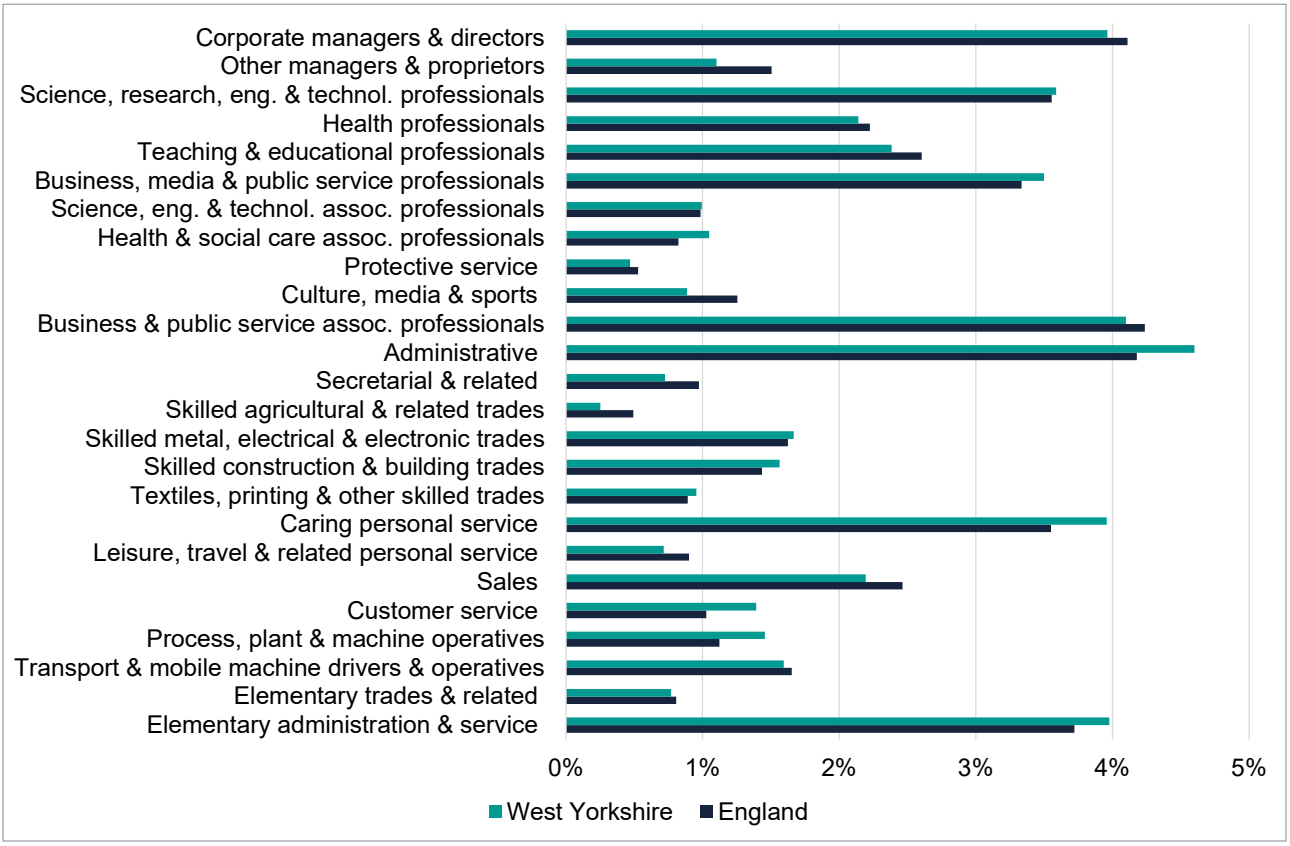
Figure 22: Employment by SOC sub-major group, West Yorkshire

Note: Workplace employment
Source: Annual Population Survey, October 2020-September 2021

It is also useful to understand the distinctive features of occupational employment in West Yorkshire, to gain an insight into specific skill requirements of the locality. The following chart provides a comparison of the occupational distribution of local employment relative to the national picture.

Overall, employment in higher skilled management, professional and associate professional occupations is under-represented in West Yorkshire. These occupations account for 48% of total employment compared with 50% nationally. In absolute terms this represents a deficit of 28,000 fewer people in higher skilled employment.

Figure 23: Comparative sectoral employment profile (% of total employment)



Note: Workplace employment
Source: Annual Population Survey, October 2020-September 2021

Occupational employment in West Yorkshire is weighted towards intermediate and lower-skilled service and labour-intensive roles, as the above figure demonstrates. The share of local employment accounted for by *Administrative* and *Customer service* roles exceeds the national average and this is also the case for semi-skilled operative roles plus caring and elementary administration and service roles.

There are also occupations that are under-represented in West Yorkshire in terms of their share of employment and these include *Agricultural trades* (reflecting the relatively small scale of the agricultural sector locally). In addition, though some higher skilled roles are under-represented, including *Other managers and proprietors* (reflecting West Yorkshire's relatively small business base), *Corporate managers* and *Culture, media and sport* occupations.

3.5 Patterns of change in occupational employment

The changing profile of occupational employment provides an important insight into the evolving demand for skills in the local labour market. .Employment statistics are volatile at local level. In order to gain a clear picture of the more detailed pattern of change in occupational employment over time, figures presented in the figure below have been averaged for a pair of three-year periods: 2012/13 to 2014/15 and 2018/19 to 2020/21.

The occupational area seeing the biggest growth in absolute terms (+23,000) and also the fastest rate of growth for this period (+51%) is ***Science, research, engineering and technology professionals***. This category has seen particularly strong growth in the last couple of years. More detailed occupational data are not published for West Yorkshire but the available data at Yorkshire and the Humber and national level shows that a **rapid increase in employment for digital professionals** (*Information technology and telecommunications professionals*) particularly since the start of the pandemic, is the main driver of growth in this category. Demand for scientists and engineers has also grown but at a much more modest rate.

Business and public service associate professionals also saw substantial grow in both absolute (+16,000) and percentage terms (+20%). More detailed national data indicates broad-based growth across *Business, finance and related associate professionals* (which includes fast-growing categories like finance and investment analysts and advisers), *Sales, marketing and related associate professionals* (particularly sales / account managers) and *Public services and other associate professionals* (with strong growth for human resources specialists).

There has also been strong growth for ***Business, media & public service professionals***. A key driver of expansion in this category has been increasing demand for *Business and financial project management professionals*.

Employment in ***Administrative*** roles grew during this period (+10,300; +13%), although the picture is a volatile one and this occupational area had experienced decline in the period immediately prior to the one under consideration here.

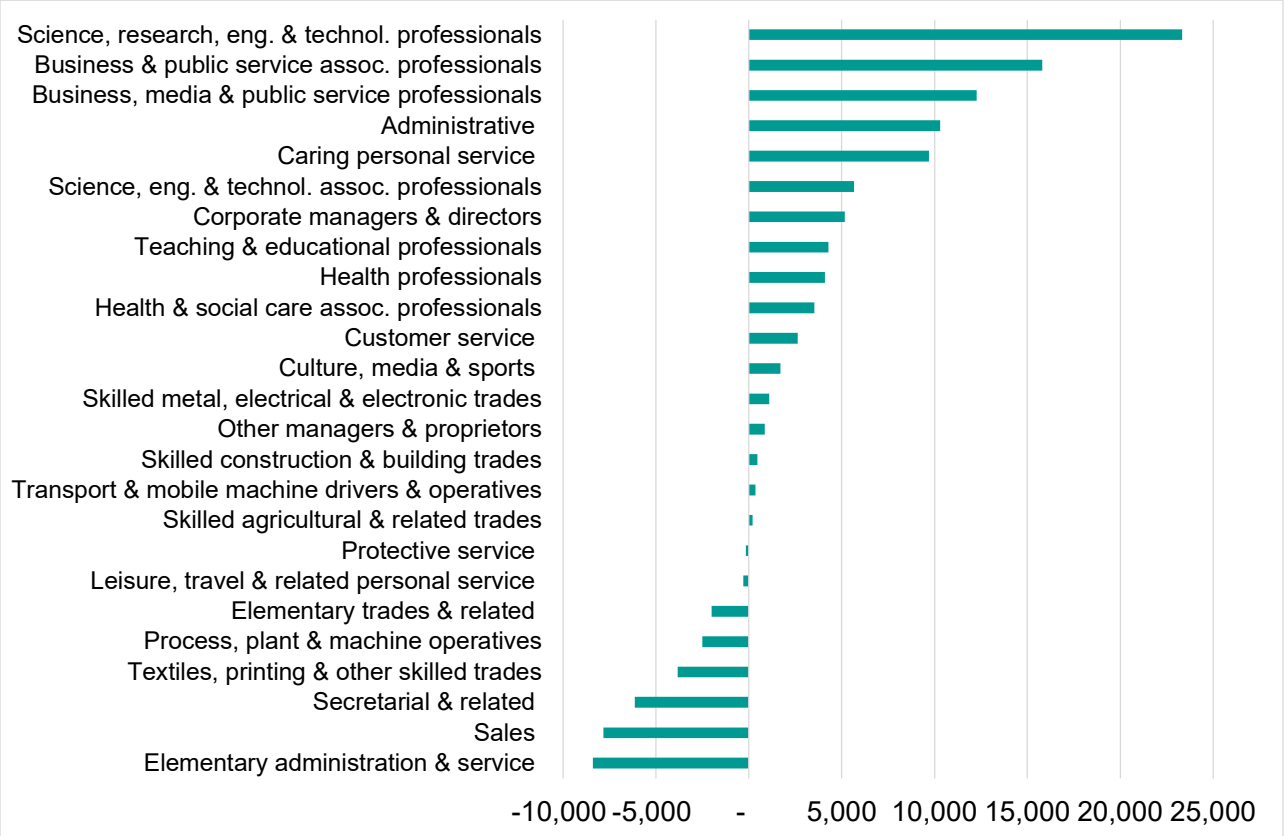
Caring personal services continued its long-term upward trend in employment, with net growth of 10,000 or 12%. National data would suggest that *Care workers and home carers* plus *Nursing auxiliaries and assistants* made substantial contribution to this growth.

Elementary administration and service occupations experienced the biggest decline in employment over this period, falling by 8,000; although because of the large size of this category this equates to a fall of only 8%. National data indicates that reductions in employment for kitchen staff, waiters and waitresses, bar staff and cleaning staff were the main contributors. Much of this decline took place at the latter end of the period and it seems likely that it is associated with the restrictions imposed on the hospitality sector during the pandemic.

Employment in ***Sales occupations*** also fell by 8,000, a 12% rate of decline. Sales assistants and retail cashiers were chiefly affected according to national data. Again, much of this reduction took place around the time of the health crisis, indicating that this was at least partly a contributing factor. However, longer term trends, including the shift to online retail and the introduction of automated check-outs in supermarkets are known to be putting pressure on employment in this area.

Employment in ***Secretarial*** roles fell by 6,000 or 24% over the period, the fastest percentage rate of decline of any occupation. Secretarial employment is characterised by a steady downward trend, reflecting the fact that it is highly exposed to technological developments and changes to working practices.

Figure 24: Net employment change by occupation, West Yorkshire



Note: Shows change between average employment levels for 2012/13 to 2014/15 and 2018/19 to 2020/21
Source: Annual Population Survey

The occupations that saw the fastest rate of growth in percentage terms were, again, higher skilled: Culture, media and sports (+39%: +7,000), Science, engineering and technology associate professionals (+39%; +7,000) and Health professionals (+26%; +10,000).

The categories which saw the most pronounced declines between the two periods were exclusively middle and lower-skilled occupations, most notably Secretarial occupations which saw a decline in employment of 6,000 or 24%. Employment in Sales occupations fell by 3,000 (-4%) and there were also net employment declines for semi-skilled Process, plant and machine operatives and for Elementary trades.

Overall growth in employment is being driven by higher skilled occupations and but also by administrative and caring occupations

The figure, below, shows the trend in employment in West Yorkshire time, splitting out two components - higher skilled occupations – management, professional and associate professional occupational categories, versus the remainder – administrative, skilled trades, care, sales and semi-skilled and lower-skilled manual.

Figure 25: Trend in employment by broad occupational segments, West Yorkshire

Note: Workplace employment
Source: Annual Population Survey, October to September periods

Higher skilled employment grew by 33% between 2006 and 2021, or 132,000 in absolute terms to its current total of 530,000. Meanwhile, employment in the remaining occupations fell by 8% or 49,000.

Therefore, higher skilled employment has increased its share of total employment from 39% in 2006 to 48% in 2021.

Nonetheless this latest 48% share is still less than the England average for high skilled employment of 50%.

3.6 Vacancies (online job postings)

Job vacancies provide a key insight into the level and nature of current labour demand and employer skills needs. At local level this means examining the types of job that are being advertised via online job postings[14] and the skills that are being specified in those

[14] It should be noted that online job postings do not provide a fully representative picture of employer vacancies. Relative to all vacancies higher skilled occupation are over-represented in online postings and middle and lower-skilled occupations are under-represented.

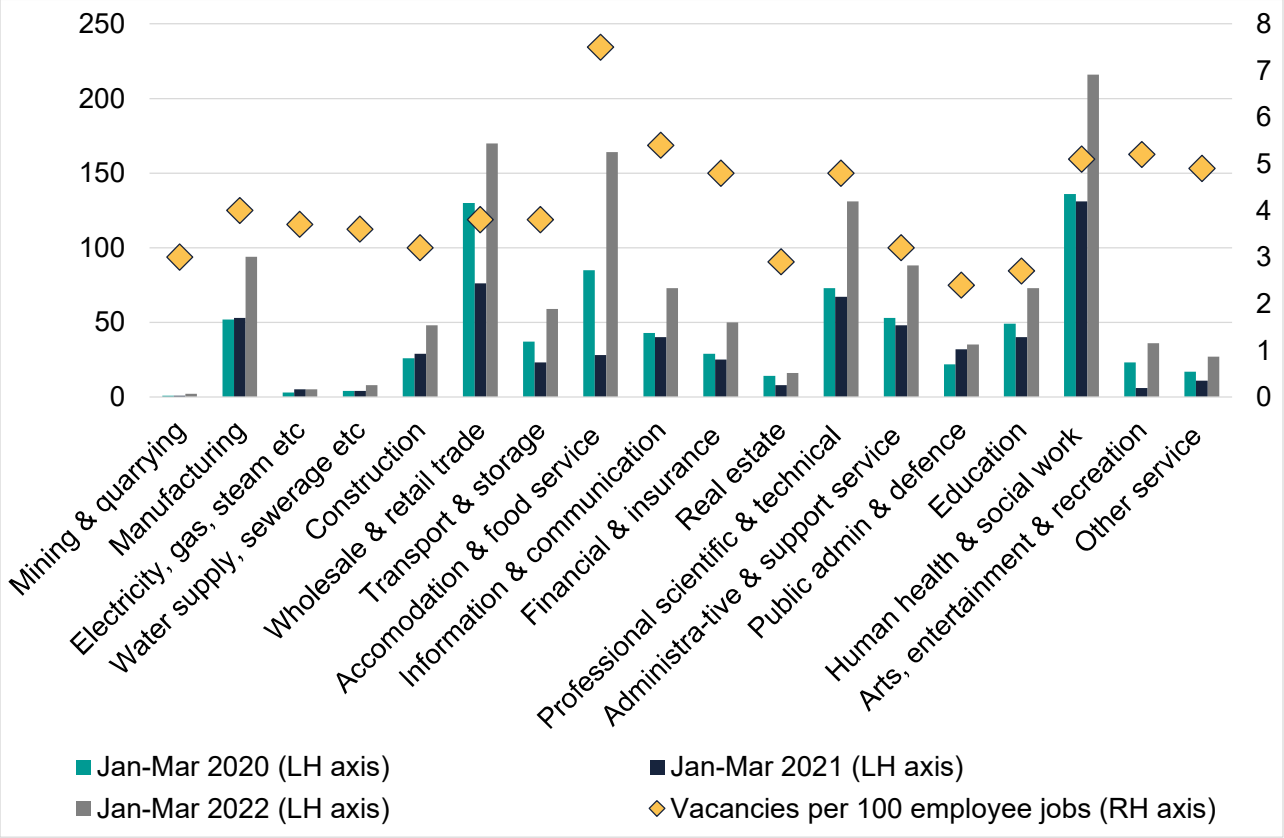
postings. This gives an insight into current recruitment levels and patterns and the timeliness of these data provide an insight into recent developments in a volatile labour market.

National data shows vacancies at record levels for most industries

It is useful to examine the national context for trends in vacancies since reliable published statistics are available at this level.

According to ONS' vacancy survey, the overall level of UK vacancies for January to March 2022 was 1,288,000. This is 106% higher than the same period of 2021 and 62% higher than January to March 2020 (pre-pandemic). Vacancies are at their highest level since these figures were first collected in 2001.

Figure 26: Vacancy levels and vacancies per 100 employee jobs by sector, UK



Source: Vacancies by industry, ONS

Vacancies in all sectors are well in excess of their pre-pandemic level, with particularly strong rates of growth seen in *Accommodation and food service* (+93%), *Construction* (+85%), *Manufacturing* (+81%) and *Professional scientific & technical* (+79%).

As the chart shows, *Accommodation and food service* is the sector with by far the highest ratio of vacancies to employment, reflecting the intense recruitment demand in the sector following the re-opening of the economy. Vacancy rates are also above average in

Information and communication, Arts, entertainment and recreation and *Health and social work*.

Online job postings have grown strongly since the re-opening of the economy although the outlook is uncertain in view of the potential effects of the cost of living crisis and the war in Ukraine

The level of recruitment activity in the local labour market was profoundly affected by the COVID-19 lockdown. However, the count of online job postings for job openings in West Yorkshire recovered to pre-pandemic levels by the autumn of 2020 and has grown since then, gathering momentum with the re-opening of the economy in summer 2021. The impact of the Omicron variant and "Plan B" restrictions announced in December 2021 can be clearly seen but growth soon resumed, with the count of postings reaching new heights in early 2022. West Yorkshire has seen a stronger recovery than nationally throughout this period. The count of postings recorded for March 2022 in West Yorkshire was 175% higher than in March 2020 but only 93% higher at national level.

Figure 27: Index of monthly count of online job postings (monthly average of 2019 = 100)

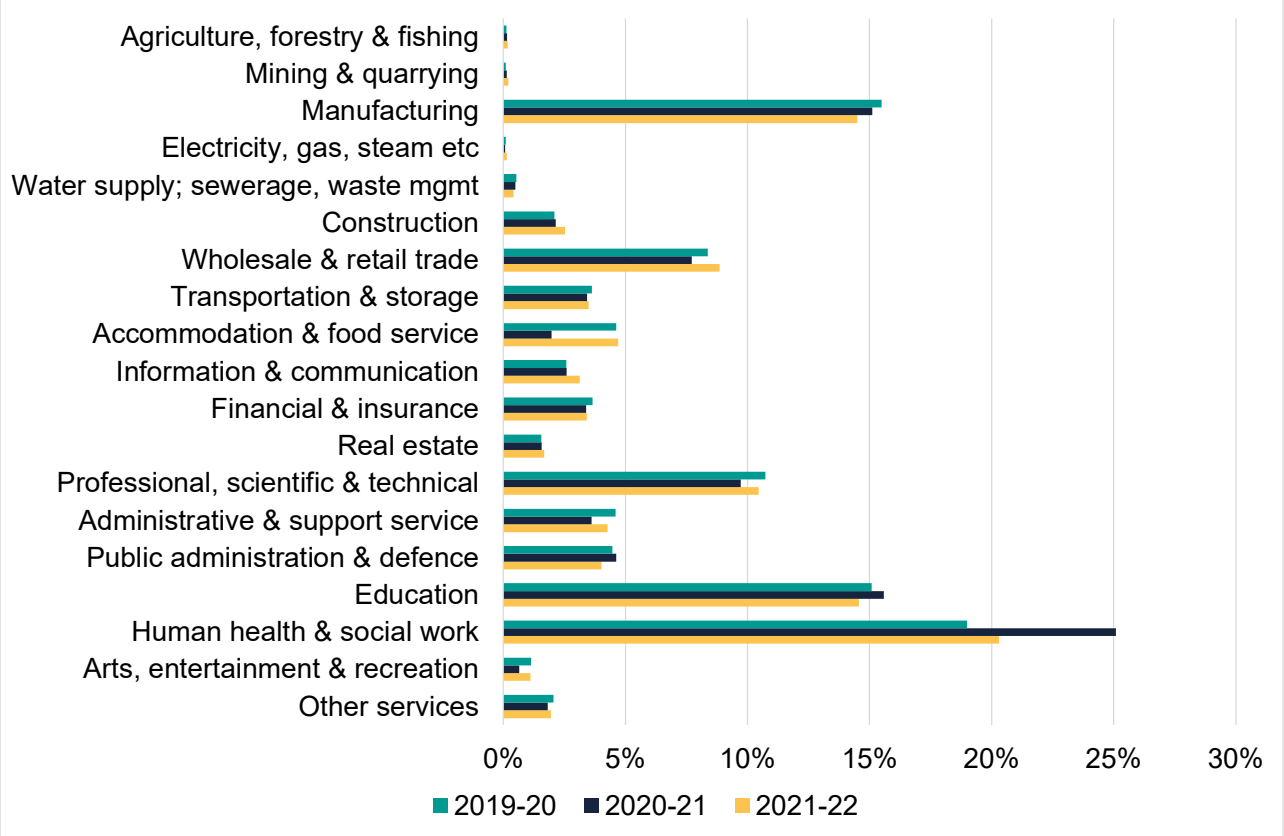
Source: Labour Insight

The count of postings grew in March 2022, both locally and nationally, despite the conflict in Ukraine and the gathering cost of living crisis and labour shortages remain a key issue at the current time. However, the slowdown of the economic recovery resulting from these factors is likely to lead to a moderation in recruitment activity in the months ahead.

The sectoral profile of vacancies appears to be returning to that seen pre-pandemic

How has the profile of recruitment activity changed in West Yorkshire during the pandemic and the subsequent recovery? A comparison of the sectoral and occupational profile of job postings for the 12-month April to March period for three successive years shows how this has evolved.

Figure 28: Change in sectoral profile of job postings West Yorkshire, comparison of April to March period over successive years



Source: Labour Insight

The analysis shows that some sectors increased their share of total postings during 2020-21 due to Covid-19. The most notable example is *Health and social work*, which faced intense demands on its capacity during this period. Other sectors, most obviously *Accommodation and food service* experienced a sharp decline in its share of postings in 2020-21 as much of its activities were restricted during prolonged lockdown periods. This was also the case for sectors such as *Arts, entertainment and recreation* and *Retail*. However, as the chart demonstrates the negatively affected sectors have expanded recruitment activity during 2021-21 and the overall profile of online job postings has broadly returned to the pre-pandemic picture. *Health and social work*, *Manufacturing* and *Education* are the sectors with the largest volume of postings in absolute terms.

Higher skilled occupations are ranked highest in terms of volume of postings

As Figure 29 shows, the occupational categories with the greatest number of postings are mostly higher skilled, professional and associate professional groups[15], with the top ranked being *Science, research, engineering and technology professionals*, *Business, media and public service professional* and *Business and public service associate professional*.

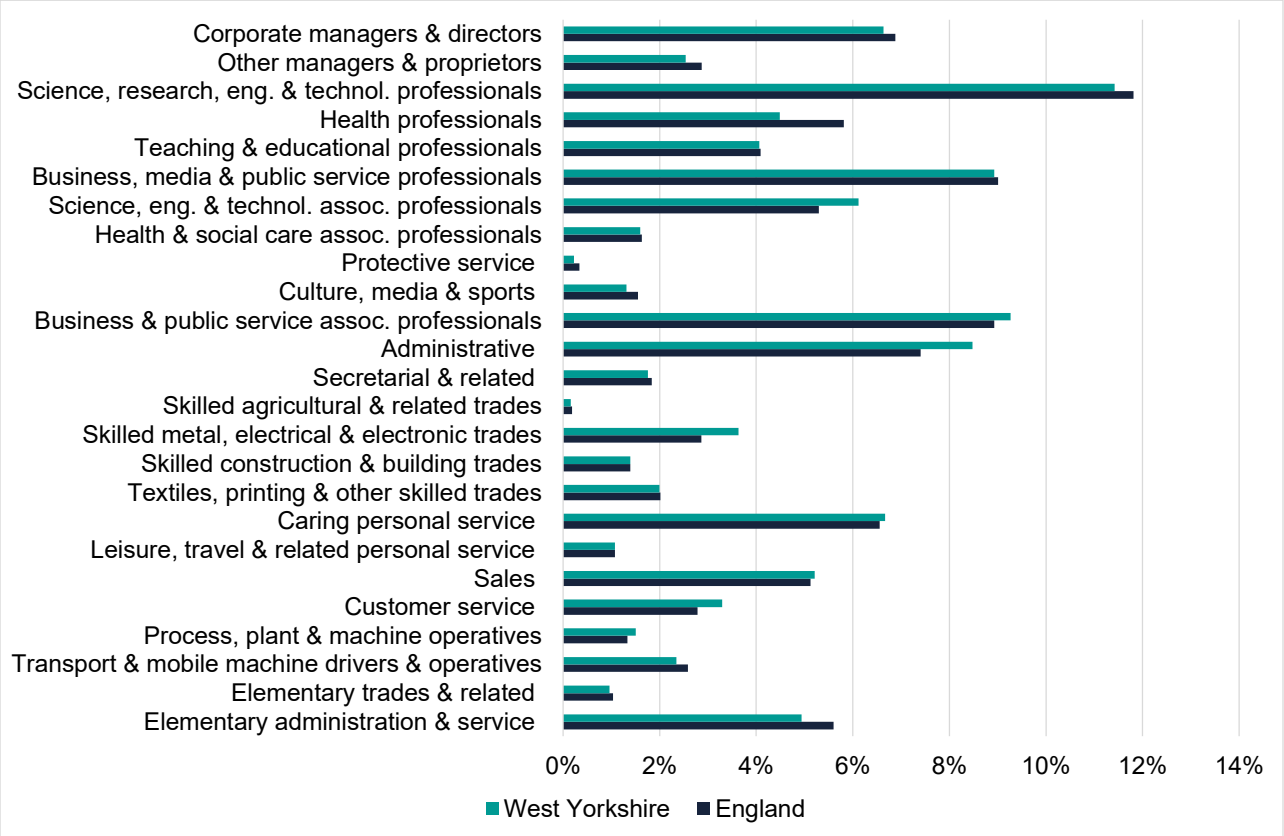
Administrative occupations are ranked fourth, reflecting the high level of employment in this occupation within West Yorkshire.

The occupational profile of local job postings is broadly similar to the national average, although there are differences at local authority level

The occupational profile of West Yorkshire's job postings is similar to the national picture, based on an analysis of postings for the 12-month period of April 2021 to March 2022, reflecting the depth and diversity of the local economy. However, the picture varies markedly at local authority level.

[15] See Table 1 on page 61 for details of the occupational categories.

Figure 29: Occupational profile of online job postings, April 2021 to March 2022



Source: Labour Insight

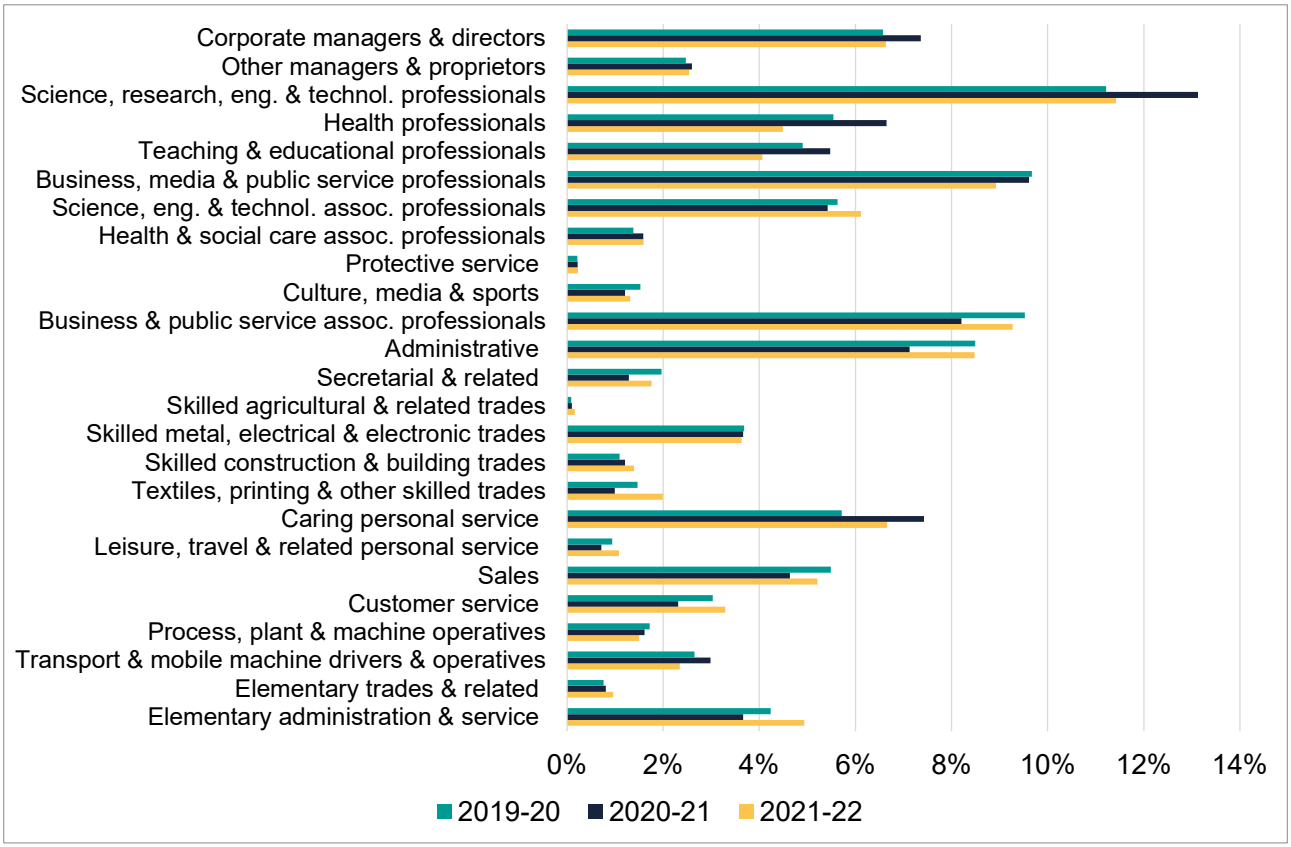
Higher skilled management, professional and associate professional occupations account for a similar proportion of total postings in West Yorkshire compared with nationally, at a combined 57% versus 58%. In Leeds the proportion is above the national average at 63% but it falls to 51% in Bradford and only 40% in Calderdale, 48% in Kirklees and 47% in Wakefield. Almost two-thirds of postings for higher skilled jobs across the five local authorities relates to opportunities in Leeds.

Relative to the national average Leeds has strong demand for *Corporate managers*, *Science, research, engineering and technology professionals* (including digital professionals), *Business, media and public service professionals* and *Business and public service associate professionals*.

Elsewhere in the occupational spectrum, several occupational categories account for a larger share of total postings at West Yorkshire level than nationally, most notably *Science, engineering and technology associate professional*, *Administrative*, *Skilled metal, electrical & electronic trades* and *Customer service* roles. Meanwhile, lower-paid *Elementary administration & service* roles account for a lower proportion of total postings than the national average.

All local authorities except Leeds have strong demand for *Skilled metal, electrical and electronic trades* and *Caring personal service occupations*, reflected in shares of total postings that are above the national average. However, this is offset in the West Yorkshire level analysis by Leeds' relatively small shares of postings in these occupations.

Figure 30: Change in occupational profile of job postings West Yorkshire, comparison of April to March period over successive years



Source: Labour Insight

Table 1: Examples of detailed occupations falling within occupational categories

	Occupational category (sub-major group)	Examples of detailed occupations with greatest volumes of postings
11	Corporate managers and directors	• Marketing and sales directors • Financial managers and directors • Production managers and directors in manufacturing
12	Other managers and proprietors	• Property, housing and estate managers • Residential, day and domiciliary care managers and proprietors • Restaurant and catering establishment managers and proprietors
21	Science, research, engineering and technology professionals	• Programmers and software development professionals • IT business analysts, architects and systems designers • Engineering professionals n.e.c. • Civil engineers
22	Health professionals	• Nurses • Medical practitioners • Pharmacists
23	Teaching and educational professionals	• Primary and nursery education teaching professionals • Secondary education teaching professionals • Higher education teaching professionals
24	Business, media and public service professionals	• Chartered and certified accountants • Management consultants and business analysts • Solicitors • Business and financial project management professionals
31	Science, engineering and technology associate professionals	• IT user support technicians • Engineering technicians • Science, engineering and production technicians n.e.c. • IT operations technicians
32	Health and social care associate professionals	• Health associate professionals n.e.c. • Welfare and housing associate professionals n.e.c. • Medical and dental technicians • Pharmaceutical technicians
33	Protective service occupations	• Prison service officers (below principal officer)
34	Culture, media and sports occupations	• Sports coaches, instructors and officials • Graphic designers • Authors, writers and translators • Fitness instructors
35	Business and public service associate professionals	• Human resources and industrial relations officers • Marketing associate professionals • Finance and investment analysts and advisers • Business sales executives
41	Administrative occupations	• Other administrative occupations n.e.c. • Book-keepers, payroll managers and wages clerks • Office managers • Transport and distribution clerks and assistants • Financial administrative occupations n.e.c.
42	Secretarial and related occupations	• Receptionists • Personal assistants and other secretaries • Company secretaries

	Occupational category (sub-major group)	Examples of detailed occupations with greatest volumes of postings
51	Skilled agricultural and related trades	• Gardeners and landscape gardeners
52	Skilled metal, electrical and electronic trades	• Vehicle technicians, mechanics and electricians • Electricians and electrical fitters • Electrical and electronic trades n.e.c. • Welding trades
53	Skilled construction and building trades	• Plumbers and heating and ventilating engineers • Carpenters and joiners • Painters and decorators
54	Textiles, printing and other skilled trades	• Chefs • Catering and bar managers • Cooks • Printers
61	Caring personal service occupations	• Care workers and home carers • Teaching assistants • Nursery nurses and assistants • Nursing auxiliaries and assistants • Dental nurses
62	Leisure, travel and related personal service occupations	• Hairdressers and barbers • Caretakers • Housekeepers and related occupations • Sports and leisure assistants
71	Sales occupations	• Sales related occupations n.e.c. • Sales and retail assistants • Sales Supervisors
72	Customer service occupations	• Customer service occupations n.e.c. • Customer service managers and supervisors • Call and contact centre occupations • Telephonists
81	Process, plant and machine operatives	• Metal working machine operatives • Plant and machine operatives n.e.c. • Construction operatives n.e.c. • Assemblers (vehicles and metal goods)
82	Transport and mobile machine drivers and operatives	• Van drivers • Large goods vehicle drivers • Fork-lift truck drivers
91	Elementary trades and related occupations	• Elementary construction occupations • Elementary process plant occupations n.e.c. • Packers, bottlers, canners and fillers
92	Elementary administration and service occupations	• Elementary storage occupations • Kitchen and catering assistants • Cleaners and domestics • Security guards and related occupations • Bar staff

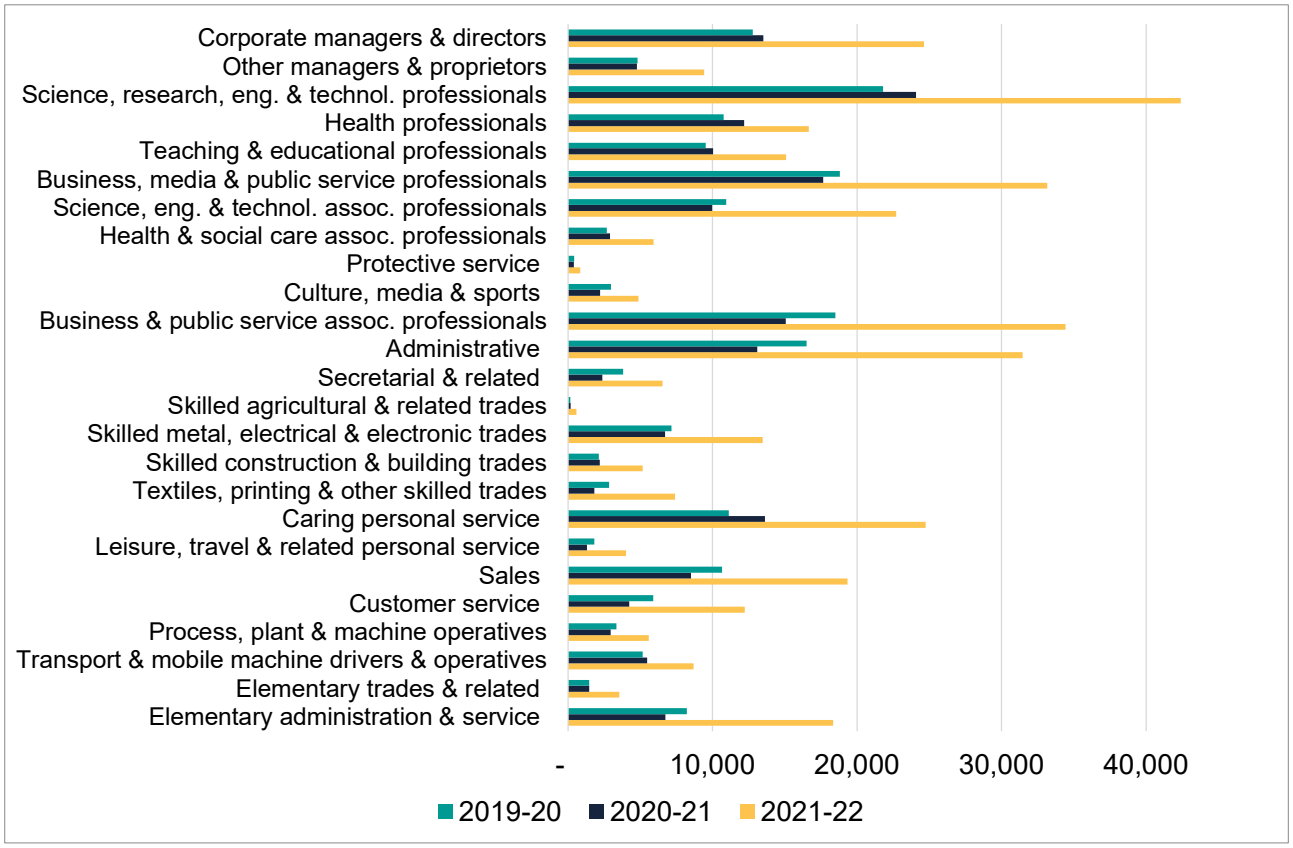
The occupational profile of job postings also seems to be returning to its pre-Covid position

During the pandemic (April 2020 to March 2021) several occupational categories increased their share of total postings, indicating an increase in relative demand in these areas. These included some high skilled categories, most notably *Science, research, engineering and technology professionals* (primarily driven by demand for digital professionals), *Health professionals* and *Teaching and educational professionals*. *Caring personal services* also saw strong growth in demand. In each case employers required increased capacity in order to respond to the challenges of Covid-19.

At the same time a wide spectrum of occupations were affected by a reduction in postings, ranging from *Administrative* occupations, to *Customer service*, to *Business and public service associate professionals*, as Covid restrictions served to limit mainstream recruitment activity.

In 2021-22 the profile of job postings shows signs of returning to its pre-pandemic position, with occupations that saw growth during the pandemic seeing reductions in their share and those that experienced a decline in 2020/21 subsequently growing their share of total postings.

Figure 31: Count of job postings by occupation, West Yorkshire, comparison of April to March period over successive 12 month periods



Source: Labour Insight

However, it is important to note that all 25 of the occupational categories enjoyed growth in absolute terms during the April to March 2021/22 period as the overall volume of job postings increased by more than 100% compared with the previous 12-month period.

The occupations that saw the fastest growth in absolute terms compared with pre-pandemic were as follows:

- Science, research, engineering and technology professionals (Programmers and software development professionals and IT business analysts saw the biggest growth in this category)
- Business, media & public service professionals (with biggest growth for management consultants, accountants, solicitors and project management professionals).
- Administrative (with largest growth in demand for business admin roles and book-keepers).
- Business, media & public service professionals (with notable growth for human resource specialists, marketing specialists, finance / investment analysts / advisers and sales executives / managers.
- Caring personal service (with the biggest growth in absolute terms for care workers / home carers, teaching assistants and nursing auxiliaries).

Skilled trade and elementary occupations are among those seeing the fastest percentage growth

Turning to the percentage rate of growth experienced by occupations between 2021/22 and pre-pandemic (2019/20), the fastest growing categories are:

- *Textiles, printing & other skilled trades* – primarily driven by growth in demand for *Chefs.*
- *Skilled construction & building trades* – driven by growth in demand across the range of construction trades.
- *Elementary trades* – driven by an increase in postings for *Elementary construction occupations*.
- *Elementary administration & service* – driven by particularly strong growth for *Elementary storage occupations*, *Bar staff* and *Cleaners and domestics*.

Looking at volume of growth in absolute terms, the strongest performers are mostly higher skilled, including *Science, research, engineering and technology professionals* (+20,000), *Business and public service associate professionals* (+16,000) and *Administrative* occupations (+15,000).

Administrative, digital and customer service roles are featured among those in greatest current demand in 2021/22

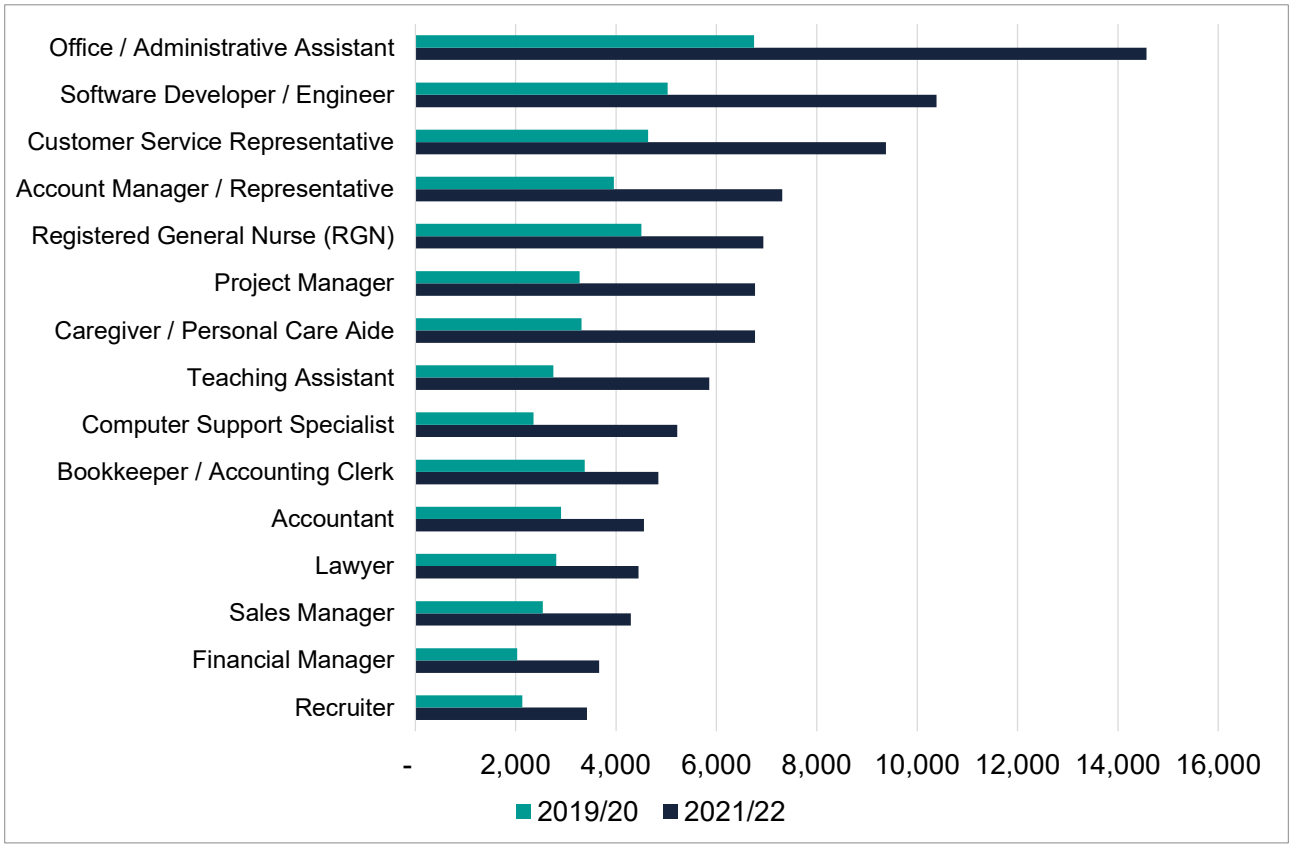
Turning to the individual detailed occupations in greatest demand currently (and using the proprietary occupational categories developed by Burning Glass for Labour Insight) the occupations with the greatest number of postings are drawn from a diverse range, covering administration, digital, customer service, sales and health.

The chart (below) compares the April 2021 to March 2020 period with the equivalent period of 2019/20 (i.e. pre-pandemic). It shows that all of the top occupations experienced strong growth between these two periods and also that the overall ranking of occupations in terms of volume of postings is broadly similar.

Office / administrative assistant was the top occupation in 2021/22 based on the volume of job postings, as demand for workers in administration grew strongly following the adverse impact of COVID-19 and the closure of many workplaces.

Software developer, ranked second, enjoyed strong recruitment demand throughout the pandemic period.

Figure 32: Top occupations in greatest demand overall based on volume of job postings, West Yorkshire, April to March period



Source: Labour Insight

Labour Insight also supports analysis of the types of skill that employers ask for in their job postings, enabling us to profile the skills in greatest demand. The fact that employers ask for skills suggests they are not available as matter of course – in some cases they may be difficult to obtain from candidates.

Figure 33: "Baseline" skills in greatest demand, West Yorkshire, April 2021 to March 2022

Source: Labour Insight

The analysis presented in the figure above focuses on baseline skills – generic skills in widespread demand across different types of job. The size of the text reflects frequency with which they are mentioned by employers in their vacancy postings.

Communication, organisational skills and attention to detail are among the skills in greatest demand

Closely reflecting last year's analysis, communication is the baseline skill that is in the greatest demand by far, followed by skills such as organisation skills, attention to detail, planning, creativity and problem solving. The hierarchy of the top baseline skills in greatest demand has remained largely unchanged despite the influence of COVID-19 and the subsequent recovery. Demand from employers for ICT user skills is widespread, with Microsoft Excel skills close to the top of the rankings and Microsoft Office as a whole and general computer literacy also featured. Management and leadership are among the skills in greatest demand but ranked much lower than many of the skills contained in the graphic because they are applicable only to a subset of vacancies, mostly for management posts.

It is also possible to examine the specialised skills in greatest demand. These are skills that are more job-specific rather than being generic requirements, as with baseline skills.

Nonetheless, the skills presented below are, by definition in widespread demand, and many of them represent general assets to employability. For example, teamwork/collaboration, customer service, project management and budgeting skills would be advantageous in a broad variety of career paths.

Figure 34: Specialised skills in greatest demand, West Yorkshire, April 2021 to March 2022

Source: Labour Insight

As with Baseline skills, the hierarchy of skills in greatest demand has remained broadly the same over time. Teamwork/collaboration is the most widespread requirement, Customer service, Teaching and Budget are also among the specialist skills in greatest demand. These skills occupied a similar position in the hierarchy in 2021, despite the negative impact of Covid-19 on demand for roles requiring customer service and sales skills.

Skills relating to use of Microsoft packages are in strong demand among recruiters

There is a range of evidence to suggest that digital skills are an increasingly important factor in employability across most jobs. This means it is valuable to drill down on the specific computing skills that are cited in employers' job postings. The figure below sets out the top requirements for all jobs and is not confined to specialist digital roles. Not surprisingly an ability to use packages within the Microsoft Office suite is in widespread demand, particularly Excel but also Word and Powerpoint and a general requirement for proficiency in the wider Microsoft Office suite.

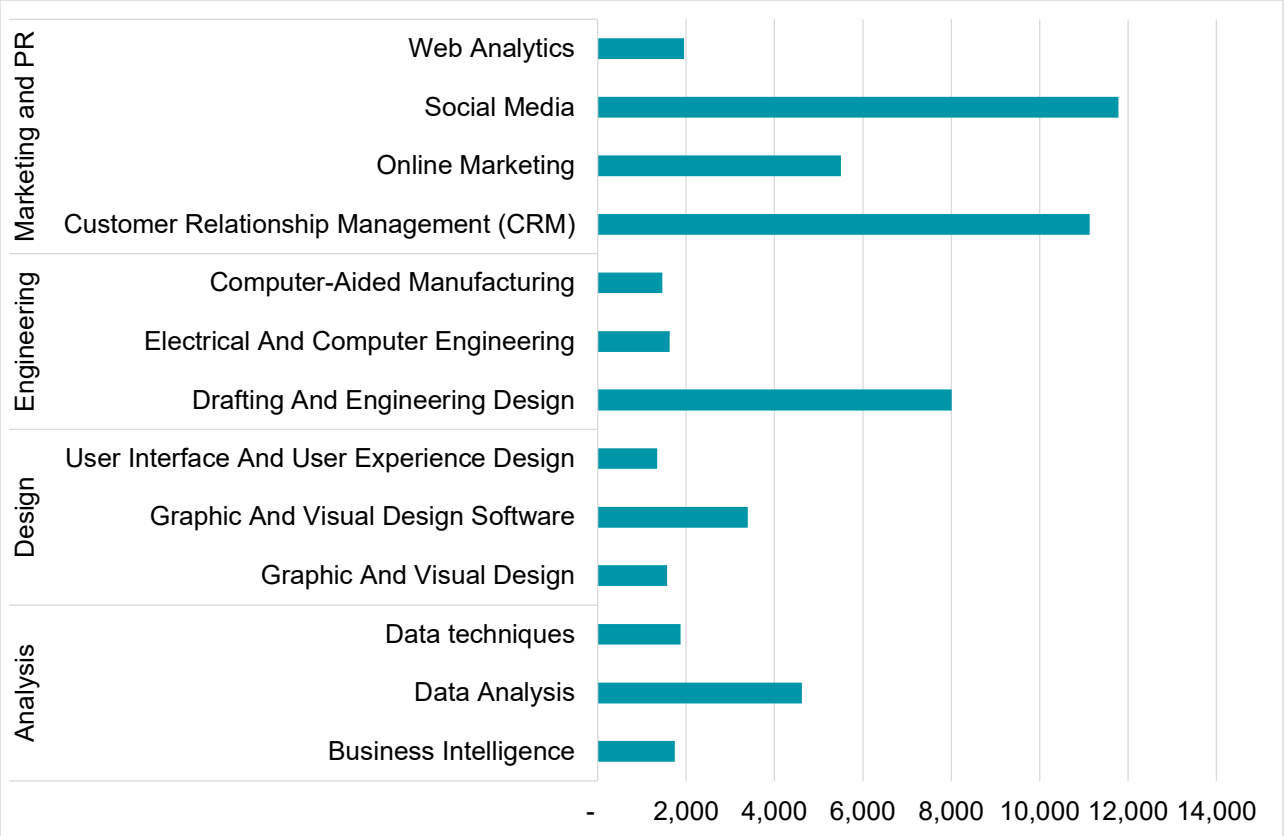
Figure 35: Computing skill types in greatest demand, West Yorkshire, April 2021 to March 2022

Source: Labour Insight

In addition to skills in the use of standard productivity packages, specialist digital skills are highlighted in significant numbers of postings, including SQL, Microsoft C# and JavaScript and a general requirement for software development. This reflects a widespread need for programming skills in general analytical roles, for example. Customer relationship management, specifically SAP, is also an area in which many employers are looking for skills.

The figure below examines the importance of digital skills to a variety of disciplines, illustrating how digital is permeating across the workforce.

Figure 36: Digital skills in greatest demand for non-specialist occupations based on job postings, West Yorkshire, April 2021 to March 2022



Source: Labour Insight

Looking beyond conventional digital specialists, digital skills are now central to a number of functional areas including marketing, engineering, design and analysis. Across this spectrum, social media, CRM and engineering design exhibit the strongest demand from employers.

3.7 Green Economy Skills

Green jobs and skills will in future be critical to the local economy as large-scale measures are implemented to meet West Yorkshire's commitment to achieve a net zero carbon economy by 2038.

However, our interest extends beyond jobs that support the achievement of the UK's net zero emissions target to jobs that underpin other environmental goals, such as nature restoration, climate resilience and mitigation against climate risks.

It is difficult to assess current demand for "green" skills in the local labour market because job tasks and skill requirements that are relevant to the green economy are embedded in a wide range of occupations.

One of the ways in which we can assess current demand for green skills locally is by looking at the profile of vacancies posted online and drilling down on those that specify a requirement for “green” skills.

Strong increase in vacancies requiring green skills in 2020 and 2021

The following figure shows the trend in the monthly count of postings with green skills requirements.

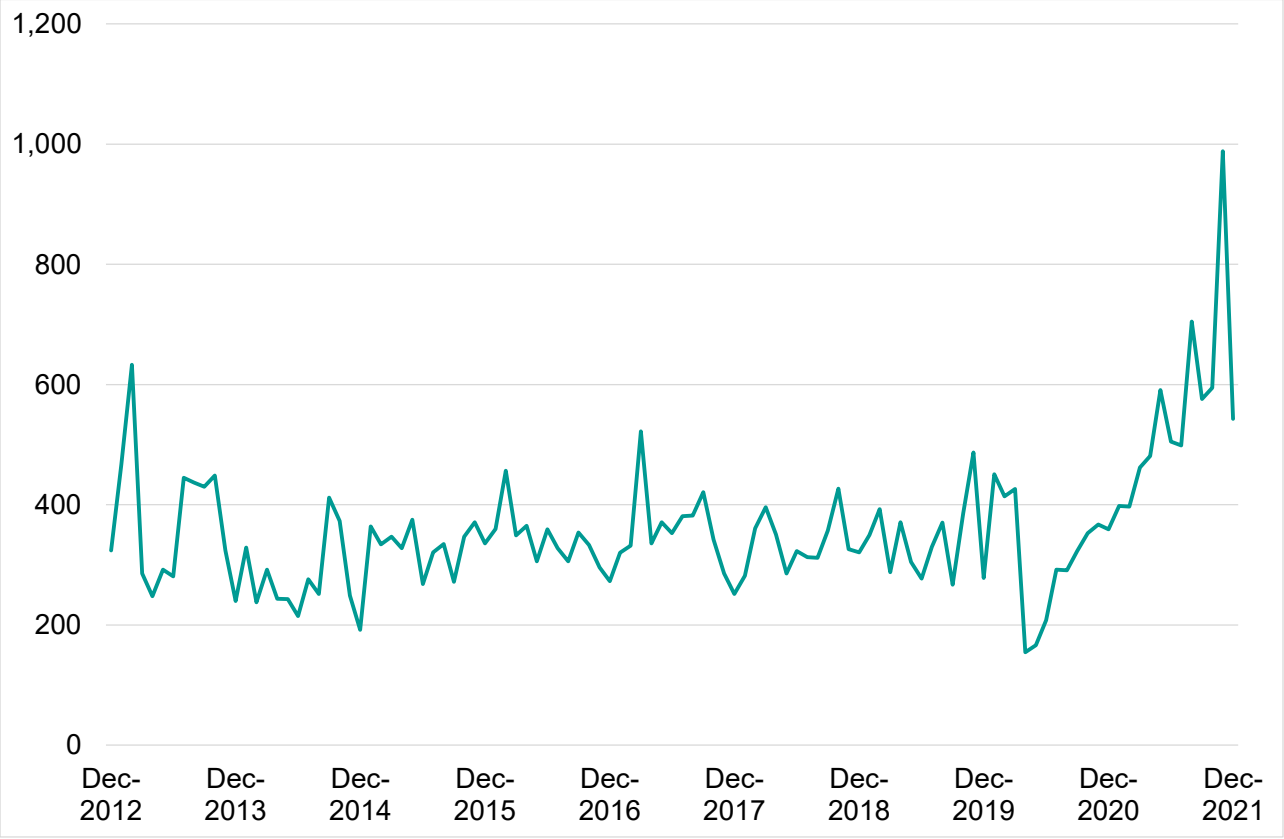
The definition of green skills employed here includes skills linked to energy, the environment plus specific areas like electric vehicles, heat pumps, green marketing.

What the analysis shows is that demand remained on a fairly flat level between 2012 and 2019 but that it escalated strongly during 2020 in spite of the pandemic.

A key talking point linked to this analysis is whether the substance of jobs has changed over time or whether the language used to specify requirements has changed.

Assuming that change is substantive the evidence shows an increase in demand for green skills and we can say the number of green job opportunities is increasing strongly, albeit from a low base.

Figure 37: Trend in online job postings stipulating green skill requirements, West Yorkshire

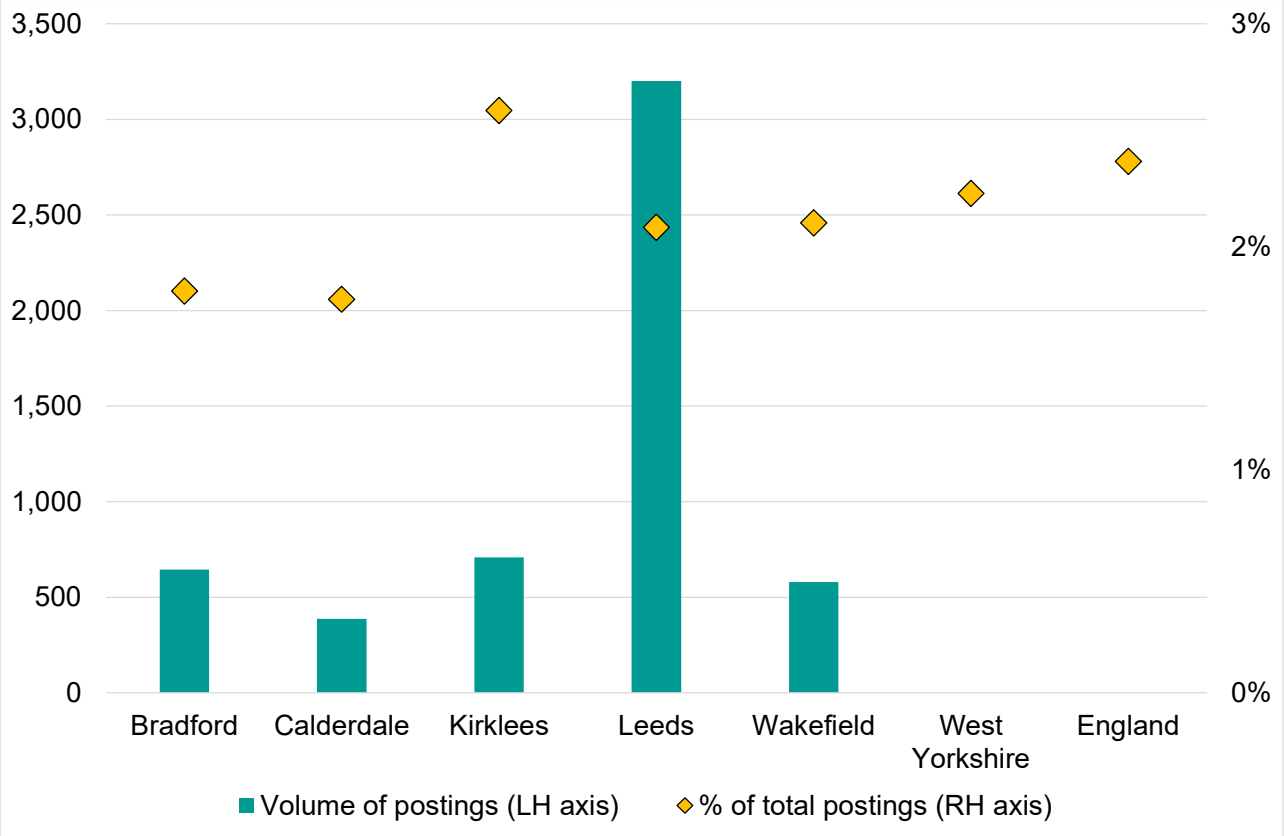


Source: Labour Insight

Despite the growth over time, these green opportunities remain quite niche, at around 2% of total job postings in the 2021 calendar year. This figure for West Yorkshire is similar to the national average.

The figure below shows that the greatest absolute number of job openings was in Leeds but as a proportion of total openings Kirklees has a higher rate. However, it would be a mistake to read too much into these small differences.

Figure 38: Vacancies with green skills requirements by local authority, Jan-Dec 2021



Source: Labour Insight

So, what kinds of skills constitute green skills in this analysis and which are in greatest demand?

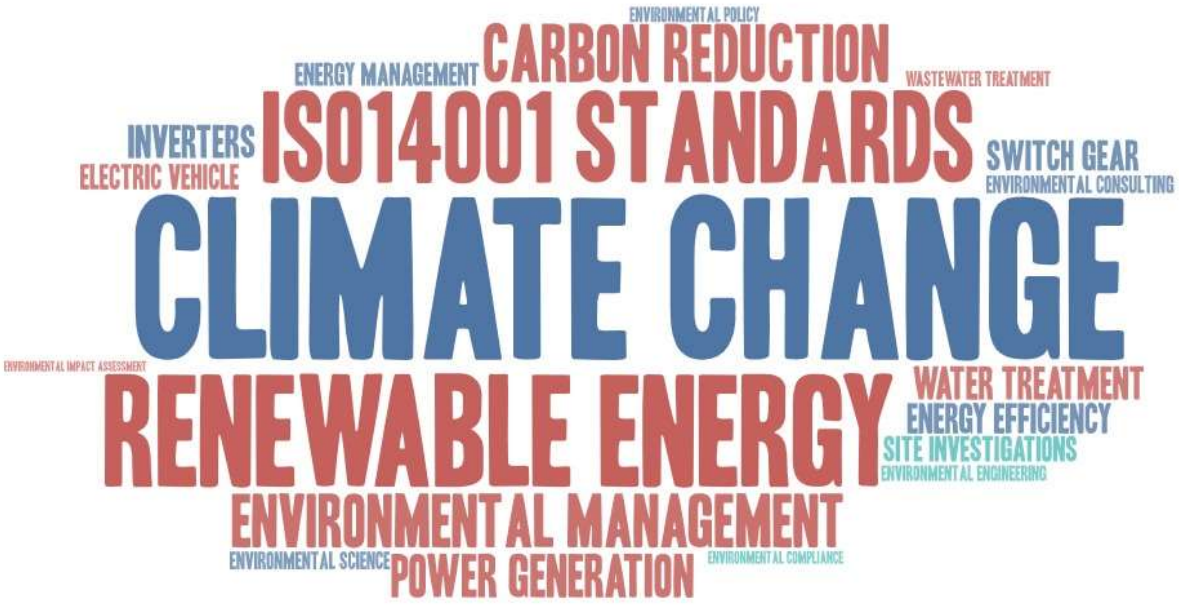
In this word cloud the size of the words reflects the number of times the relevant skill was referenced in a vacancy posting during 2021.

It is based on a proprietary skills taxonomy developed by Burning Glass, the developers of Labour Insight.

Diverse range of skills requirements are highlighted in employers' job postings

The skills in greatest demand include skills falling in the environment family such as climate change, environmental management and water treatment.

Figure 39: Most common green skill requirements, West Yorkshire



Source: Labour Insight

It is useful to illustrate the climate change requirement based on detailed information contained within job postings. A good example where this skill is required would be opportunities for project managers whose role is to lead on addressing climate change and sustainability issues within the organisation or on behalf of clients.

In the energy category skills in greatest demand include renewable energy, energy efficiency and energy management.

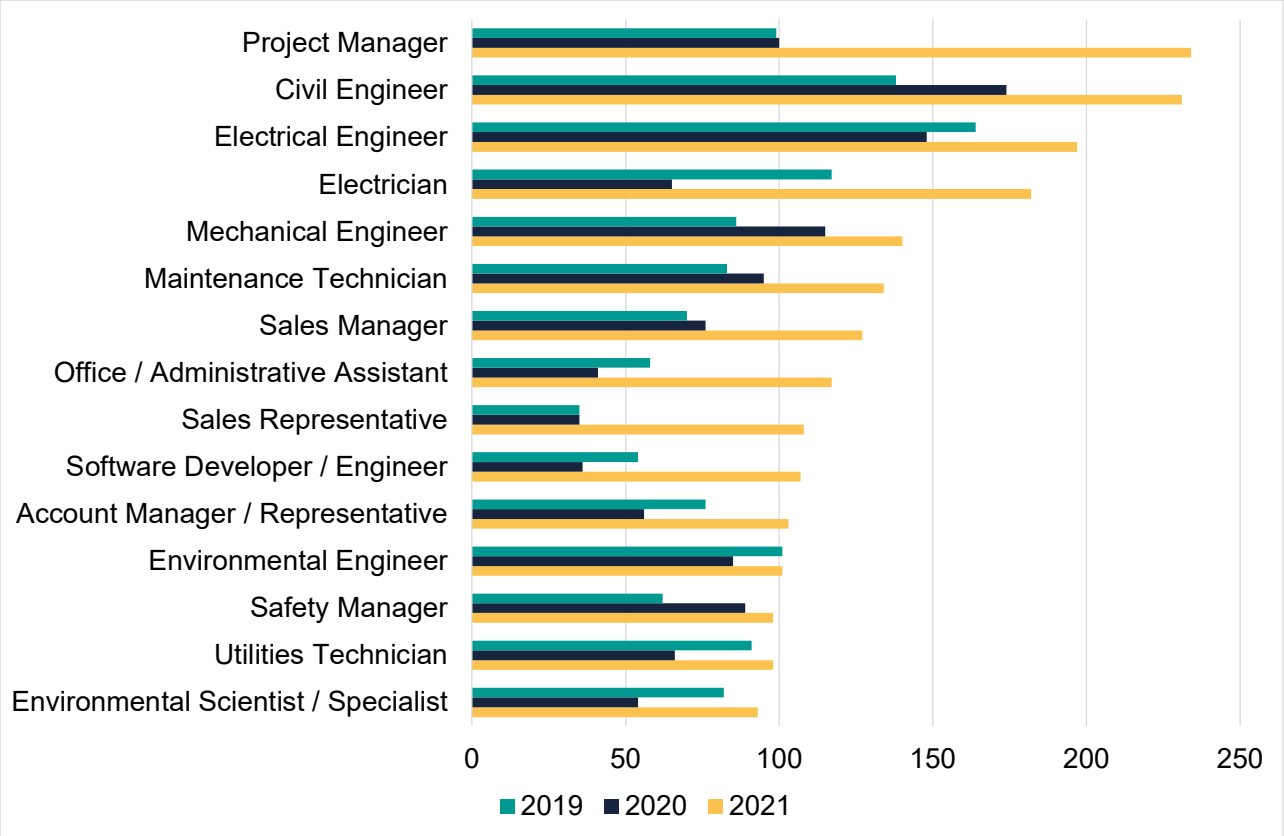
There are other skills which we have used as part of our definition such as electric vehicles at top left plus a range of skills that do not make the top of the rankings and do not therefore feature in the chart, such as green marketing, wind farm design and carbon offsets.

Project manager and civil engineer among occupations with biggest demand for green skills

What types of job require these green skills and in what numbers?

The analysis in the figure below ranks occupations by the number of job postings in 2021 that specified a green skills requirement.

Figure 40: Occupational profile of vacancies stipulating green skill requirements, Jan-Dec 2021, West Yorkshire



Source: Labour Insight

The ranking is dominated by STEM jobs, including engineers, scientists and technicians of various kinds; but it also contains project managers, sales managers, and skilled trades like electricians. A more detailed inspection of the data shows that the majority of the openings for project managers are in a construction context.

Civil engineer is ranked second in the analysis and this category includes specific roles like site engineers and geotechnical engineers, reflecting the environmental considerations that apply when sites are being developed.

The analysis also shows that specialised roles are increasing coming to the fore, such as environmental engineer and enviromental scientist. But in the main this analysis points to the greening of existing occupations – green skills becoming more important rather than the emergence of novel job roles with an explicit focus on climate and environmental issues.

The ranking illustrates the importance of context in defining green jobs. It can be seen that occupations like administrative assistant and sales manager feature in the top ranked occupations. Most roles in these categories would not qualify as green jobs – but an example drawn from this postings which would, is provided by the role of Technical Administrative Assistant, which in the specific case in question involves supporting a team of power system engineers.

A specific example of a sales manager requiring green skills is a business development manager for renewable heating and plumbing solutions focusing on customers in new build construction contractors. Jobs of this kind need specialised technical knowledge.

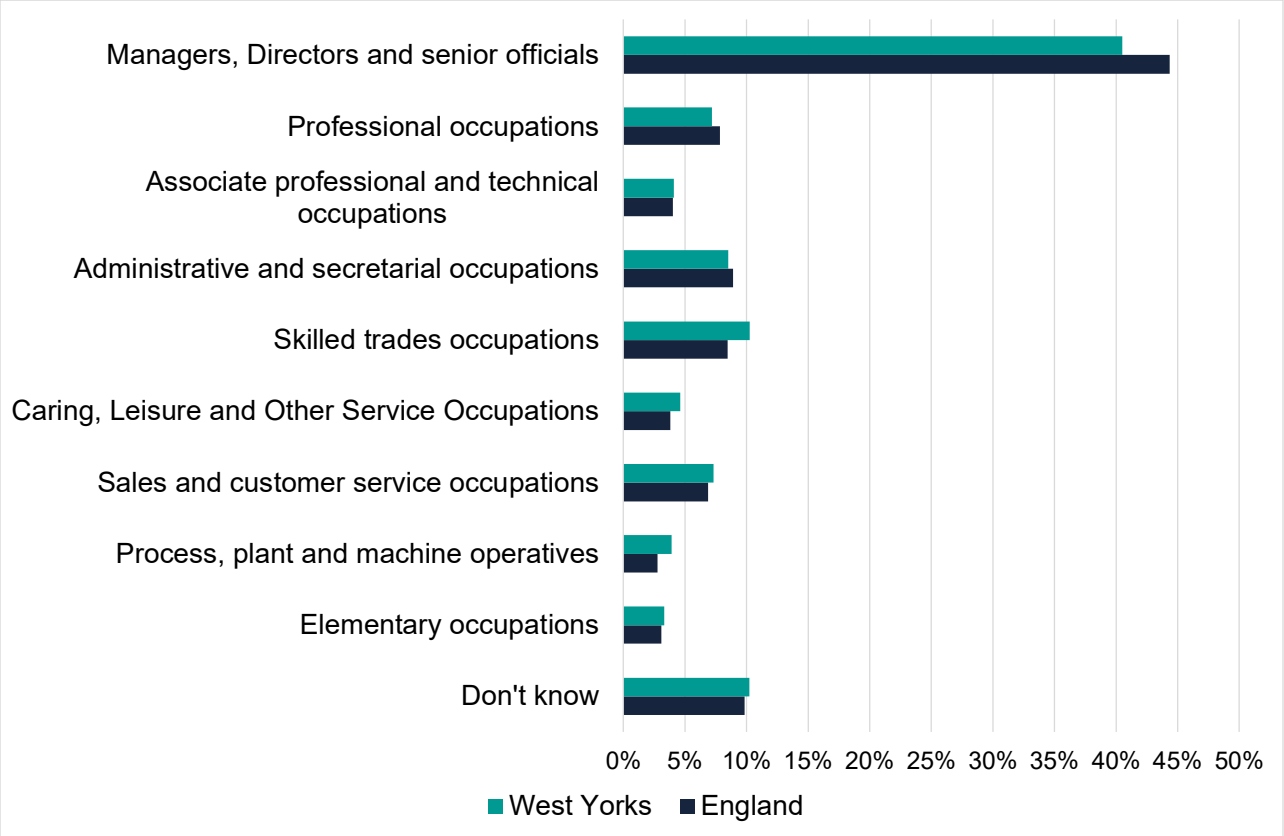
3.8 Upskilling needs

What kinds of staff skills do employers believe that they need to develop in order to meet business objectives? This is key to our understanding of skills demand in West Yorkshire.

Around two-thirds of employers expect future upskilling needs - they are most likely to highlight their managers as being affected

Based on the Employer Skills Survey, almost two-thirds (64%) of employers in West Yorkshire expect that at least some of their staff will need to acquire new skills or knowledge in the coming 12 months. This is in line with the national average- also 64%. The main drivers of this need are the introduction of new working practices, the development of new products and services, the introduction of new technologies or equipment and new legislative or regulatory requirements.

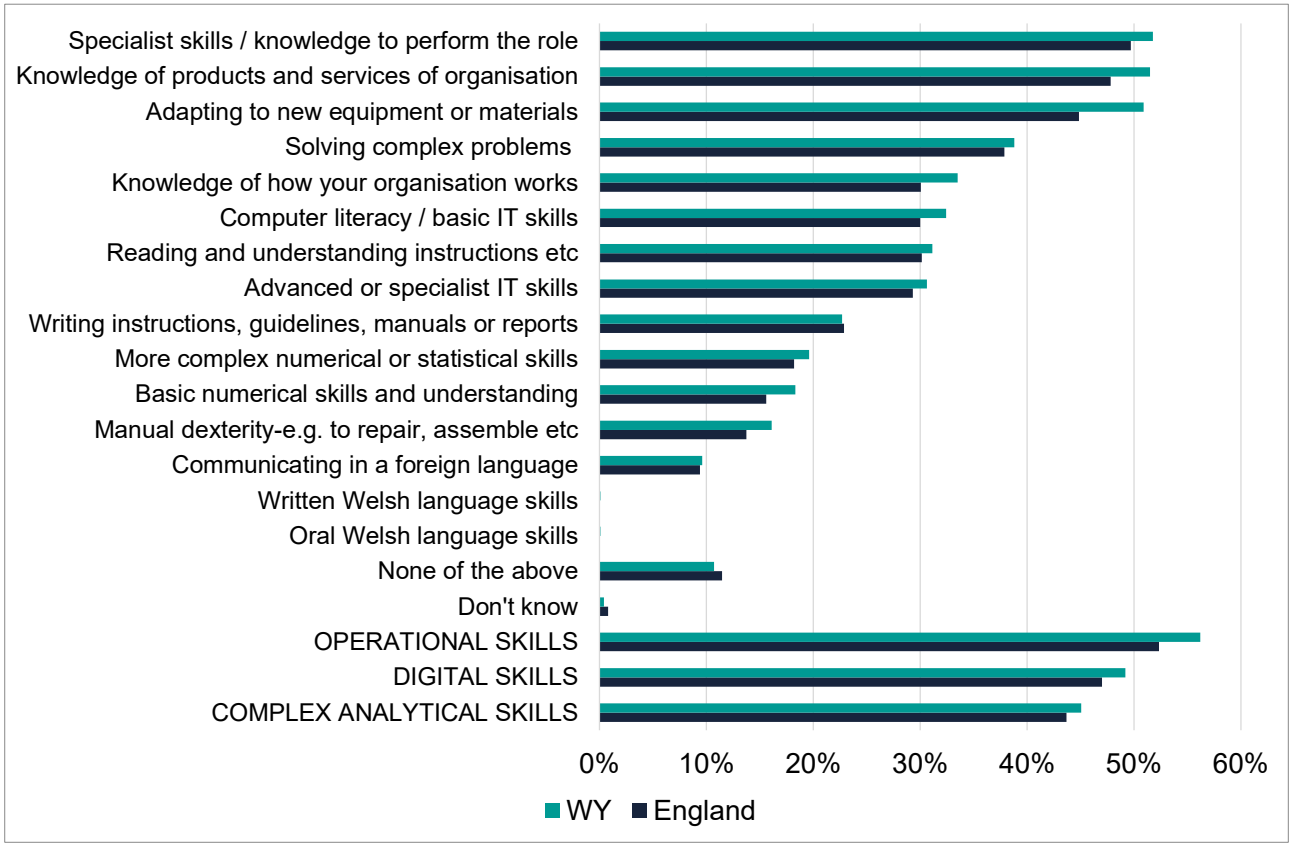
Figure 41: Occupation most affected by need for new skills, among employers who anticipate a need for new skills in next 12 months, West Yorkshire



Base: All establishments who anticipate a need for new skills in next 12 months
Source: Employer Skills Survey 2019

Managers are the occupation most likely to be identified by employers as requiring future upskilling being highlighted by 41% of those with an upskilling need. This partly reflects the fact that managers are employed by virtually all organisations, whereas this is not the case for some other occupational groups which are represented in a smaller proportion of establishments.

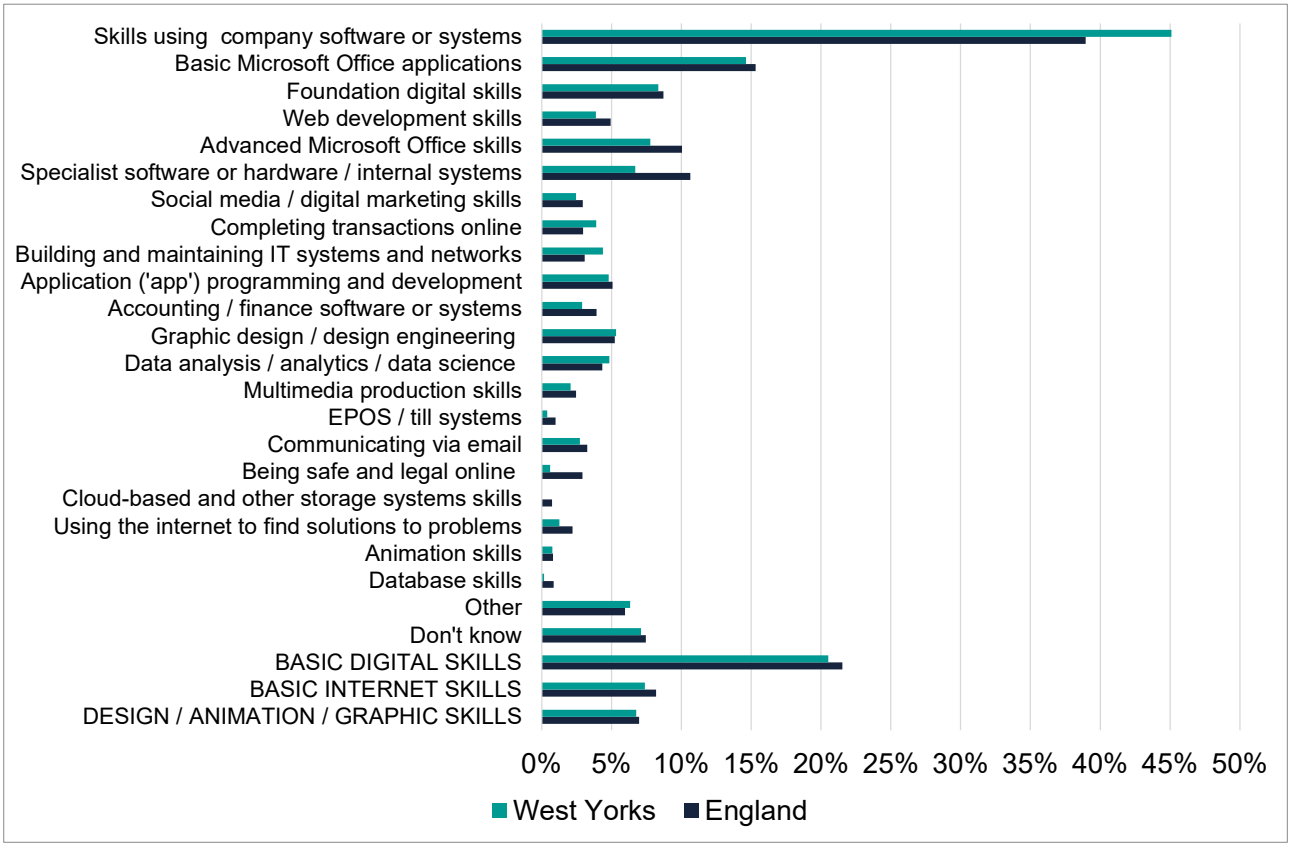
Figure 42: Skills that will need developing among workforce, West Yorkshire



Base: All establishments who anticipate a need for new skills in next 12 months
Source: Employer Skills Survey 2019

The types of skills employers believe need to be developed are a combination of operational skills, including job specific skills and product / service knowledge; complex analytical skills such as solving complex problems and numerical / statistical skills; and digital skills including digital literacy and advanced IT skills. Functional literacy and numeracy skills are also highlighted.

Figure 43: IT skills that will need developing among workforce, West Yorkshire



Base: All establishments who anticipate a need for new IT skills in next 12 months
Source: Employer Skills Survey 2019

With regard to digital skills that need improving, employers are most likely to highlight various kinds of basic digital skills, particularly those associated with Microsoft Office applications. In addition, the ability to use the employers' own systems is the most commonly identified skill development need.

3.9 Future trends in employment and replacement demands

Skills development often requires a considerable level of investment and a significant lead-in time. This means that it is important to take a forward-looking perspective on the demand for skills in order to anticipate future needs and to "future proof" investment decisions, so far as this is possible.

The *Working Futures* labour market model[16] allows us to assess future sectoral and occupational employment prospects based on projections that are grounded in past patterns of performance and behaviour in the labour market.

[16] Local Working Futures projections are only available for the LEP area of Leeds City Region rather than West Yorkshire.

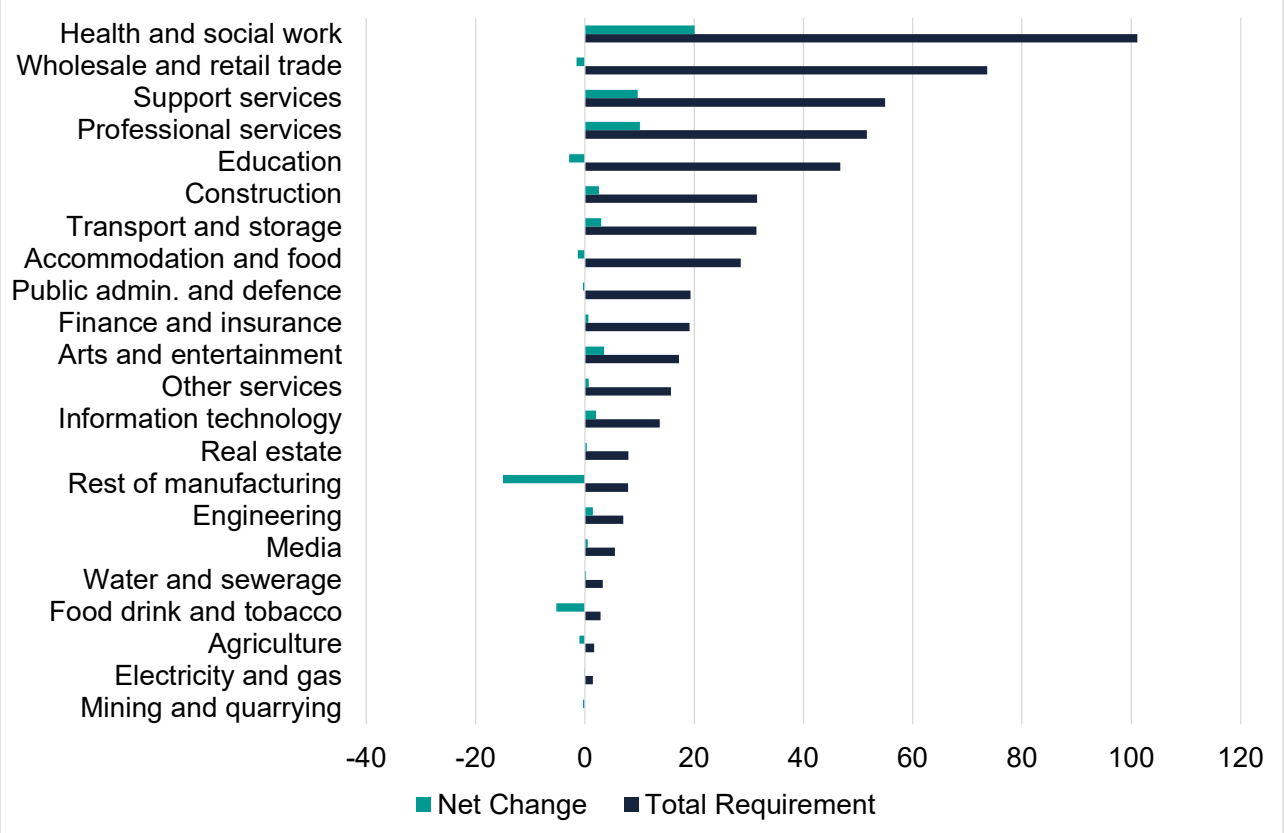
There are a number of aspects to consider: net change in the level of employment by sector and occupation; replacement demand and the net recruitment requirement.

Net employment growth is expected to be concentrated in service-based activities

The primary sources of net job growth in West Yorkshire over the next decade are forecast to be service-based in the form of *Health and social work* (+20,000 jobs), *Professional services* (+10,000) and *Support services* (+10,000).

Other sectors will also see net growth but at a smaller level in absolute terms, including *Arts and entertainment* (+3,000), *Transport and storage* (+3,000), *Construction* (+3,000), *Information technology* (+2,000) and *Engineering* (+1,000).

Figure 44: Projected trends in job openings by industry, Leeds City Region



Source: Working Futures

The fastest rates of growth are expected for *Arts and entertainment* and *Health and social work*, followed by *Professional services* and *Support services*.

The industries with the poorest prospects based on the forecasts are mainly drawn from the manufacturing and primary sectors of the economy. Much of the manufacturing sector, including food manufacturing (-5,000), is expected to see a marked net decline in jobs, largely continuing longer-term trends. Nonetheless, these sectors will still have a positive recruitment requirement arising out of replacement demands and will see growth in higher skilled jobs although these will be offset by reductions in lower-skilled and routine posts..

Sectoral rates of change are forecast to be broadly similar to the national average, except that *Manufacturing* sectors are forecast to perform less well than their national counterparts.

Key employment sectors like *Hospitality* and *Wholesale and retail* are forecast to see small net declines in absolute terms but are projected to have large recruitment needs linked to replacement demands.

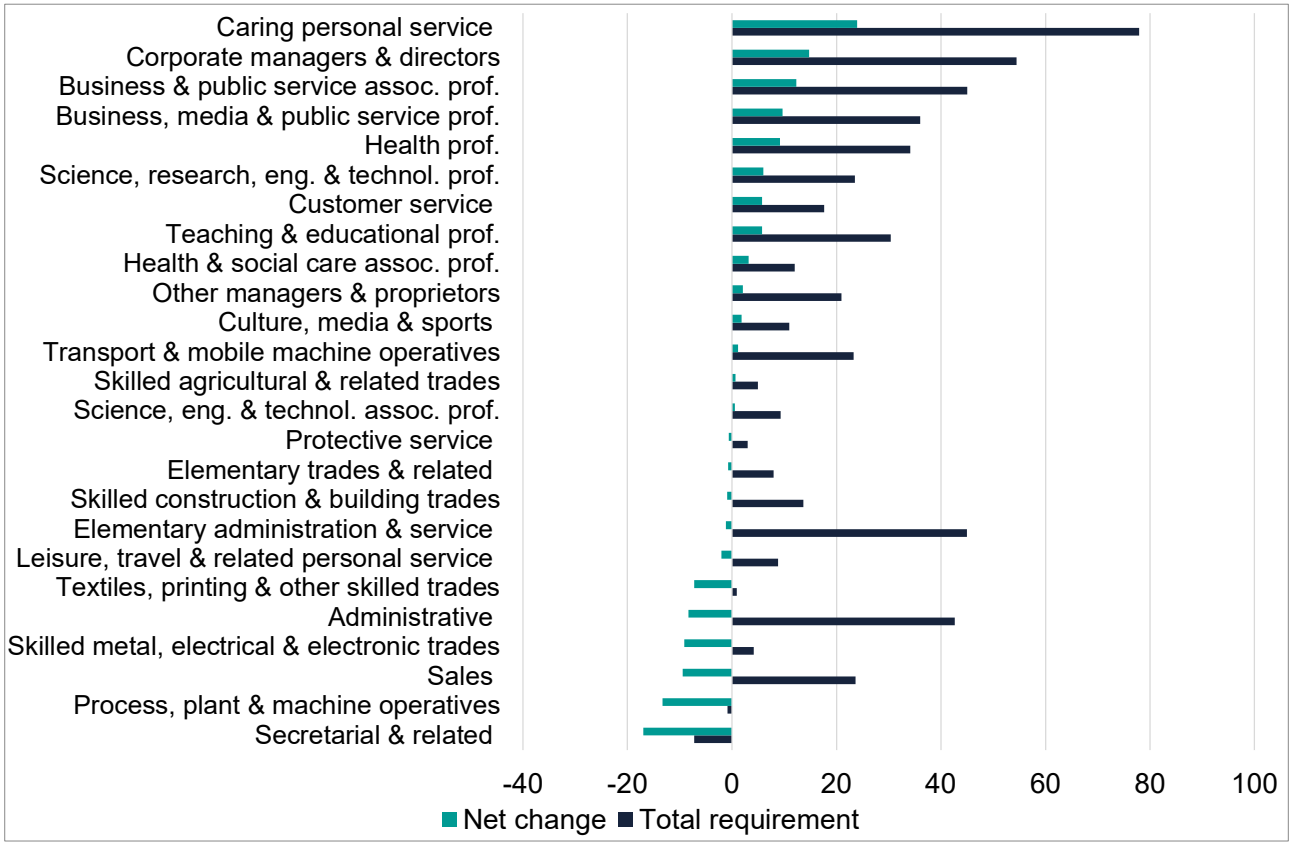
The medium to long-term impact of COVID-19 and Brexit on these forecasts is an area of uncertainty. Some sectors have seen a boost to growth linked to the pandemic, such as *Health and social* work and *Public administration*; others have been negatively affected, including *Arts and entertainment* and *Hospitality*. The current indications are that these changes will be short term. However, *Retail* employment could be affected by an acceleration of existing structural change resulting from a decline of town and city centres and a shift to online shopping as well as technological change in the form of automation.

The occupational projections sit within the context of relatively modest forecast growth for the local area. According to *Working Futures*, the area is expected to see overall job growth of 2%, slightly lower than forecast UK growth of 3%. However, the overall quantum of future growth is uncertain and subject to the influence of fluctuations in macro-economic conditions both nationally and internationally. The projections do not take account of the impact of COVID-19 and Brexit on the economy.

Higher skilled occupations are expected to grow much faster than the overall rate

Even though there is uncertainty about the future growth trajectory of the UK economy and the sectoral pattern of change within the economy, it is worth noting that established trends in occupational employment have proven to be largely resilient in recent years, even in the face of the last recession.

Figure 45: Projected trends in job openings by occupation, Leeds City Region



Source: Working Futures

Significant net employment growth is expected for higher level occupations, including managers, all professional occupations and most associate professional occupations. Between 2017 and 2027, employment in professional jobs is expected to increase by 31,000 (11%), associate professional roles by 7,000 (9%) and managers by 17,000 (11%). For each of these occupations the growth rate is several times the overall average projected rate of growth of 2%. Taken together, these three occupational groups have a combined growth rate of 11% (growth of 65,000 in absolute terms), around five times the average rate.

Middle skilled occupations are projected to see continued net decline

Net job losses are projected for middle skilled occupations, of 12% or around 42,000 in absolute terms. This represents an acceleration in the rate of decline compared with the previous iteration of Working Futures. The most pronounced net decreases are expected for *Secretarial* roles (projected net decline of -45%), *Textiles, printing and other skilled trades* (-22%) and *Skilled metal, electrical and electronic trades* (-16%). Employment in *Administrative* occupations, the largest middle-skilled occupational area by far is projected to decline less rapidly with an employment decrease of -5%, whilst employment in *Skilled construction and building trades* is expected to remain largely static (decline of -2%), although employment performance in construction is notoriously volatile. By 2027 employment in *Administrative* and *Secretarial* occupations is expected to be 25,000 lower than its 2017 level and to be 17,000 lower in skilled trades.

There is expected to be a net decline of 13,000 (-24%) in *Process, plant and machine operative jobs* (semi-skilled blue collar occupations). Employment for *Transport & mobile machine drivers* and operatives is expected to increase by 22,000 (3%), however.

Caring personal service jobs are expected to see largest growth in absolute terms

Caring personal services is expected to see the largest growth in absolute terms of any of the occupational sub-major groups of around 24,000 net additional jobs, a growth rate of 19%.

Employment in *Elementary administration and service* roles is projected to remain broadly static (-1%). *Elementary trades* employment is projected to fall by 2%.

Growth in *Customer service* jobs of 6,000 (+16%) is projected to be offset by a net decline in employment of 9,000 (-9%) in *Sales occupations*.

Over the next decade replacement demands are expected to generate 19 times as many job openings as net growth

From the point of view of assessing future labour demand, it is important to focus not just on projections of changing levels of employment by occupation, but also on replacement demands – the job openings created by the outflow of workers from the labour force.

Workers leave the labour market for a variety of permanent and temporary reasons including retirement, family reasons (e.g. maternity leave) and mortality. These outflows have a significant influence on job opportunities.

Over the next decade, replacement demands are expected to generate around 19 times as many job openings in West Yorkshire as those arising from net job growth. This is higher than the ratio set out in the last iteration of Working Futures, reflecting the fact that the latest projections assume that net employment growth will be lower.

In absolute terms this equates to around 27,000 job openings resulting from net growth and 515,000 openings arising from replacement needs, giving a total number of job openings (net requirement) of approximately 542,000.

Recruitment needs will be greatest for higher skilled occupations and caring occupations

The figure below presents projected expansion demand (net change in employment) and net requirements by occupational sub-major group. The net requirement reflects the recruitment requirement or number of job openings expected for the period in each occupation. It is calculated as the sum of net change and replacement demand in the occupation.

Occupations where employment is growing will require additional workers on top of those being replaced. Almost all higher skilled occupational sub-major groups are expected to see strong demand as a result of this effect and especially *Corporate managers* (54,000), *Business and public service associate professionals* (45,000) and *Teaching professionals* (30,000).

The *Caring personal service* occupational category has the highest projected net requirement of any sub-major group, reflecting strong net growth combined with significant replacement demands. In total, more than 78,000 job openings are projected for this occupation over the next decade.

Replacement demands mean that job openings are expected in all broad occupational groups including those that are projected to see net decline

Employment in some occupations is forecast to see net decline but in most cases replacement demands mean that there will still be job openings that need to be filled.

For example, in the case of middle-skilled occupations (administrative, secretarial and skilled trades) a projected net decline in jobs of 42,000 is projected; this is expected to be more than offset by 101,000 job openings arising out of replacement demands. Replacement demands tend to be much more significant than any net change in the level of jobs, meaning that we can still expect some job openings across nearly all broad occupational groups. However, in Secretarial roles employment is projected to fall at such a rapid rate that it will exceed the job openings arising from replacement needs, implying very poor prospects. Individuals need to consider this when making careers decisions and employers need to be conscious of the need to replace key workers.

The Working Futures study of labour market prospects was published before the COVID-19 crisis hit. However, it still provides a useful insight into longer-term, underlying trends in labour demand, bearing in mind that the broad pattern of change in occupational employment has been highly resilient to past disruption including the shock of the 2008 financial crisis.

As noted above (section 3.6) the sectoral and occupational profile of recruitment activity in West Yorkshire seems to be returning to its pre-pandemic pattern, although national data shows that the sectoral profile of employment has not yet returned to its pre-crisis state. Labour shortages rather than changes in the pattern of demand are likely to be a contributing factor to the employment situation.

The analysis of actual change in occupational employment presented in section is broadly in line with the Working Future projections. Higher skilled occupations remain the main source of net growth, along with *Caring personal service* roles.

How might the impact of the COVID-19 crisis influence these longer-term trends? Although there is a good deal of uncertainty about the ongoing impact of COVID-19 we can put forward tentative / speculative thoughts about the potential influence, partly based on the current patterns of recruitment demand drawn from analysis of job postings, although it remains to be seen how long-lasting these will be.

The COVID-19 crisis seems to be reinforcing some of the existing trends in the labour market but not all

Most broad higher skilled occupational areas have remained fairly resilient in terms of recruitment demand in the face of the crisis, suggesting the long-term expansion of employment in this area is likely to continue.

Culture, media and sport occupations have experienced strong employment growth in recent years but the current crisis seems to have negatively impacted on recruitment demand. It seems likely that this will be a short-term situation with no reason to believe that it will develop into structural decline.

Other occupations with strong projected employment prospects have seen resilient recruitment demand during the crisis, most notably Caring personal services. This may be an example of the crisis reinforcing existing drivers of growth in health and care occupations.

The recruitment requirement for some occupations could increase above the projected level, including health professional and associate professional and caring personal services roles.

Demand for Secretarial roles has been hard hit by the crisis as the shift to home working seems to have had a negative impact on some types of clerical employment and this could accelerate the projected decline in secretarial employment and possibly have a wider impact on administrative roles, which are also projected to see a net reduction.

There has been a pronounced increase in recruitment demand for drivers during COVID-19, including van drivers and large goods vehicle drivers, probably largely reflecting a need for fulfilment of ecommerce purchases. This could lead to enhanced growth for this occupation in future although there is uncertainty about the impact of autonomous vehicles in the longer term.

Relatedly, elementary trades (a category which includes warehouse and storage operatives) has seen strong recruitment demand, presumably largely driven by the shift to online shopping and the need for strengthened logistics and fulfilment capability. Whether this trend will continue in the face of increasing automation of many of the relevant functions is open to question.

Sales and customer service occupations have both seen reductions in recruitment demand during the crisis. This can be linked to restrictions placed on the operations of non-food retailers and other customer-facing parts of the economy. Net employment decline is projected for Sales occupations (including check-out staff, retail cashiers etc) and the COVID-19 crisis has the potential to accelerate this as a result of reduced city centre footfall and a move to online retail channels.

Elementary administration and services has seen a fall in recruitment demand during the crisis and this no doubt reflects the inclusion of many hospitality-related roles in this occupational category. It seems likely that the eventual lifting of restrictions on this part of the economy will led to a rebound in demand.

3.10 Automation

Technology is one of the main drivers of change in the profile of occupational employment and many commentators have expressed concerns about the future potential for widespread displacement of workers by technologies like robotics and artificial intelligence.

At the current time, as the economy recovers from the effects of the pandemic, there is strong demand for workers across the occupational spectrum. However, analysis of the susceptibility of occupations to automation suggests that some that are presently in strong demand could be susceptible to change in the longer term, although predictions of this kind are inevitably subject to a high degree of uncertainty.

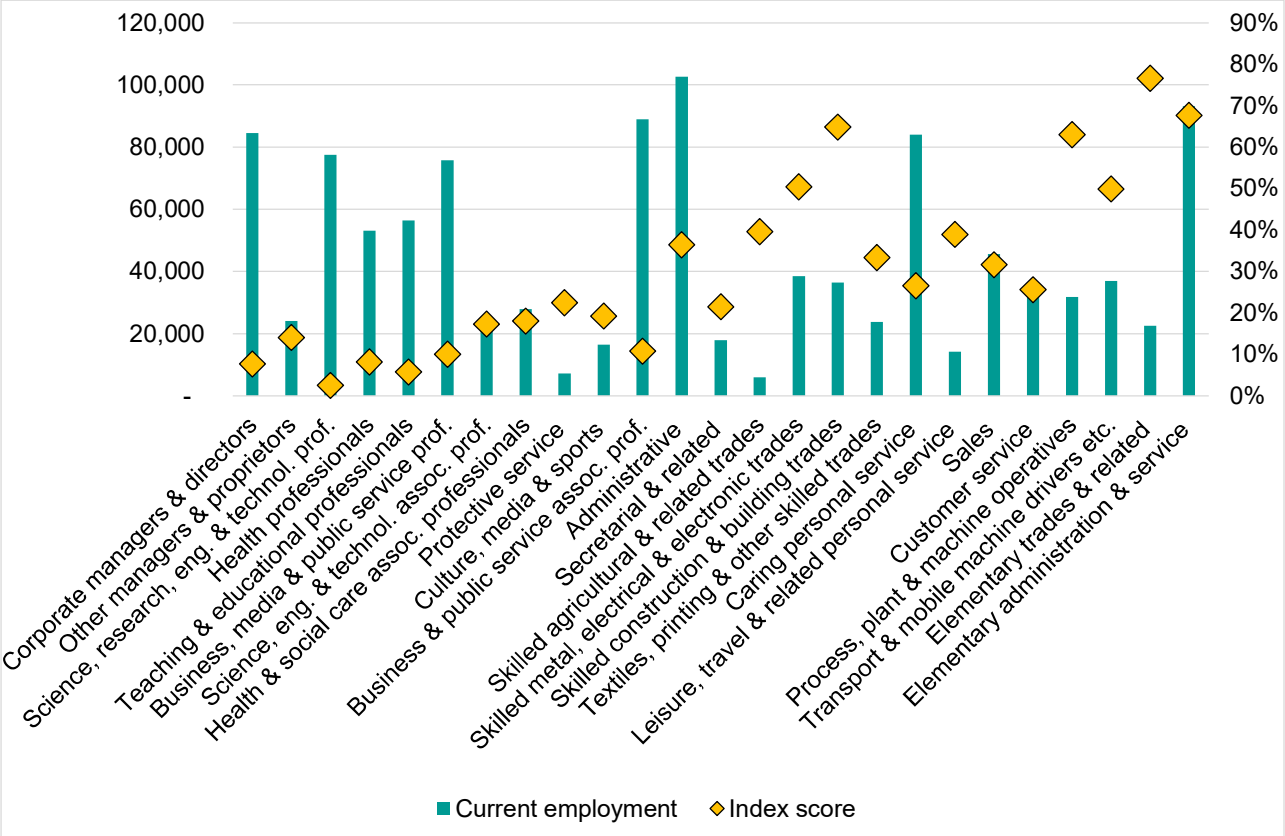
Lower level, routine or physical skills have the greatest exposure to automation

The figure, below, presents the current profile of occupational employment in West Yorkshire alongside the risk of automation for each occupation, based on EMSI's Automation Index[17]. The index takes account of an occupation's task share exposure to automation (i.e. the automatability of jobs is defined in terms of the content of the tasks that they contain, rather than the entire job) plus the extent to which compatible occupations (which require similar knowledge and skills) are also high risk. These estimates of automation risk reflect the technical feasibility of automation and do not take account of the legal, cultural, financial and organisational factors that, in combination, ultimately determine whether jobs are automated.

The overall pattern is one in which occupations comprised mainly of lower level, routine or physical skills have the highest exposure to new technology, whilst those with the lowest exposure are those requiring more analytical and interpersonal skills.

[17] The automation index captures an occupation's risk of being affected by automation using the following measures: % of time spent on high-risk work; % of time spent on low-risk work; number of high-risk jobs in compatible occupations.

Figure 46: Automation risk by occupation in West Yorkshire



Source: EMSI and Annual Population Survey, October 2020 to September 2021

At this broad level higher skilled occupations are uniformly resistant to automation, reflecting the importance of skills such as creativity and social intelligence to these jobs, which are more difficult to computerise. Recent job postings data also suggests that these occupations have mostly remained resilient in terms of recruitment demand in the face of COVID-19.

Elementary occupations (notionally the lowest skilled) face the highest risk of automation, according to the EMSI index. With regard to Elementary administration and service occupations, the medium to long term effect of automation could compound the current impact of COVID-19 on demand for workers in these occupations, including hospitality roles. In the case of elementary trades, COVID-19 appears to have had a positive impact on recruitment demand in areas like elementary storage trades, but in the longer-term automation is likely to have a negative influence on demand. Similarly, COVID-19 has led to increased demand for drivers at least in the short-term but looking into the future there is a high risk of automation, at least from a technical perspective.

Employment in administrative roles has been in long-term decline, largely as a result of automation and hence this occupational area has a high Index score.

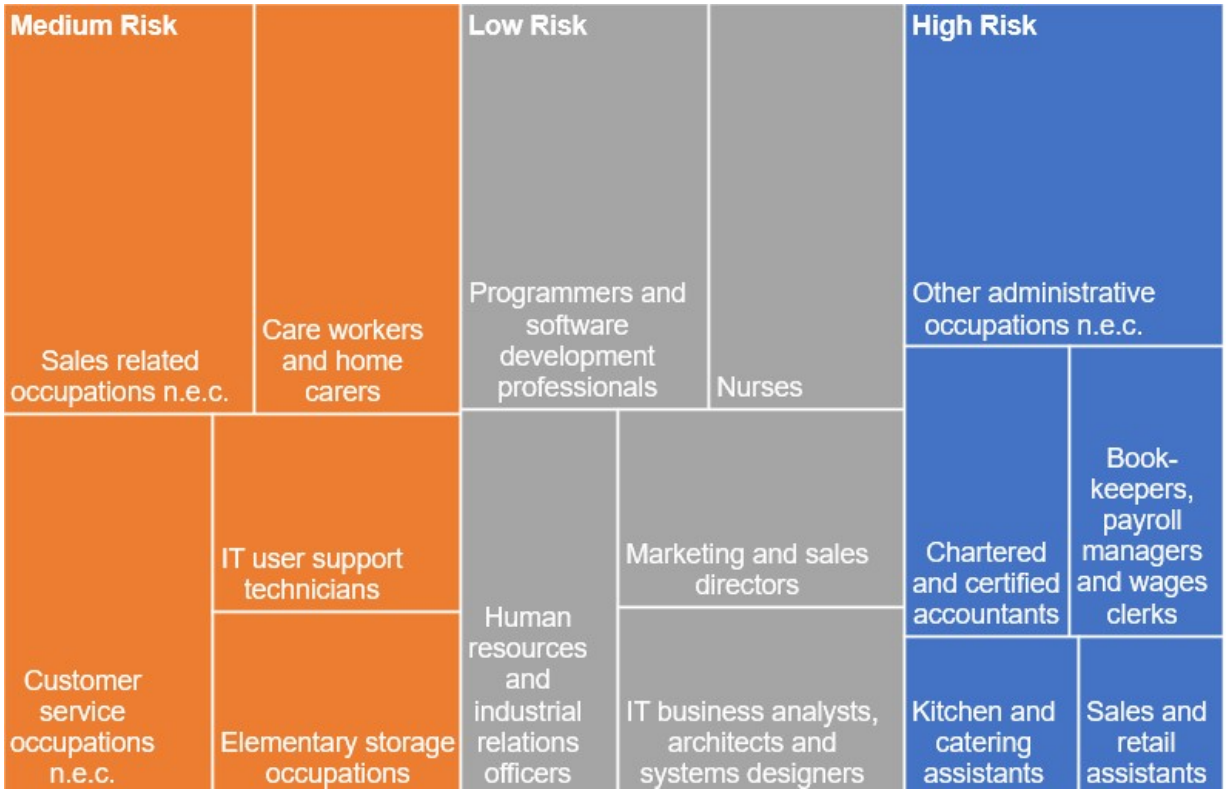
The nature of the Automation Index is such that it highlights occupations that are not only at risk of automation but also that present limited options for escaping the effects of automation by transitioning to similar occupations– workers in these roles face a situation

in which their skills are required in fewer jobs, and the jobs in which they could use their skills face a similarly high risk of automation. Hence, they will require more retraining to find an occupation that is at lower risk.

This is of particular concern since West Yorkshire has a high exposure to some of the occupations with the highest automation risk. Employment in the area is strongly represented in the intermediate and lower skilled occupations that are more susceptible to automation, including specific areas like Skilled metal, electrical and electronic trades and Customer service roles.

To give a flavour of the detailed occupational areas according to their risk of automation and their current levels of recruitment demand, the following figure sets out current volumes of job postings for occupational unit groups that are classified as high risk by Burning Glass[18]. For each risk category, the most in-demand occupations are featured.

Figure 47: Most in-demand occupations according to volume of job postings in each automation risk category, West Yorkshire



Note: Based on an analysis of online job postings for the period April 2021 to March 2022.
Source: Labour Insight

It shows a variety of occupations at high risk, most notably administrative occupations (*Other administrative occupations nec* includes general business admin-type roles), finance roles including accountants at professional level and clerical roles linked to

[18] Data - Risk of Automation | Burning Glass Help Center (burning-glass.com)

financial operations, plus elementary service roles in the form of *Kitchen and catering assistants*, together with *Sales and retail assistants*. The high-risk occupations with the greatest current demand are therefore at a variety of levels, from the highly paid (accountants), to intermediate occupations (administrative) to lower-paid (kitchen and catering assistants).

The previous analysis of patterns of employment change shows that administrative roles in particular have seen recent net growth in employment as well as being currently in strong demand in terms of vacancies. This is in contrast to secretarial roles (also high risk with regard to automation) which have seen a steady decline in employment, largely due to substitution of human tasks by technology. This illustrates the uncertainty attached to automation forecasts.

4 The Supply of Skills

The availability of the right number of people with the right skills is critical to West Yorkshire's ambition to achieve inclusive growth. Skills play a key role in driving productivity and competitiveness within firms and they underpin the employability and earning potential of individuals. The following section examines the overall level and profile of labour supply in West Yorkshire as well as the key characteristics of the "skills pipeline", with regard to the various elements of the education system as well as employer investment in workforce development.

4.1 Demographic Trends

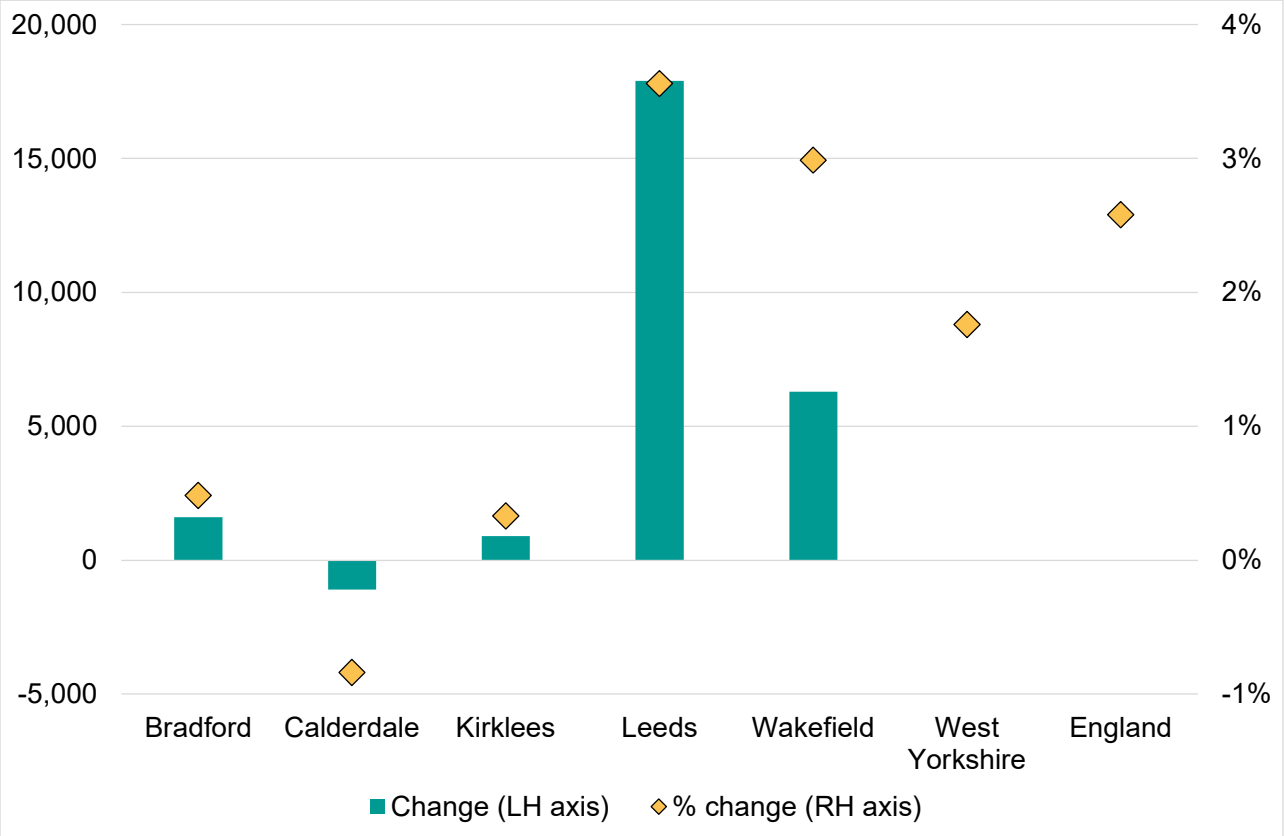
Changes in the structure of the local population can have an important influence on the available labour supply.

West Yorkshire's working age population is growing but less quickly than nationally

West Yorkshire has a total population of 2,345,000 with 1,473,000 (63%) people of working age (16-64). The working age population of the area grew by 2% over the course of the last decade (2011 – 2020), less quickly than the national average, which saw an expansion of 3%. Bradford and Kirklees saw modest growth, while Calderdale's working age population experienced a small decline. West Yorkshire's population growth came principally from Leeds and Wakefield.

Analysis shows that West Yorkshire's population growth has been driven by natural change and international migration. Net internal migration has been negative, with the exception of Wakefield.

Figure 48: Change in working age population by district, 2011 to 2020



Source: Mid-year Population Estimates, Office for National Statistics

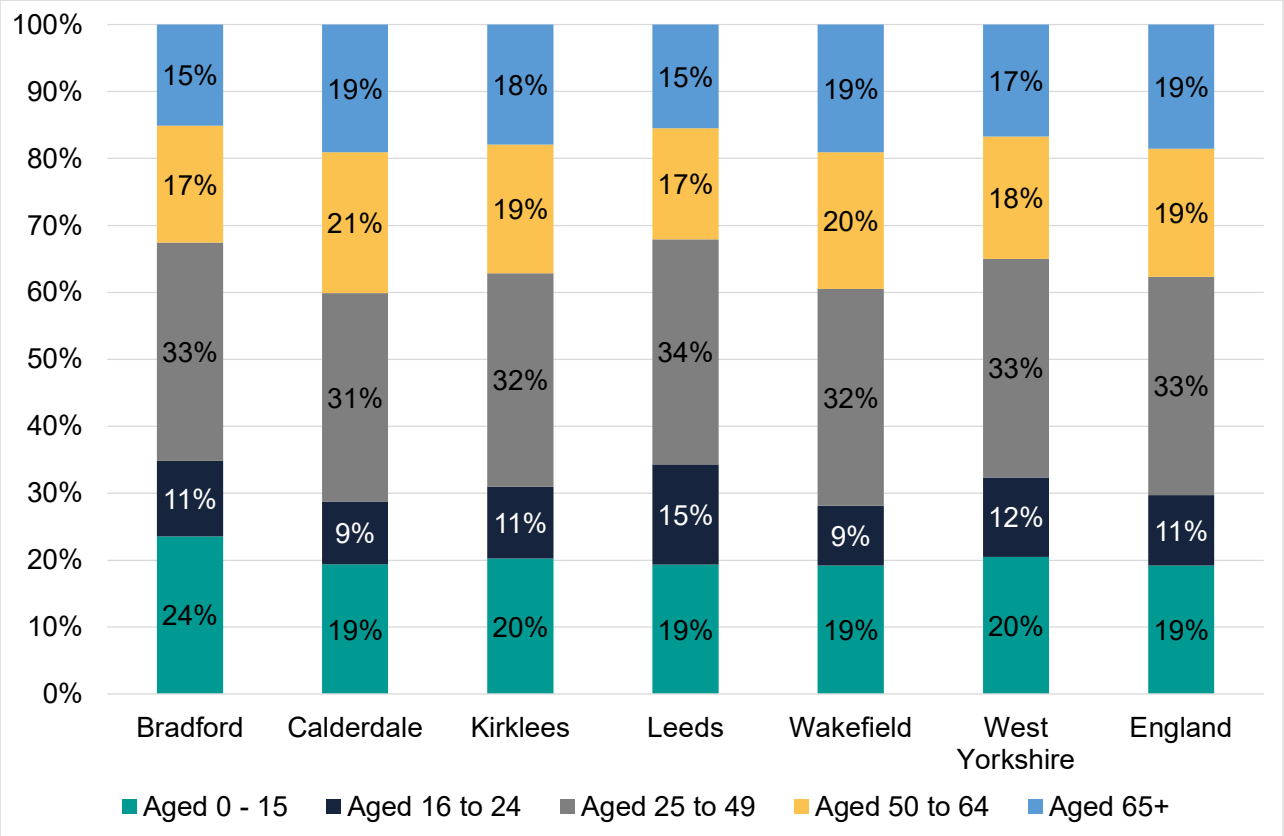
The age profile of West Yorkshire is broadly similar to the national picture, with 63% of the total population being of working age (16-64) compared to the national average of 62% and a median age of 38 locally, compared with an England average of 40. Seventeen per cent of the population of West Yorkshire is aged 65 years and above, 2 points lower than the England average.

Bradford and Leeds have relatively young populations

There is some variation at district level. Bradford and Leeds have relatively young populations, with median ages of 37 and 35 respectively. In Bradford 24% of the population are aged below 16, 5 percentage points higher than the national average. In Leeds 15% of the population is aged 16-24, 4 points higher than average.

The populations of Calderdale and Wakefield are relatively old, with median ages of 42 and 41 respectively.

Figure 49: Age profile of population, 2020



Source: Mid-year Population Estimates 2020, Office for National Statistics

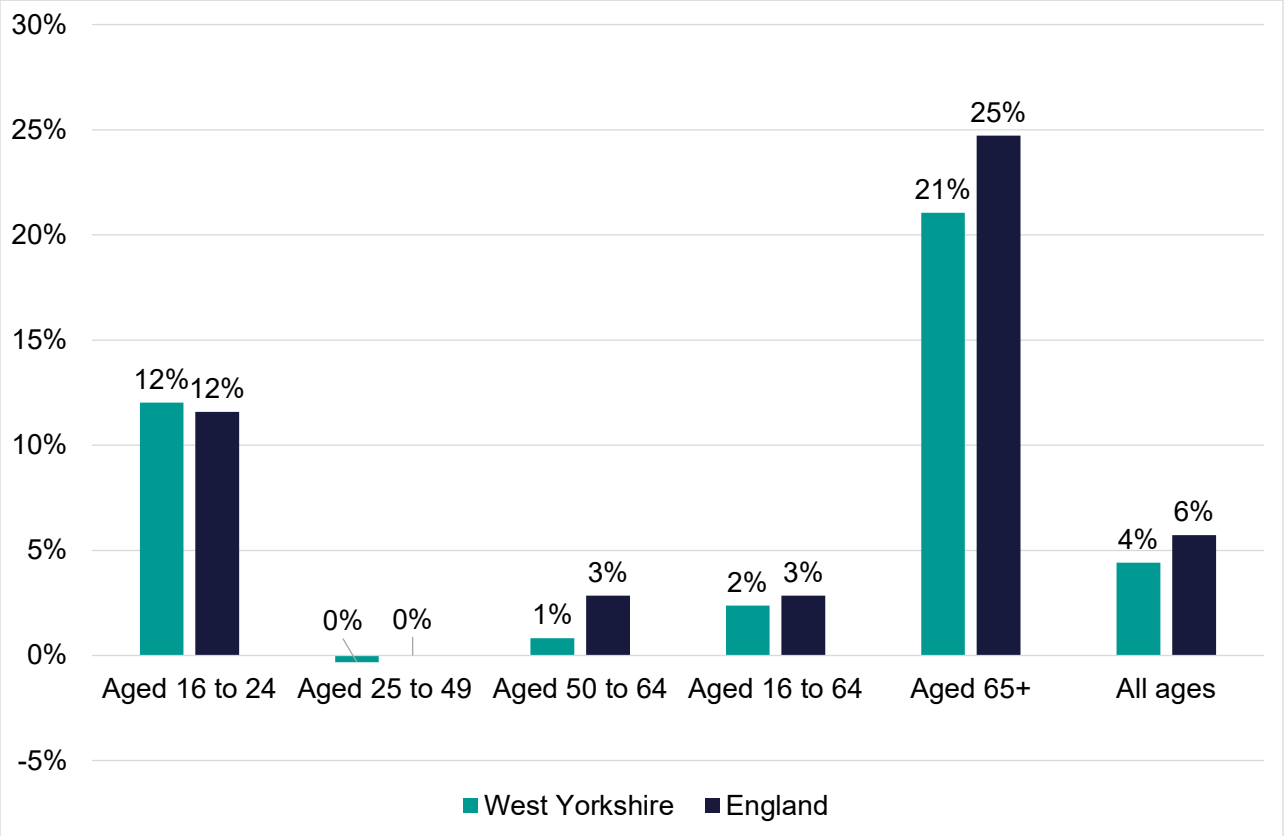
Population projections produced by ONS suggest that the number of people of working age in West Yorkshire will increase in the period from 2018 (base year) to 2030, but at a slightly slower rate than the expected national position.

An increase in the number of young people is projected for the next decade

The local working age population is projected to grow by 2% over this period compared with growth of 3% nationally. In absolute terms this is an increase of 35,000 in the number of people aged 16-64.

The number of young people aged 16-24 is projected to grow strongly, by 12% or 34,000. Meanwhile, the number of people aged 65 and over is expected to grow by 21% or 81,000.

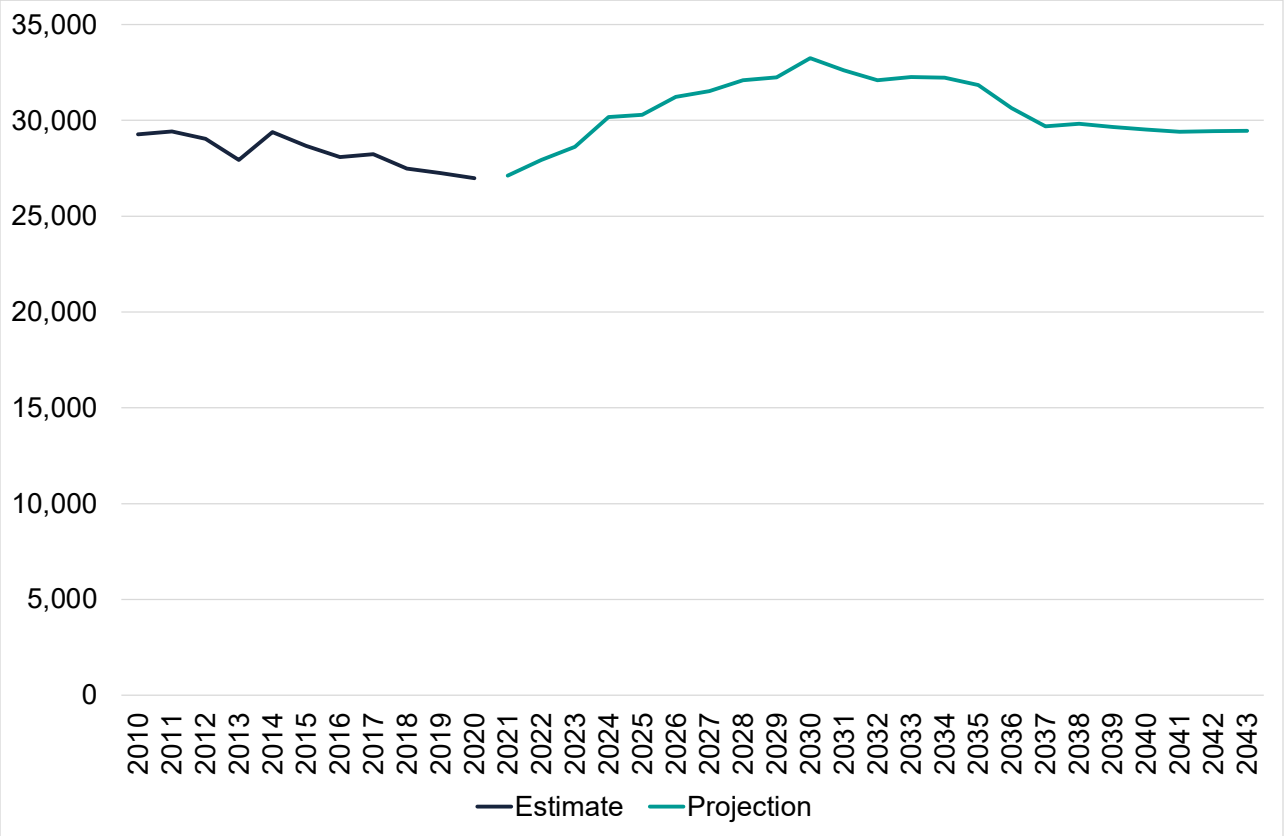
Figure 50: Projected population change by age band, 2018 to 2030



Source: Population Projections, Office for National Statistics

Again, there is variation at district level in projected growth rates. The working age population of Calderdale is projected to fall by 2% whilst Kirklees' remains virtually static. Bradford's working age population is projected to grow by only 2%, as is Leeds', but Wakefield's is projected to grow by a considerable 8%, one of the largest projected growth rates in the country.

Figure 51: Trend in size of 18 year-old cohort in West Yorkshire



Source: Population Projections, Office for National Statistics

It is also notable that the number of 18 year olds, the prime target market for higher education, is projected to grow in the coming years, following a period of decline.

Between 2010 and 2020 the size of the 18 year-old cohort fell by 8% in West Yorkshire.

But population projections point towards a marked and sustained increase in the number of 18 year-olds for the rest of the decade.

Growth of 25% is projected for West Yorkshire between 2020 and 2030; similar to national average growth of 26%.

4.2 Economic activity

A key labour supply challenge associated with COVID-19 is a decline in the size of the labour force, meaning that fewer people are available to work in the economy.

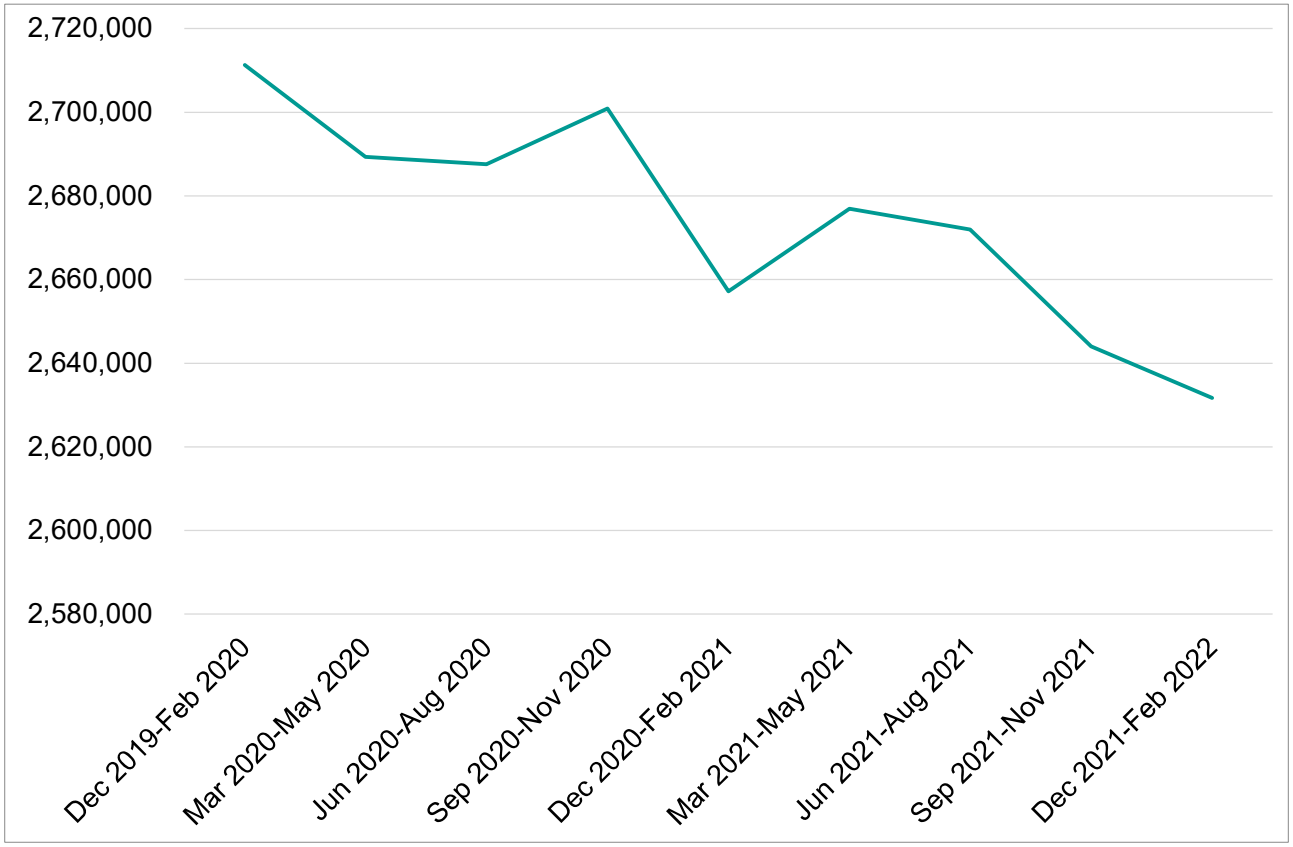
Across the UK there are now 590,000 fewer people in work than before the pandemic and 490,000 more people economically inactive.

This growth in worklessness continues to be driven by fewer older people in work and more people out of work due to long-term ill health.

According to one estimate[19] there are now 1.17 million fewer people in the UK labour force than would have been the case had the long-term pre-pandemic trend of rising participation continued.

Much of the fall in participation has become evident in the data since the end of the furlough scheme in September 2021, and is likely to be in part due to people who were technically counted as employed but on furlough leaving the labour market entirely when the funding ended. This means that the changes are not captured in the available data at West Yorkshire level – the latest being an average of the period October 2020 to September 2021 in the Annual Population Survey.

Figure 52: Number of economically active people aged 16 and over, Yorkshire and the Humber



Source: Labour Force Survey, ONS

More timely data are available from the Labour Force Survey at Yorkshire and the Humber level and these show the following changes compared with the pre-pandemic position (comparing the Dec 2019 - Feb 20 quarter with Dec 2021 - Feb 2022):

- The size of the labour force (economically active population aged 16+) has contracted by 80,000 (-3%) compared with -2% at UK level.

[19] Institute for Employment Studies (2022) Labour Market Statistics, April 2022.

- The number of people aged16+ who are economically inactive has grown by 79,000 (+5%), compared with +4% for the UK.
- The number of people aged16-64 who are economically inactive has grown by 52,000 (+7%), slightly higher than the +6% at UK level.
- The number of workless people aged 16-64 (inactive plus unemployed) has grown by 37,000 (+4%) despite a 12% fall in unemployment.

This shows that the number of workless people of working age is bigger than pre-pandemic even though the number of unemployed people who are actively seeking and available for work is falling.

4.3 Inclusive labour supply

The Combined Authority is committed to supporting local business to develop an inclusive and diverse workforce. A key challenge in this area is the employment rate gap faced by specific groups in the labour force. As well as acting as a limitation on individual opportunity, this also constrains the labour supply available to local employers.

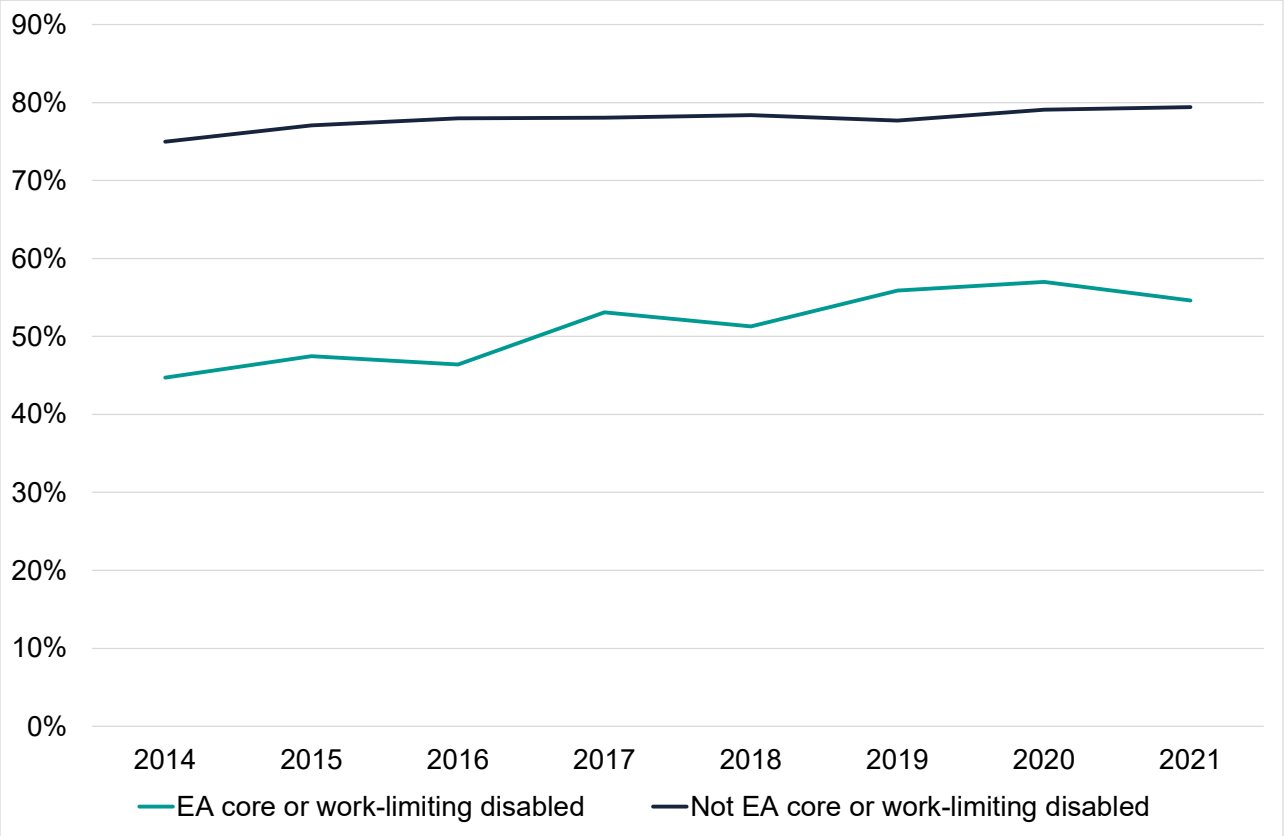
Around 339,000 people of working age in West Yorkshire are Equality Act core or work-limiting disabled[20], equivalent to 23% of the total working age population and similar to the national average. The proportion of people who are disabled varies at local authority level: the figure is below average in Bradford (20%) and above average in Wakefield and Kirklees (both 26%).

Working age women are more likely to be disabled then men, with respective proportions of 25% and 22% for West Yorkshire.

The number and proportion of working age people who are disabled is growing over time in West Yorkshire. Between 2014 and 2021 the number grew by 43,000 or 14%, with a 3 point increase in the rate.

[20] 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.

Figure 53: Employment rate by disability status



Source: Annual Population Survey, October to September periods

The proportion of disabled people in employment is well below the rate for those who do not have a disability, at 55% and 79% respectively - a gap of nearly 25 percentage points. There are signs that the gap has narrowed over time: it was around 30 percentage points in 2014. The local employment rate gap for disabled people is the same as the England average, which is also 25 points. The employment rate gap for disabled women is lower than for men at 22 points compared with 27 points.

The number of disabled people in employment is increasing

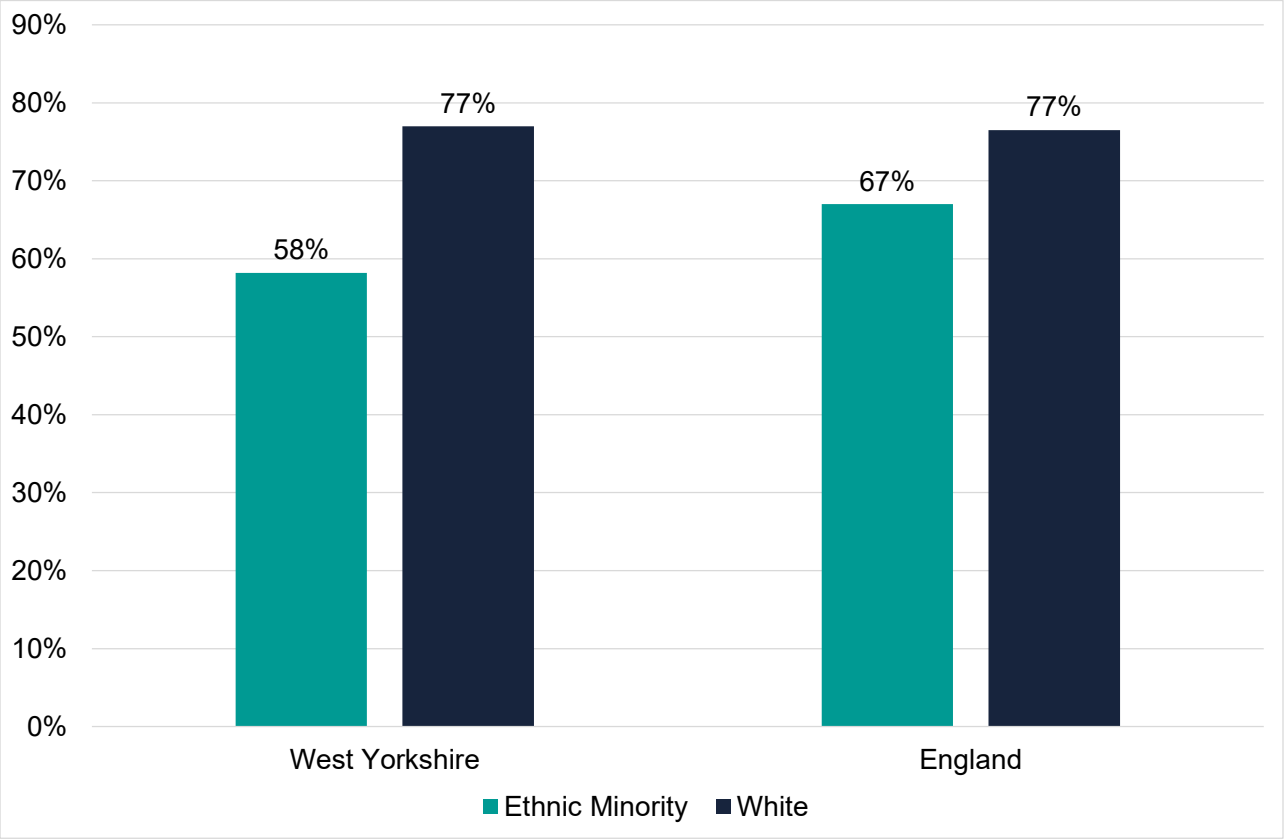
The number of disabled people in work is increasing over time. Nationally, the employment rate for this group increased by 8 points between 2014 and 2021, a net increase in absolute terms of 1.3m people in employment (41% increase). In West Yorkshire, the rate increased by 10 points over the same period, with a net increase of 53,000 disabled people in work, a 40% increase.

It is also notable that the majority of disabled people in employment are women, at 51% of the total. This reflects the fact that there are more working age women with disabilities than men both nationally and locally.

People from ethnic minorities face a wider employment rate gap in West Yorkshire than nationally

257,000 people of working age in West Yorkshire are from an ethnic minority, around 18% of the total working age population and higher than the national average of 16%.

Figure 54: Employment rate by ethnicity, people aged 16-64



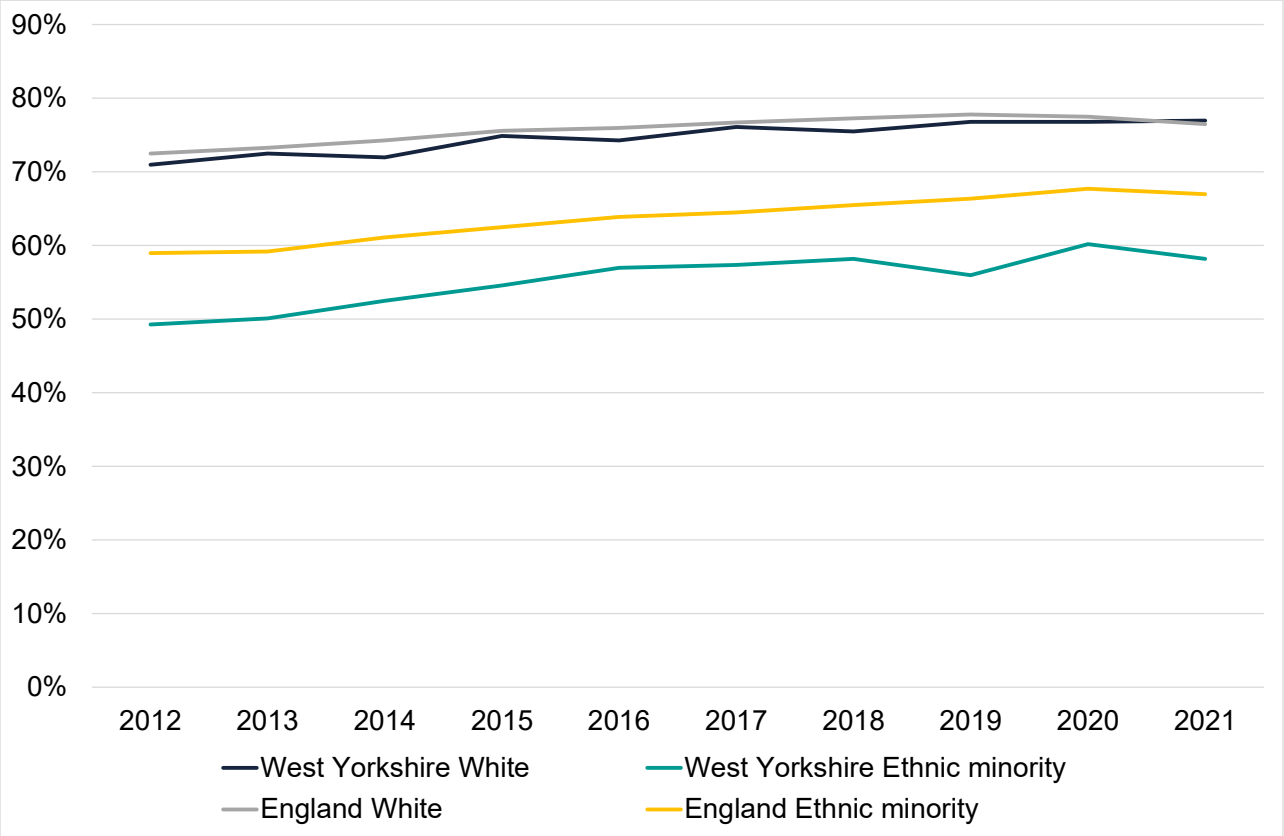
Source: Annual Population Survey, October 2020 to September 2021

The employment rate gap for this group is 19 points locally[21], much wider than the national gap of 10 points. Again, the employment rate varies at local authority level. For example, the ethnic minority employment rate in Leeds is 61% but is only 53% in Bradford.

As the figure, below, shows the ethnic minority employment rate for West Yorkshire has remained below the national average on a sustained basis, whereas the employment rate for the white group has been relatively close to the national average during this period.

[21] Based on a comparison of the overall ethnic minority employment rate versus the employment rate for the white group.

Figure 55: Trend in employment rate by ethnicity, people aged 16-64



The Pakistani / Bangladeshi ethnic group is the largest in West Yorkshire, accounting for 39% of the ethnic minority population of working age. This group also has a relatively low employment rate of 47%.

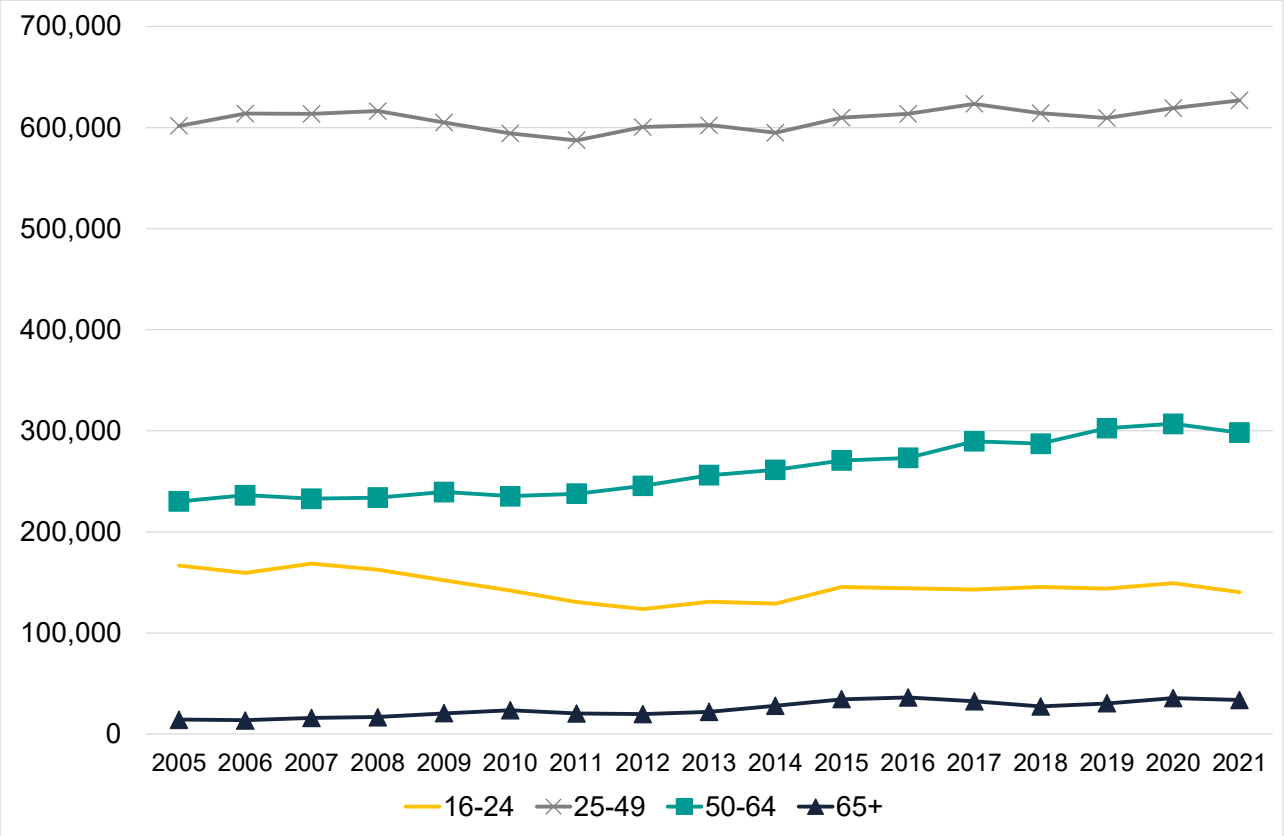
Much of the employment rate gap for people from ethnic minorities is due to the gap for ethnic minority females, which stands at 27% (74% versus 47%) compared with around 11% for males (80% versus 70%). A key factor behind this gap is low economic activity rates among Pakistani / Bangladeshi females, estimated to be only 27% in West Yorkshire[22].

Much of the growth in local employment has been among older people

An analysis of the changing age profile of people in employment in West Yorkshire shows that prior to the COVID-19 crisis older workers were becoming increasingly important to local labour supply.

[22] Estimates from the Annual Population Survey for specific ethnic groups are subject to wide confidence intervals at West Yorkshire level.

Figure 56: Trend in employment by age band, West Yorkshire



Source: Annual Population Survey, July to June 2012/13 and July to June 2019/20

Between 2012/13 and 2020/21, total employment in West Yorkshire for those aged 16+ saw net growth of 88,000 or 9%. There was growth in employment across all broad age bands but the biggest contributor by far was among people aged 50-64. There was net growth in this age band of around 42,000, equivalent to 48% of total employment growth over this period. Whereas the number of people in employment aged 50-64 increased by 16%, for 16-24 year olds it was 7% and for 25-49 the number employed grew by 4%. The number of people aged 65 and over increased fastest – by 53% - but from a small base. The over-50s now account for 27% of all people in employment in West Yorkshire.

Older people are still much less likely to be in employment than younger age groups. The local employment rate for people aged 50 to 64 is 70%, 15 points lower than the rate enjoyed by people aged 25 to 49. Both figures are slightly below their respective national averages. As the population ages it is clearly of vital importance that the contribution to the economy of older people is maximised.

However, national data suggests that the potential of older workers is not being maximised. The average age of leaving the labour market has increased over the past two decades, but it is still lower than it was in 1950 and is not keeping pace with increases in life expectancy. As people approach State Pension age (SPA), the rate of employment declines steeply and economic inactivity rates rise as people leave the labour market

'early'. Although many leave the labour market voluntarily others do so for involuntary reasons linked to ill-health, caring responsibilities, or redundancy[23].

4.4 Qualification Profile

One of the key challenges facing West Yorkshire is a deficit in its skills base relative to other parts of the UK. This is closely associated with its underperformance on productivity and innovation. West Yorkshire has seen improvement in its qualification profile in recent years but a significant gap remains.

West Yorkshire has fewer people qualified at Level 4 and above than nationally, although the gap has narrowed

The availability of people with higher level qualifications at Level 4 and above is a key area of under-performance for the region. With 38% of its population qualified to this level, West Yorkshire is five points below the national average of 43%.

The proportion of working age people in West Yorkshire with no qualifications continued to fall from 9% in 2019 to 8% in 2020, leaving a single point gap with the national average, at 6%.

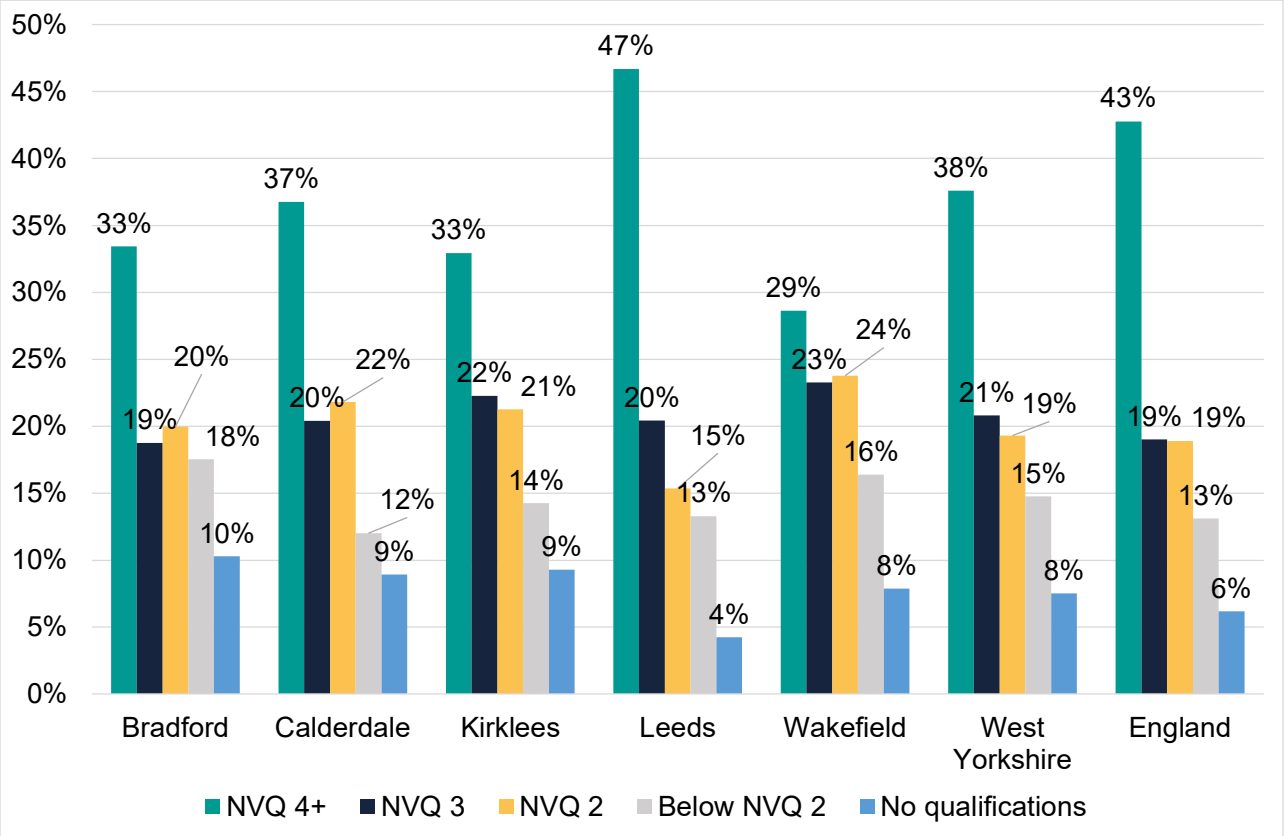
Attainment at level 2 is often regarded as the threshold for basic employability. More than a fifth (22%) of working age people are qualified below this level in West Yorkshire, compare with the national average of 19%.

In absolute terms these percentage differences are equivalent to 75,000 fewer people locally with qualifications at Level 4 and above and 43,000 more people qualified below Level 2 or with no qualifications.

West Yorkshire is relatively strong in terms of the proportion of people who hold their highest qualification at an intermediate level i.e. at level 3 and level 2.

[23] DWP (2017) "Fuller Working Lives: Evidence Base 2017" [online]

Figure 57: Profile of highest qualification held by working age (16-64) population, 2020

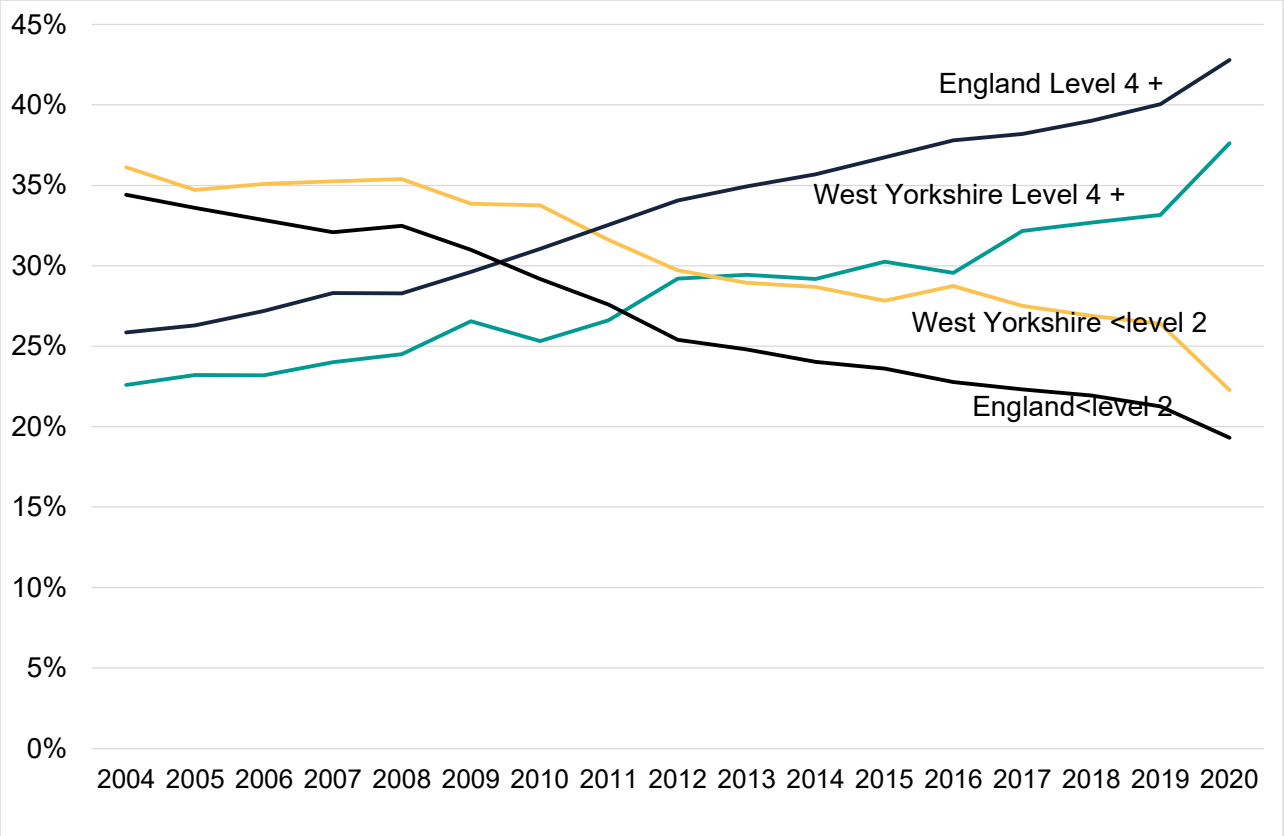


Source: Annual Population Survey, January – December 2020

The proportion of people qualified at level 4 and above in West Yorkshire has followed a sustained upward trend over the last decade. A sharp increase of four percentage points in 2020 narrowed the gap with the national average (which improved by 3 points), although the deficit remains significant at around 5 points.

There was also an improvement in the proportion of people qualified below level 2 or holding no qualifications in 2020, falling by 4 points from 26% to 22%, and closing the gap with the national average, which fell by 2 points to 19%.

Figure 58: Trend in in proportion of working age population qualified at Level 4+ versus proportion with no qualifications / qualified below Level 2

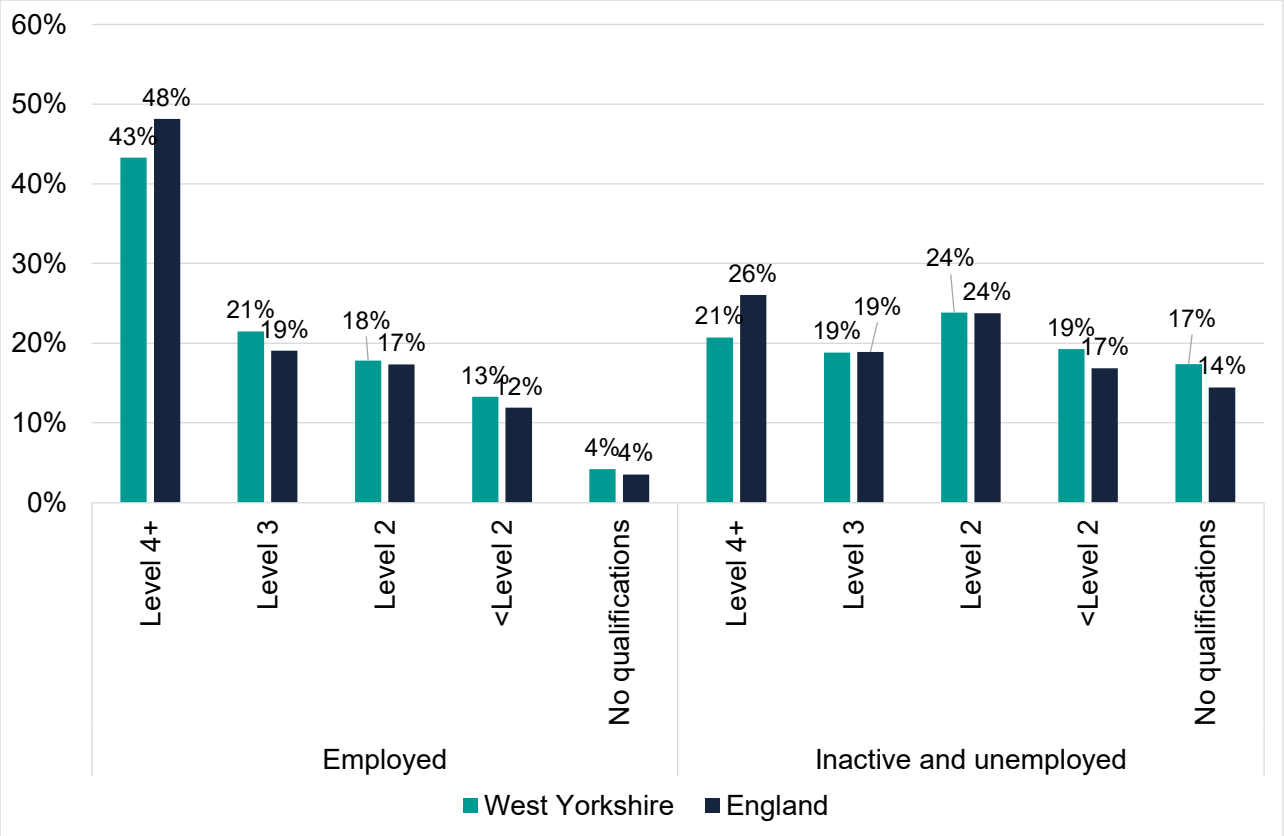


Source: Annual Population Survey

The overall qualification profile of West Yorkshire conceals marked differences at district level. For example, the proportion qualified at level 4 and above is higher than the national average in Leeds. Conversely, in Wakefield it is 14 points lower (at 29%) and around 10 points lower in Kirklees and Bradford (both 33%). All local authorities have a higher proportion of working age people who are qualified below level 2 or hold no formal qualifications, except Leeds where it is one point lower (18%). In Bradford, it is 9 points higher than nationally at 28%.

The deficit with the national average in terms of qualification performance applies to people in work as well as the unemployed and inactive. The biggest gap is at level 4+, both for people in employment and for the inactive and unemployed. The proportion of unemployed and inactive people in West Yorkshire qualified at this level is 5 points lower than nationally, whilst the equivalent gap for the employed is also 5 points.

Figure 59: Profile of highest qualification held by working age (16-64) population by economic status, 2020



Source: Annual Population Survey, January – December 2020

The qualification profile of the unemployed / inactive is very different to that of the employed. The employed are more than twice as likely to be qualified at Level 4 and the unemployed / inactive are around four times as likely to hold no formal qualifications as the employed.

4.5 Qualification attainment of young people

The Department for Education produces statistics on the attainment of 19-year olds at the end of each academic year. This provides an important insight concerning the in-flow into the labour market of qualified people.

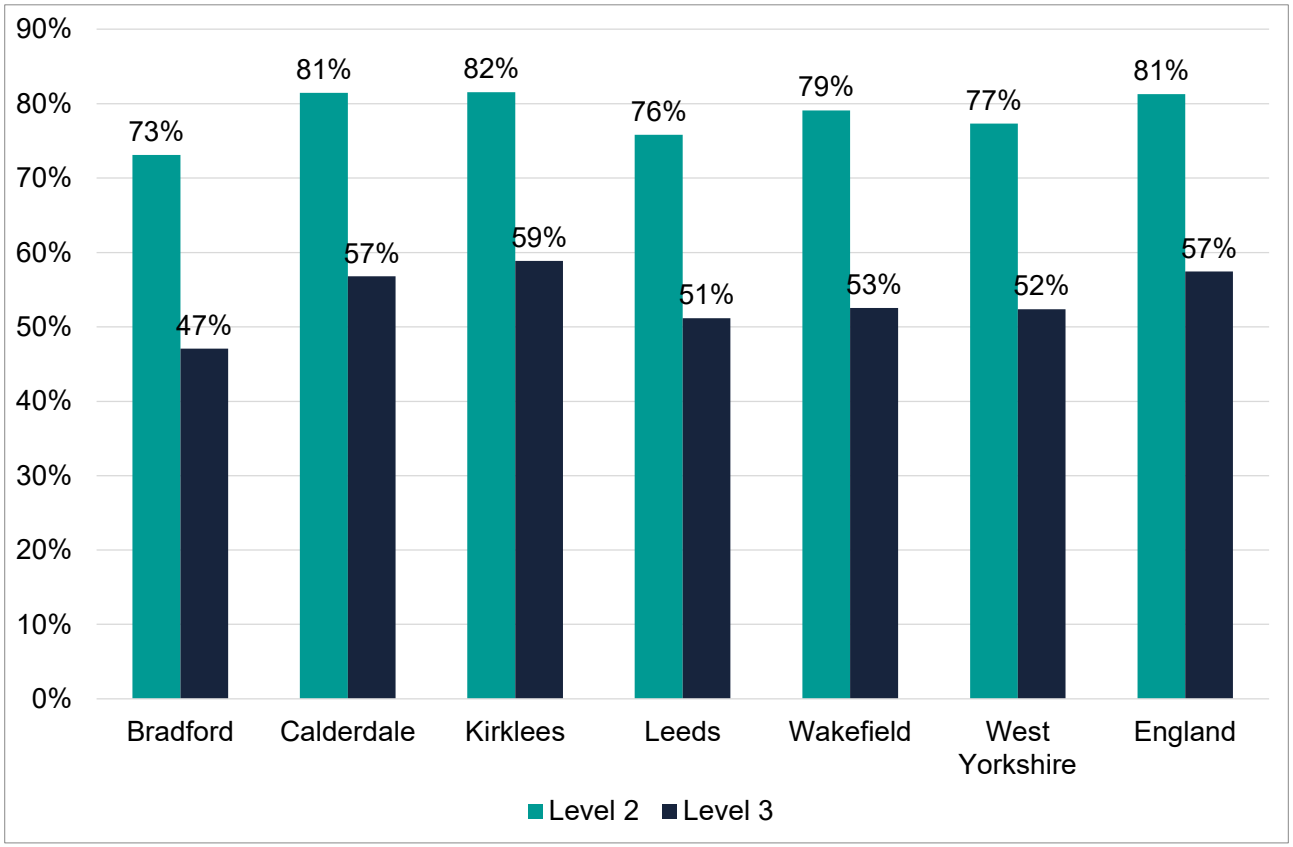
As noted above, the qualification profile of West Yorkshire's population is relatively poor, with a smaller proportion of people qualified at level 4 and above than nationally and a greater proportion with no qualifications or qualified below level 2. Although there is some evidence to show that much of this gap is due to the qualification profile of adults already in the labour force, data relating to the attainment of young people at age 19 indicates that new entrants also contribute to the widening gap with the national average.

The attainment of young people at level 2 and level 3 contributes to West Yorkshire's qualification deficit

Young people in West Yorkshire are less likely to have achieved a level 2 qualification by the age of 19 than their national counterparts. The proportion is 77%, 4 points lower than the England average. Two districts (Calderdale and Kirklees) match the national average but in Bradford only 73% achieve level 2 by the age of 19, 8 points behind the national average, whilst Leeds is around 5 points behind on 76%.

This underperformance at level 2 feeds through into a similar gap at level 3. Only 52% of young people in West Yorkshire have achieved level 3 by the age of 19, 5 points below the national average of 57%. Again, Calderdale and Kirklees perform well relative to the national average but Bradford is 10 points behind the average at 47%.

Figure 60: Proportion of young people achieving qualifications at level 2 and level 3 equivalent by age 19 in 2020 (State sector)



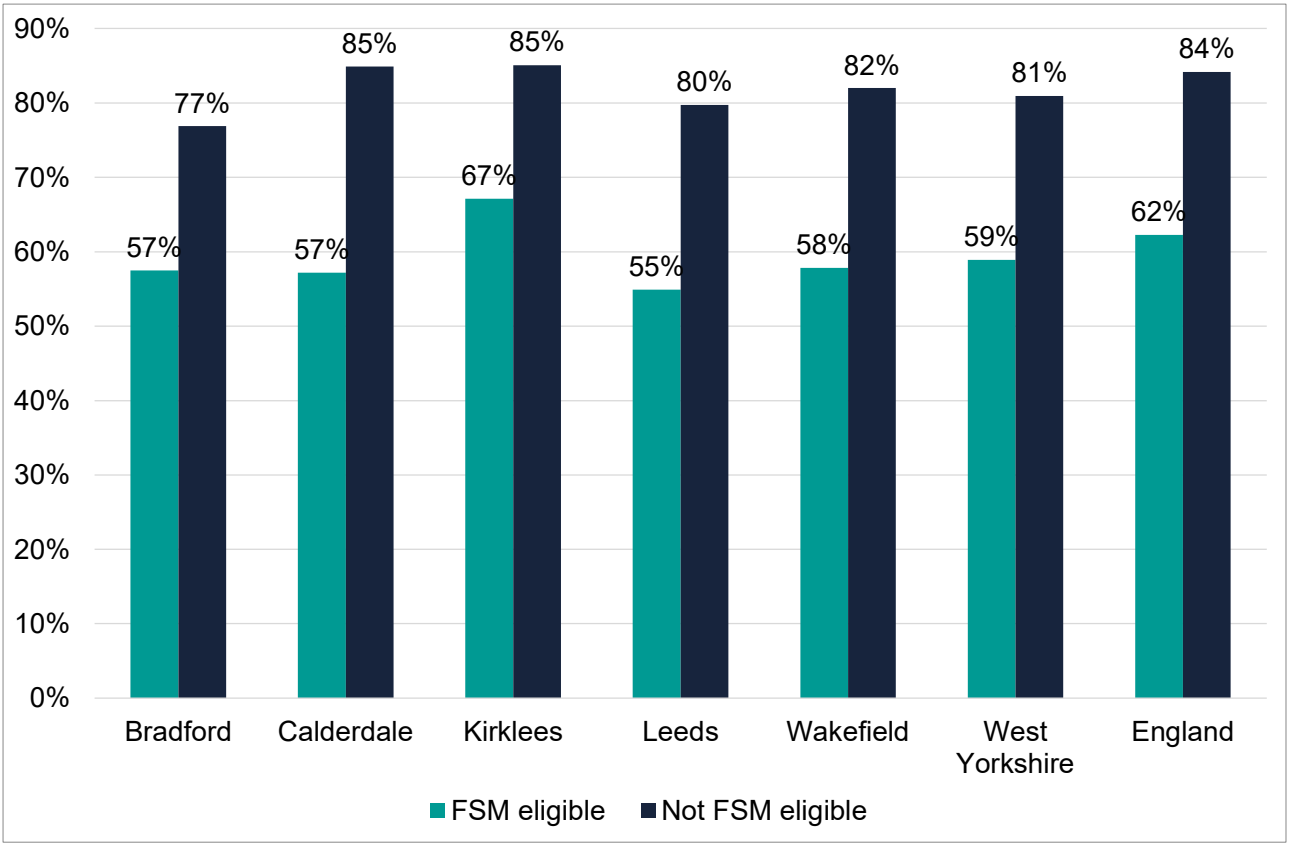
Source: Department for Education

This relatively poor performance on qualification attainment at age 19 constrains entry into higher education and helps to perpetuate West Yorkshire's skills deficit. Leeds' relatively poor performance on attainment at age 19 also contrasts sharply with its comparatively strong overall qualification profile (see above).

Pupils eligible for free school meals are subject to a big attainment gap at age 19

Figure 83 focuses on attainment at level 2 by age 19 and shows the performance of pupils who were eligible for free school meals while at school in comparison with other pupils who were not eligible.

Figure 61: Proportion of young people achieving qualifications at level 2 equivalent by age 19 in 2020 (State sector) by free school meal eligibility



Source: Department for Education

It demonstrates the considerable impact that disadvantage has on attainment. In both West Yorkshire and at national level the attainment gap between these two groups is 22 percentage points. This widens to 25 points in Leeds and 28 points in Calderdale, in contrast to 18 points in Bradford and 19 points in Kirklees.

Attainment is poorer in West Yorkshire than nationally for both free school pupils and those not eligible, with a gap of 3 points for both groups. Kirklees outperforms the national average in both cases (by a substantial margin in the case of free school meal pupils) whilst Calderdale exceeds the national average by 1 point for non-free school meal pupils but trails by 5 points in respect of free school meal pupils.

4.6 Commuting

West Yorkshire's labour market is not a closed system: commuting behaviour has a key bearing on the labour supply that is available to meet demand from local employers.

West Yorkshire has significant inward and outward commuting flows with a net inflow of higher skilled workers

The local area is characterised by strong commuting flows, with large numbers of local residents travelling out of the area to work and a considerable number commuting into the area from neighbouring locations.

91% of local residents who are in employment work in West Yorkshire (783,000 people) with the remaining 9% of residents (77,000 people) commuting to jobs elsewhere. Almost nine-out-of-10 people (89%) who work in West Yorkshire also live in the area, with the remaining 11% (100,000 in absolute terms) commuting from outside.

Hence West Yorkshire has a net commuting inflow of around 24,000.

At district level, there is a varied picture. Leeds has a net inflow of workers from outside Leeds of 56,000, whilst Kirklees has a net outflow of 25,000 to workplaces outside Kirklees, mostly within West Yorkshire.

The main destinations for outward commuters from West Yorkshire are:

- Harrogate, the commuting destination for 8,000 West Yorkshire residents, the majority of them from Leeds.
- Barnsley, which is the destination for around 6,000 commuters, primarily from Wakefield and Kirklees.
- Selby, the destination for around 5,000 commuters, mostly from Leeds and Wakefield.
- Craven, which attracts approximately 5,000 commuters, mainly from the adjacent district of Bradford.
- York, which is the destination for around 4,000 West Yorkshire commuters, principally from Leeds.

The most significant sources of inward commuters into West Yorkshire are Barnsley (13,000), Harrogate (10,000) and Selby (10,000), followed by York (6,000) and Doncaster (5,000). There are significant inward flows from Barnsley to Wakefield, Leeds and Kirklees. The main destination of Harrogate commuters is Leeds and the main flows from Selby are to Leeds and Wakefield.

The key destination for inward commuters from outside West Yorkshire is Leeds (47% of the total) followed by Wakefield (21%) and Bradford (15%). Calderdale (8%) and Kirklees (9%) account for relatively small proportions.

The proportion of people in employment who work outside their home district ranges from 22% for Leeds to 37% for Kirklees, with high proportions for Wakefield (35%) and Calderdale (36%) and 30% for Bradford.

Around a fifth of residents commute within West Yorkshire, i.e. travel between constituent districts for work, compared with 9% who commute outside of West Yorkshire. Of the 1788,000 people (21% of the total) who do commute in this way, the largest flows are

between Bradford and Leeds (28,000), Wakefield and Leeds (22,000), Kirklees and Leeds (20,000), Leeds and Bradford (17,000) and Leeds and Wakefield (13,000).

A comparison of the occupational profile of people working in West Yorkshire with that of West Yorkshire residents, based on the Annual Population Survey, suggests that there is a net inflow of workers in higher skilled occupations i.e. there are more people working in these roles in West Yorkshire workplaces than there are local residents employed in these roles. For professional occupations the difference is 8,000. There are also 5,000 more people employed in administrative roles in West Yorkshire workplaces than residents working in these roles, again implying a net influx of commuters in this occupation.

The distribution of jobs relative to population across West Yorkshire is also reflected in job density rates, which show the ratio of workplace jobs[24] to resident population. At local authority level the rate ranges from 0.68 in Kirklees and 0.69 in Bradford to 1.01 in Leeds. Calderdale and Wakefield are in the middle of the range with densities of 0.84 and 0.79 respectively. The national average is 0.87.

This pattern confirms the importance of Leeds as a commuting centre within West Yorkshire.

[24] Workplace jobs comprise employee jobs, the self-employed, government-supported trainees and HM Forces.

Figure 62: Commuting patterns, people aged 16 and over

	Live in area, work in area	Live in area, work outside area	Work in area, live outside area	Net inward commuting	Commute within WY	Commute outside WY	% of residents who live in area, work in area	% residents who work outside area	% of those working in area who live outside area	% residents who commute within WY	% residents who commute outside WY
Bradford	129,611	55,304	50,439	-4,865	40,930	14,374	70%	30%	28%	22%	8%
Calderdale	52,014	28,713	27,016	-1,697	21,485	7,228	64%	36%	34%	27%	9%
Kirklees	102,258	59,704	34,590	-25,114	46,734	12,970	63%	37%	25%	29%	8%
Leeds	236,326	65,721	121,323	55,602	38,990	26,731	78%	22%	34%	13%	9%
Wakefield	84,977	45,507	45,148	-359	30,103	15,404	65%	35%	35%	23%	12%
West Yorks	783,428	76,707	100,274	23,567	178,242	76,707	91%	9%	11%	21%	9%

Source: Census of Population, 2011

4.7 Apprenticeships

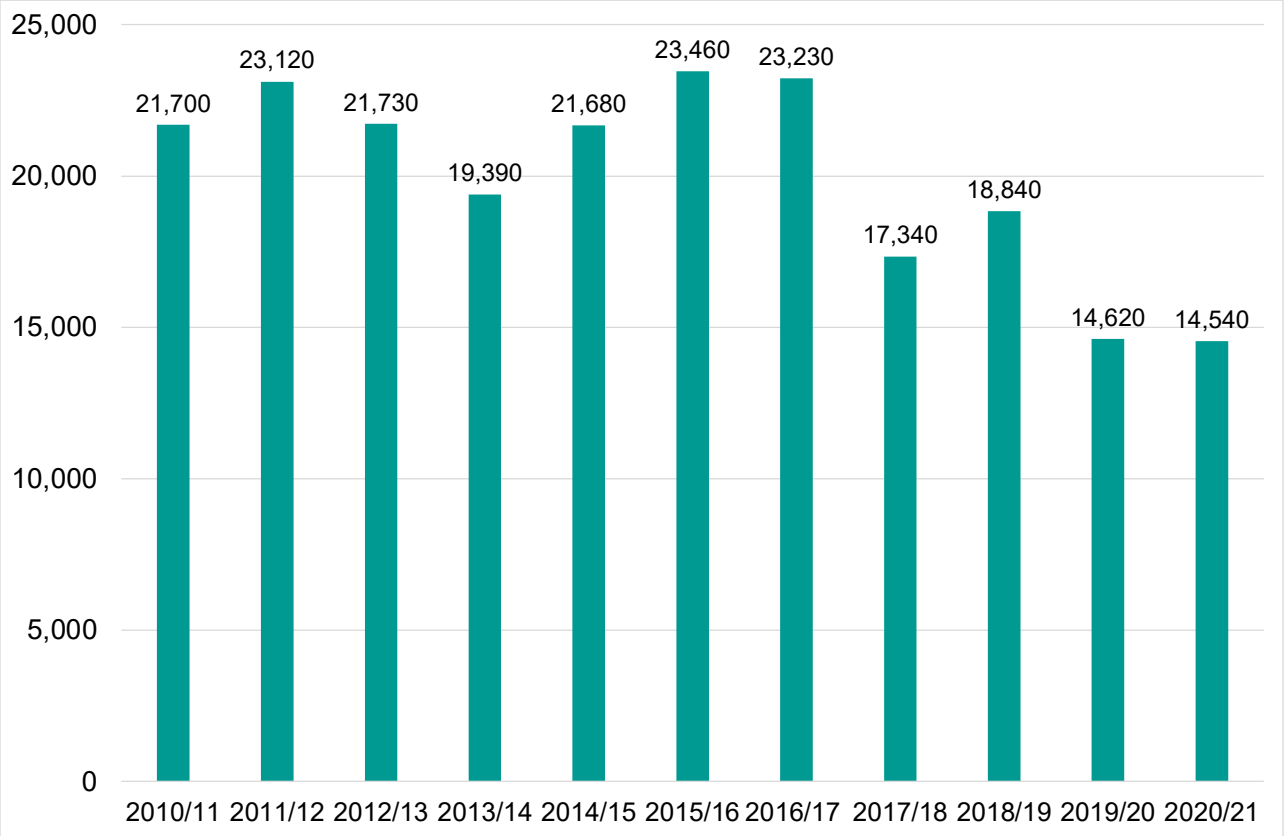
Apprenticeships are a key means for employers to grow their own skills and to address their specific needs, particularly in areas of skills shortage, as well as providing workers with a sustainable career pathway.

Apprenticeship take-up fell by more than a fifth during the academic year

There were 14,528 apprenticeship starts in West Yorkshire in the course of the 2020/21 academic year. Starts fell slightly by 92 (-1%) compared with the previous year; this is similar to the national average picture, which declined by 0.3%. The decline in West Yorkshire follows a decrease of 22% in 2019/20. Local starts in 2020/21 were 23% lower than pre-pandemic (2018/19) and 38% lower than at their peak in 2015/16.

Levy-funded starts accounted for 60% of the total in 2020/21 in West Yorkshire, the same proportion as in the previous year and similar to the 57% recorded in 2018/19. Although levy starts in 2021/21 were 19% down on 2018/19 (pre-pandemic), non-levy starts fell by 28% over the same period. More than 80% of Higher Apprenticeships were funded through the levy, whilst more than three quarters of starts for 25+ year olds but only 27% of starts for under-19s were levy-funded.

Figure 63: Trend in total apprenticeship starts, West Yorkshire



Note: figures are rounded to nearest 10
Source: Department for Education

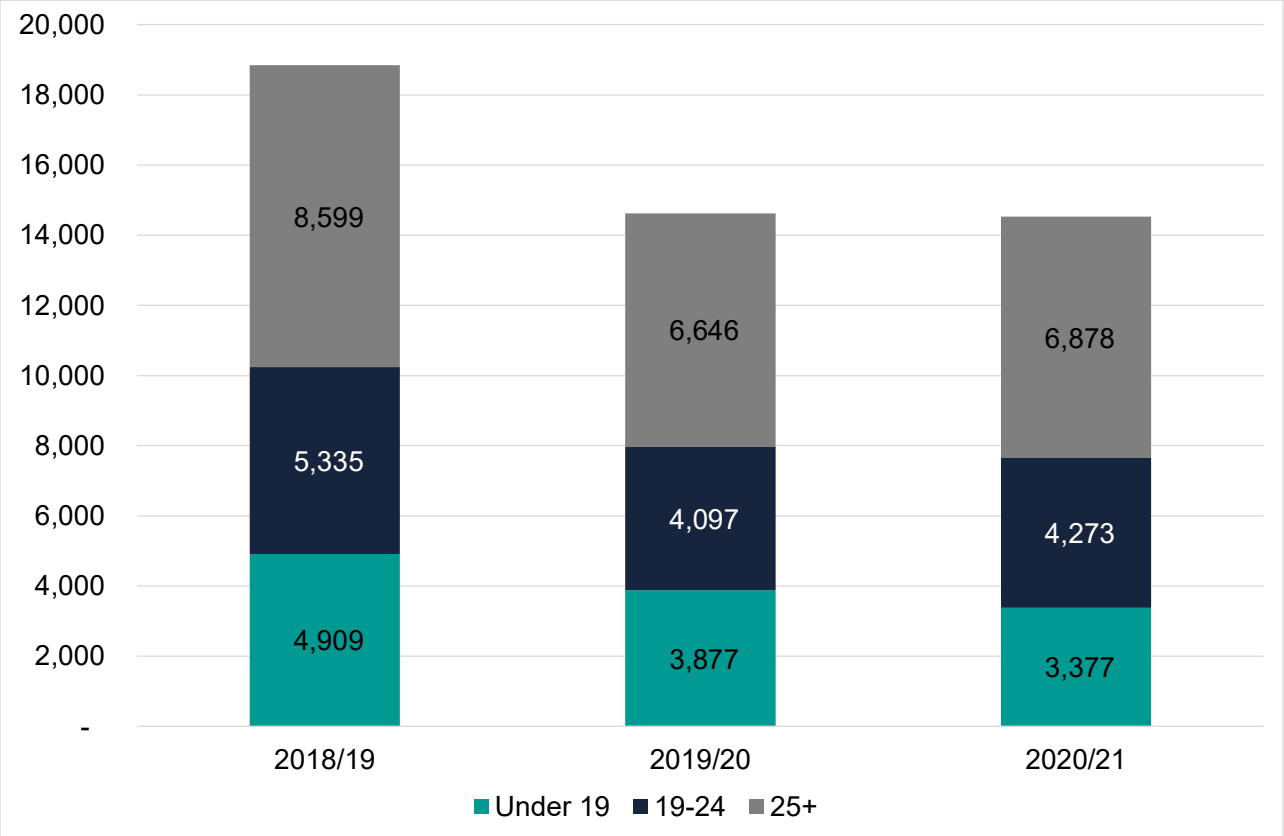
During 2020/21, there were just under 6,500 apprenticeship achievements in West Yorkshire, a fall of 22% on 2018/19.

Starts fell for under-19s during the academic year

During 2020/21, 47% of starts were for apprentices aged 25 and over, with 29% aged 19-24 and 23% aged under 19.

Starts among the under-19s fell by 13% in 2020/21 – whereas they grew among 19-24 year olds (+4%) and those aged 25+ (+3%). Under-19 starts are now almost one-third (31%) lower than in 2018/19 compared with an overall fall in starts of 23%.

Figure 64: Trend in apprenticeship starts by age, West Yorkshire

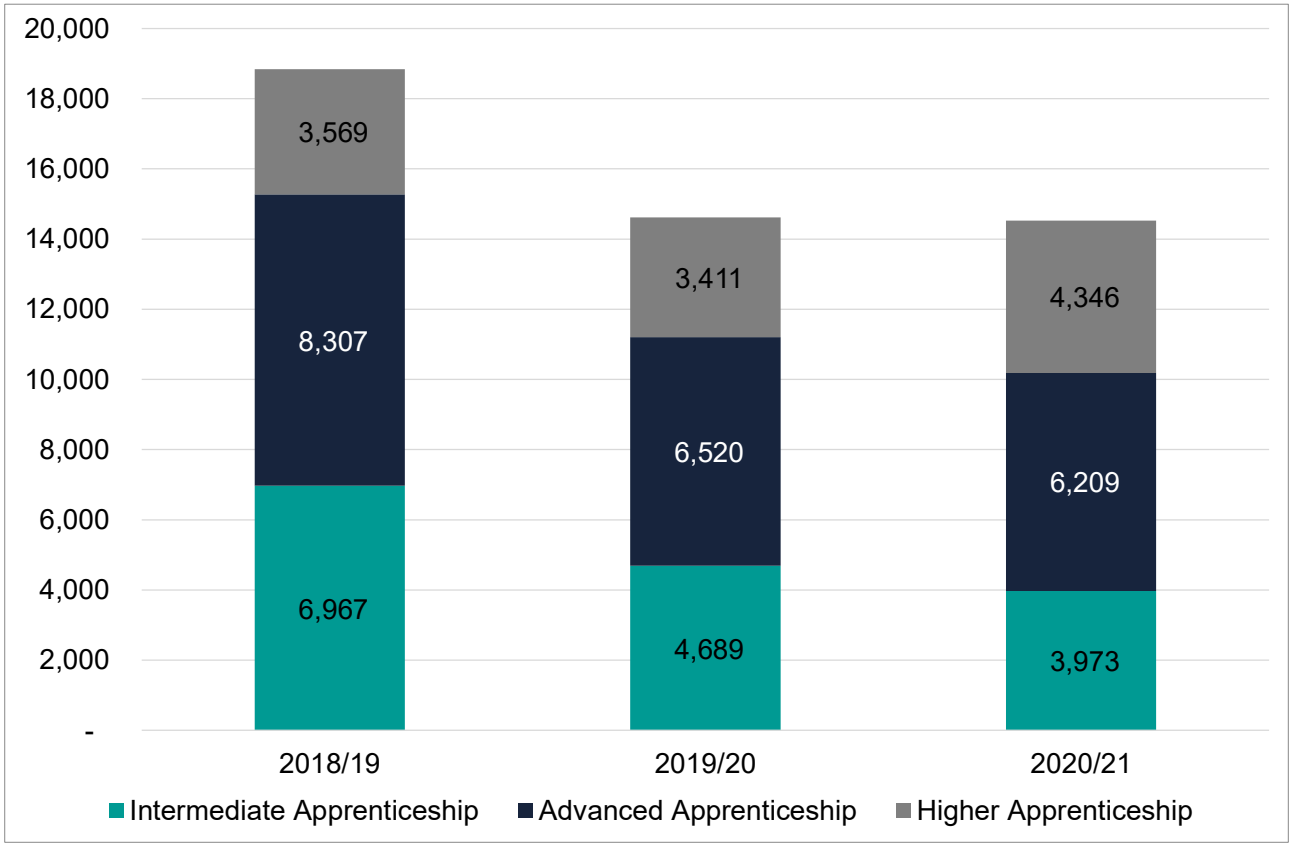


Source: Department for Education

Higher apprenticeships starts grew strongly

During 2020/21, starts on intermediate apprenticeships accounted for 27% of total starts (down from 32% in the previous academic year and from 37% in 2018/19), advanced apprenticeship starts contributed 43% (similar to the previous year) and higher apprenticeships 30% (up from 23% in 2019/20 and only 19% in 2018/19).

Figure 65: Trend in starts by level, West Yorkshire



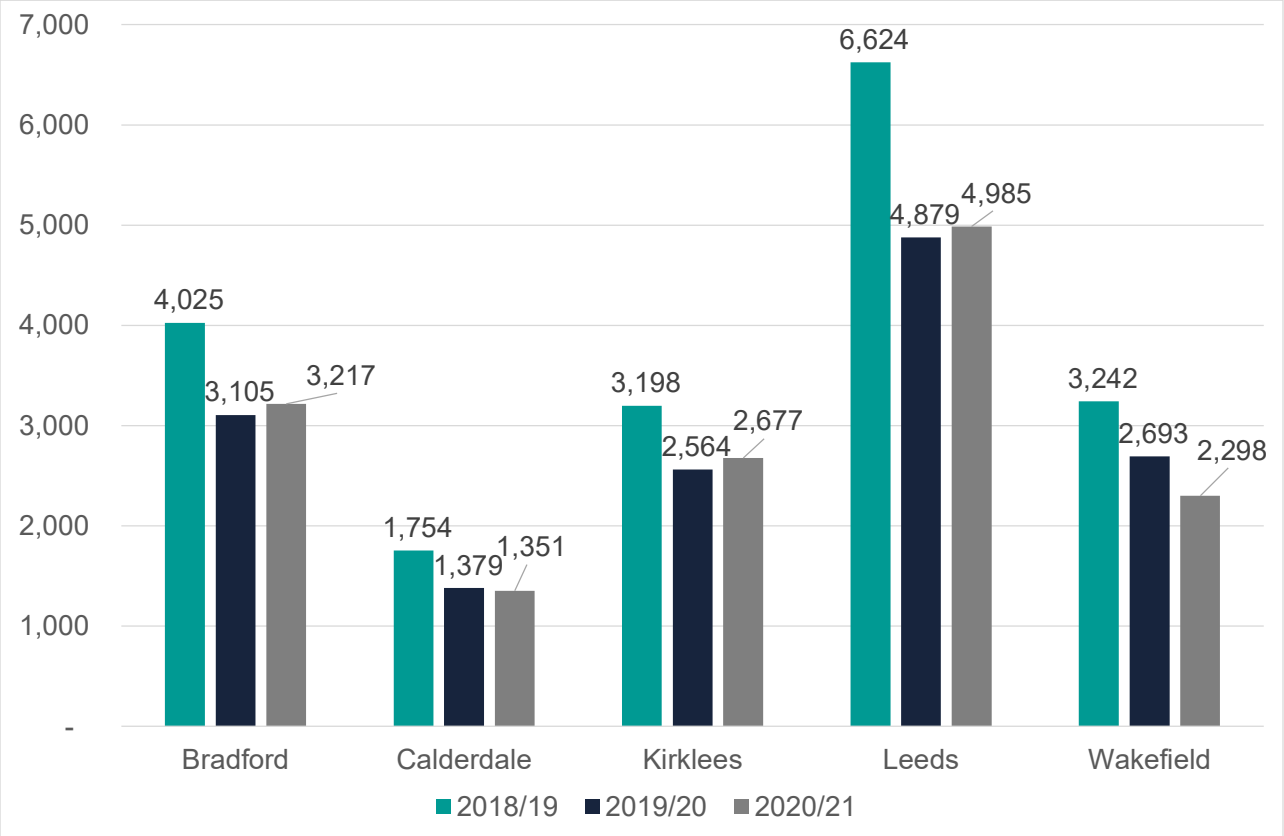
Source: Department for Education

This change in shares reflects a further decline in intermediate apprenticeship starts (by -716 or -15%), whilst advanced apprenticeships fell by 311 or 5%. Higher apprenticeships saw substantial growth of 27% or 935. There was a similar pattern of change nationally, although growth in higher apprenticeships was less strong at +20%.

Wakefield saw a significant fall in apprenticeship starts during the academic year

Based on location of learner residence, Leeds contributed the greatest number of apprenticeship starts during 2020/21 (34% of the West Yorkshire total) followed by Bradford (22%), Kirklees (18%), Wakefield (16%) and Calderdale (9%).

Figure 66: Change in total apprenticeship starts by local authority



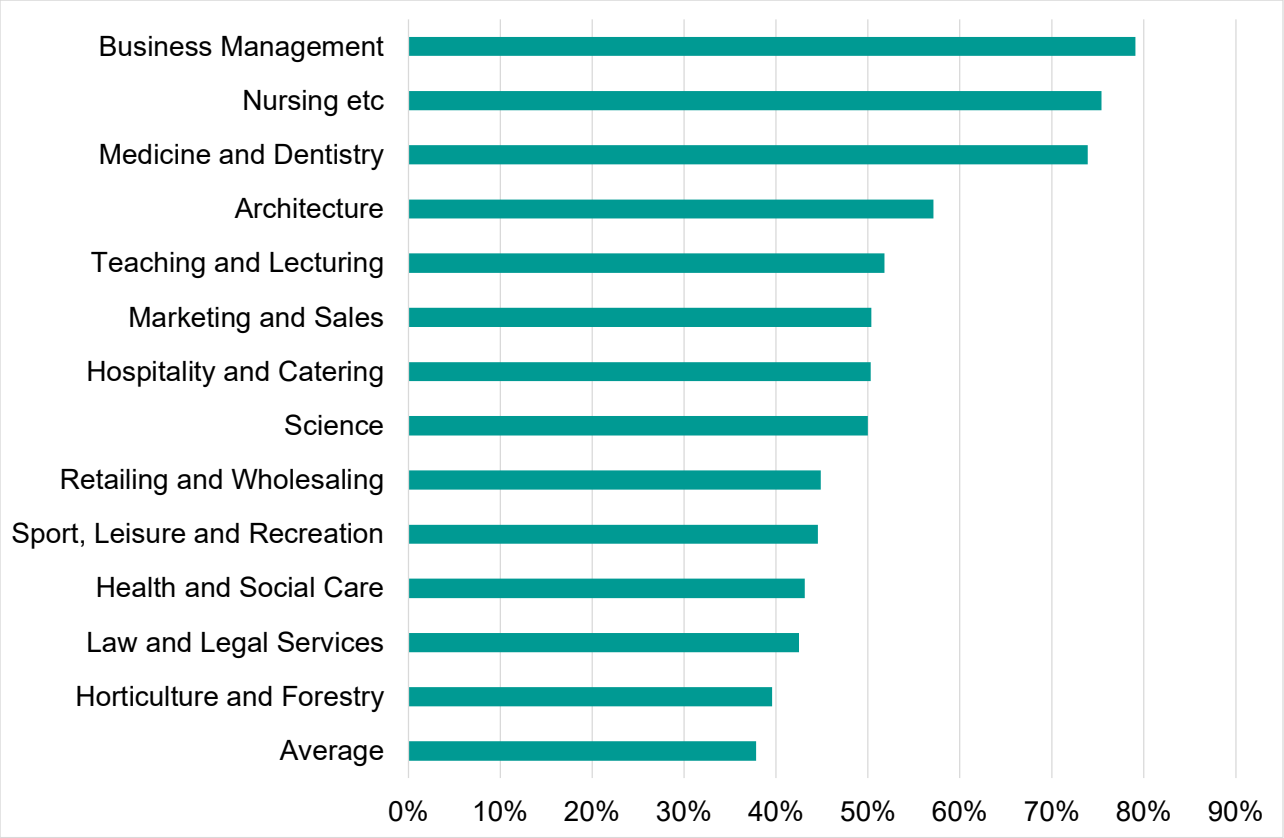
Source: Department for Education

Three out of five local authorities saw growth in starts during the year, ranging from a 2% increase in Leeds to 4% in both Bradford and Kirklees. However, this was offset by a small reduction in Calderdale (-2%) but a much larger one (-15%) in Wakefield.

Apprenticeships are increasingly being used to develop existing staff

A core aim of apprenticeships is to provide an entry route into a sustainable career. Increasingly, however, apprenticeships are being used by employers to train their existing staff, a trend that has been accelerated by the introduction of the levy. Overall, just under 40% of apprenticeships fall into this category. As the figure, below, shows, in some subject areas a majority of apprenticeship starts are for people who have been employed by the company for more than 12 months, with Business Management apprenticeships being a classic example.

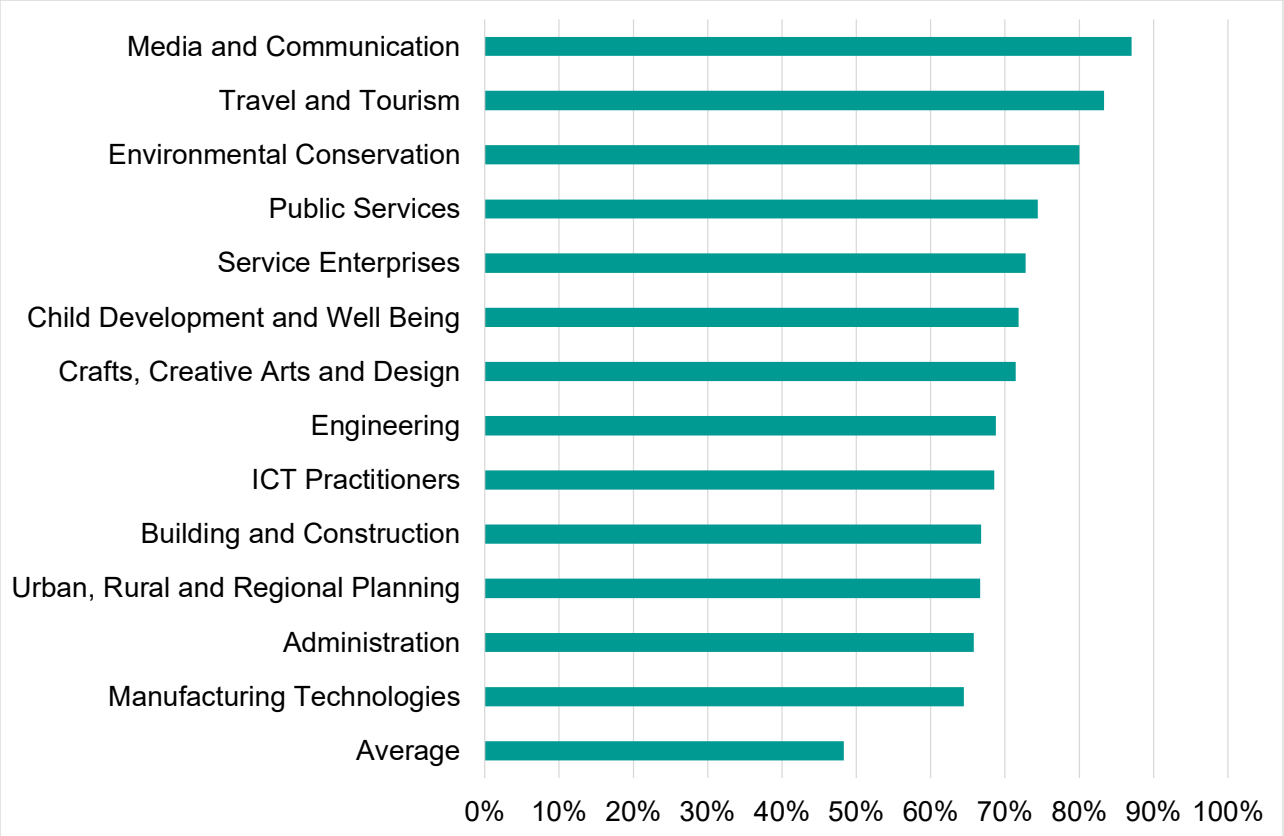
Figure 67: % of starts by apprentices employed for 12 months or more by Tier 2 subject, West Yorkshire, 2020/21 academic year



Source: Department for Education

In other subject areas, a majority of apprentices have been employed for 3 months or less, implying that the focus is on the development of recent or new recruits. Key examples include Media and Communication, Travel and Tourism and Public Services.

Figure 68: % of starts by apprentices employed for 3 months or less by Tier 2 subject, West Yorkshire, 2020/21 academic year



Source: Department for Education

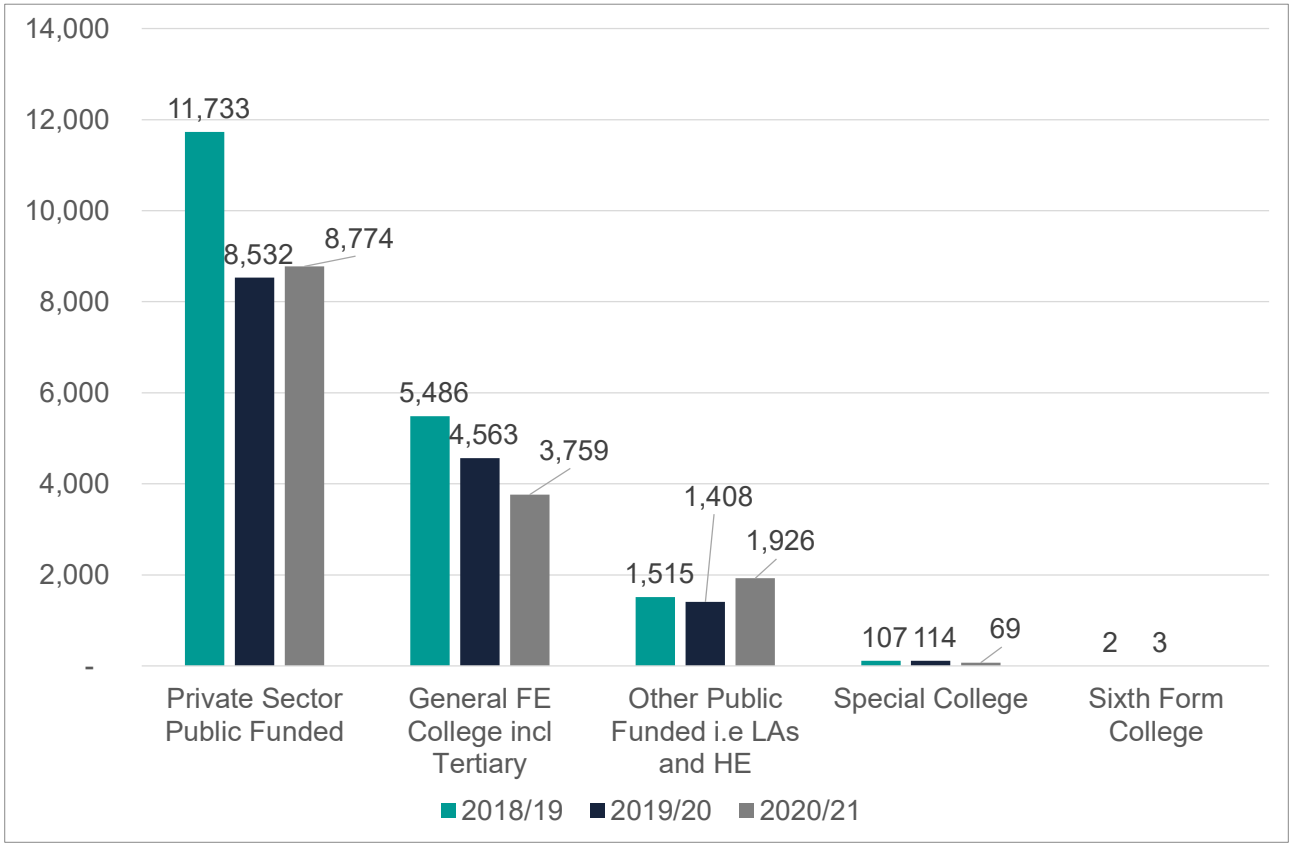
Overall, just under 50% of apprenticeship starts are for people employed for 3 months or less.

Providers

Private-sector public funded providers delivered 8,774 apprenticeship starts in West Yorkshire in 2020/21, a majority (60%) of total starts. This figure represents a slight increase of 3% on the previous academic year.

General FE colleges contributed 3,759 starts, 26% of the total - a decrease of 18% on the previous year.

Figure 69: West Yorkshire apprenticeship starts by provider type



Source: Department for Education

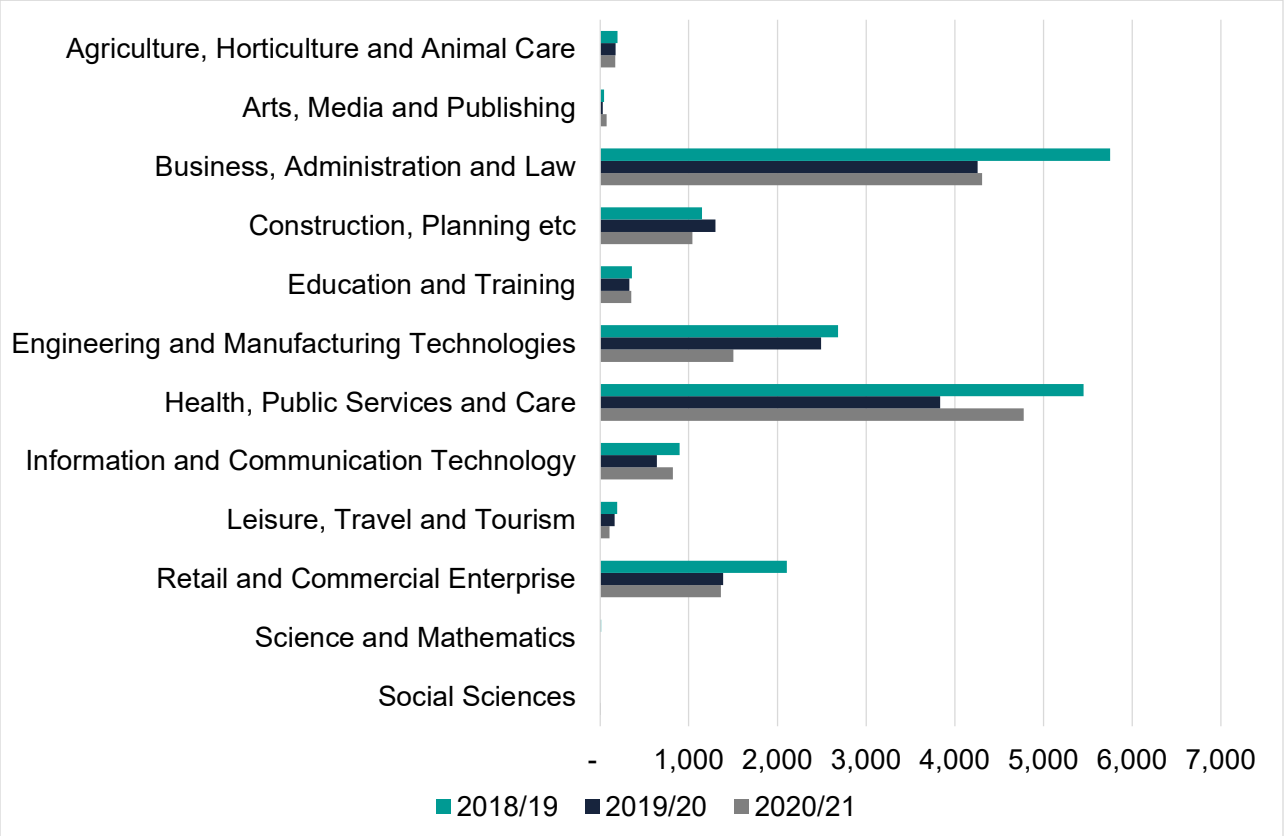
Other publicly funded providers (including local authorities and HEIs) were responsible for 13% of total starts and saw growth of 37% year on year. A number of universities registered large increases, including Leeds Trinity, Leeds Beckett and the University of Huddersfield.

Subject area

Performance was extremely mixed in terms of starts by subject area. There were increases in starts for six of 12 subjects, most notably *Health, Public Services and Care* (+940, +25%), *Information and Communication Technology* (+182, +28%) but also *Business, Administration and Law* (+52, +28%) and *Arts, Media and Publishing* (+44, +142%).

On the other hand there were big declines for several subject areas, including *Engineering and Manufacturing Technologies* (-989, -40%), *Construction, Planning and the Built Environment* (-257, -20%) and *Leisure, Travel and Tourism* (-57, -37%).

Figure 70: Trend in apprenticeship starts by sector subject area, West Yorkshire

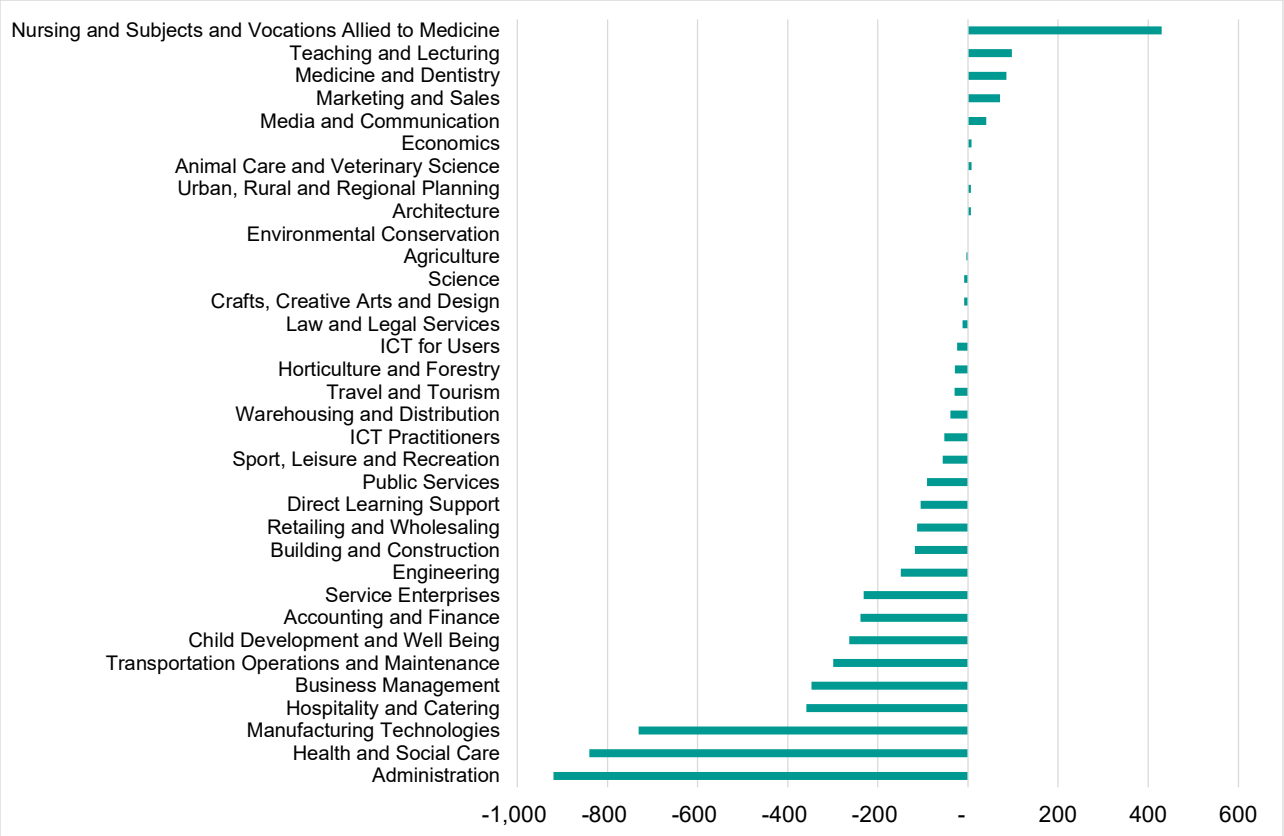


Source: Department for Education

The vast majority of subjects had fewer starts in 2020/21 than in 2018/19 (pre-pandemic). The biggest deficits were for *Business, Administration and Law* (-1,445, -25%), *Engineering and Manufacturing Technologies* (-1,179, -44%), *Retail and Commercial Enterprise* (-742, -35%) and *Health, Public Services and Care* (-679, -12%).

There are marked differences in the subject profile of starts by sex. The largest areas in terms of volume of female starts were *Health, Public Services and Care*, *Business, Administration and Law* and *Retail and Commercial Enterprise*.

Figure 71: Net change in starts by tier 2 framework sector subject area, 2020/21 vs 20181/9, West Yorkshire



Source: Department for Education

Drilling down into Tier 2 subject areas and comparing 2020/21 with the pre-pandemic position (2018/19) only a few detailed subject areas have seen net growth, such as *Nursing*, *Teaching*, *Medicine and dentistry* and *Marketing and sales*. In the main these subjects have seen growth at Higher level and typically for learners aged 25 and above.

Conversely, other subjects such as *Administration*, *Health and social care*, *Manufacturing technologies*, *Hospitality and catering* and *Business management* have seen substantial net falls in absolute terms relative to before the health crisis.

For some subjects the decline in starts has been severe in proportionate terms. Most notably *Manufacturing technologies* contracted by 72% during this period, opening up a significant potential gap in provision.

Much of the decline in *Administration* has been at intermediate level with all age groups affected.

For *Health and social care*, the intermediate level has also been worst-affected but with a reduction in Higher level starts also. The decline has been concentrated among the 19+ age bands.

For *Manufacturing technologies*, the reduction in starts has affected all age bands, affecting take-up at both intermediate and advanced levels.

The *ICT practitioners* subject area saw a modest overall decline in starts. However, the number of starts at intermediate fell to zero in 2020/21 from around 80 in 2018/19.

Some features of the pattern of change at this level reflect what we would expect to see based on what we know about the impact of the pandemic; for example, the increase in nursing starts and the declines in starts linked to the hospitality and retail sectors. Some subjects have seen a degree of recovery in 2020/21 partly offsetting big declines in 2019/20, such as *Health and social care* and *Business management;* but others, like *Manufacturing technologies* have seen a worsening position.

Overall, the number of apprenticeship starts for young people (aged under 25) has seen particularly large declines relative to pre-pandemic in the subjects of Administration (-650; -43%), Manufacturing Technologies (-390, -63%), Health and social care (-300; - 25%); and Engineering (-180; -22%).

We have seen that an employment recovery is in train for most occupations / sectors, which will hopefully feed through into a broad recovery in apprenticeship activity 2021/22.

Table 2: Standards with greatest number of starts by subject area, West Yorkshire, 2019/20 academic year

Sector Subject Area	Level	Framework/Standard Name	Starts
Agriculture, Horticulture and Animal Care	Advanced	Veterinary Nurse	36
Agriculture, Horticulture and Animal Care	Intermediate	Horticulture or Landscape Operative	22
Agriculture, Horticulture and Animal Care	Intermediate	Horticulture	21
Arts, Media and Publishing	Advanced	Event Assistant	7
Arts, Media and Publishing	Intermediate	Sewing Machinist	5
Arts, Media and Publishing	Advanced	Junior Journalist	4
Business, Administration and Law	Advanced	Team Leader and Supervisor	829
Business, Administration and Law	Advanced	Business Administrator	475
Business, Administration and Law	Higher	Operations and Departmental Manager	431
Construction, Planning and the Built Environment	Intermediate	Carpentry and Joinery	219
Construction, Planning and the Built Environment	Advanced	Construction Skills	198
Construction, Planning and the Built Environment	Intermediate	Construction Skills	194
Education and Training	Intermediate	Supporting teaching and learning in schools	77
Education and Training	Advanced	Teaching Assistant	73
Education and Training	Higher	Learning and Skills Teacher	52
Engineering and Manufacturing Technologies	Intermediate	Industrial Applications	380
Engineering and Manufacturing Technologies	Advanced	Installation Electrician and Maintenance Electrician	301
Engineering and Manufacturing Technologies	Advanced	Engineering	238
Health, Public Services and Care	Intermediate	Adult Care Worker	628
Health, Public Services and Care	Advanced	Lead Adult Care Worker	485
Health, Public Services and Care	Advanced	Children's Care Learning and Development	353
Information and Communication Technology	Advanced	Infrastructure Technician	113
Information and Communication Technology	Advanced	Digital Marketer	106
Information and Communication Technology	Intermediate	IT and Telecoms Professionals	88
Leisure, Travel and Tourism	Intermediate	Active Leisure and Learning	37
Leisure, Travel and Tourism	Intermediate	Community Activator Coach	24
Leisure, Travel and Tourism	Advanced	Active Leisure and Learning	23
Retail and Commercial Enterprise	Intermediate	Hair Professional	239
Retail and Commercial Enterprise	Intermediate	Hospitality Team Member	124
Retail and Commercial Enterprise	Intermediate	Retailer	111
Science and Mathematics	Higher	Food Industry Technical Professional (Integrated Degree)	4
Social Sciences	Higher	Professional Economist (Integrated Degree)	4

Source: Department for Education

Higher apprenticeships

As higher skilled jobs increasingly dominate the employment scene, higher apprenticeships gain greater significance particularly for occupations in which exposure to the workplace is key.

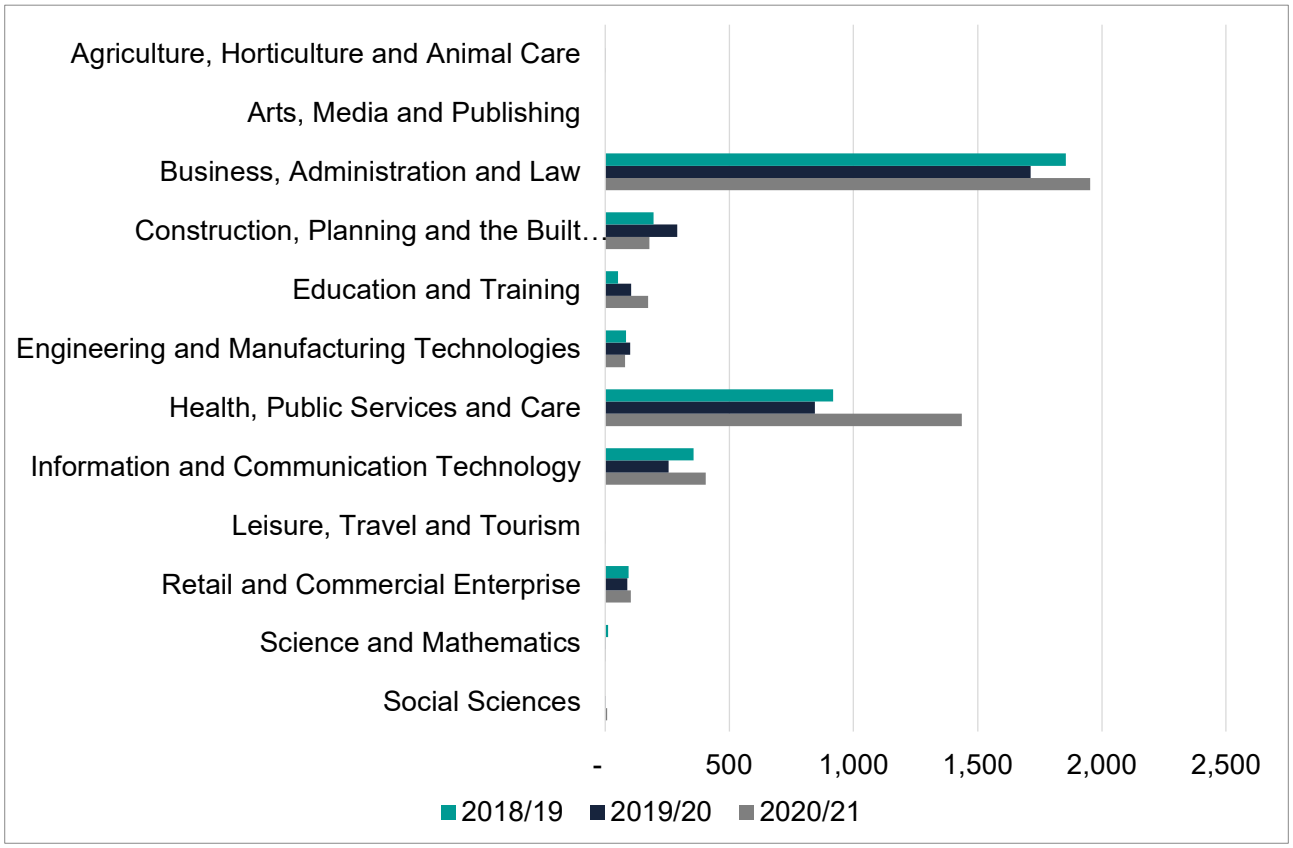
As noted above, the number of higher apprenticeship starts in West Yorkshire increased by 27% in 2020/21, offsetting decline for the other levels and giving a total of around higher 4,300 starts during the academic year.

Apprenticeships at levels 4, 6 and 7 grew strongly in terms of starts, by 46%, 35% and 32% respectively; with starts at level 5 growing by 6%.

The biggest subject areas in terms of starts all grew, including *Health, Public Services and Care* (+591, +70%)*, Business, Administration and Law* (primarily comprising Management apprenticeships) (+240, +14%) and *Information and Communication Technology* (+150; +59%).

In contrast, *Construction, Planning and the Built Environment* declined by 113 (+39%), following growth in the previous academic year.

Figure 72: Trend in higher apprenticeship starts by sector subject area, West Yorkshire



Source: Department for Education

However, there is a continuing concern that higher apprenticeship availability in the local area is narrowly concentrated in a few subject areas, with a combined 78% of all higher

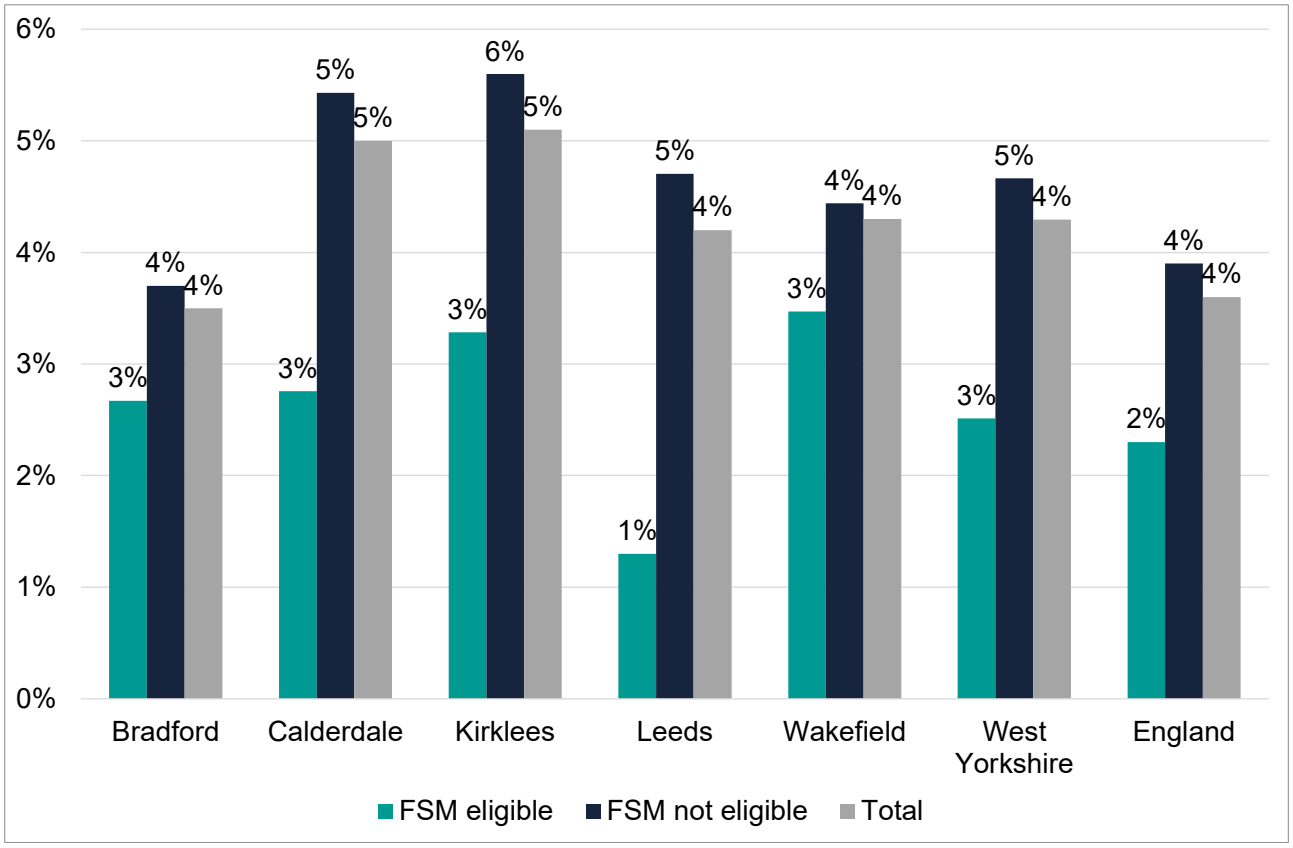
level starts falling within *Business, administration and law* (45%) and *Health, public services and care* (33%). This proportion has remained fairly constant over recent years. Of the first of these subject areas most starts are in Business Management (26% of all starts) and Accountancy apprenticeships (13%); of the second, Care leadership and management and Nursing apprenticeships have the highest take-up.

The shares of higher apprenticeships in the technical areas of *Construction*, *Engineering* and *Information technology* remain small; they currently account for 4%, 2% and 9% of total higher apprenticeship starts respectively. Although higher apprenticeships in Information technology grew in 2020/21, the share of starts in *Construction* and *Engineering* both fell. *Engineering* and *Construction*, in particular, are occupational areas within which apprenticeships are a staple part of people development arrangements at intermediate and advanced levels and offer a particularly valuable mechanism for addressing skills needs in these parts of the economy. An increase in higher apprenticeships would provide a valuable progression pathway to meet the growing demand for higher skilled workers in these occupational areas.

Disadvantaged pupils are less likely to enter an apprenticeship in all parts of West Yorkshire

In considering the supply of skills within West Yorkshire, we need to take account of the inclusiveness of the skills pipeline, as well as the extent to which it is sufficient to meet needs. In the case of apprenticeships, which should provide an important mechanism for social mobility, there are continuing issues about the degree to which they are inclusive.

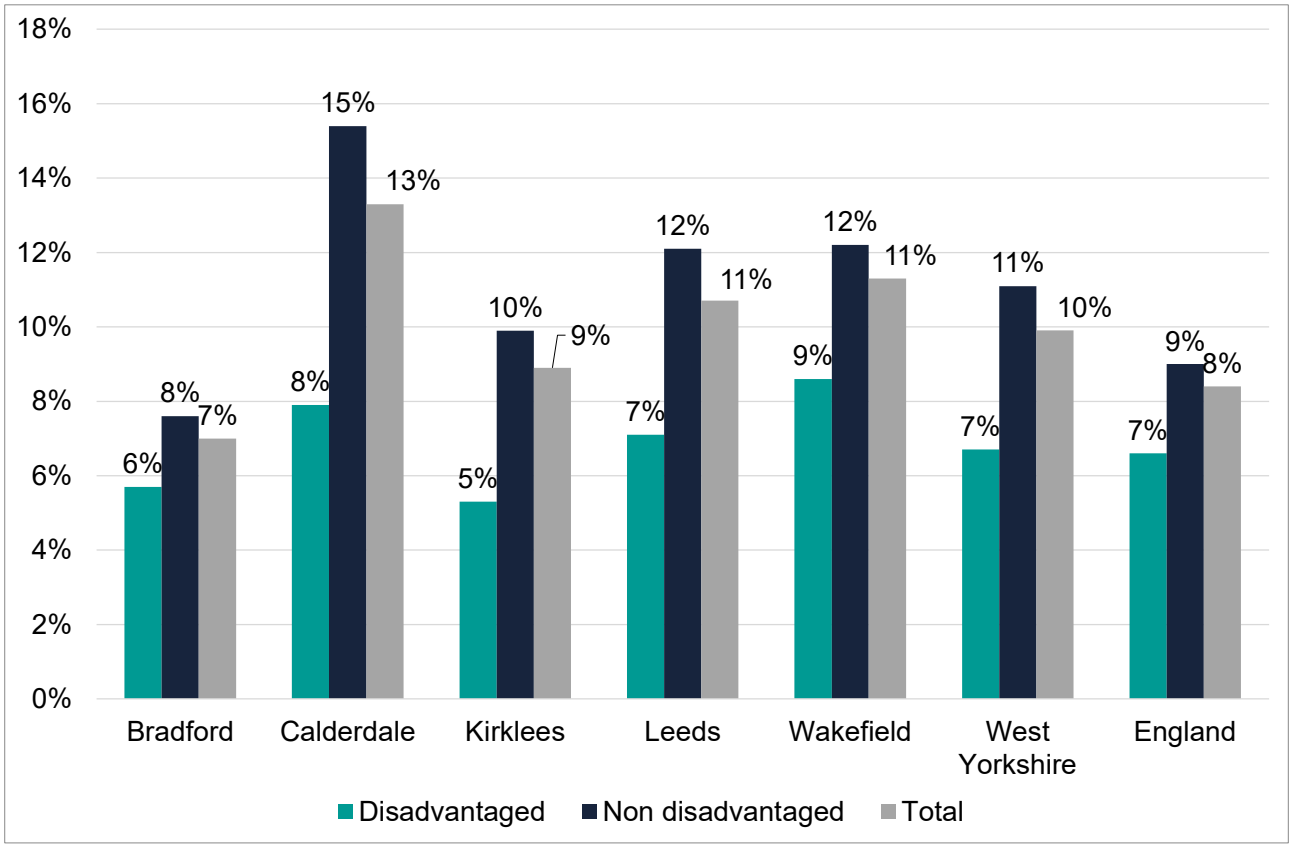
Figure 73: proportion of pupils entering sustained apprenticeship following completion of Key Stage 4, by free school meal status



Note: Analysis shows 2019/20 destinations.
Source: Department for Education.

Across all council areas of West Yorkshire disadvantaged pupils are less likely to enter an apprenticeship than other pupils on the completion of Key Stage 4. Although West Yorkshire has an above average apprenticeship entry rate overall at this stage, only 3% of pupils eligible for free school meals enter an apprenticeship compared with 5% of pupils who are not eligible. The gap is particularly wide for pupils in Leeds and Wakefield.

Figure 74: proportion of pupils entering sustained apprenticeship following completion of 16-18 study by disadvantage status at Year 11

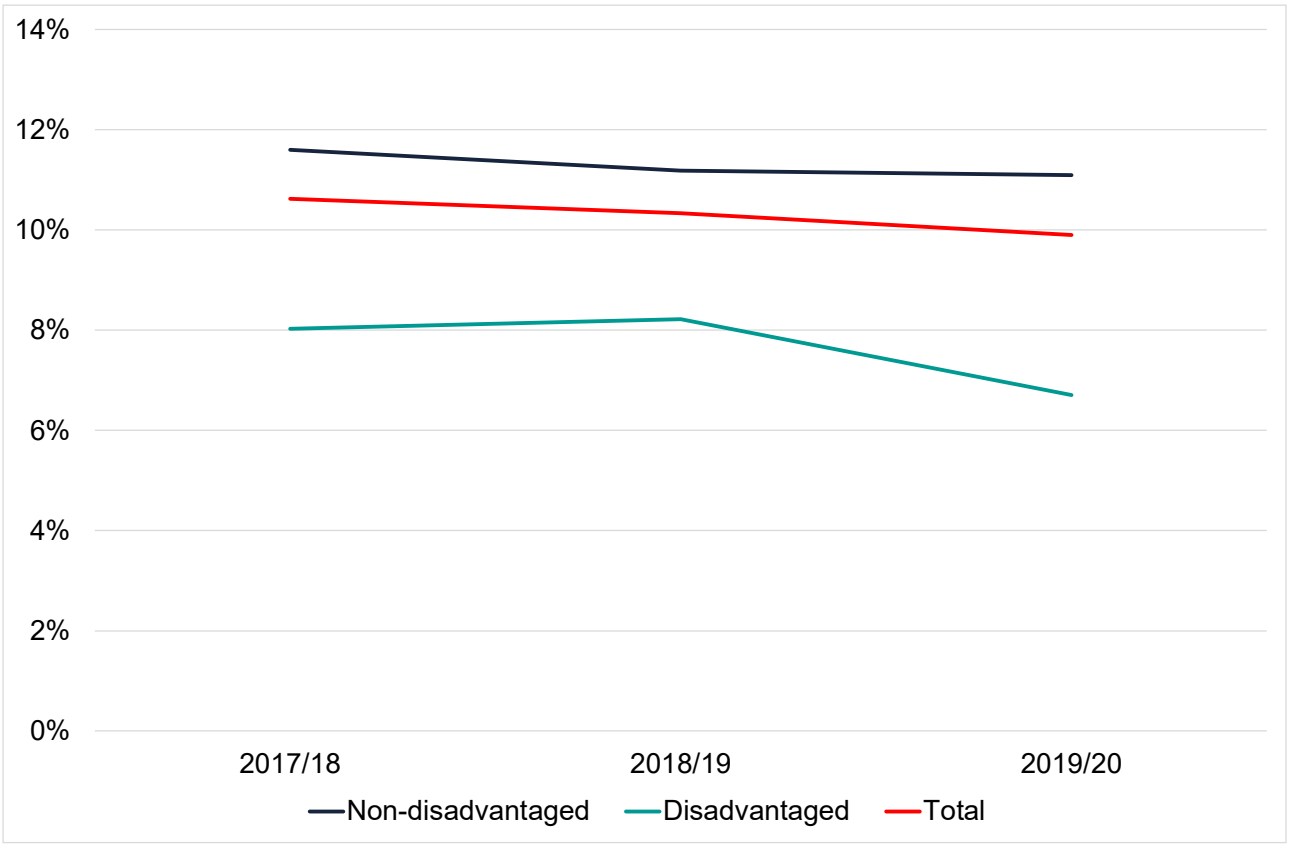


Note: Analysis shows 2019/20 destinations.
Source: Department for Education.

A similar situation prevails following Key Stage 5. Again, the overall apprenticeship entry rate is above the national average but across all local authority areas in West Yorkshire disadvantaged young people are less likely to enter a sustained apprenticeship destination than their non-disadvantaged peers.

The above chart also shows the differences in apprenticeship entry rates for council areas, ranging from 7% in Bradford to 11% in both Leeds and Wakefield and 13% in Calderdale.

Figure 75: Trend in proportion of pupils entering sustained apprenticeship following completion of 16-18 study by disadvantage status at Year 11, West Yorkshire



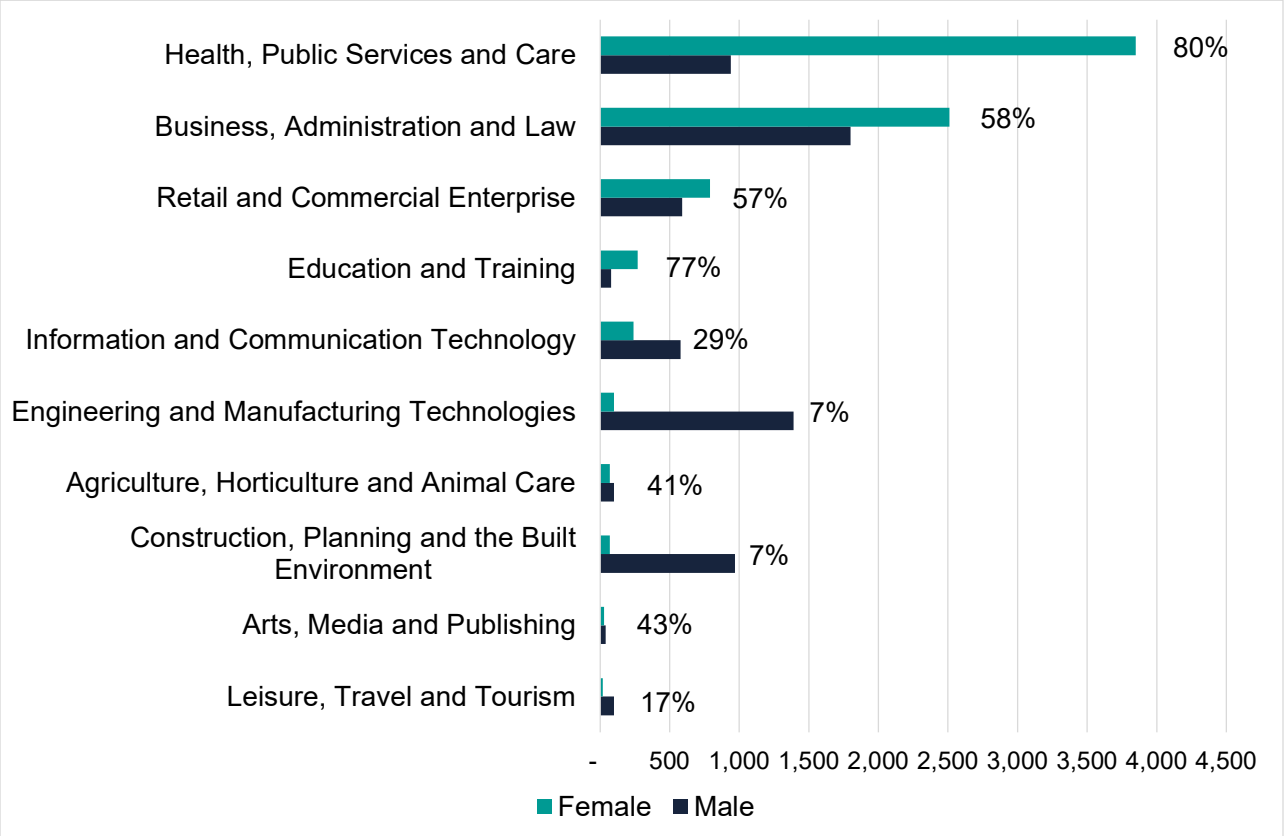
Source: Department for Education.

As the figure shows, there has been no improvement in apprenticeship entry rates in the last three years for which data are available. Indeed, the entry rate for disadvantaged pupils fell quite markedly between 2018/19 and 2019/20, which may at least partly reflect the impact of the pandemic.

There is acute gender segregation within apprenticeships and ethnic minority groups are under-represented, particularly in young apprenticeships

Although 55% of apprenticeship starts overall were for females in West Yorkshire in 2020/21, take-up of apprenticeships is highly segmented by gender and subject, not just locally but nationally. For example, in West Yorkshire 80% of starts on *Health, public services and care* apprenticeships were for women and girls in the 2020/21academic year but the proportion for *Construction, planning and the built environment* was only 7%, only 7% for *Engineering and Manufacturing Technologies* and 29% for *Information Technology*. Four-fifths of female apprenticeship starts are in just two subject areas: *Health, public services and care* and *Business, administration and law*, whereas male apprenticeship are more evenly distributed across subjects. National research shows that male-dominated apprenticeships such as construction and engineering offer better pay and prospects than those in which women are concentrated.

Figure 76: Apprenticeship starts by gender and subject area, West Yorkshire 2020/21



Source: Department for Education

16% of apprenticeship starts in West Yorkshire during the 2020/21 academic year, were from people with an ethnic minority background. This is slightly lower than ethnic minority representation in the working age population of West Yorkshire of 17%. Representation of people from an ethnic minority group is particularly low in some subjects, including *Construction* at only 9% of total starts and *Engineering* and manufacturing at 9%.

The proportion of apprentice starts for those aged under 25 who were from an ethnic minority was lower than average at 15%. By comparison, 24% of the West Yorkshire population aged 16-24 is from an ethnic minority.

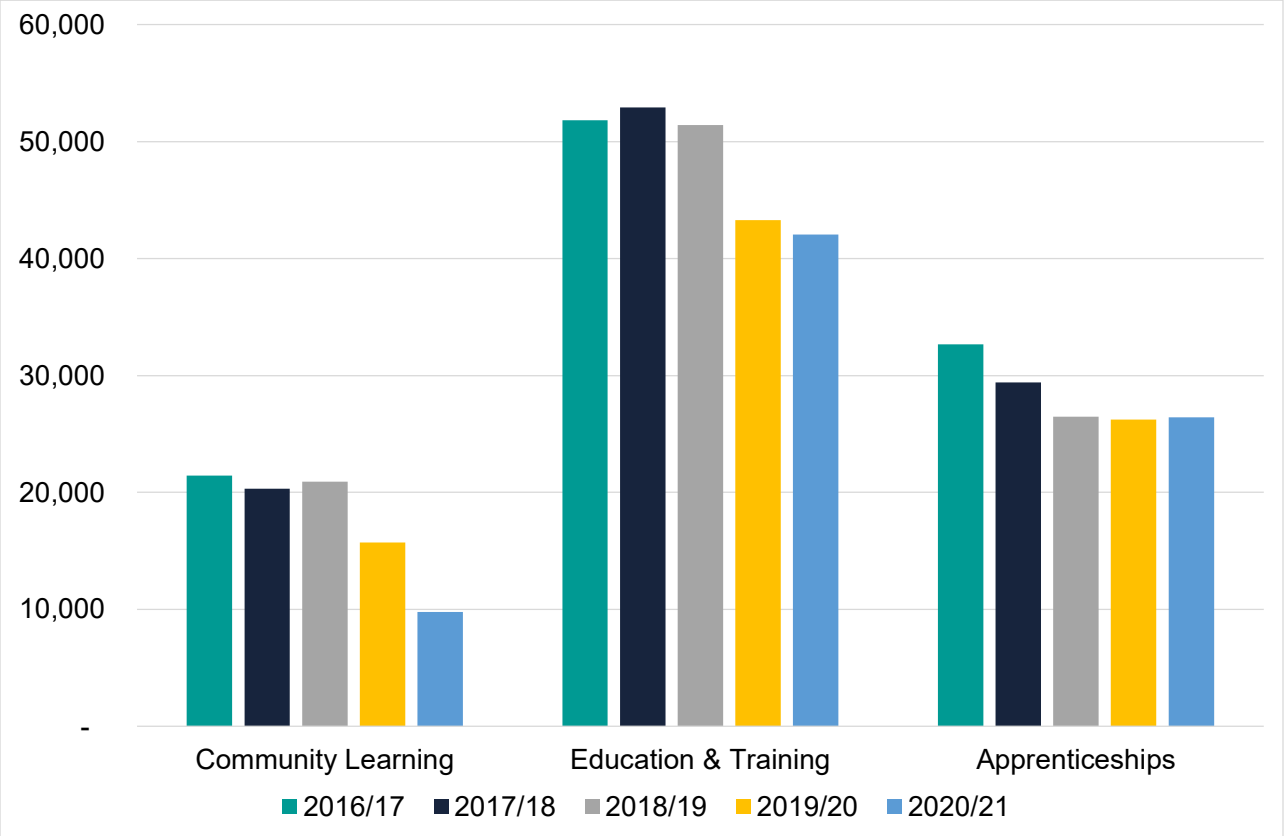
4.8 Adult Education

Looking beyond apprenticeships there is also significant public investment in further education, including Education and Training and Community Learning provision.

The impact of the pandemic continued to be felt in 2020/21 academic year

The pandemic continued to have an impact on people's propensity to sign up for adult education courses during the last full academic year. The level of participation on Education and Training courses fell by 1,240 (-3%) in 2020/21 following a 16% fall in the previous year. Community Learning was hardest hit with a fall in participation of 5,960 (-38%) following a 25% decline in 2019/20. In contrast, adult apprenticeship participation remained stable during 2020/21, partly reflecting the multi-year nature of apprenticeships.

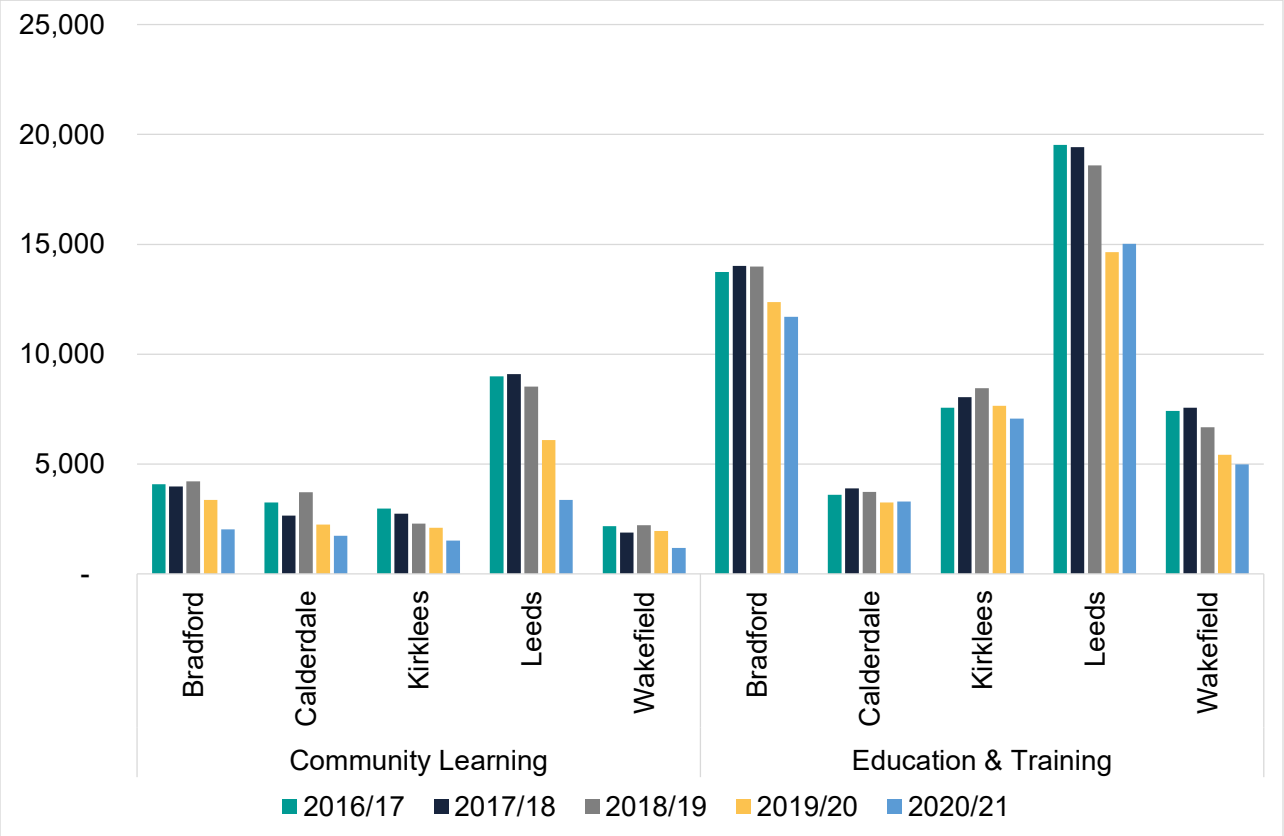
Figure 77: Participation on FE and Skills programmes (learners aged 19+), West Yorkshire



Note: Participation is a count of all publicly-funded learners who were in learning at any point during the year
Source: Further Education and Skills Statistical First Release, Department for Education

The pattern of change was broadly similar to the national average, with Education and Training participation falling by 1% across England in 2020/21 and Community Learning declining by 32%.

Figure 78: Participation on FE and Skills programmes (learners aged 19+) by home district



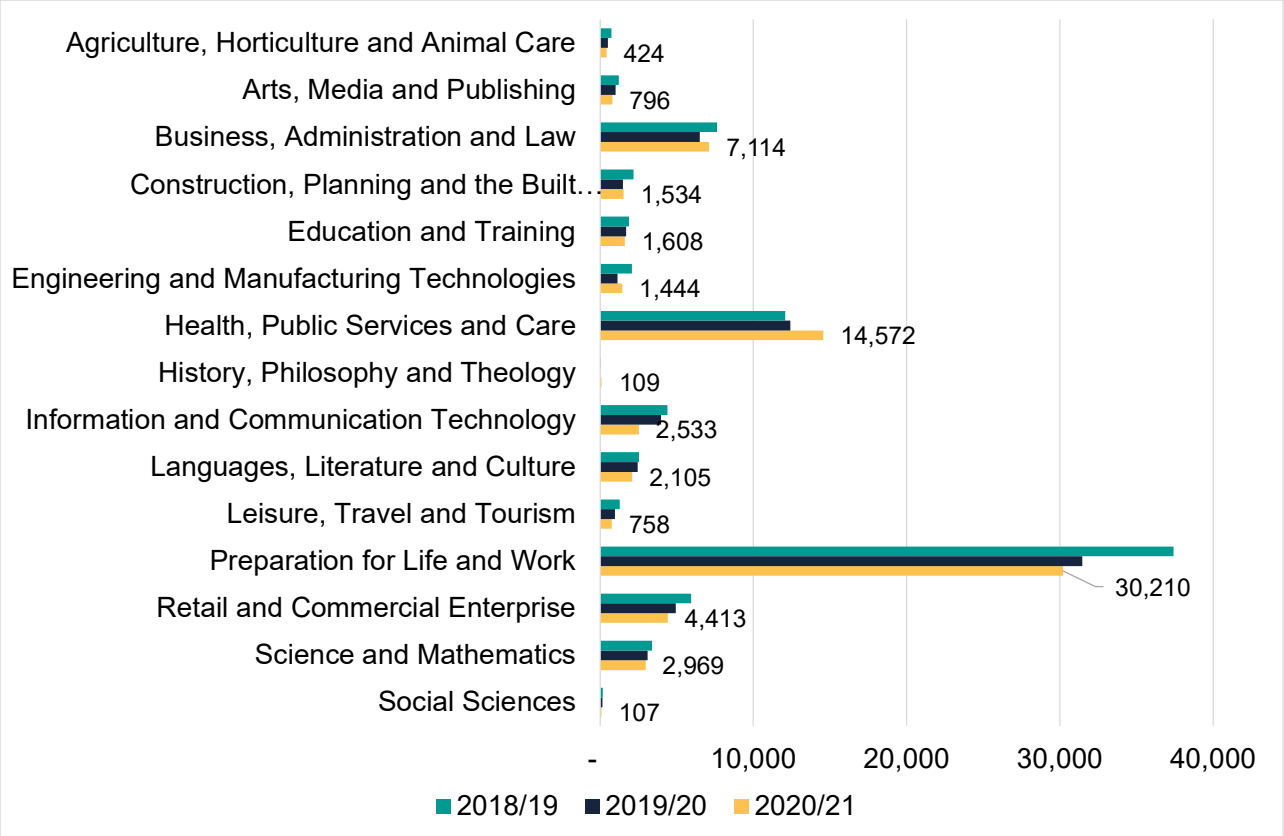
Note: Participation is a count of all publicly-funded learners who were in learning at any point during the year
Source: Further Education and Skills Statistical First Release, Department for Education

The extent of the decline in participation in 2020/21 varied by local authority area. Wakefield saw the largest fall in Education and Training participation of 8% (-430), while in contrast Leeds saw growth of 3% (+380). For Community Learning, Leeds saw a 45% decline (-2,740 in absolute terms), followed by Bradford and Wakefield each with a fall of 40%. The pandemic has had a particularly strong negative impact on the propensity of individuals to sign up for Community Learning courses, with a strong preference among learners for face-to-face rather than remote delivery.

The number of enrolments funded through Education and Training remained largely unchanged

There were 71,000 funded enrolments on adult Education and Training courses in West Yorkshire in the 2020/21 academic year. This represents a 1% fall (-970) on the previous year. Around 87% of these enrolments were funded through the Adult Education Budget in 2019/20.

Figure 79: Education and Training funded enrolments by sector subject area, (learners aged 19+), West Yorkshire



Source: Further Education and Skills Statistical First Release, Department for Education

The performance of different subject areas presented a mixed picture during 2020/21.

Preparation for Life and Work is the largest subject area in enrolment terms within this programme strand. It saw a further fall in enrolments in 2020/21 of -1,260 (-4%) but this was a less pronounced decline than in 2019/20.

Other subjects which saw decline, include:

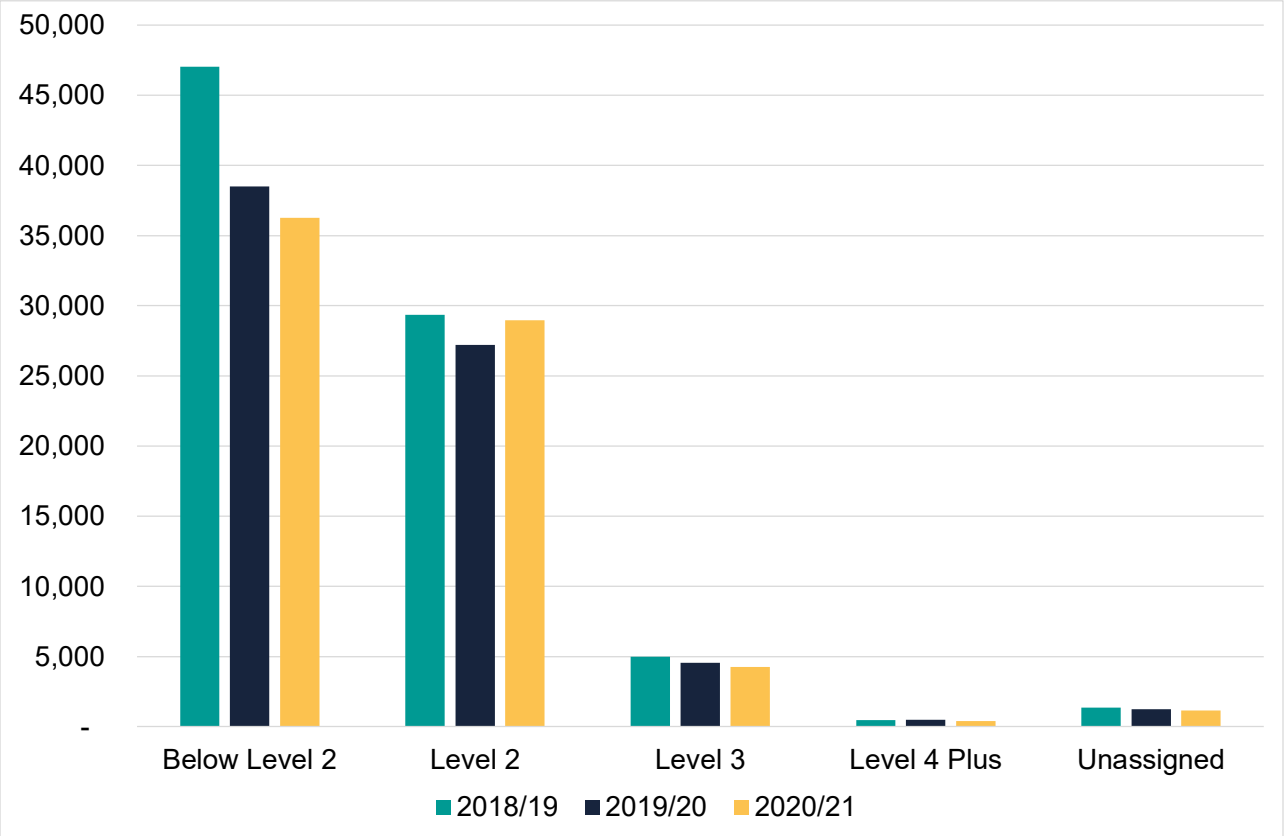
- *Information and Communication Technology*: -1,434 (-36%), with a big fall in *ICT User* enrolments.
- *Retail and Commercial Enterprise*: -529 (-11%), with big falls in *Hospitality and Catering*, *Retailing and Wholesaling* and *Warehousing and Distribution*.

In contrast, some subject areas saw substantial growth in 2020/21, most notably:

- *Health, Public Services and Care*: +2,144 (+17%), with growth concentrated in *Health and Social Care*.
- *Business, Administration and Law*: +606 (+9%), with strong growth in *Administration* enrolments.
- *Engineering and Manufacturing Technologies*: +304 (+27%).

Health, public services and care is the only subject area with a higher level of enrolments in 2020/21 than in 2018/19 (pre-pandemic).

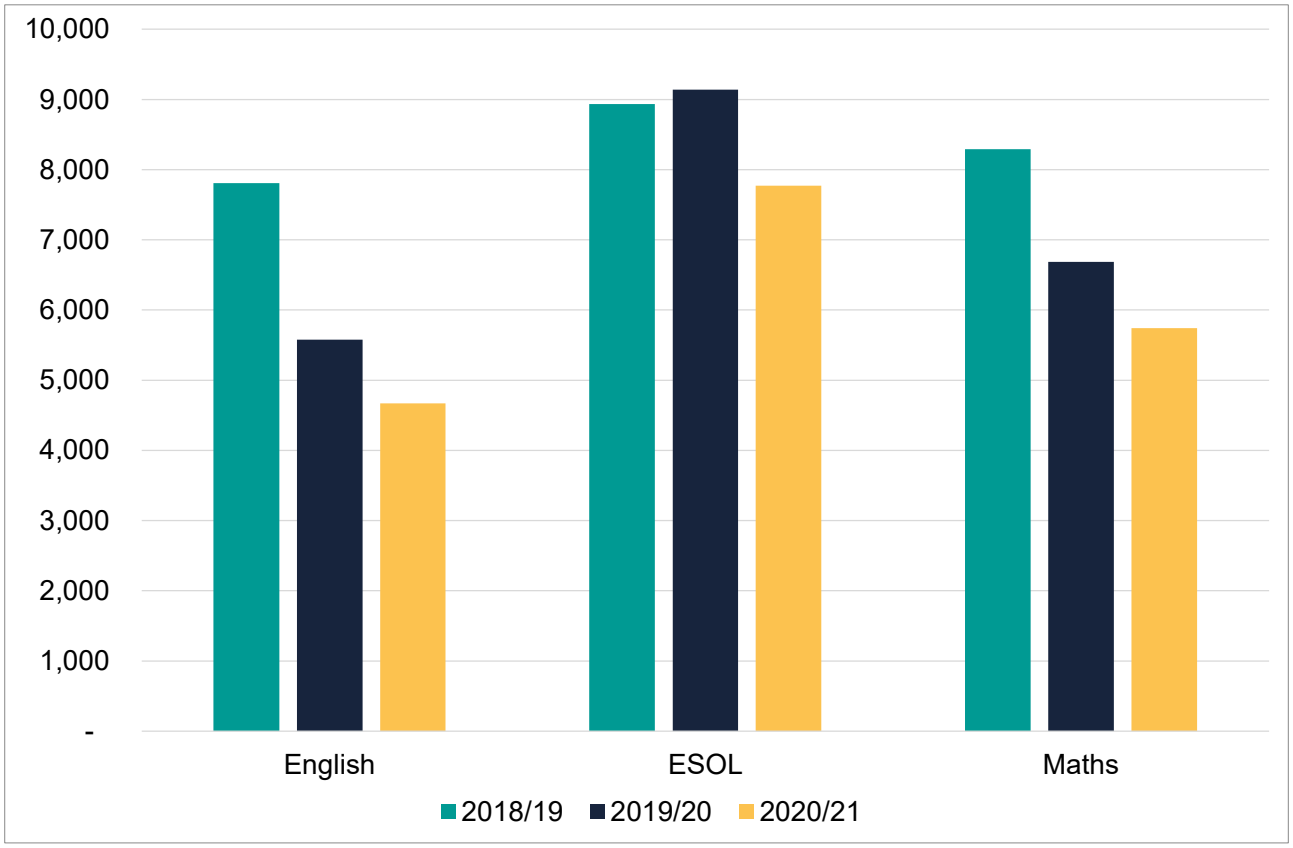
Figure 80: Education and Training funded enrolments by level, (learners aged 19+), West Yorkshire



Source: Further Education and Skills Statistical First Release, Department for Education

Much of the decline seen in 2020/21 (as well as in 2019/20) was concentrated in learning aims at below level 2, which fell by 2,250 (-6%). Following decline in the previous year enrolments at level 2 grew by 1,770 (+7%). Enrolments at level 3 fell by 7% (-310) and aims at level 4 and above fell by 15% (-70).

Figure 81: Education and Training funded enrolments by basic skills type, (learners aged 19+), West Yorkshire



Source: Further Education and Skills Statistical First Release, Department for Education

There were 18,180 enrolments on basic skills aims in West Yorkshire during 2020/21. ESOL is the biggest basic skills category with 7,770 enrolments during the academic year. The total level of enrolments fell by a further 15% (3,220) during 2020/21 following a 17% fall in the previous year. All types of basic skills provision saw a reduction, with Maths falling by 14% (-950), ESOL by 15% (-1,370) and English by 16%.

4.9 Higher Education

It has already been noted that West Yorkshire has a deficit of higher-level qualifications among its working age population; however, it has large and diverse higher education sector.

West Yorkshire enjoys a net inflow of HE students

With around 95,000 students enrolled at its seven[25] institutions during the 2019/20 academic year, West Yorkshire has one of the largest higher education sectors outside London.

The total number of student enrolments at West Yorkshire institutions has remained stable in recent years, as has the number of entrants at around 42,000 per annum (31,000 UK-domiciled); whilst the number of UK-domiciled qualifiers (graduates) has also been stable at around 23,000 per annum. Just over a third (37%) of students enrolled at West Yorkshire institutions are from West Yorkshire.

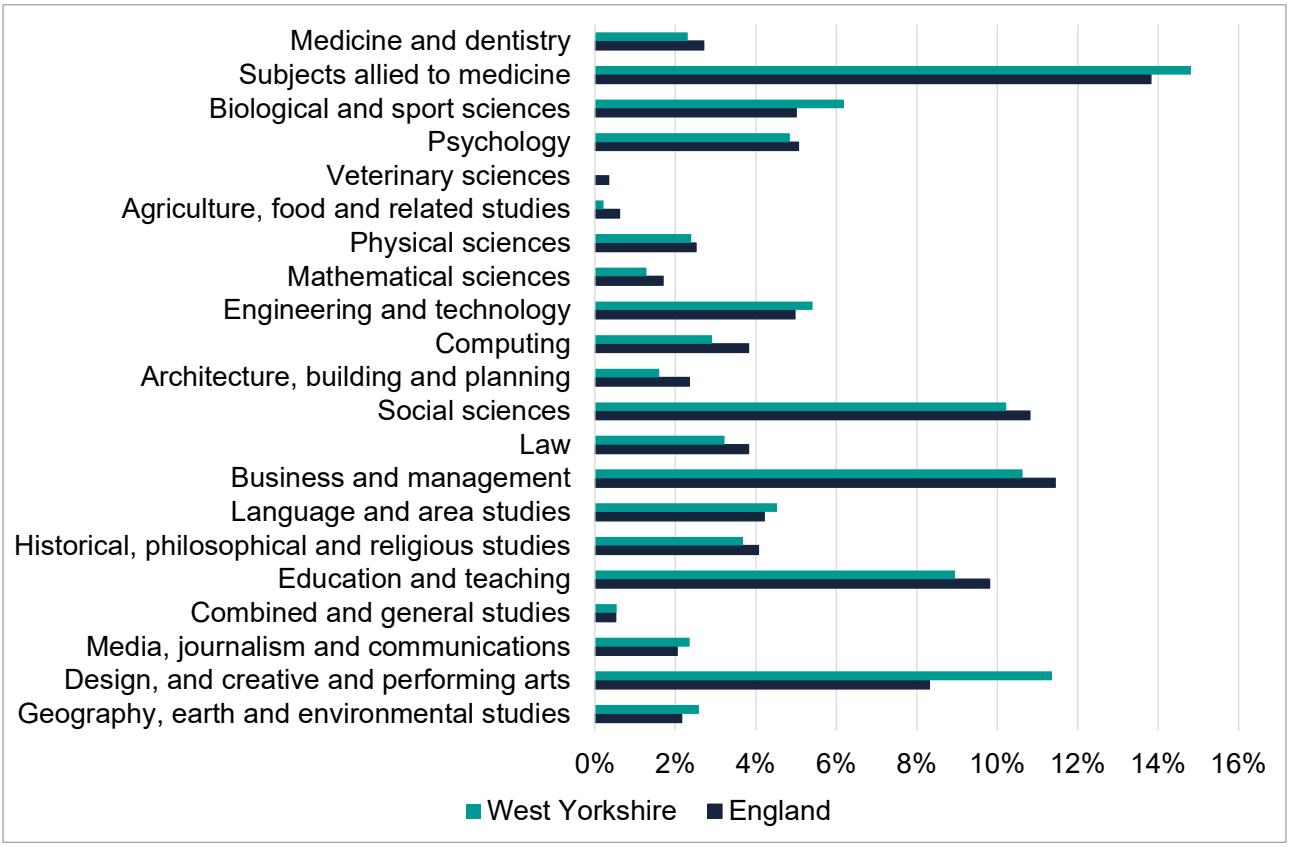
The subject profile of qualifiers has also remained broadly stable over time with *Computer Science* accounting for 3% of the total (around 700 per annum), *Engineering & technology* for 5% (c.1,200) and *Architecture, building & planning* around 1-2% (400).

West Yorkshire provision has a distinctive subject profile

The subject profile of qualifiers from West Yorkshire's HEIs is somewhat different to the national picture, particularly with reference to subjects in key skill shortage areas. *Architecture, building and planning* and *Computing* both account for smaller proportions of total qualifiers than is the case nationally, although *Engineering and technology* contributes a slightly larger proportion. Conversely, West Yorkshire is above average in terms of *Subjects allied to medicine* (a category which includes nursing), *Biological and sports sciences* and particularly in *Design, and creative and performing arts.* More broadly, science and technology subjects account for a similar proportion of total qualifiers as nationally, at 42% and 43% respectively.

[25] This analysis does not cover University of Law's Leeds campus.

Figure 82: Higher education qualifiers from West Yorkshire institutions by subject area, 2019/20 academic year



Note: UK domiciled qualifiers
Source: HESA

Attraction and retention of graduates in the regional economy is key to maximising the economic benefits of higher education.

Around a quarter of qualifiers from West Yorkshire institutions are in employment in the region 15 months later

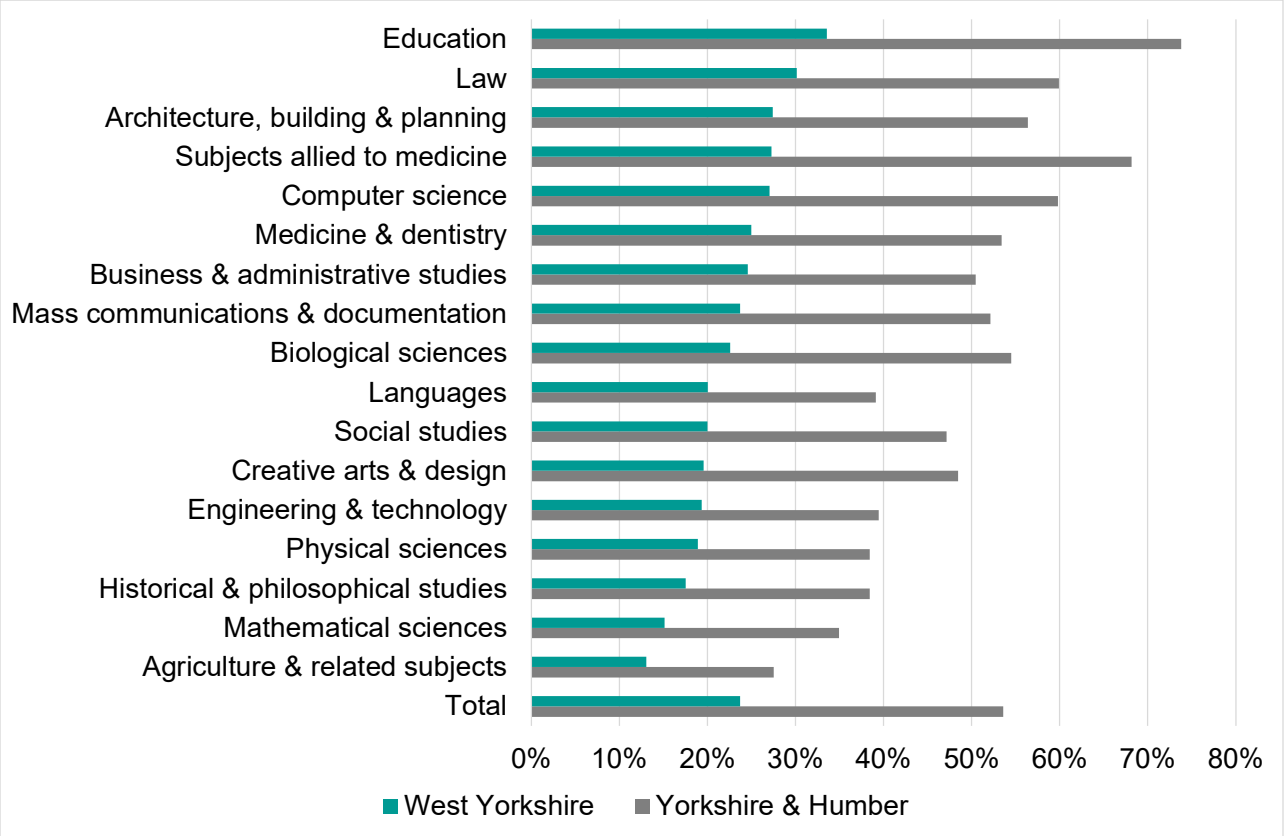
Based on the 2018/19 *Graduate Outcomes Survey*, around 54%[26] of employed qualifiers from West Yorkshire institutions were in employment in Yorkshire and the Humber 15 months after graduation, with 24% in employment in West Yorkshire itself.

The extent to which qualifiers are retained in West Yorkshire varies by subject, based on the most recent figures for 2018/19[27].

[26] When "not known" destinations are excluded.

[27] The retention rate estimates presented here differ from previous figures because of a shift from *Destinations of Leavers from Higher Education* survey to the *Graduate Outcomes Survey*. The census point in Graduate Outcomes is at approximately 15 months after gaining qualifications whereas for DLHE the main

Figure 83: Proportion of qualifiers with Yorkshire and the Humber and West Yorkshire employment location at 15 months by subject



Base: UK domiciled leavers from WY institutions in employment after 15 months. Excludes not knowns
Source: Graduate Outcomes Survey, 2018/19

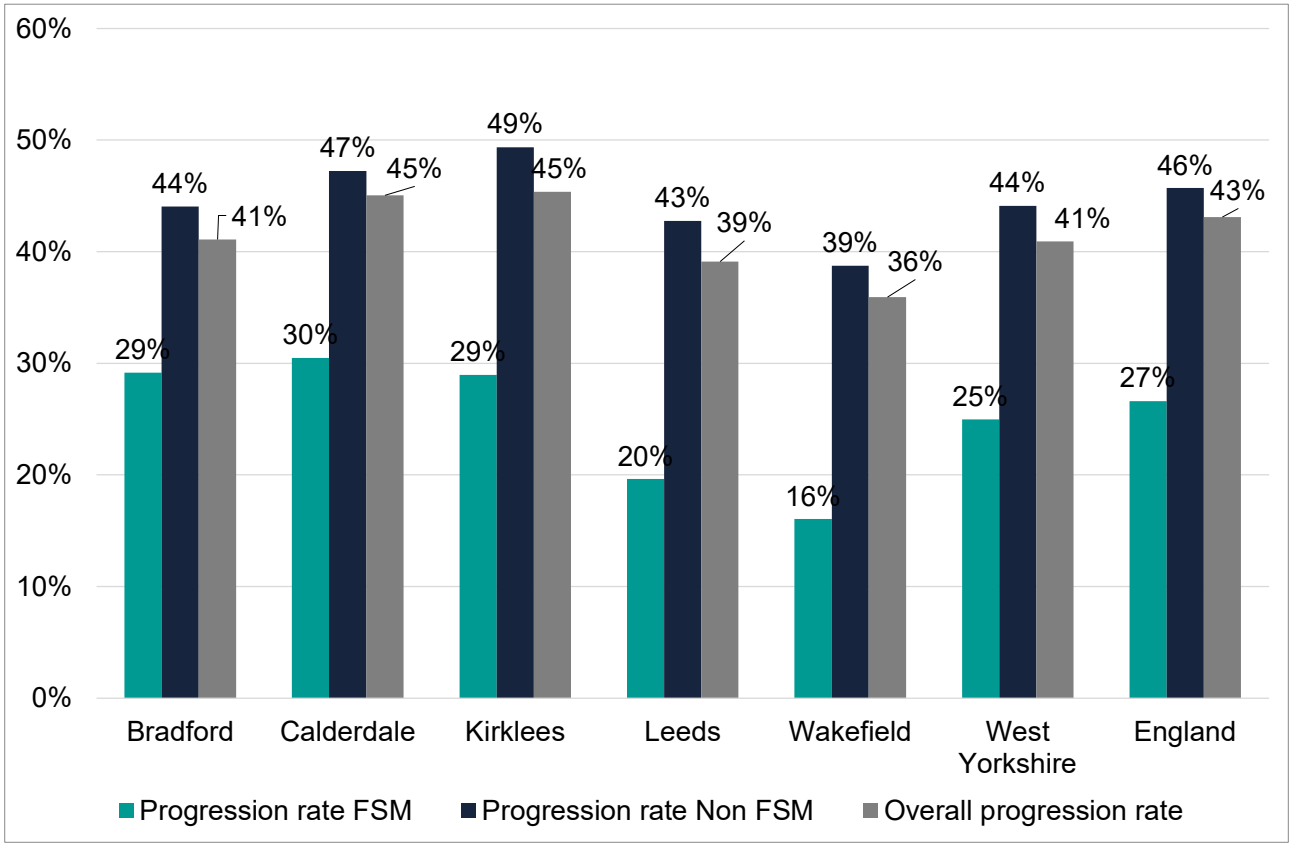
For some technical subjects, West Yorkshire retention rates are relatively low; for example, 13% for *Agriculture*, 15% for *Mathematical Sciences* and 19% for both *Physical Sciences* and *Engineering and technology*. *Education* is at the top of the ranking, with a rate of 34%, followed by *Law* and *Subjects allied to medicine*.

Disadvantaged pupils in West Yorkshire are less likely to enter higher education with no sign of sustained reduction in the gap

Access to higher education offers a key mechanism for promoting social mobility. There is a strong case for supporting people of all ages and communities to progress into higher level learning. However, as with apprenticeships there are issues relating to low higher education entry rates for disadvantaged young people..

census point was at 6 months. There are also differences in the content and wording of the two questionnaires.

Figure 84: Proportion of students entering higher education by free school meal status



Note: Progression rates to higher education by age 19 for state-funded pupils, 2019/20
Source: Department for Education

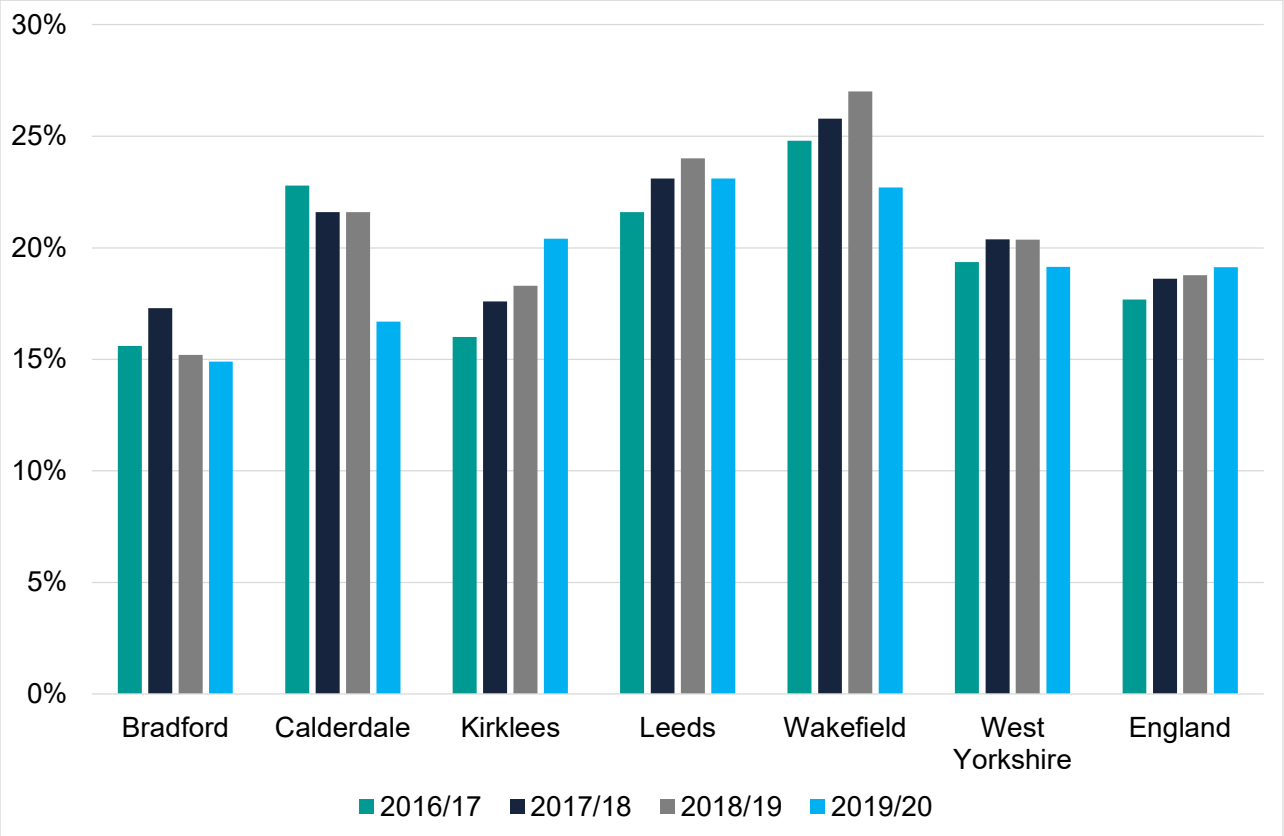
West Yorkshire's overall progression rate into higher education, at 41%, is two percentage points below the national average. It is also below the average for free school meal (FSM) and non-free school meal pupils.

Performance on entry rates varies by local authority. Wakefield and Leeds have the lowest overall entry rates, which are 7 and 4 points below the national average respectively. Bradford is two points below but Calderdale and Kirklees each outperform the national average by 2 points.

Wakefield and Leeds also under-perform against the national average with regard to FSM pupils, by 11 points and 7 points respectively. The remaining three local authorities outperform the national average, by 4 percentage points in the case of Calderdale.

West Yorkshire's progression rate gap between non-FSM and FSM pupils is similar to the national average. Leeds and Wakefield have the widest gap at local authority level, of 23 points in each case. Kirklees is also above the national average (19 points) with a gap of 20 points but Bradford and Calderdale are below the average with gaps of 15 points and 17 points respectively.

Figure 85: Trend in higher education progression rate gap (FSM vs non-FSM pupils)



Source: Department for Education

Calderdale and Wakefield saw a notable fall in their respective progression rate gaps in 2019/20 but there is no evidence of a sustained downward trend in the gap across the West Yorkshire local authorities in recent years. In fact, Kirklees' gap appears to have steadily increased, whilst Leeds' gap in 2019/20 was higher than in 2016/17.

4.10 Workforce Development

Improvements to the skills base of the City Region depend to a large degree on ongoing investments by employers in workforce development. People who are already in employment will remain the mainstay of the labour force for some time to come. According to one major study, with 80% of the 2030 workforce already in the workforce today reskilling the existing workforce will be the major challenge between now and 2030[28].

The scale of employers' investment in workforce development also shows its key role within the skills landscape. An **extrapolation** of spend per person trained taken from the

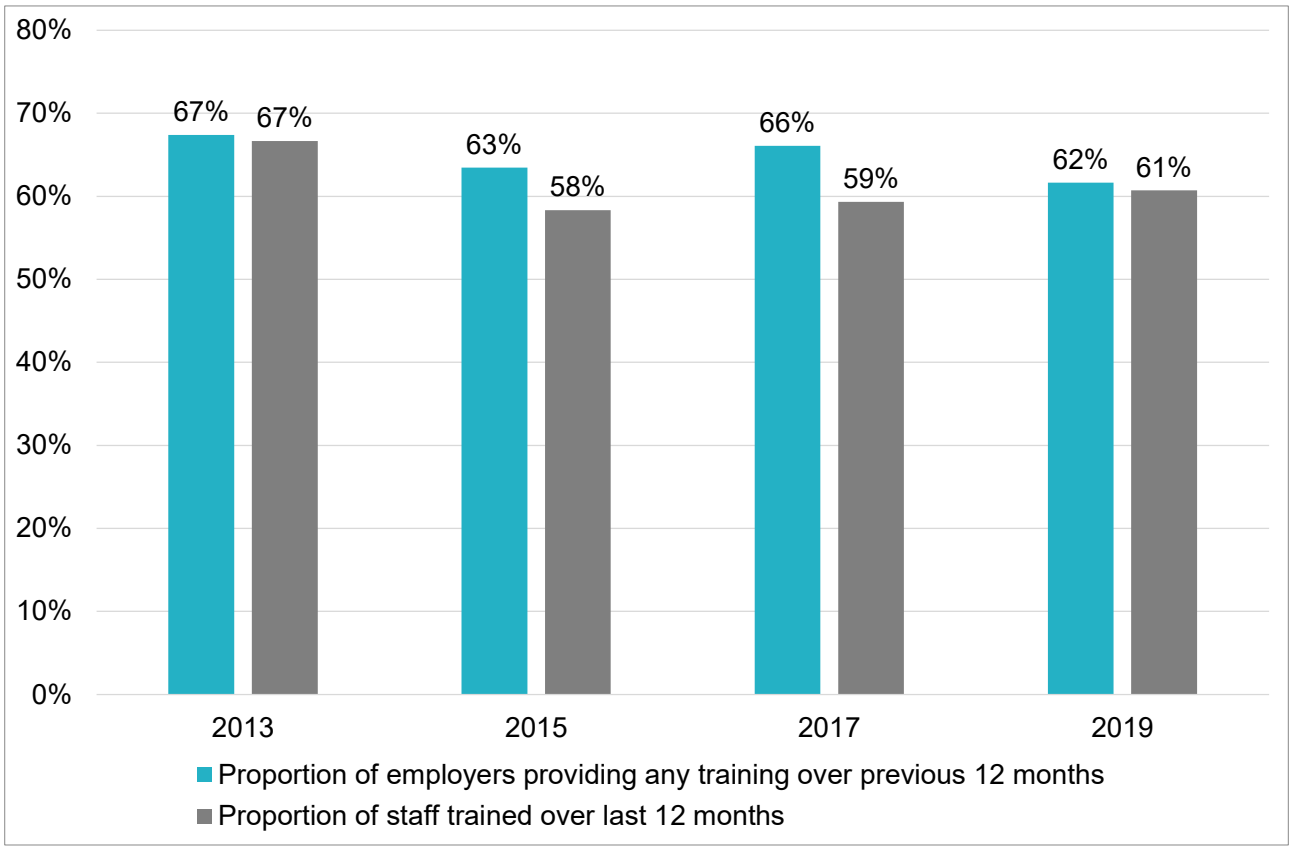
[28] Industrial Strategy Council (2020) UK Skills Mismatch in 2030. Available at: UK Skills Mismatch 2030 – research paper | Industrial Strategy Council

Employer Skills Survey it is estimated that employers in Leeds City Region invest close to **£1.6bn** per annum on workforce development when wage costs are taken into account.

The prevalence of training has not increased over time

The Employer Skills Survey 2019 shows that less than two-thirds (62%) of employers in West Yorkshire provide any kind of training to their staff, similar to the England average of 61%. At the same time 61% of staff receive training, the same proportion as the national average.

Figure 86: Performance against training indicators over time, West Yorkshire



Source: Employer Skills Survey 2019

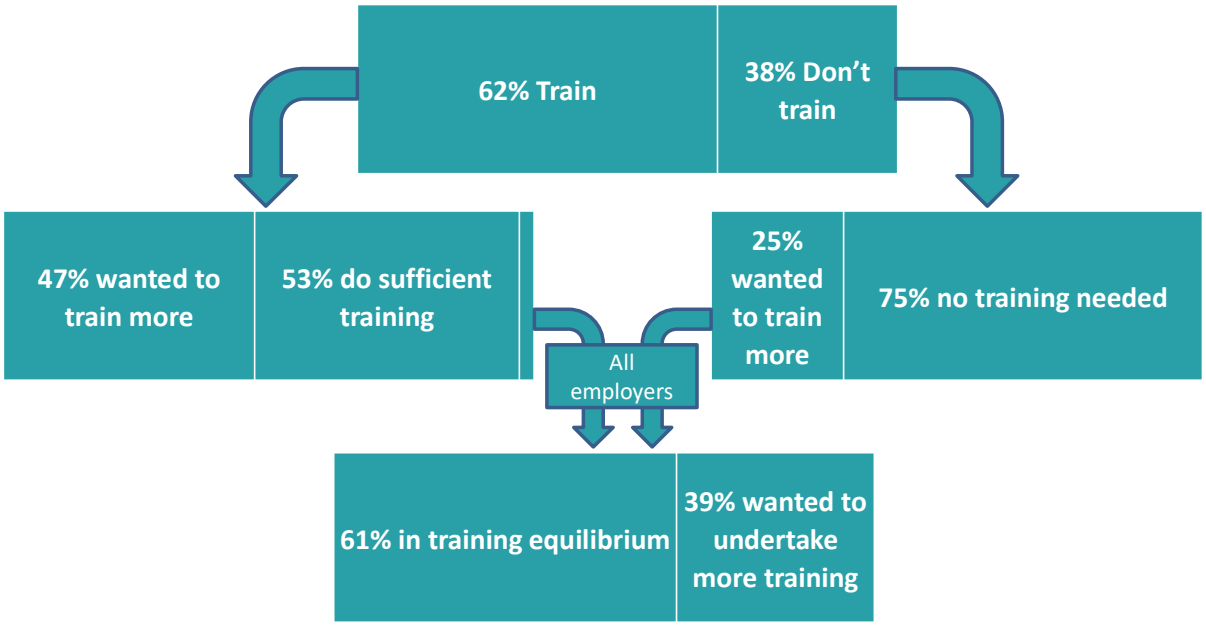
There has been so sign in recent years of a sustained improvement in the proportion of employers providing training nor in the proportion of staff receiving training.

Many employers admit that they under-invest in training

In assessing whether enough training is being undertaken by local employers it is important to view training behaviour in the context of business need for training.

Among the 38% of local establishments who do not train, a majority (75%) say that no training is needed but a significant minority (the remaining 25%) say that they would have liked to have done some training.

Figure 87: Training equilibrium summary, West Yorkshire

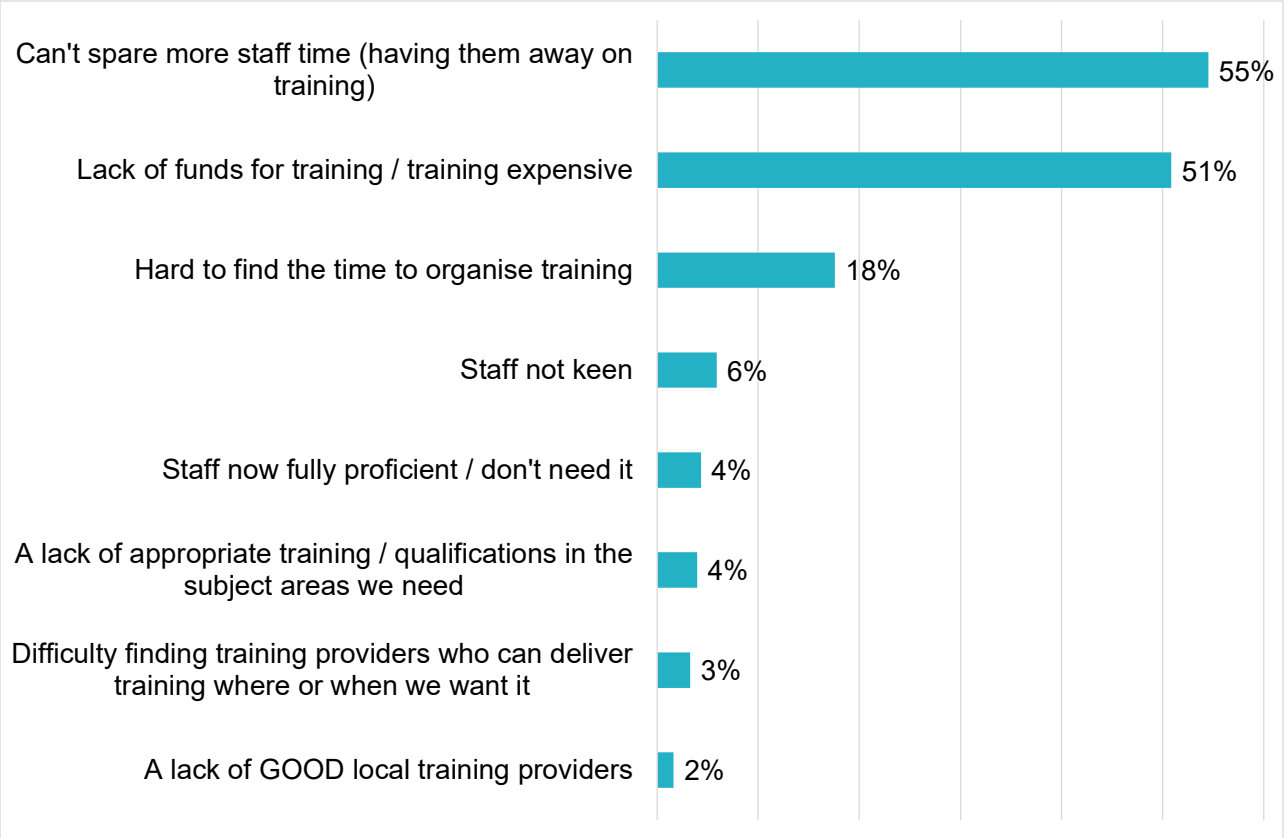


Source: Employer Skills Survey 2019

Among those employers who did invest in training, 47% would have liked to have done more.

The overall picture is that approximately two-fifths (39%) of employers would have liked to have done more training (or some training in the case of non-training employers). We can view this as an acknowledgement by many employers that they are under-investing relative to the skills needs of their business.

Figure 88: Barriers to providing more training among employers who would have provided more training if they could



Source: Employer Skills Survey 2019

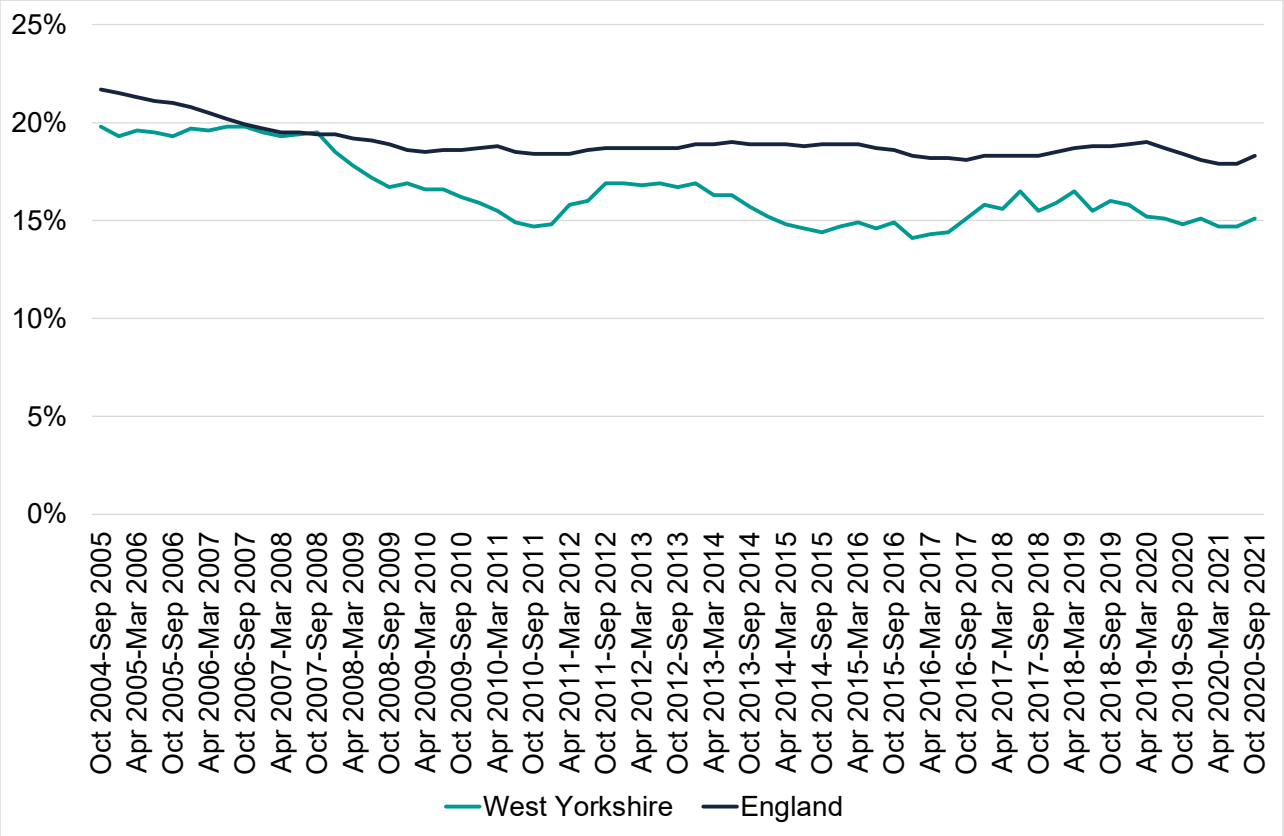
The chief barriers to doing more training were an inability to spare staff time for training (55% of respondents) and a lack of funds for training (51%), followed by a lack of time to organise training (18%). Issues relating to the availability of suitable training provision and perceived lack of capability among training providers were much less likely to be identified by respondents.

This suggests that the key challenge is to demonstrate to employers that the commitment of time and money to training is a worthwhile investment. A key mechanism for doing this is the promotion of mechanisms that effectively identify skills development requirements linked to wider business needs and which enable employers to harness available skills in a way that contributes to the achievement of business objectives.

The proportion of workers receiving training in West Yorkshire is below the national average

Data from the Annual Population Survey shows that the proportion of local people receiving job-related training declined between 2008 and 2011. Since then, the proportion of workers receiving training has remained below the national average on a consistent basis and with little sign of a sustained recovery in recent years.

Figure 89: Proportion of people receiving job-related training in previous 13 weeks



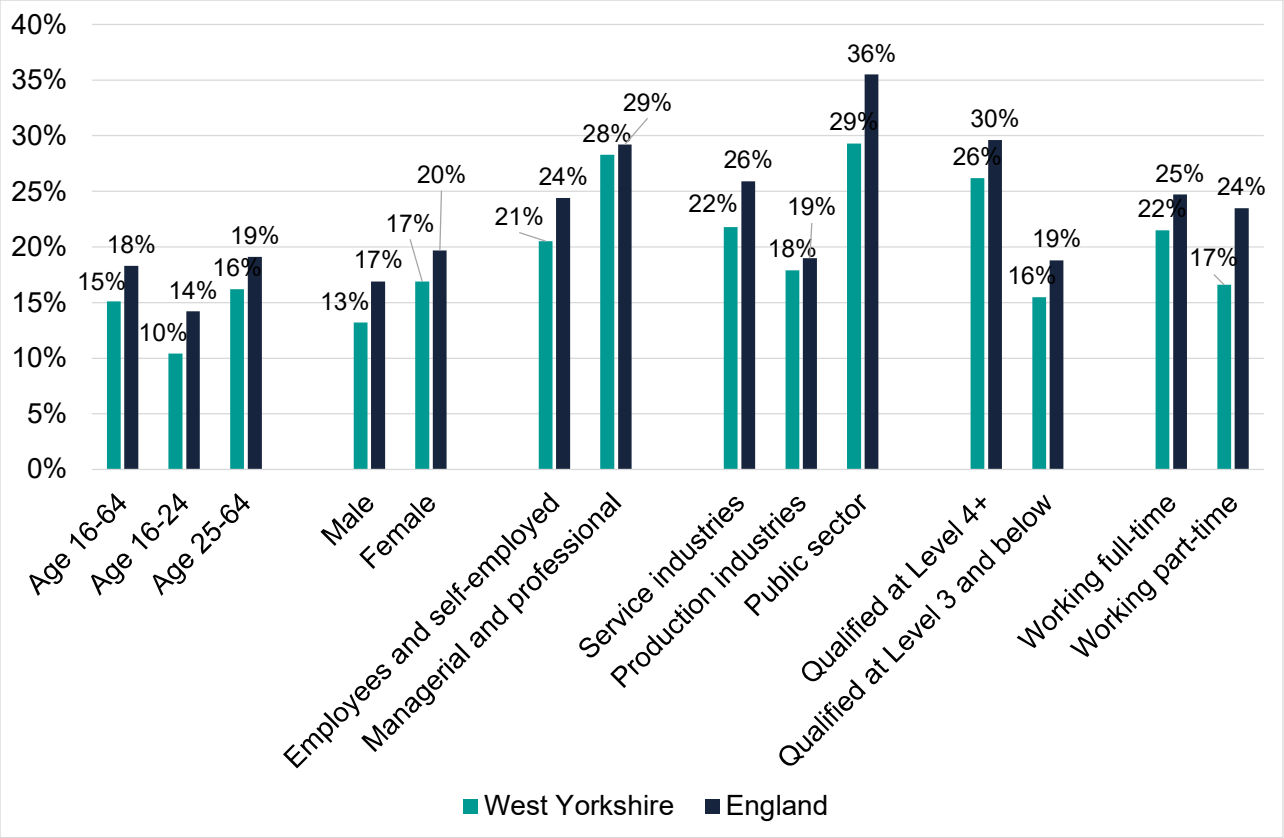
Source: Annual Population Survey

Looking at individual access to training, data from the Annual Population Survey shows that local people are less likely to undertake job-related training than nationally, with 15% receiving training in the previous 13-week period compared with the national average of 18%. West Yorkshire performs consistently below the national average in respect of access to training for various groups in the workforce relative to national counterparts.

There is unequal access to job-related training

Some workforce groups are significantly less likely to undertake job-related training than others, with a potential impact on prospects for pay and progression. Arguably, people who could most benefit from skills development are least likely to be provided with access to it. The pattern broadly reflects that seen at national level, although for most categories the incidence of job-related training is lower locally than nationally.

Figure 90: Proportion of people receiving job-related training in last 13 weeks by labour market group



Source: Annual Population Survey, October 2020 to September 2021

There are important differences in access to training by industry. Workers in the production industries are less likely to participate than their counterparts in the service industries but people employed in the public sector are the most likely by far to receive job-related training.

Perhaps more surprisingly, young people (aged 16-24), both nationally and locally, are somewhat less likely to participate in job-related training than people aged 25 and over.

Workers who are already qualified to a high level (level 4+) are considerably more likely to receive training than their less qualified colleagues (those qualified at level 3 and below).

Finally, females are slightly more likely than males to receive training, but to a large extent this reflects their strong representation in public sector employment.

Clearly these inequalities of access to work-related training serve as a potential barrier to career progression and to the fulfilment of individuals' potential.

Access to training and qualifications is associated with higher pay

Equal access to opportunities is important because workplace training and adult education offer a route to higher wages and better opportunities. They can allow adults to upskill and retrain for better-paid occupations. The value of reskilling is evidenced by the fact that

access to increased training and higher qualifications is associated with an increased chance of escaping from low pay. In particular, individuals undertaking higher levels of learning (most notably at Level 3) in certain subjects (such as engineering and manufacturing), and longer courses are more likely to escape from low pay[29].

4.11 Work experience and work inspiration

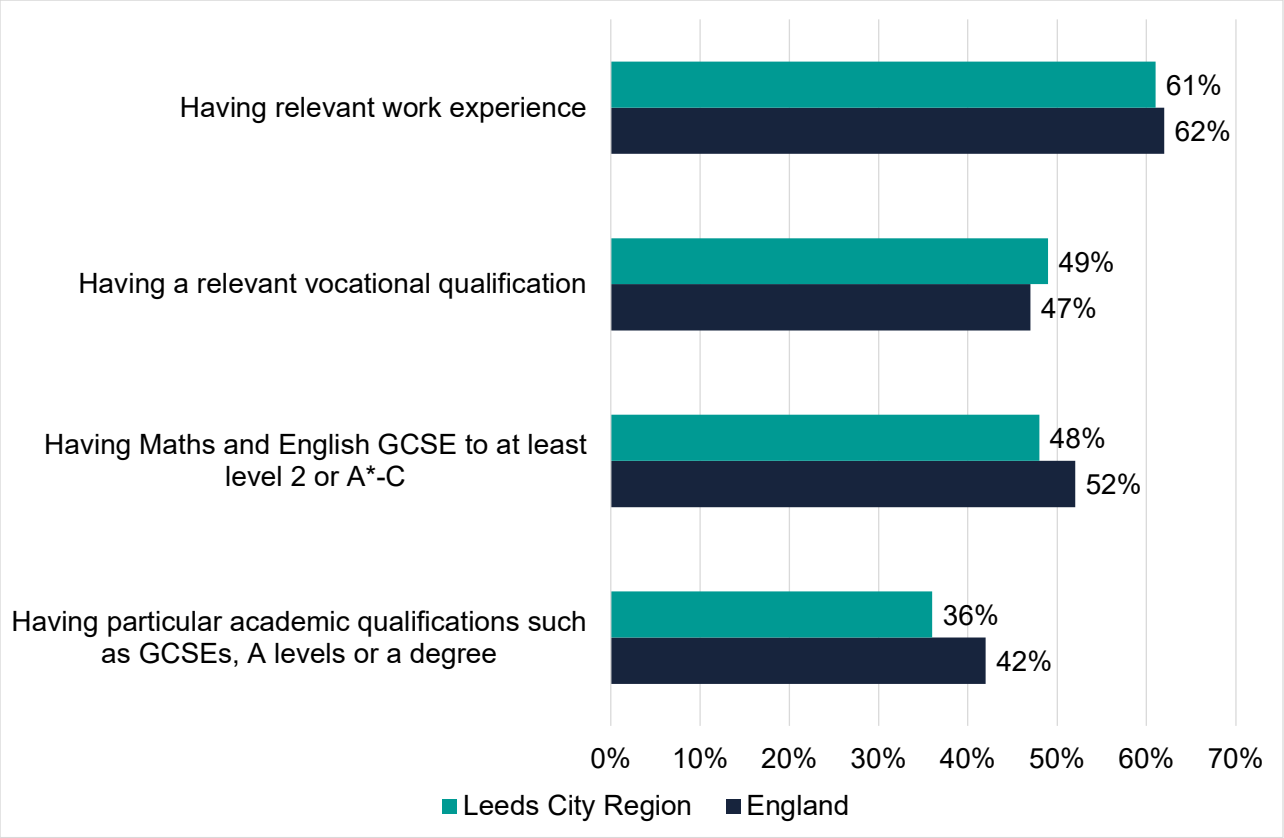
Work experience and work inspiration are important ways in which the world of business can engage with education. These activities play a key role in supporting an effective transition into the world of work for young people and other groups by helping individuals to understand and meet the requirements of employers. Work inspiration involves businesses providing advice and support to students about the workplace and their industry and enables individuals to broaden their perspectives and develop aspirations regarding future career paths. By contributing to improved career-readiness and employability these activities have a positive influence on local labour supply.

Relevant work experience is key to employers' recruitment decisions

The Employer Skills Survey 2019 measures the relative importance to employers of a number of factors in their recruitment decisions including academic qualifications (Maths and English GCSE A*-C as well as the broad range of academic qualifications), vocational qualifications (VQs), and relevant work experience.

[29] Social Mobility Commission (2020) Learning ladders: The role of adult training in supporting progression from low pay. Available at https://www.gov.uk/government/publications/learning-ladders-adult-training-and-progression-out-of-low-pay

Figure 91: Factors looked for by employers when recruiting (proportion rating as critical or significant)



Source: Employer Skills Survey 2019

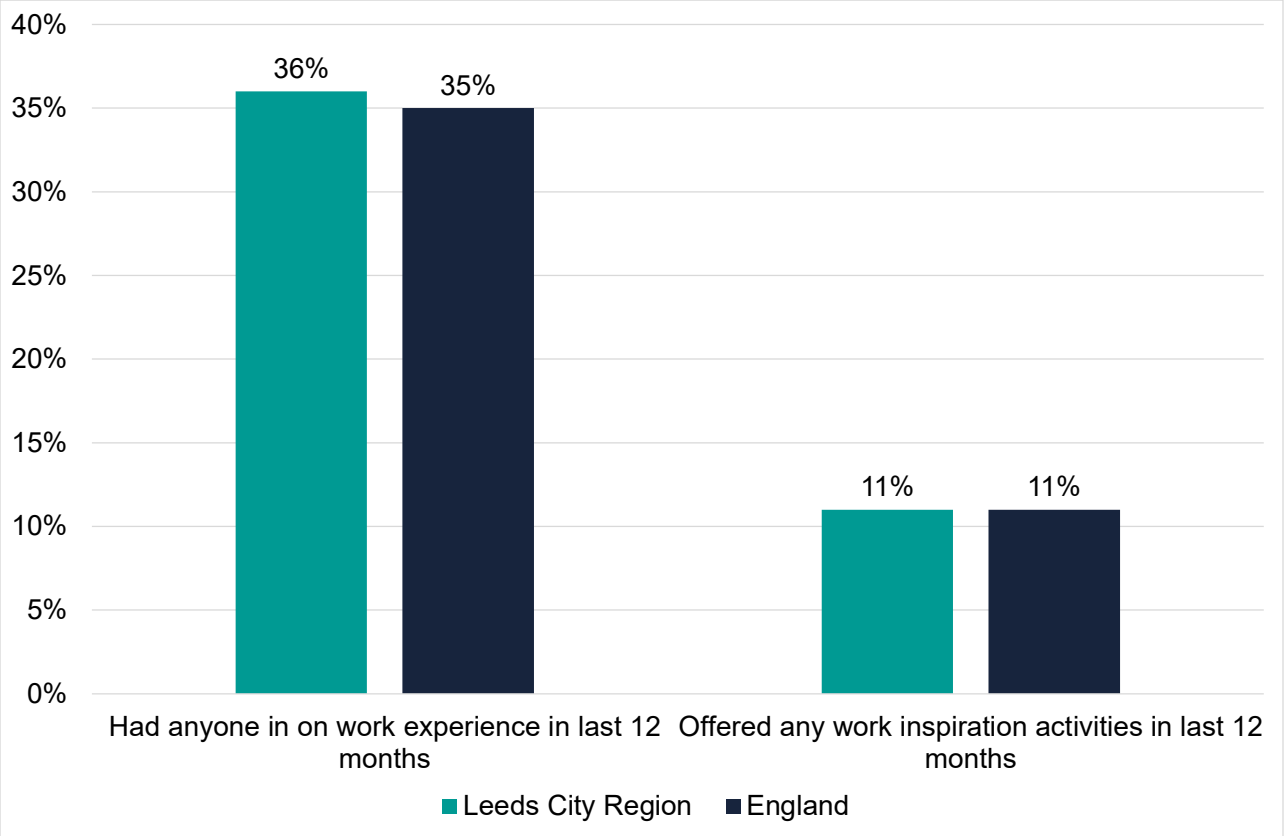
The results show that a greater proportion of employers, both locally and nationally, reported that they valued relevant work experience more than any of the other factors when assessing potential new recruits: 61% of employers in Leeds City Region rated relevant work experience as either critical or significant. City Region employers are also less likely than their national counterparts to regard candidates having formal academic qualification as critical or significant factors in their recruitment decisions.

Around a third of employers provide work experience placements

The Employer Skills Survey examines the extent to which employers at a local level engage in work experience and work inspiration activities.

Although most employers consider that relevant work experience is an important factor in recruitment decisions, a minority actually offer work experience placements.

Figure 92: Proportion of employers who have had anyone on a work experience placement and / or have offered work inspiration in previous 12 months

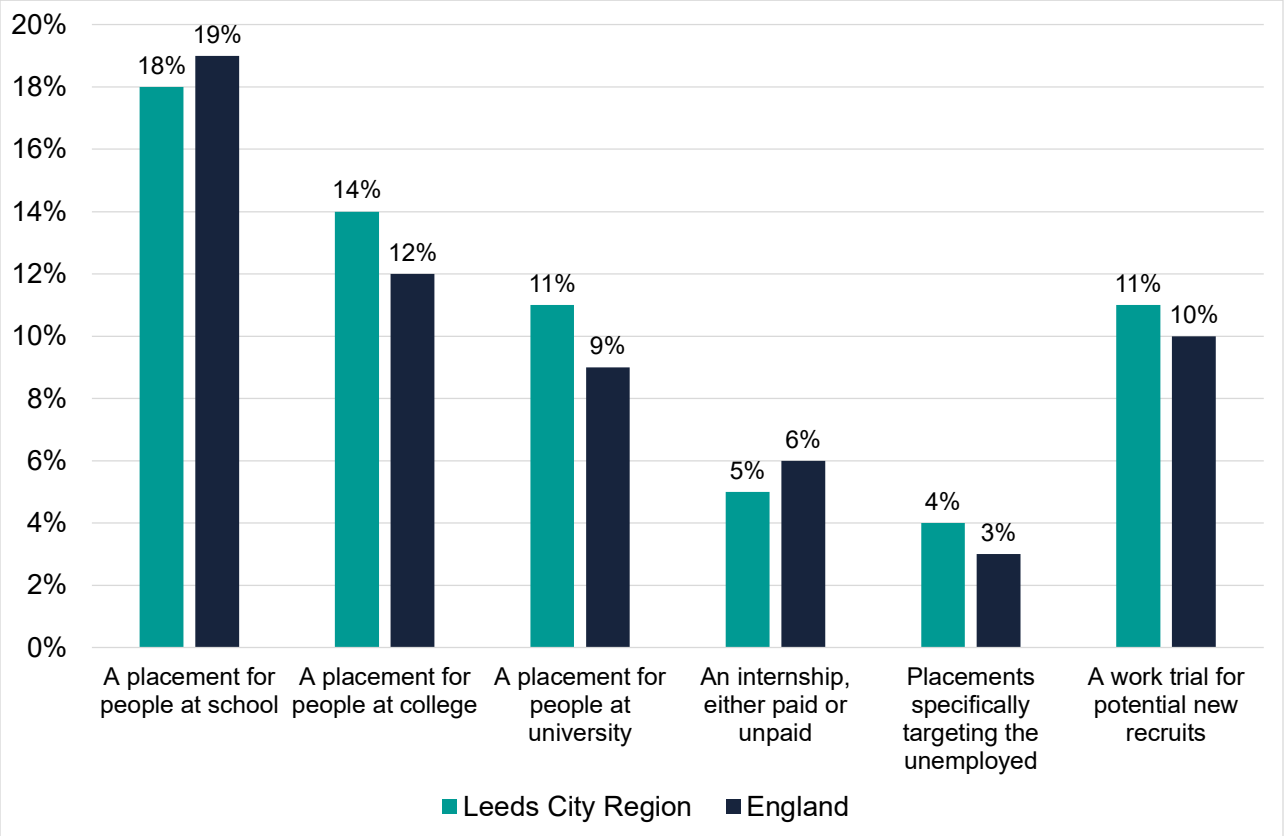


Note: Work experience placements include adult placements, work trials and internships, as well as placements for those in education. Work inspiration activities include careers talks, site visits, mentoring, mock interviews, enterprise competitions and input to design of coursework
Base: All establishments
Source: Employer Skills Survey 2019

The survey finds that 36% of employers in Leeds City Region offer work experience placements of any kind, similar to the England average of 35%.

Employers are most likely to offer placements for school pupils, followed by people at college and then by people at university. Around 29% of employers provided some kind of education placement. Only 4% of employers participated in a placement targeting the unemployed.

Figure 93: Type of work experience placement provided in last 12 months



Base: All establishments
Source: Employer Skills Survey 2019

The main reasons that Leeds City Region employers give for offering work experience placements, according to the survey results, is in order to give people work experience (48%), to help with recruitment (33%), for moral / altruistic reasons (38%) and as part of CSR policy (12%).

The key barriers cited by local employers to offering placements or other work-related experiences to students of educational institutions are structural (e,g, the establishment has no suitable roles, placements not suitable due to size of establishment), cited by 68% of employers; an active choice not to – cited by 26% of employers; and a lack of awareness (11%). Very few (less than 1%) indicated that educational institutions were difficult to engage with.

As the figure above shows, a much smaller proportion, 11%, offer work inspiration activities in West Yorkshire than offer work experience; this is similar to the national average.

5 Mapping of skills demand and supply

Skill mismatches reflect an imbalance between supply and demand in the labour market, between the skills available and the skills needed by employers and the wider economy.

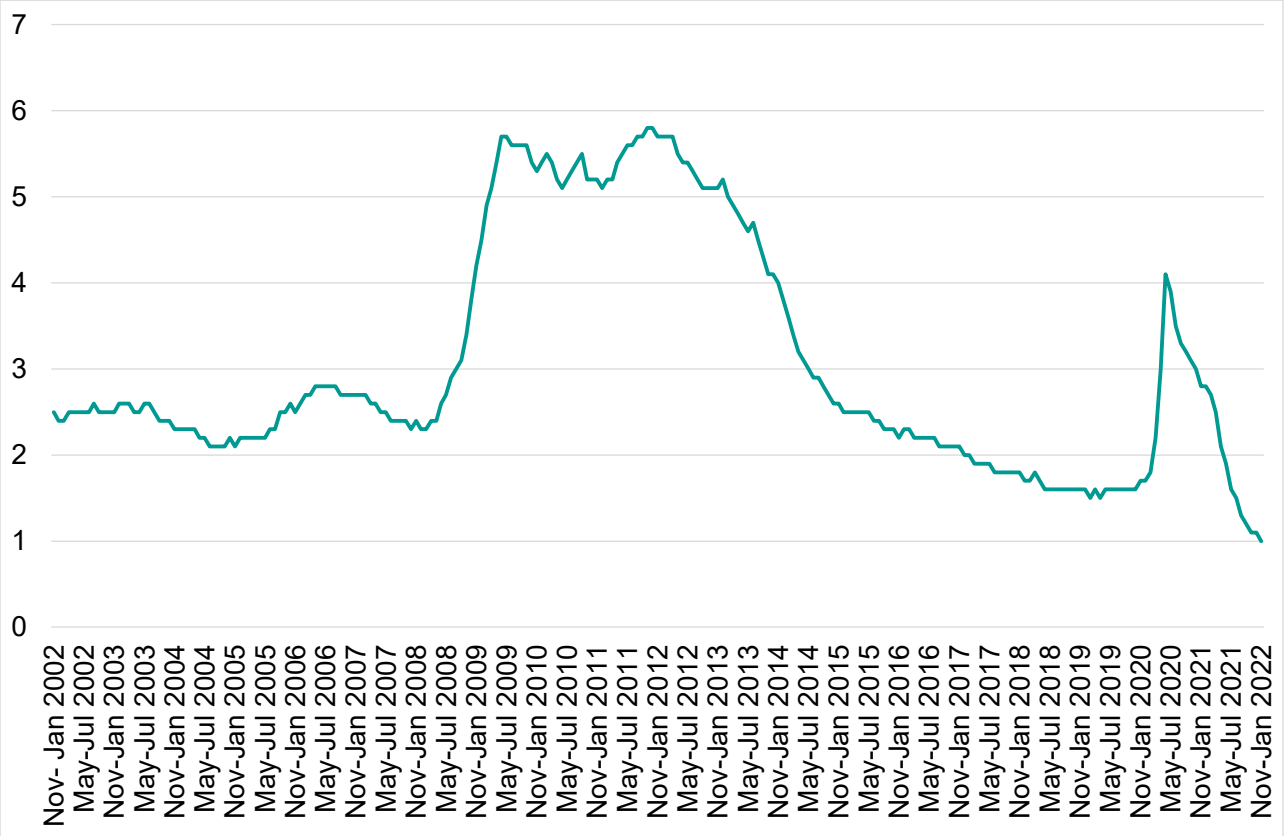
This inability to obtain the skills that are needed is a key barrier to business growth and improved productivity for firms. In some cases, individuals invest in skills that have limited economic value in terms of employer demand and this represents a missed opportunity for the individual and a constraint on their career potential.

Skills mismatches are often short term, as the operation of the market leads to an increase in the supply of people with the necessary skills, but in some cases, they are acute and persistent, with significant implications for business performance. This kind of market failure presents a policy priority but also offers an opportunity for individuals considering their career options to target areas of unmet demand.

5.1 Tightening of labour market

The number of unemployed people per vacancy is a key measure of the tightness of the labour market, showing the number of jobless people who are actively seeking and available for work relative to the number of opportunities open to them.

Figure 94: Trend in number of unemployed people per vacancy, UK



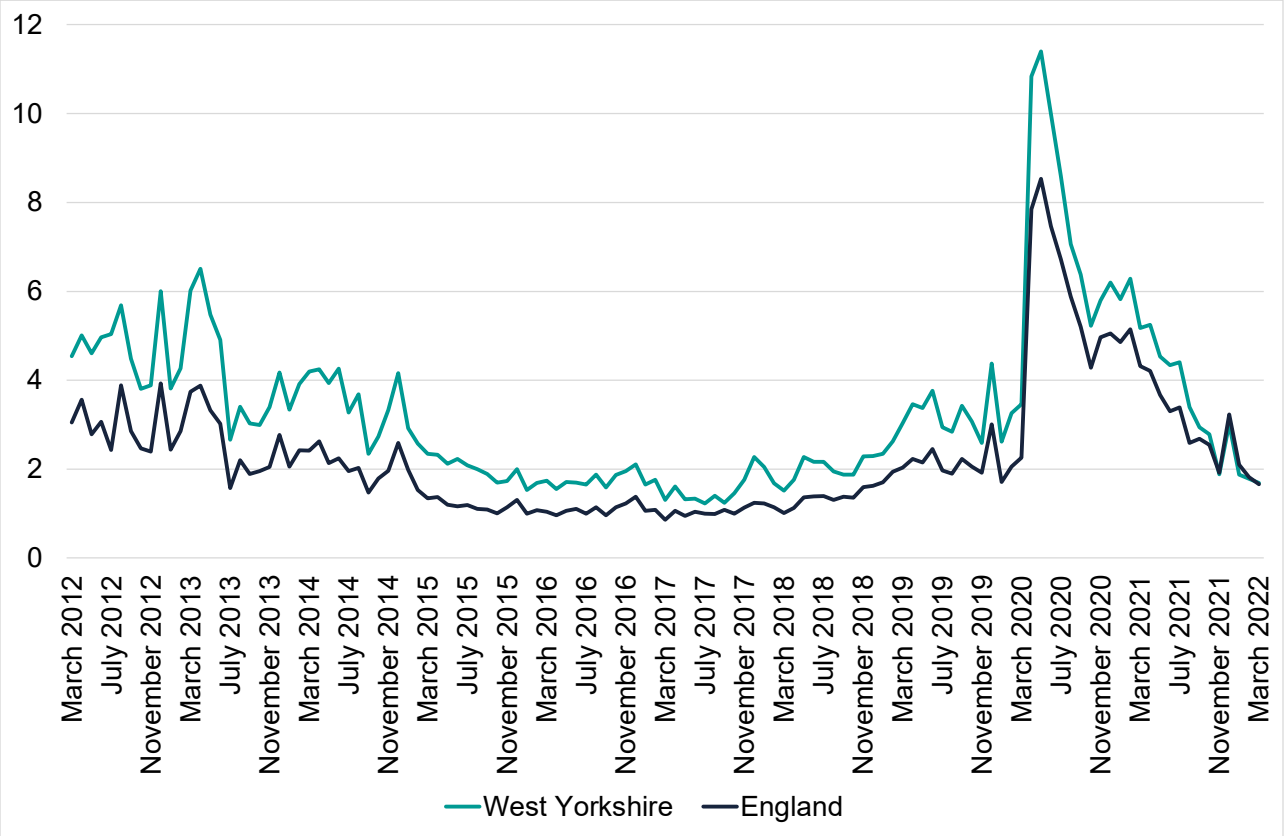
Source: ONS Vacancy Survey/Labour Force Survey

UK level figures show that this ratio had peaked at nearly six unemployed people per vacancy in 2011, falling to around 1.6 immediately before the pandemic. During the pandemic the number of unemployed people grew sharply at the same time as the number of vacancies fell. However, this spike in the ratio was short-lived and by the end of 2021 the number of vacancies had roughly achieved parity with the number of unemployed people. Based on this measure, labour market conditions are tighter than they have been for many years.

Data are not available to replicate this analysis for West Yorkshire; however, a comparison can be made between the number of claimant unemployed people and the number of online job postings.

This shows a pronounced tightening of the labour market that is similar to that seen above using official statistics. At the height of the pandemic the number of claimants per job opening soared to more than 10 but quickly fell, as the economy re-opened, to less than two in early 2022. This tightening of the labour market has been driven by a steady fall in the claimant count in West Yorkshire since March 2021 and a steep increase in the count of online job postings.

Figure 95: Trend in number of claimant unemployed per online job posting



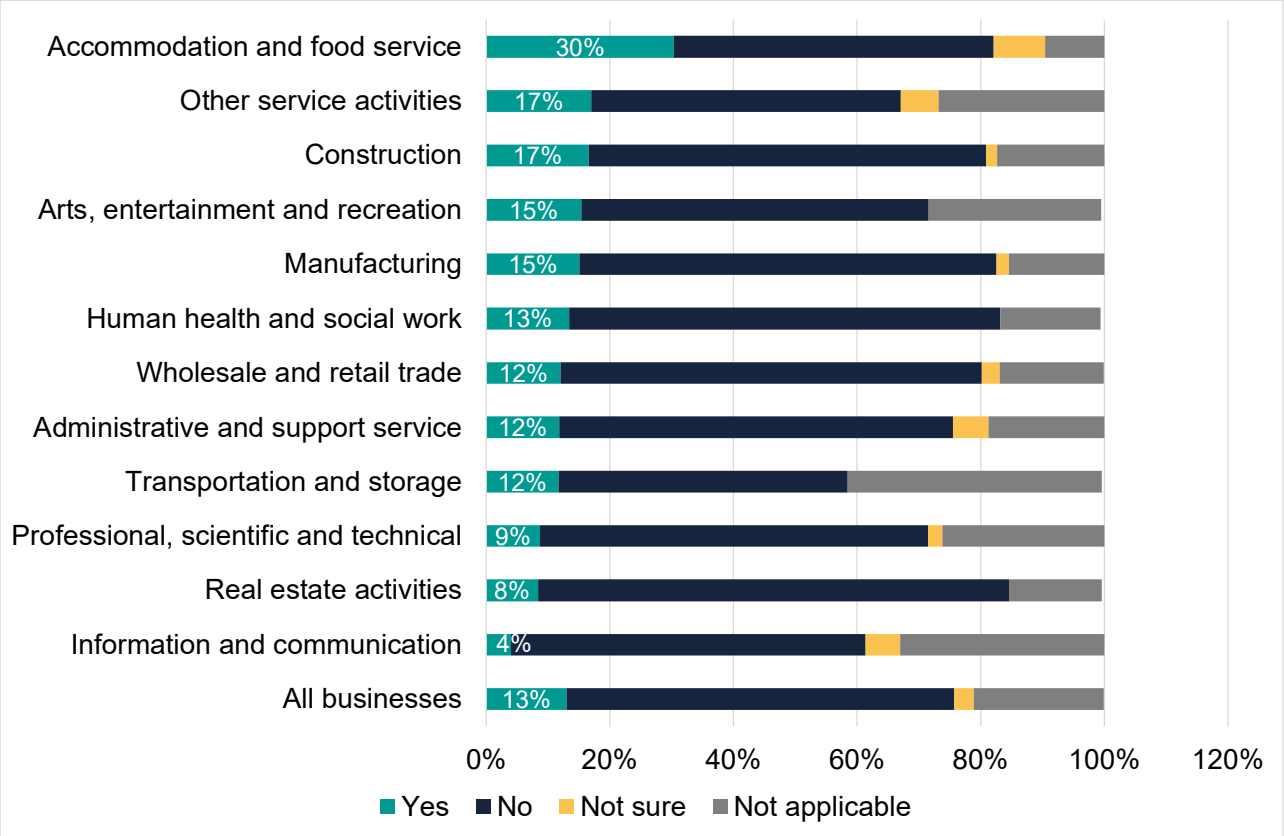
Source: ONS and Labour Insight

As the chart shows, the national labour market consistently had a lower number of claimants per job posting prior to the pandemic but that there has been a convergence between the West Yorkshire and national ratios in early 2022.

5.2 Worker shortages

As noted above, the re-opening of the economy has led to a pronounced tightening of the labour market as the number of vacancies has increased to record levels nationally and the number of people actively seeking and available for work has fallen. This situation is reflected in wide worker shortages reported by businesses. Around 13% of all businesses indicate that they are experiencing shortages.

Figure 96: Proportion of businesses experiencing a shortage of workers by industry



Note: Survey reference period: 21 February 2022 to 20 March 2022
Source: Business Insights and Conditions Survey

At national level, survey data shows that sectors that were most affected by lockdown during the pandemic are more likely to have worker shortages now. Most notably, the hospitality sector (Accommodation and food services) faces an incidence of shortages that is more than twice that of the overall economy.

Although equivalent data are not available at West Yorkshire this general picture is supported by the evidence that is available. For example, the hospitality sector has seen the sharpest growth in online job postings of any industry sector in West Yorkshire following the re-opening of the economy.

The latest results of West and North Yorkshire Chamber of Commerce's quarterly economic survey for quarter 4 of 2021 show that 65% of respondents in the service sector had experienced recruitment difficulties, rising to 79% of respondents in manufacturing.

The extent to which worker shortages will prove to be a longer term issue is open to question, especially since the economy is showing signs of cooling down as a result of the impact of the Russian invasion on disposable incomes and consumption. Moreover, the extent to which the current labour shortages are a function of skills mismatches rather than issues of pay and conditions and an overall shortfall of candidates is also open to discussion.

5.3 Skill shortages

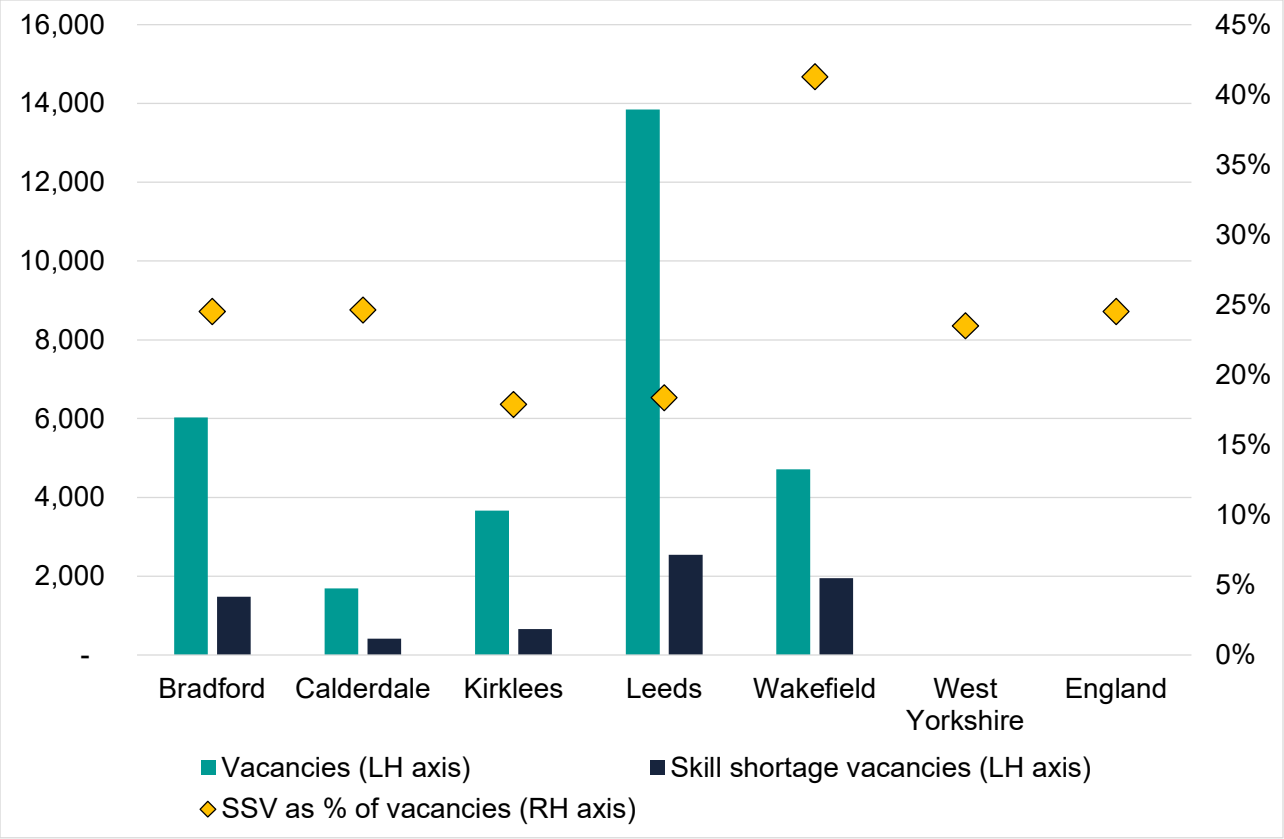
Skill shortages occur when employers find it hard to fill their vacancies because the available candidates lack the necessary skills, qualifications and experience to do the job.

The Department for Education's Employer Skills Survey provides information on the number of vacancies and skill shortage vacancies that employers have at a single point in time. Skill shortages do not occur in large numbers and are not widespread. They tend to be concentrated in particular industry sectors and occupations but where they do exist they can be acute and persistent, acting as a significant constraint on business growth and performance.

Around a quarter of all vacancies are skill shortage vacancies in West Yorkshire

According to the 2019 Employer Skills Survey there were 8,100 skill shortage vacancies in the City region at the time of the survey, with 6% of employers reporting one or more shortage.

Figure 97: Vacancies and skill shortage vacancies by West Yorkshire district



Source: Employer Skills Survey, 2019

Just under a quarter (24%) of all vacancies in West Yorkshire are skill shortage vacancies, similar to the national average of 25%.

Data are also available at Local Education Authority level and these suggest that Wakefield has the highest prevalence of shortages (41%), whilst Bradford and Calderdale are similar to the West Yorkshire average and Kirklees and Leeds are both somewhat below the average.

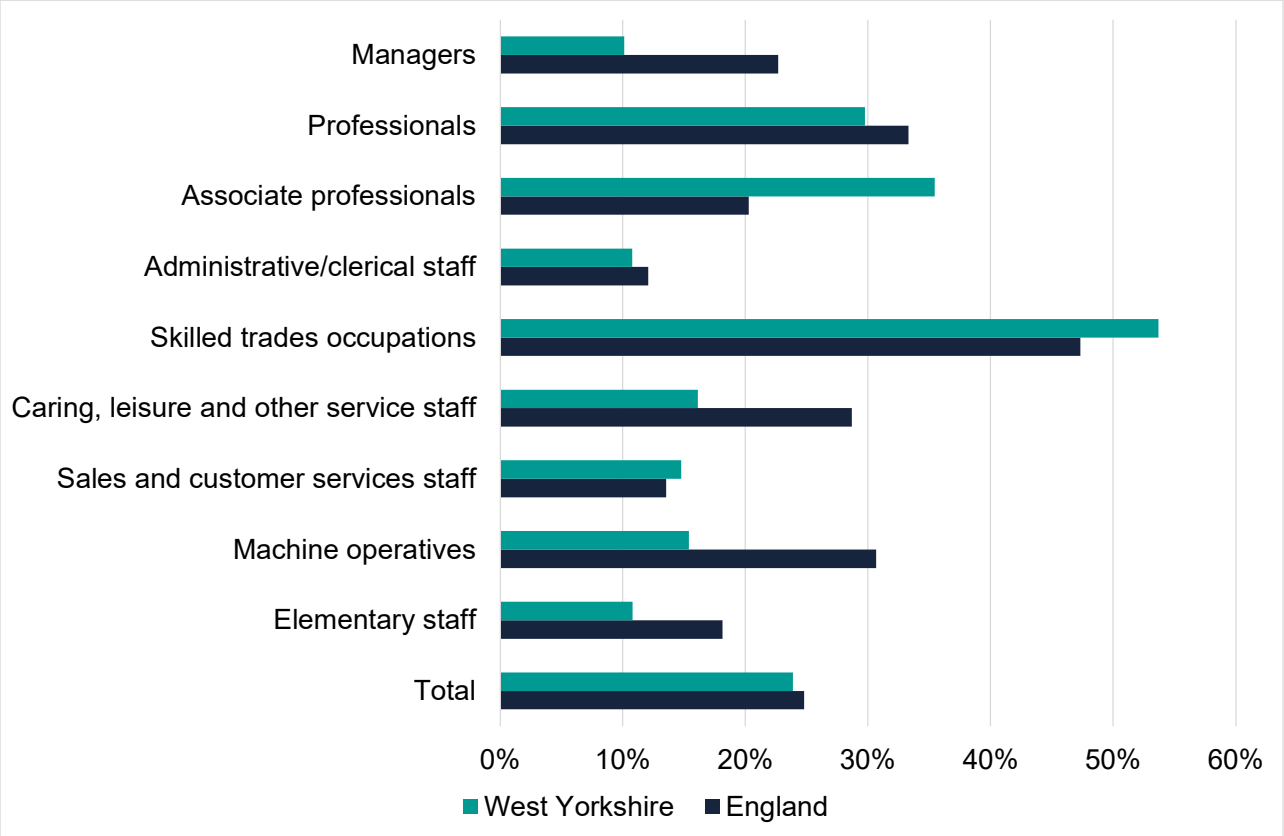
The occupational pattern of shortages provides an insight into the particular types of jobs that are most affected by a lack of candidates with the skills needed by employers.

Shortages are most prevalent in skilled trades

The latest data show shortages are most acute for jobs that require higher level and intermediate technical skills, specifically associate professional and technical, professional and skilled trades occupations. These occupations often require skills that take an extended period to develop and in some cases depend on training and development in a workplace setting.

This local pattern of shortages differs from the national picture with regard to a lower prevalence of skill shortages among managers, caring occupations, machine operatives and lower-skilled elementary staff. On the other hand, there is a higher prevalence for skilled trades and in particular for associate professional and technical roles.

Figure 98: Density of skill shortage vacancies by occupation major group



Note: Density measure shows skill-shortage vacancies as a proportion of all vacancies
Source: Employer Skills Survey 2019

With regard to the skills that employers found difficult to obtain from applicants, specialist, occupation-specific skills and knowledge required to perform the role are the type most commonly highlighted (for 59% of shortage vacancies). A deficit of technical or practical skills of some kind is highlighted by employers with reference to more than 80% of skill shortage vacancies. However, other skills including customer handling, team-working and time management were also highlighted.

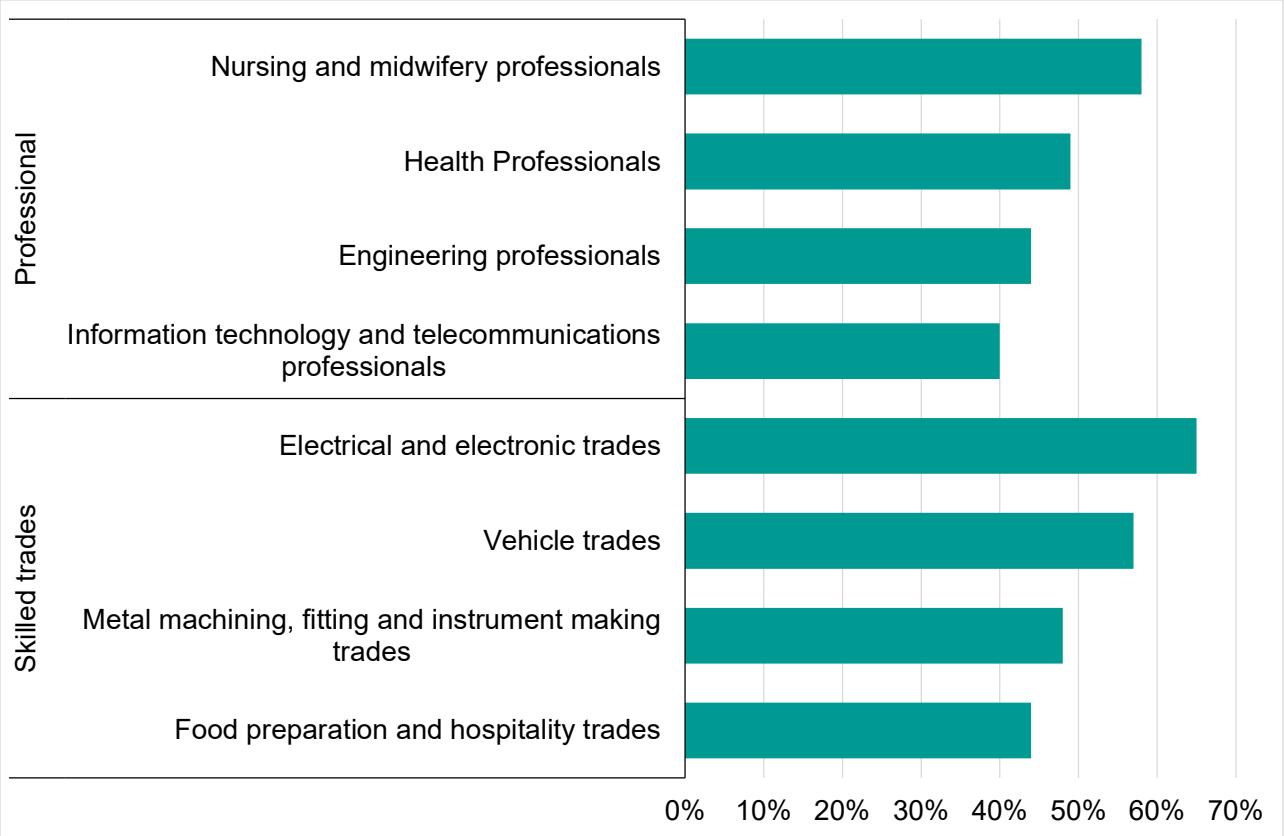
The detailed occupations with the most acute shortages in Yorkshire and the Humber include health, engineering and digital professionals plus a range of skilled trades

More detailed occupational data on shortages is available for Yorkshire and the Humber, providing a clearer insight into the nature of prevailing skills mismatches.

The occupations with the greatest overall number of shortages include caring roles (e.g. care workers), engineering professionals and metal machining trades.

However, the occupations with the greatest density of shortages, those in which shortages are most acute, are, at professional level, nurses, health professionals, engineering professionals and digital professionals; and for skilled trades, electrical and electronic trades and vehicle trades.

Figure 99: Occupational minor groups with highest density of skill shortage vacancies, Yorkshire and the Humber

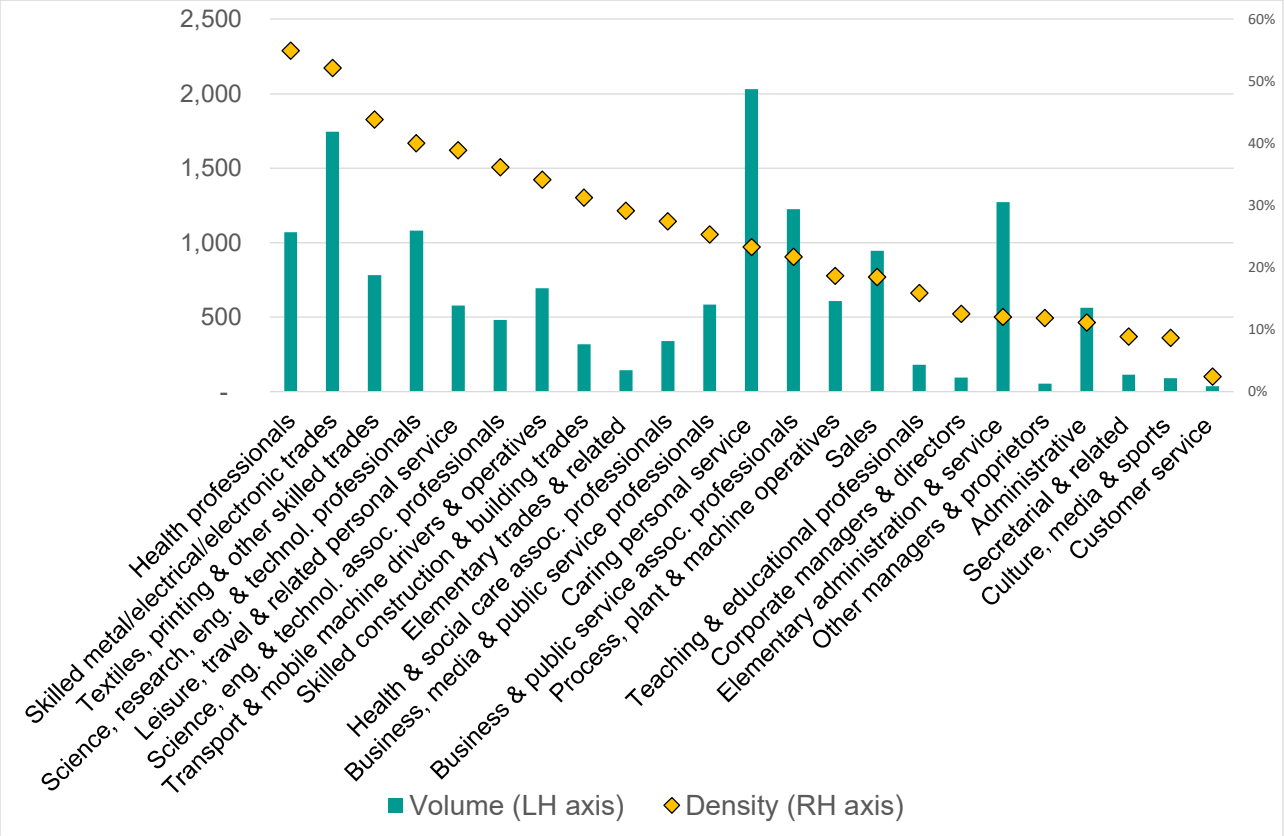


Note: Density measure shows skill-shortage vacancies as a proportion of all vacancies
Source: Employer Skills Survey 2019

In each case the prevalence of skill shortages in these occupations across Yorkshire and the Humber has been considerably higher than the average for all occupations since 2011, demonstrating their persistent nature.

The chart below shows the full spectrum of occupations at the broader sub-major group level, in terms of the volume and prevalence of shortages across the Yorkshire and the Humber region.

Figure 100: Volume and density of skill shortages by occupational, sub-major group, Yorkshire and the Humber



Note: Density measure shows skill-shortage vacancies as a proportion of all vacancies
Source: Employer Skills Survey 2019

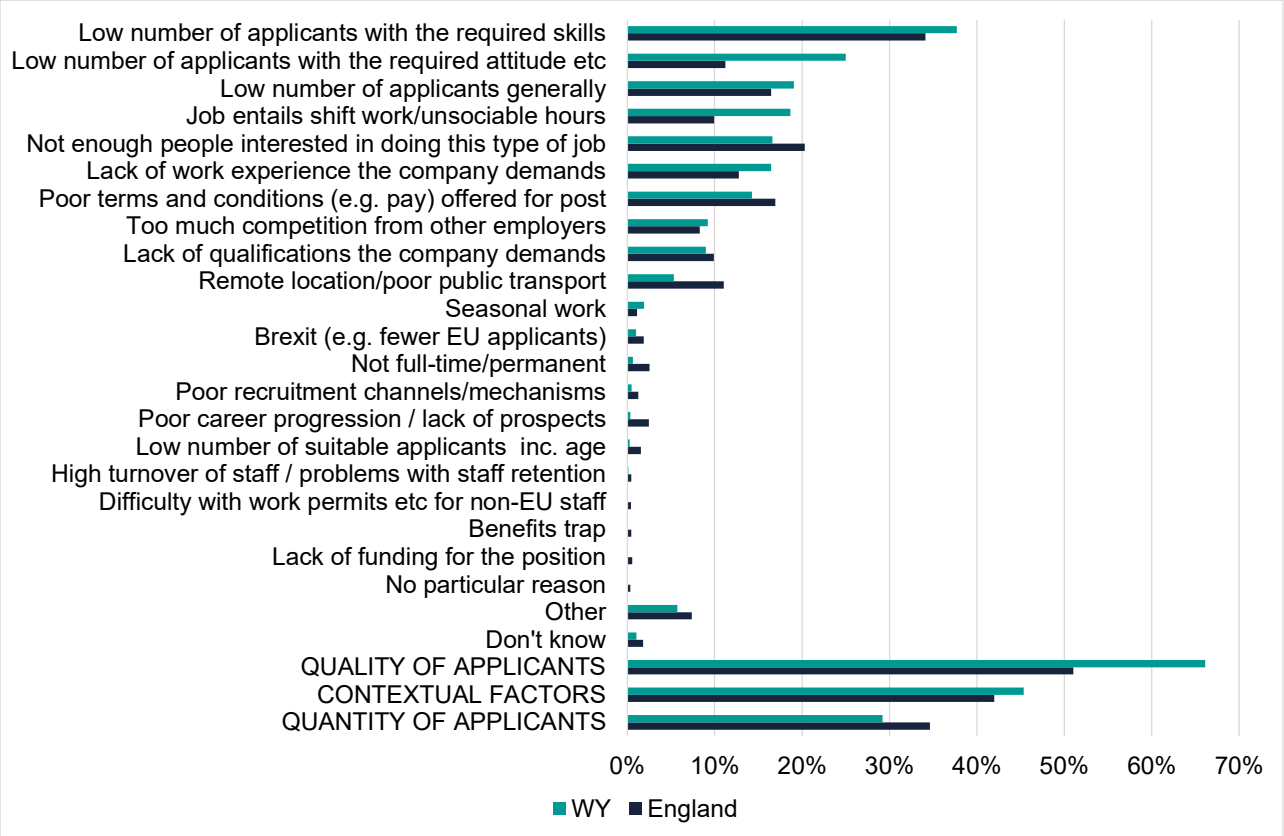
It confirms that the highest prevalence of shortages is among higher skilled occupations with significant technical requirements, including health professionals and STEM professionals, plus skilled trades of various types, most notably skilled metal, electrical and electronic trades. It also shows that the volume of shortages is high for caring personal services and elementary administration and service occupations, reflecting the size of these occupations; but also shows that the intensity of shortages is low for these groups.

Clearly, the available data on skill shortages pre-dates the impact of the COVID-19 crisis. However, as the previous review of current labour demand based on online job postings shows, many of the shortage "hotspots" have seen relatively resilient demand during the crisis and recovery, suggesting that the structural factors underlying shortages are likely to remain unchanged.

5.4 Other reasons for hard-to-fill vacancies

The causes of hard-to-fill vacancies are not confined to lack of the required skills among applicants. There is also a range of contextual factors that hamper employers when seeking to recruit workers.

Figure 101: Main causes of having a hard-to-fill vacancy (unprompted)



Base: All hard-to-fill vacancies
Source: Employer Skills Survey 2019

The picture for West Yorkshire is a distinctive one: quality of applicants is more likely to be an issue for West Yorkshire employers than nationally, both in terms of skills and more general factors relating to attitude and personality. Contextual factors are also important but follow a distinctive pattern in West Yorkshire; for example, shift work and unsociable hours are a more prevalent issue locally than nationally but remote location and poor public transport is a less commonly cited problem than nationally.

5.5 Skills Gaps

Skills gaps are another form of skills mismatch and come about when existing employees within an organisation are not fully proficient in their job and are not able to make the required contribution to the achievement of business or public service objectives. The pattern of skills gaps provides a useful indication of employers' needs in terms of workforce development.

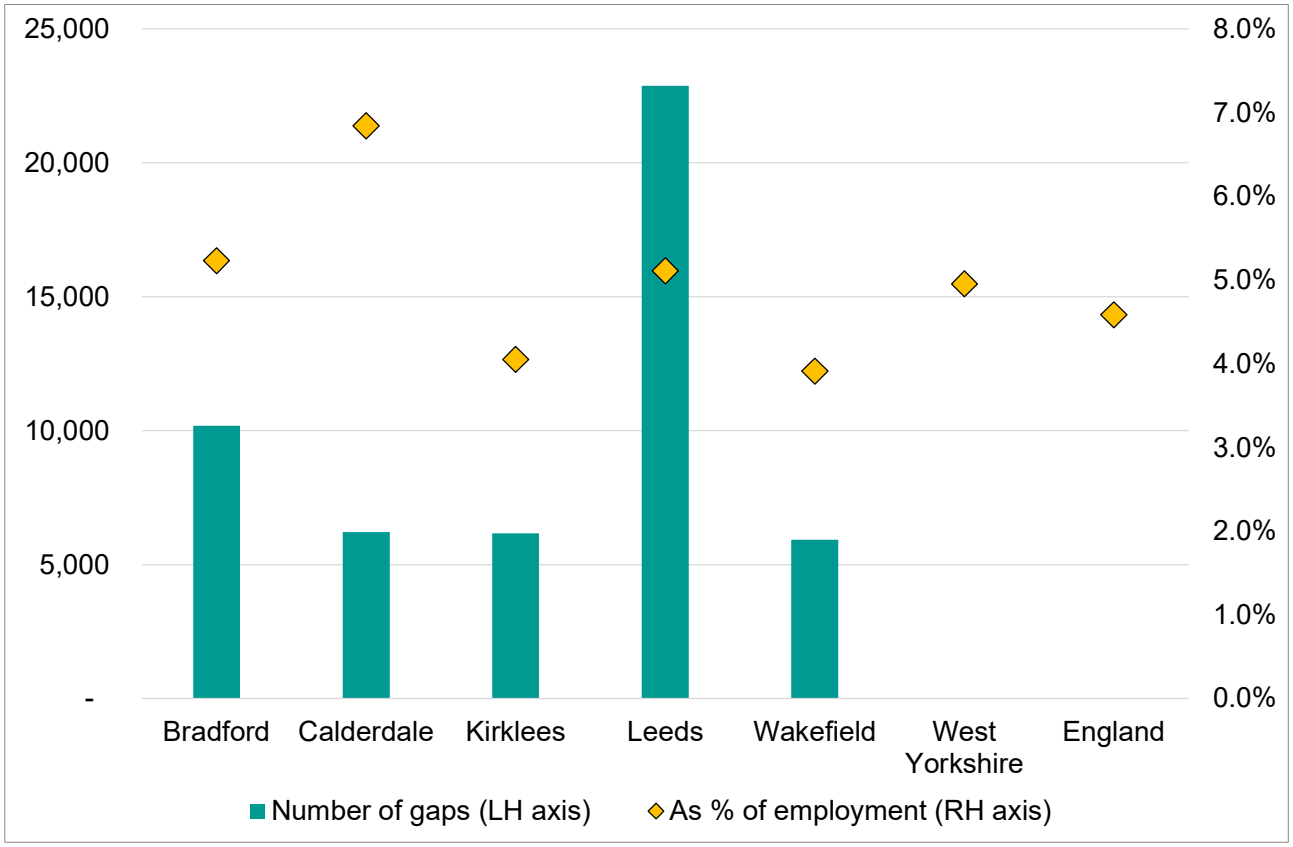
15% of employers are affected by skills gaps, with administrative and sales and customer service staff most susceptible to gaps

Skills gaps are more widespread and numerous than skill shortages. According to the latest data, 15% of employers in West Yorkshire report that they have one or more skills gaps. There are approximately 51,000 gaps, equivalent to 5% of total employment. This

is similar to the national picture, in terms of the proportions of employers and workers affected by skills gaps.

The incidence and prevalence of skills gaps have also remained fairly constant within the West Yorkshire since 2011, when figures first became available.

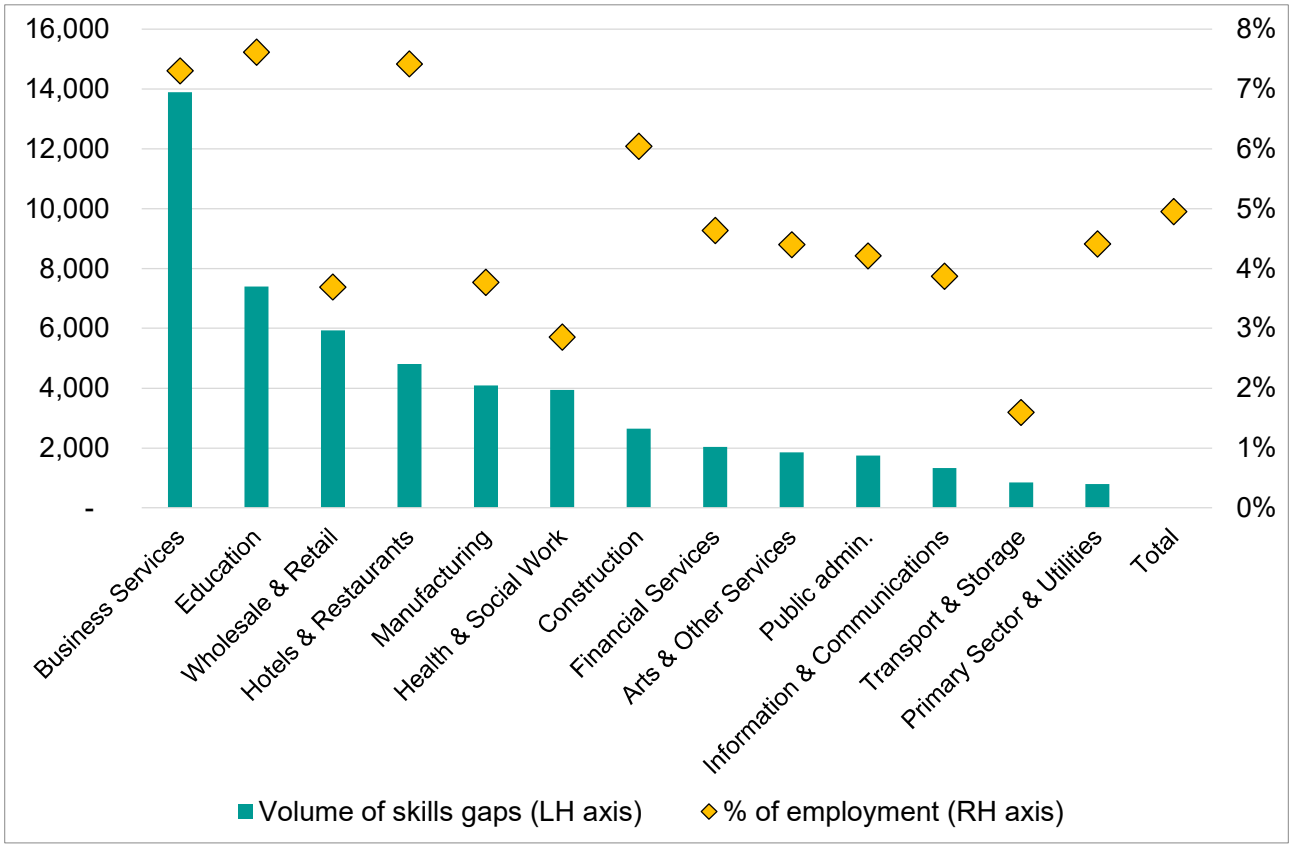
Figure 102: Volume and prevalence of skills gaps by local authority area



Note: Prevalence shows volume of gaps as proportion of employment
Source: Employer Skills Survey 2019

The prevalence of skills gaps (in terms of the volume of gaps presented as a proportion of total employment) is broadly similar across the five local authorities of West Yorkshire, although it is somewhat higher in Calderdale and slightly lower in Kirklees and Wakefield. The proportion of employers who report having a skills gap is highest in Wakefield at 19% (suggesting that gaps are thinly spread across organisations in Wakefield) with the remaining local authorities standing at between 14% and 15%.

Figure 103: Volume and prevalence of skills gaps in West Yorkshire by industry sector, 2019



Source: Employer Skills Survey 2017

As the chart demonstrates, three sectors of the local economy have the highest prevalence of skills gaps: *Business services*, *Education* and *Hotels and restaurants*. The first of these sectors also has by far the highest volume of gaps in absolute terms. The *Wholesale and retail* sector has a high volume of gaps but their prevalence relative to employment is modest. Together these four sectors contribute more than 60% of total skills gaps. *Construction* also has an above average prevalence of gaps.

Figure 104: Incidence of skills gaps in West Yorkshire by occupational major group

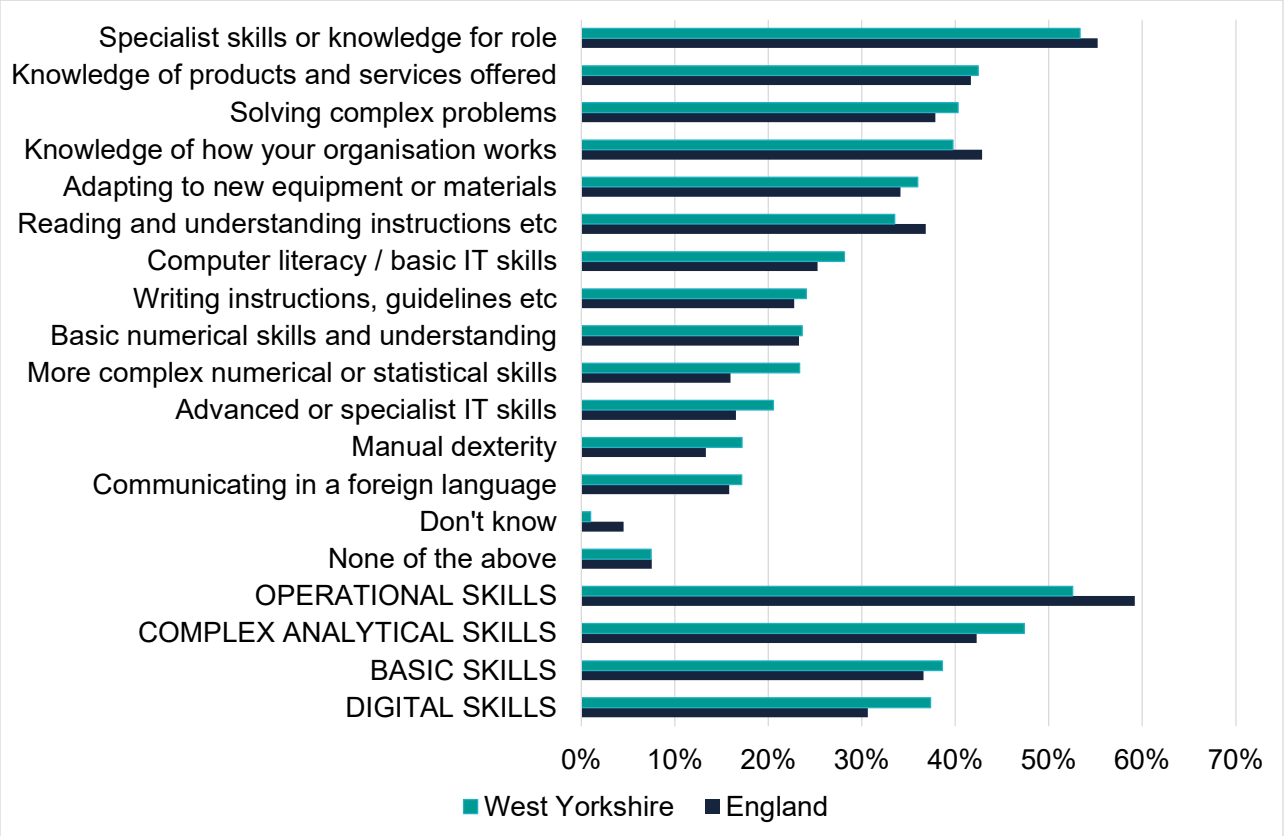
Source: Employer Skills Survey 2019
Base: all establishments with skills gaps

Turning to the occupational pattern of skills gaps, employers in West Yorkshire are most likely to report deficits in respect of *Administrative and secretarial staff*, *Skilled trades*, lower-skilled *Elementary staff* and *Sales and customer service* staff. Relatively few highlight gaps for higher skilled professional and associate professional workers.

However, a significant proportion of employers reporting skills gaps (nearly a fifth) say that management level staff are affected. This has clear implications for wider business performance.

Many skills gaps are due to a deficit of practical skills among workers, including job-specific skills and operational skills, such as knowledge of the organisation's products and services. Complex analytical skills, such as problem solving, plus digital skills at a variety of levels, as well as basic skills (functional literacy and numeracy) are also in deficit for many staff.

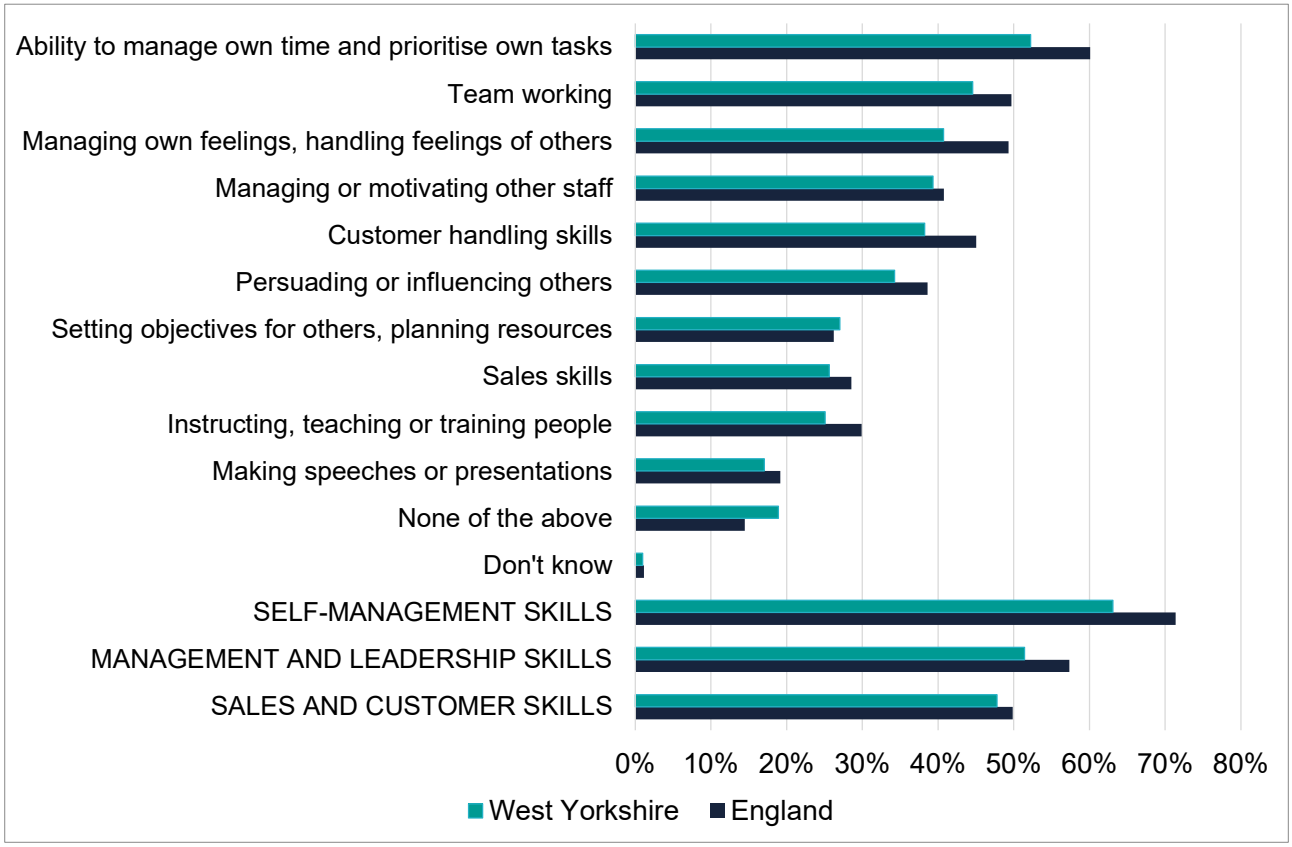
Figure 105: Technical / practical skills that need improving in occupations with skills gaps



Base: All skills gaps followed up
Source: Employer Skills Survey 2019

However, a lack of the required "soft" skills is more common across the workforce, including "self-management" skills such as time management and managing own feelings, plus team working and persuading / influencing others. Management, whether it be aspects of self-management or leading / managing staff within the organisation, is a key element of skills gaps, together with sales and customer handling skills.

Figure 106: Soft / people skills that need improving in occupations with skills gaps



Base: All skills gaps followed up
Source: Employer Skills Survey 2019

For managers with skills gaps the main types of skill that need to be improved include core management skills, complex problem-solving skills, as well as operational skills.

Many skills gaps are short term and associated with high rates of staff turnover, particularly in sectors like hospitality, in the sense that the workers are new to the role or their training is not yet complete. However, in some cases gaps are due to wider organisational changes such as the introduction of new working practices or new technology. In other instances, gaps are associated with management issues, such as staff lacking motivation and problems in retaining staff.

Skills gaps could worsen in future

According to one model, by 2030, 7 million additional workers could be underskilled for their job requirements, equivalent to about 20% of the labour force. This reflects new skills mismatch opening up within existing jobs and from transitioning to new occupations. The main areas of deficit are forecast to be 'workplace skills' rather than in 'qualifications' and 'knowledge'. Reflecting the current pattern of skills gaps, underskilling is expected to be greatest in respect of basic digital skills (although the basic requirements of 2030 are likely to look advanced compared with today's needs), management skills, STEM workplace skills and teaching and training skills. The analysis concludes that the scale and nature of

the skills requirement is such that workplace training will need to form a central part of the response, in addition to formal education and training interventions[30].

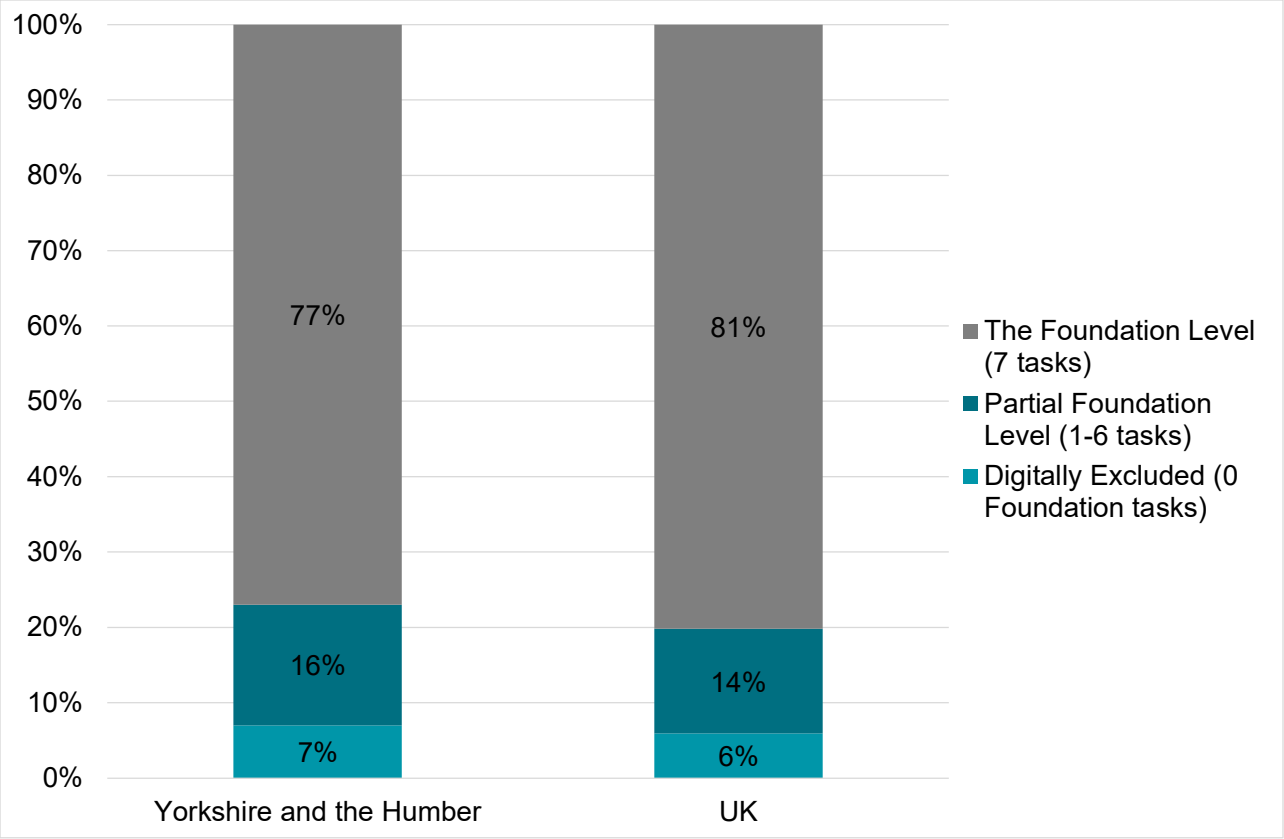
5.6 Essential digital skills

Digital skills are becoming increasingly essential to daily life as well as being key requirements for the workplace.

In 2018, the Tech Partnership, Lloyds Bank and the Department for Education established a baseline for digital skills that UK citizens need for work and everyday life called the Essential Digital Skills framework.

To have the foundations of Essential Digital Skills (EDS), is to be able to access the Internet by yourself. A number of things must be true for this to be the case, including an individual being able to use a device, connect to a Wi-Fi network and create and update passwords. However, many adults lack these skills at a basic foundation level and can therefore be considered to be digitally excluded.

Figure 107: Essential Digital Skills: % of people who have achieved the Foundation Level



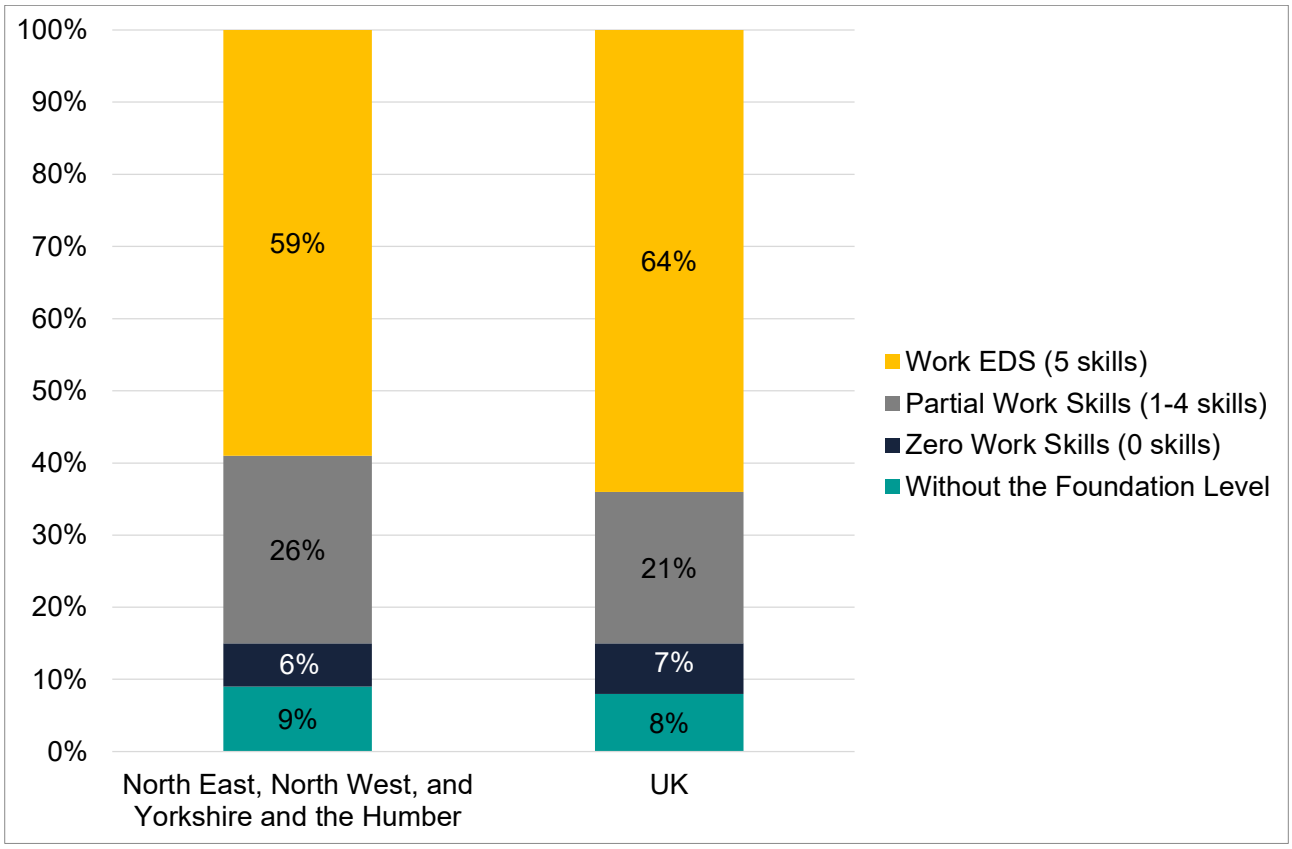
[30] Industrial Strategy Council (2020) UK Skills Mismatch in 2030. Available at: UK Skills Mismatch 2030 – research paper | Industrial Strategy Council

Source: Essential Digital Skills Report 2021, Lloyds Bank

Data from the Lloyds Bank study are only available to government office region level. For Yorkshire and the Humber, just under a quarter (23%) of the population are unable to undertake any Foundation level task, meaning that they are digitally excluded. If we apply this proportion to West Yorkshire, assuming a similar proficiency profile, it suggests that more than 400,000 adults lack Foundation skills.

Certain population groups more likely to be digitally excluded, most notably older people, people who are less qualified, those with a sensory impairment, those on a low income, those who are not working and people living alone.

Figure 108: Essential Digital Skills: % of people who have achieved essential digital skills for work



Source: Essential Digital Skills Report 2021, Lloyds Bank

The Lloyds Bank study also explores the proficiency of people in employment with reference to the digital skills needed to operate effectively in the workplace. Fewer than 6 in 10 workers across the north of England can undertake a task in each of the five Work skill areas set out in the framework, with the remainder classed as lacking Work EDS. Assuming that these proportions apply at West Yorkshire level, this would imply that close to half a million workers lack essential digital skills for the workplace locally.

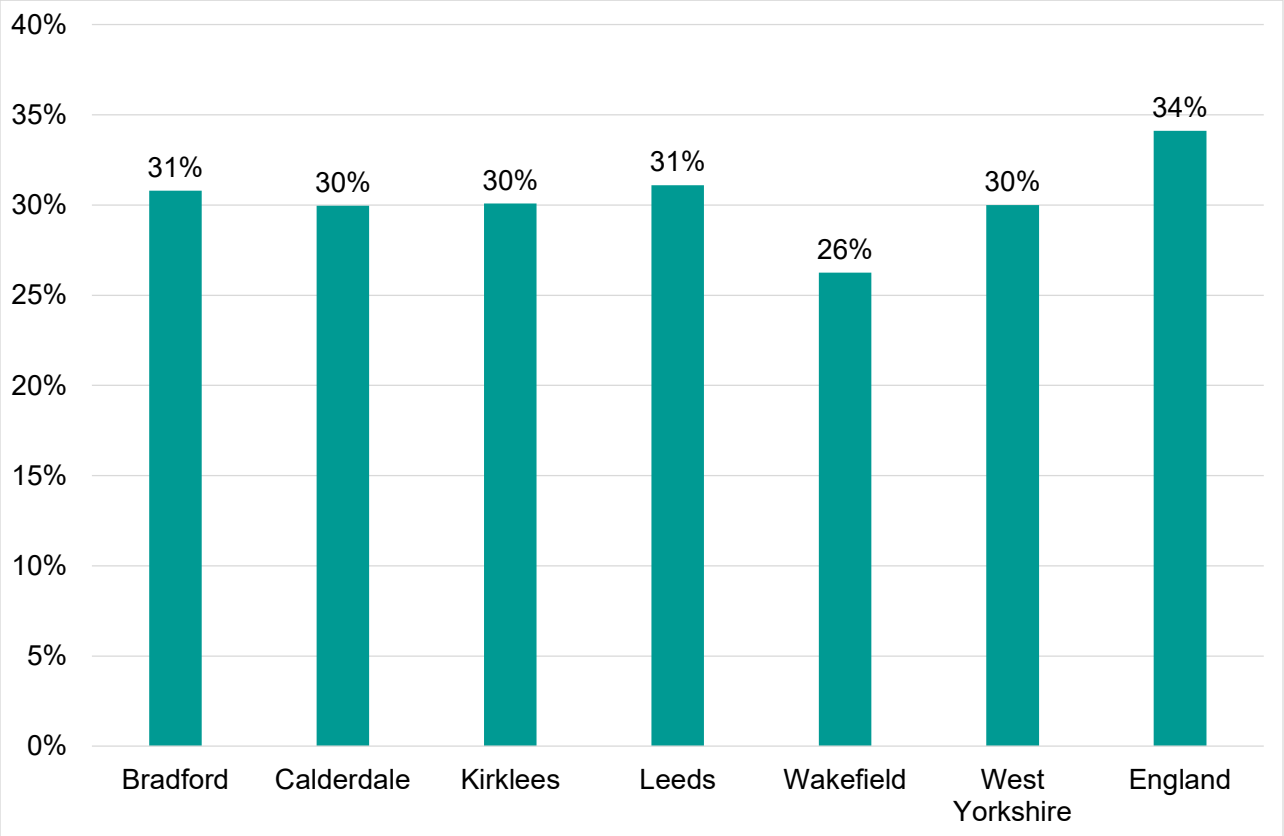
5.7 Skills underutilisation

Skills mismatches are not only due to skills deficits. It is important to understand the extent and nature of skills underutilisation as this issue implies a significant misallocation of resources in view of the large-scale investment in higher education by individuals and the state. An inability to use acquired skills and knowledge has a de-motivating effect on workers and represents a missed opportunity for employers to maximise productivity.

Skills underutilisation is widespread

Close to a third (30%) of employers in West Yorkshire say that they have workers whose skills / qualifications are in advance of those needed for the job; this is somewhat below the national average of 34%. The survey data suggest that the incidence of underutilisation is uniform across West Yorkshire's five local authority areas, with the exception of Wakefield, where it is lower at 26%.

Figure 109: Proportion of employers with underutilised staff



Note: Underutilised staff are employees who have both qualifications and skills that are more advanced than required for their current job role
Source: Employer Skills Survey 2019

Analysis from Employer Skills Survey 2017[31] indicates that employers in *Arts and other services*, *Health and social work* and *Hotels and restaurants* are most likely to indicate that they have underutilised staff, whilst establishments in the *Business services*, *Construction*, *Primary and utilities*, and *Information and communication* sectors are least likely to say that this is the case.

Other measures suggest that underutilisation is widespread, at least in notional terms. Labour Force Survey data for West Yorkshire indicate that 128,000 people working in non-graduate roles[32] (as their main job) hold qualifications at level 4 and above. This is equivalent to 22% of all people working in non-graduate roles. Around 16,000 (12%) of these underutilised workers are aged under 25 with the remainder aged 25 and above. Workers with under-utilised skills are most likely to be employed in administrative, caring, retail and elementary roles (including storage and hospitality occupations). This kind of mismatch represents a waste of human capital and a missed opportunity to maximise

[31] Sectoral data are not available at local level from Employer Skills Survey 2019.

[32] In this context non-graduate roles are defined as SOC major groups 4-9.

productivity. Improved information, advice and guidance is a key mechanism for enabling people to invest in the right economically valuable skills that will allow them to fulfil their potential. The current labour shortages affecting the economy represent an opportunity for individuals to re-position themselves in the labour market, although this presents further challenges around back-filling vacant posts.

5.8 Structural joblessness

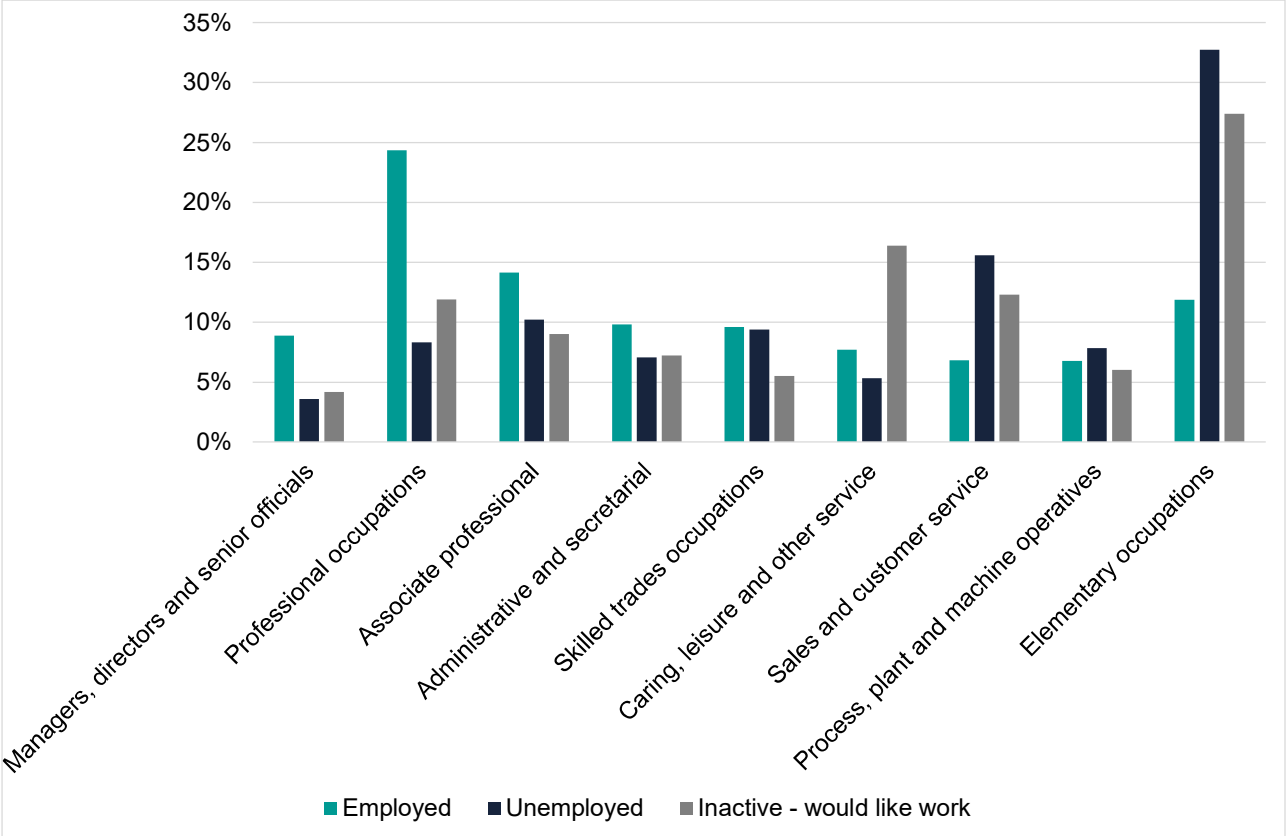
Skills mismatch also comes in the form of structural joblessness, in those instances where the occupational and qualification profile of the jobless is misaligned with demand from the labour market.

Structural joblessness is a key mismatch in the labour market

COVID-19 did not lead to the mass unemployment that many commentators feared at the start of the crisis. At the national level unemployment is on a downward path with short-term unemployment now at its lowest ever level. Long-term unemployment[33], although falling, is currently higher than before the pandemic and is around 50% higher for those aged 25- 49.

[33] Defined as more than six months for young people (aged 16-24) and more than twelve months for all others.

Figure 110: Occupational profile of the unemployed and inactive (based on last job), Yorkshire and the Humber



Source: Annual Population Survey, Jan – Dec 2021

There are marked differences between the occupational profile of people in work and of unemployed and inactive people; this is even more marked if we consider the profile of jobs growth in the labour market, which is largely concentrated in higher skilled occupations. The occupational background of both the unemployed and inactive is weighted towards lower-skilled occupations, principally elementary but also sales and customer service, plus caring roles (in the case of the inactive) and operative roles in the case of the unemployed. The proportion of unemployed and inactive people with a background in higher skilled management, professional and associate professional is in each case around half that of people in employment. This implies a mismatch between the skills and experience of the unemployed and the profile of demand in the labour market.

The re-opening of the economy has prompted widespread labour shortages both locally and nationally. These shortages extend to the occupations in which inactive and unemployed people are concentrated, presenting an opportunity to get excluded people into jobs with the assistance of appropriate employment support provision.

The unemployed and inactive are also disadvantaged by their qualification profile. As noted in section 4.4, the unemployed and inactive, taken together, are less than half as likely to be qualified at level 4 and above and more than four times as likely to be qualified below level 2 or to lack formal qualifications.

5.9 Responsiveness of education and training sector

One way of assessing the relevance of HE provision to the needs of the local labour market is to compare the profile of provision in West Yorkshire institutions to that of labour market demand. This involves mapping subject categories to occupations[34]. For this analysis the occupational profile of current vacancies (online job postings for the period April 2021 to March 2022) is used to assess demand for skills in the labour market.

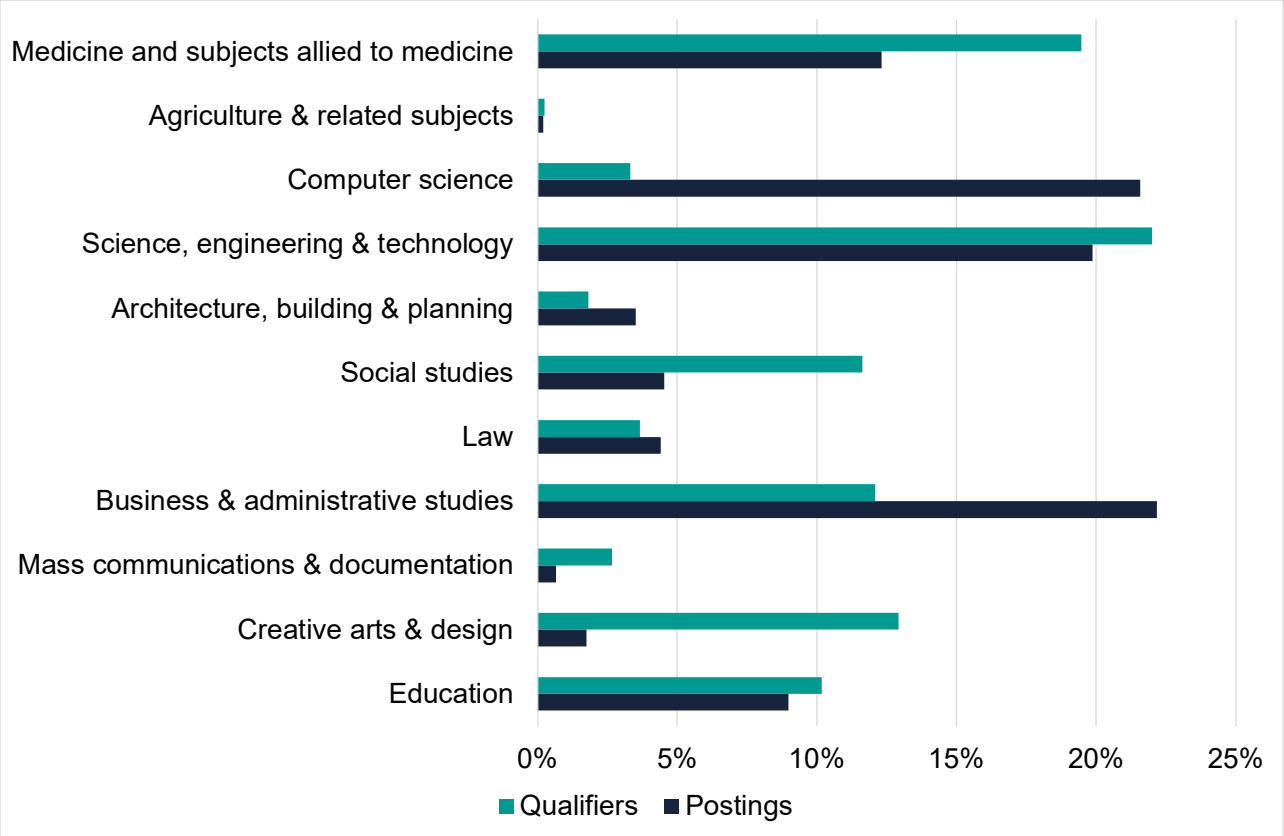
Clearly, there is a major caveat around the transferability of skills. Many people find that study in a particular vocational area proves to be of value across a range of occupational settings. In addition, HE institutions are serving the national labour market (or even an international one in some cases) rather than confining their efforts to meeting local needs and many qualifiers are not retained in the local area. Having said that, the subject profile of West Yorkshire provision is broadly similar to the national one, indicating that it is not narrowly-focused or skewed strongly towards particular subject areas.

The subject profile of HE qualifiers differs from the profile of local labour market demand

There are several areas where supply is low relative to estimated demand in notional terms. Key instances are *Computer science* and *Architecture, building and planning* and *Business and administrative*. In each case, the proportion of job openings in associated occupations outweighs the proportion of qualifiers from local institutions to a large degree.

[34] Those subjects that do not have a reasonably straightforward relationship with an occupational group have been excluded. Examples include academically-focused subjects such as history, philosophy and theology, which have a generic rather than job-specific focus.

Figure 111: Comparison of subject profile of higher education qualifiers with profile of online job postings in related occupations



Note: Limited to qualifiers with UK domicile
Source: Calculations based on HESA data for 2019/20 academic year and job postings data from Labour Insight (April 2021 to March 2022)

Conversely, there are subject areas in which the proportion of qualifiers is high relative to the proportion of openings. This is the case for *Creative arts and design*, *Mass communications and documentation*, *Social studies,* and to a lesser extent*, Medicine and subjects allied to medicine*. The latter subject is a specialism for West Yorkshire and strongly represented relative to the national average in terms of qualifiers.

The proportion of people who qualify in *Science, engineering and technology* also slightly outweighs the share of demand for directly-related roles in the labour market. This is a clear example where skills are highly transferable and can be applied across a range of settings, with demand from employers extending well beyond the specific occupational field. This view is substantiated by the strong graduate earnings associated with specific subjects like *Mathematical sciences*, *Engineering and technology* and *Architecture, building and planning*.

A similar approach to comparing supply and demand is applied to further education and skills, below.

There are also imbalances between the profile of apprenticeship provision and labour market demand

In past years there has been a broad alignment between the subject profile of apprenticeships and the profile of employment. However, the pandemic has had a significant impact on the subject profile of apprenticeship starts in the 2019/20 and 2020/21 academic years, changing the balance between the profile of provision relative to the profile of employment.

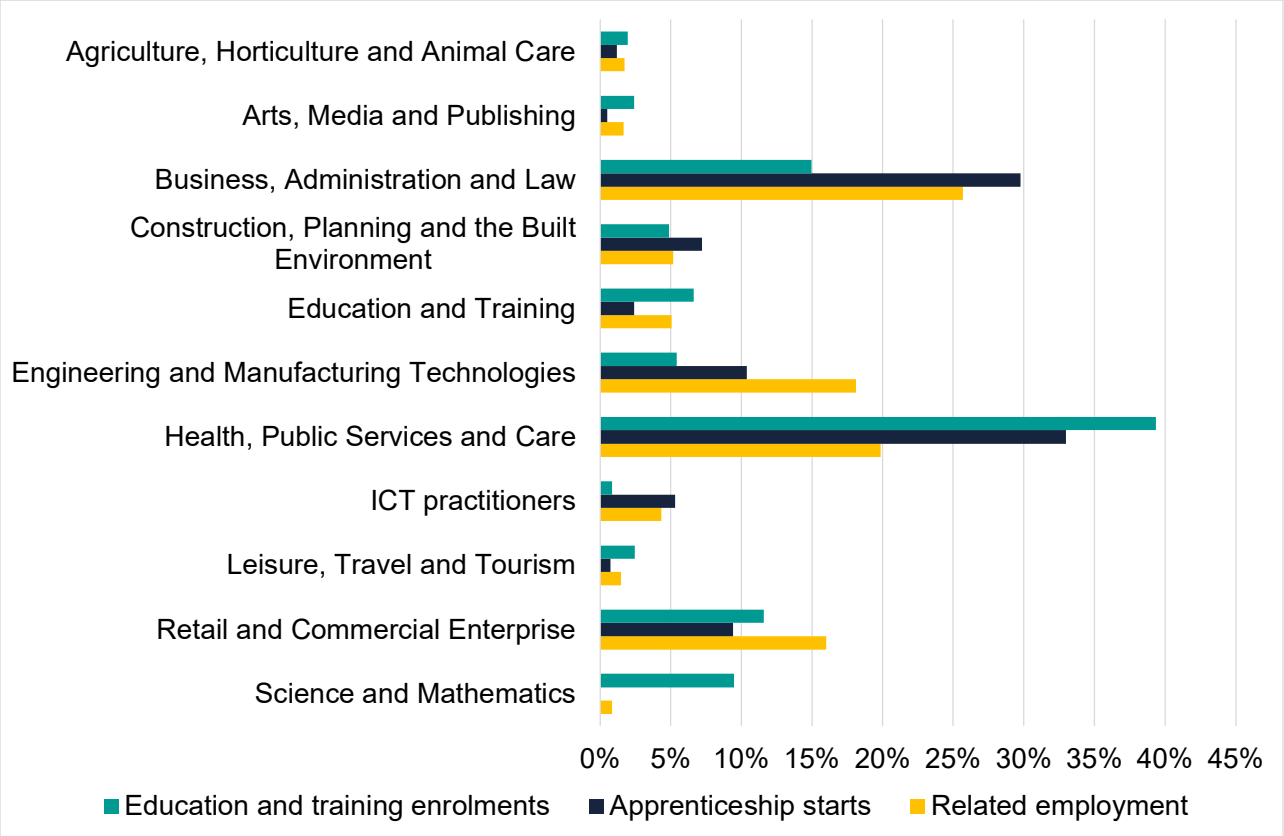
In previous years, *Health, public service and care* was broadly in balance but in 2020/21, the proportion of apprenticeship starts exceeded the share of employment by a considerable margin. This reflects the reduction in apprenticeship provision in other subjects as a result of the pandemic and a consequent increase in the share of *Health, public services and care*.

A key example of a subject area that has seen a sharp fall in its share of apprenticeship starts is *Engineering and manufacturing technologies*. In previous years its share of starts has exceeded its share of related employment. In 2020/21 the opposite was the case.

The proportions of apprenticeship starts in *Construction* and *Business, administration and law* subjects are somewhat above their respective shares of employment. In the case of *Construction*, this reflects the fact that apprenticeships are a prime entry route into construction roles, which is not the case for many occupations.

There are several other subject areas where the proportion of apprenticeship starts is small compared with the proportion of employment in related occupations, including *Arts, media and publishing*, *Education and training* and *Retail and commercial enterprise*. This is potentially because the relevant occupational areas are not strongly associated with the apprenticeship route. There are also very few apprenticeships in science (fewer than 10) relative to the proportion of employment in this area.

Figure 112: Comparison of subject profile of FE / Skills starts vs employment in related occupations, West Yorkshire



Note: Education and Training enrolments limited to learning aims at level 2 and above for learners aged 19+
Source: Calculations based on ESFA data (2020/21) and Annual Population Survey

With regard to adult education, the proportion of starts significantly outweighs employment for *Health, public services and care* and *Science and mathematics*. In the case of the former this partly reflects growth in the share of enrolments in this subject during the pandemic, although *Health, public services and care* has traditionally been a strong area of focus for further education. In the case of the latter, *Science and mathematics* subjects in the context of FE have wide vocational applications and are not narrowly focused on progression to a scientific career.

Conversely, there are areas that are under-represented in terms of FE starts, most notably *Business administration and law*, *ICT practitioners*, *Engineering and manufacturing technologies* and *Retail and commercial enterprise.*

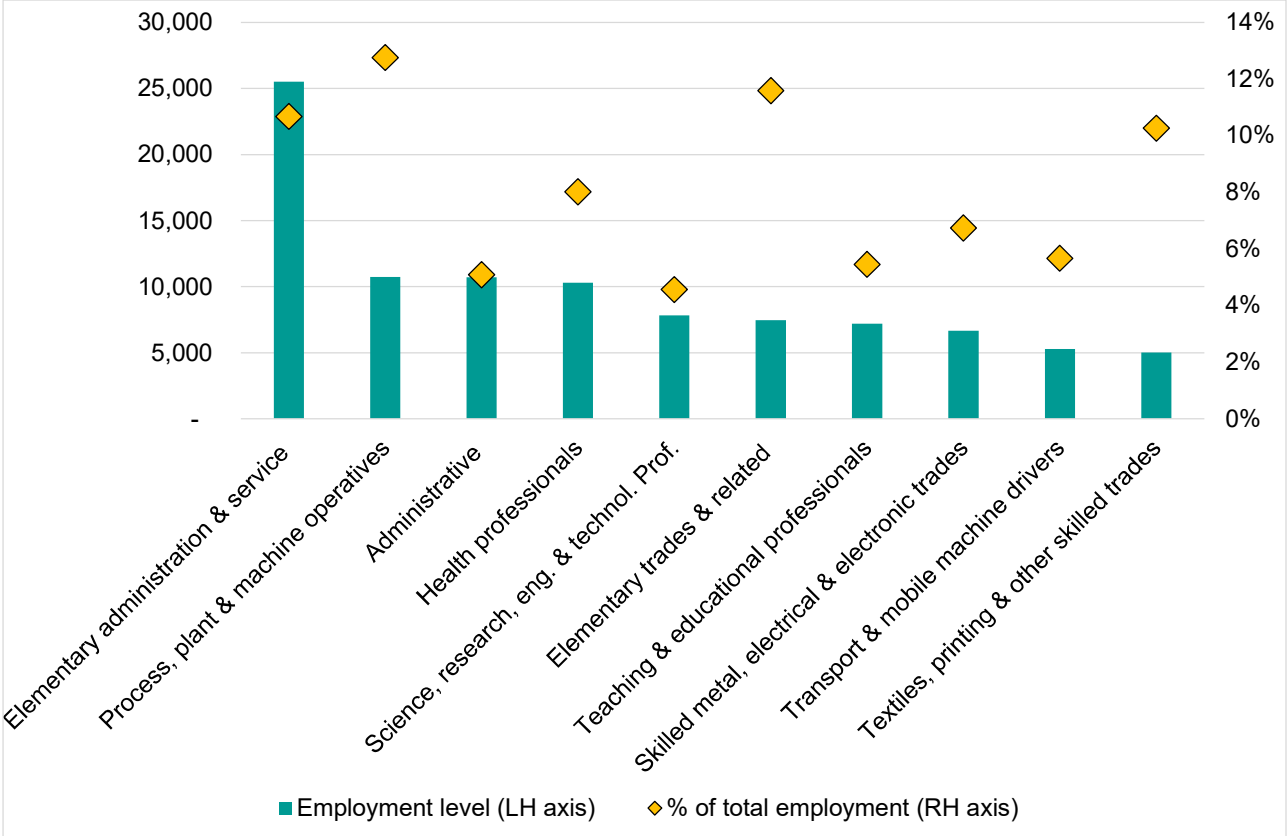
5.10 Migrant workers

The presence of migrant workers can be seen as a mismatch between the skills / labour requirements of employers and the available supply of indigenous workers.

EU migrants account for a significant proportion of workers in Yorkshire and the Humber

Across Yorkshire and Humber there are around 134,000 EU migrant workers[35] equivalent to 5% of total employment in the region, somewhat lower than the England average of 7%. The level of EU migrant employment has fallen only marginally compared with last year's report, when it was 6% of total employment.

Figure 113: Occupations with the highest level of EU migrant employment, Yorkshire and the Humber



Source: Annual Population Survey, Jan – Dec 2021

EU migrant employment is concentrated in certain sectors, most notably *Manufacturing* and *Wholesale and retail* (both accounting for 17% of total migrant employment), *Health and social work* (13%) and *Transport and storage* (12%).

EU migrants are concentrated primarily in routine and low-skilled occupations

As the chart shows, the occupational groups with the highest level of employment among EU migrants are classified as lower-skilled elementary occupations, mostly manual,

[35] This is based on country of birth.

including storage occupations (such as warehouse labourers). Over a quarter of all elementary storage roles in Yorkshire and the Humber are undertaken by EU migrants.

Semi-skilled process, plant and machine operatives also have a significant level of EU migrant employment.

More than a third (36%) of EU migrant workers in Yorkshire and the Humber are employed in higher skilled management, professional and associate professional occupations, compared with 47% of all employment in the region. EU migrant employment in higher skilled occupations is particularly concentrated in *Teaching and educational professional* and *Health professional occupations*.

5.11 Demand and supply for high skilled workers

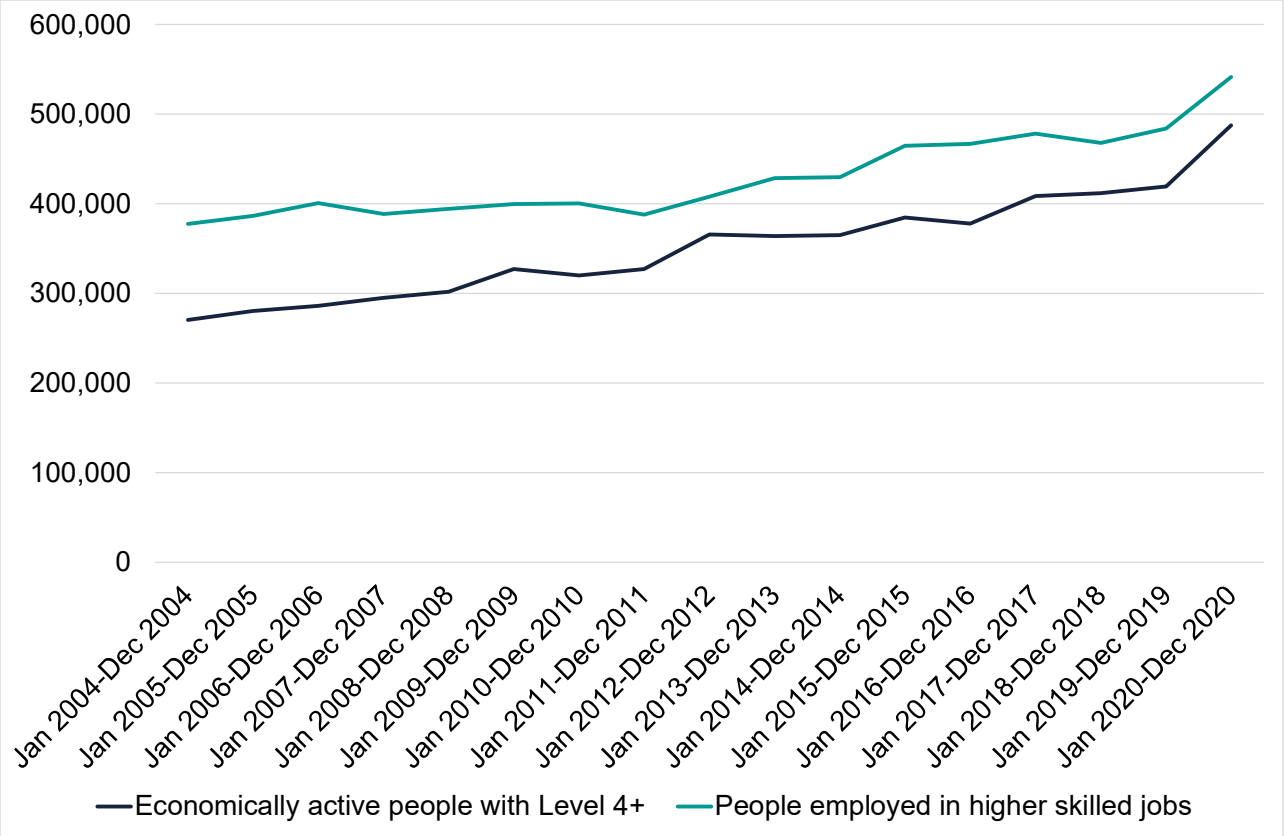
How is supply measuring up to growing demand for higher skilled workers? The figure, below, shows that West Yorkshire has more people working in high skilled jobs in its workplaces than it has economically active residents qualified at level 4 and above.

Growth in higher skilled jobs continues to outpace that in the number of higher qualified people

As of the period from January to December 2020 the number of higher qualified workers stood at 487,000 whilst the number working in high skilled occupations stood at 541,000.

Both have followed an upward trend over the last fifteen years. In the earlier part of the period the gap narrowed between the number of jobs and qualified people. But overall, the trends suggest that the local area has been successful in terms of increasing employment in higher skilled jobs alongside steady growth in the number of people who are qualified to a higher level.

Figure 114: Trends in numbers of high skilled people and the level of high skilled employment, West Yorkshire



Note: people qualified at level 4+ is a residence-based measure whilst people employed in higher skilled (SOC 1-3) jobs is a workplace-based measure.
Source: Annual Population Survey

There was a sharp increase in people qualified to Level 4+ and in the number of people in higher skilled employment in 2020, in spite of the impact of the pandemic.

6 Conclusions

In this concluding section we consider the main skills needs facing West Yorkshire and review the effectiveness of the local skills system in responding to these needs.

6.1 Key skills needs

Our understanding of the outlook for local skills needs remains clouded by continuing volatility in the economy. The disruption caused by COVID-19 has given way to a strong labour market recovery characterised by a surge in recruitment activity and labour shortages. This is unlikely to be sustained into the future and there is evidence that the labour market is beginning to soften as supply-side blockages and rising energy costs feed into a cost-of-living crisis that is being intensified by the invasion of Ukraine. This means that prospects for the economy and labour market remain uncertain.

Recent trends in the labour market (adjusted for the impact of the pandemic) together with labour market projections point towards the underlying direction of travel in the labour market in terms of occupational employment and associated skills requirements.

The evidence of online job postings suggests that the profile of recruitment activity is returning to the picture seen before the pandemic, following the disruption seen during 2020 and 2021. The net decline in employment seen in some occupational areas during the same period is likely to prove short term since recruitment demand is robust across all occupational areas including those most affected by the health crisis.

There are several areas seeing sustained net growth in employment, with the implication that demand for skills in these areas is also increasing strongly.

The largest broad area is higher skilled occupations, which continue to serve as the main engine of job growth in the local as well as the national economy. Pockets of strong growth include:

- *Science, research, engineering and technology professionals,* with growth being principally driven by strong demand for digital professionals, a trend which has been intensified by the health crisis.
- *Business and public service associate professionals*, including net growth in employment for finance, sales and marketing and human resource specialists.
- *Business, media & public service professionals*, including net growth in employment for project managers.

Aside from higher skilled occupations another area of net growth is *Caring personal services* which encapsulates care workers in adult social care, child care workers, nursing assistants and teaching assistants.

Employment in *Administrative* roles has also experienced a net increase in recent years, although the pandemic had a negative affect, and is currently the largest occupational category in West Yorkshire in terms of its level of employment. This runs contrary to

projected longer-term trends in Working Futures which point towards a decline of clerical employment.

Demand in the labour market for **green economy skills** has grown sharply in the last two years and is strongly associated with vacancies for engineering roles but also with openings for a wide range of occupations including project managers, sales managers and electricians, as well as specialised roles such as environmental engineer, environmental scientist and water engineer.

Digital skills are becoming increasingly important to the economy and to individual employability. The need for basic digital skills for the workplace is becoming an almost universal requirement. Modelling suggests that demand for basic digital skills will intensify and that there is potential for widespread skills gaps to open up over the next decade.

There is a range of generic or **baseline skills** that are in widespread demand across different types of job in West Yorkshire, most notably communication, organisational skills, attention to detail, planning, creativity and problem-solving.

Crucially, there are a number of key areas of current market failure where supply is not meeting demand.

Occupational areas subject to **skill shortage** are a clear priority since they represent areas in which the operation of the market cannot meet the skills needs of the economy. Acute shortages affecting higher skilled roles such as nurses and digital professionals and a range of skilled trades seem likely to continue and could act as a constraint on economic recovery.

Skills gaps largely affect lower-skilled occupations with high rates of labour. The skills most commonly in need of improvement include digital skills, problem-solving, basic literacy and numeracy and a range of “soft” skills.

The latest evidence points to a continuing widespread **lack of proficiency among managers**. This has implications for business performance and for the way in which the wider workforce is managed and developed, particularly at a time when organisations need to be effective in response to major external challenges.

Skills under-utilisation (particularly among graduates) co-exists alongside acute skills shortages in West Yorkshire.

Looking beyond areas of net growth and decline in the local labour market, **replacement demands** will continue to drive a broad-based positive recruitment requirement that extends to most sectoral and occupational areas, including those that are expected to see a net reduction in employment over time. This means that there will continue to be a significant volume of demand for skills associated with declining occupations like some *Skilled trades*, *Administrative* occupations and *Sales and customer service*. This means that although higher level occupations are the main engine of net growth in employment, intermediate and lower-skilled occupations will continue to offer job opportunities and will also present valuable gateways to career progression.

6.2 Responsiveness of the system

COVID-19 has caused considerable disruption to both the demand and supply sides of the local labour market and the economic recovery is presenting new challenges to the employment and skills system in West Yorkshire.

Action on the supply-side will not be sufficient to address West Yorkshire's low skills equilibrium. More high-quality opportunities need to be available in the local labour market to motivate people to invest in their skills. In the longer-term West Yorkshire will need to tackle its structural demand-side weaknesses. For example, it has a deficit of high skilled jobs and the high skilled jobs that it has are relatively poorly paid and less likely to be in STEM areas. Addressing this issue means raising the demand for skills by shifting the local business base to one that is founded on higher value market strategies through the West Yorkshire economic strategy and associated interventions around business support and attracting inward investment.

A key underlying supply-side challenge is the deficit of qualifications and skills among the local population of working age. A relatively small proportion of people in West Yorkshire hold the higher level qualifications (Level 4+) that are closely associated with strong productivity performance in sub-regional economies. A comparatively large share lack qualifications entirely or are qualified to the lowest level, which severely disadvantages them in pursuing their career prospects. This issue is perpetuated by relatively poor attainment among young people as they enter the labour market.

The ability of the skills system to support **people from disadvantaged backgrounds** is a further issue in terms of improving the supply of skills locally. Pupils eligible for free school meals have significantly worse attainment at Key Stage 4 and following study at age 16-18. The disadvantaged are also less likely to enter an apprenticeship or higher education. Nonetheless, the evidence shows that education and training and further education and apprenticeships in particular, can have a powerful effect on social mobility through entry into a sustainable career and this must be a key priority for action in West Yorkshire. investment in the enterprise in education agenda is particularly important, in order to increase the exposure of pupils and students to the world of work. This is a crucial part of developing career readiness and employability skills as well as raising individual aspiration with a view to improving attainment.

Similarly, issues relating to **equality and diversity** constrain the supply of skilled labour in the region. Employment rates are lower for minority groups, including women, older people, people from ethnic minorities and disabled people. Putting in place appropriate employment support and providing access to relevant skills is key to addressing employment rate gaps. This is critical in view of the size of the employment rate gap for disabled people, the fact that the employment gap for ethnic minority groups is wider locally than nationally and the central role of older people in expanding the labour force in recent years.

Although claimant unemployment remains well above pre-pandemic levels, fears about the emergence of mass unemployment have not been realised. The more prominent issue has been the large number of people exiting the labour force. Joblessness remains high alongside acute labour shortages. This creates a requirement for effective employment

support to bring people back into the labour market from economic inactivity and from long-term unemployment, the scale of which has not fallen as rapidly as wider unemployment. This will be key to meeting the labour and skills requirements of the local economy.

Although the picture is a complex one, there is evidence of **misalignment between the subject profile of further and higher education delivery and the profile of demand in the local labour market**. In the case of apprenticeships, the situation has been intensified by the pandemic (see below). The main determinant of the profile of take-up of FE and HE is individual demand, which suggests that an important mechanism for addressing the misalignment is a stronger focus on careers support in order to improve learners' understanding of the relative employment and pay prospects associated with different occupational pathways.

Acute **deprivation** is widespread across West Yorkshire's communities and is closely associated with a lack of skills within those neighbourhoods. The impact of COVID-19 will make it all the more difficult for residents of these areas to compete in the labour market. There is an opportunity to use devolved Adult Education Budget and other resources to target these communities as part of a holistic package of support to address a typically complex range of individual needs.

Take-up of **higher apprenticeships** has proved resilient in the face of the COVID-19 crisis, with starts growing strongly in 2020/21. This partly reflects the fact that the majority are funded through the levy. It shows that the levy is a powerful mechanism for driving the development of higher-level skills. However, higher apprenticeships remain narrowly focused in subject terms and there are relatively few starts in subject areas associated with the most acute skill shortages such as engineering, construction and ICT.

However, this raises the issue of the sustainability of apprenticeships for SMEs and for the types of apprenticeship that are less likely to be levy funded, including those for the under-19s and intermediate apprenticeships both of which have been heavily impacted by COVID-19 in terms of take-up during 2020/21. An example of this is the complete lack of starts on intermediate ICT apprenticeships during the academic year in West Yorkshire. There are also a number of apprenticeship subjects that have seen very large general reductions in starts, with significant implications for the supply of skills and the availability of career opportunities. The most notable case of this is the 72% fall in starts in the *Manufacturing Technologies* subject area.

Getting the large number of people recently made **jobless back into work** will be a key challenge for West Yorkshire. Available resources for skills development, including the Adult Education Budget, need to be more closely aligned with defined entry routes into employment, including through bootcamp-style approaches.

Employers play a central role in developing the skills that the economy needs, although many acknowledge that they under-invest and the evidence suggests that the trend **in job-related training** is static at best. The key to tackling this issue is to encourage employers to adopt talent management systems that enable them to identify their skills needs and to deploy those skills effectively in the workplace to achieve business objectives. Projections suggest that skills gaps will intensify and become more widespread in future, in areas like

basic digital and management skills, and that an increase in workplace training will be essential to addressing this.

Lack of proficiency in **basic literacy and numeracy** is one of the key challenges facing West Yorkshire and employers indicate that many of their staff lack the basic skills needed to operate effectively in the workplace. There is relatively little workplace provision available that focuses on basic skills and engaging prospective learners through their employer has proven problematic in the past.

Take-up of education and training opportunities, including apprenticeships and further education courses, has seen significant reductions as a result of COVID-19. Some subject areas that are linked to sectors and occupations with a bigger exposure to the crisis have been particularly hard-hit. There is a concern that technical and work-based routes could see lasting damage as a result with implications for efforts to support the economic recovery and to roll-out T-Levels and other interventions.

West Yorkshire's large **higher education** sector is one of its key assets but there is a continuing challenge of how to connect graduates from local institutions with the growing number of high skilled jobs in the area. As noted above, higher apprenticeships are an important tool in addressing technical skills shortages at professional and associate professional level. However, the broader range of higher-level technical provision, including that delivered through further education colleges, will play an increasingly important role.

Lack of access for the disadvantaged to education and training opportunities, including apprenticeships and higher education is a key barrier to inclusive growth and social mobility. A key element of the strategy to improve West Yorkshire's skill levels must be investment in the enterprise in education agenda, in order to increase the exposure of pupils and students to the world of work. This is a crucial part of developing career readiness and employability skills as well as raising individual aspiration with a view to improving attainment.

Jobs with the lowest skill requirements (e.g. elementary occupations) are among those hardest hit by COVID-19 but are also typically the most exposed to future **automation**. These jobs are often based on a narrow range of routine tasks and skills and they generally have few "compatible" roles – alternative jobs that require similar skills and knowledge. This implies a larger investment in reskilling to enable the affected individuals to develop new skills to make the transition into new career opportunities.

Appendix

Occupational categories – Standard Occupational Classification 2010

Major group	Overview of skill / qualification requirements	Sub-major group	Examples of detailed occupations / job titles
Managers, directors and senior officials	Tasks consist of planning, directing and coordinating resources to achieve the efficient functioning of organisations and businesses Roles require a significant amount of knowledge and experience of the production processes, administrative procedures or service requirements associated with the efficient functioning of organisations and businesses	Corporate managers and directors	• Chief executives • Production managers • Marketing director • IT director • Bank manager • Retail manager
		Other managers and proprietors	• Farm manager • Café owner • Publican • GP practice manager • Shopkeeper
Professional occupations	Tasks require a high level of knowledge and experience in the natural sciences, engineering, life sciences, social sciences, humanities. Roles require a degree or equivalent qualification, with some occupations requiring postgraduate qualifications and/or a formal period of experience-related training	Science, research, engineering and technology professionals	• Chemical scientists • Mechanical engineers • Programmers and software development professionals • Environment professionals
		Health professionals	• Medical practitioners • Pharmacists • Nurses
		Teaching and educational professionals	• Higher education teaching professionals • Secondary education teaching professionals

Major group	Overview of skill / qualification requirements	Sub-major group	Examples of detailed occupations / job titles
			• Primary and nursery education teaching professionals
		Business, media and public service professionals	• Solicitors • Chartered and certified accountants • Actuaries, economists and statisticians • Architects • Social workers • Quality control and planning engineers • Advertising accounts managers and creative directors
Associate professional and technical occupations Administrative and secretarial occupations	Tasks require experience and knowledge of principles and practices necessary to assume operational responsibility and to give technical support to Professionals and to Managers, Directors and Senior Officials Most roles have an associated high-level vocational qualification, often involving a substantial period of full-time training or further study	Science, engineering and technology associate professionals	• Laboratory technicians • Engineering technicians • Building and civil engineering technicians
		Health and social care associate professionals	• Paramedics • Dispensing opticians • Pharmaceutical technicians
		Protective service occupations	• Police officers • Prison service officers
		Culture, media and sports occupations	Includes artistic, literary and media, design occupations and sports and fitness occupations • Artists • Authors • Musicians • Photographers

Major group	Overview of skill / qualification requirements	Sub-major group	Examples of detailed occupations / job titles
			• Graphic designers • Sports / fitness instructors
		Business and public service associate professionals	Includes roles in legal, business / finance, sales / marketing, conservation / environment, public services, such as: • Sales managers • Finance analysts • Marketers • Legal executives • Human resource managers • Civil servant
Administrative and secretarial occupations	Tasks relate to general administrative, clerical and secretarial work. Workers require a good standard of general education	Administrative occupations	Includes admin occupations in government, finance, record-keeping, such as: • Book-keepers, payroll managers and wages clerks • Records clerks • Sales administrators • Office managers
		Secretarial and related occupations	• Medical secretaries • Personal assistants • Receptionists
Skilled trades occupations	Tasks involve the performance of complex physical duties that normally require a degree of initiative, manual dexterity and other practical skills.	Skilled agricultural and related trades	• Farmers • Horticultural trades • Gardeners and landscape gardeners
		Skilled metal, electrical and electronic trades	Includes roles relating to welding, metal machining,

Major group	Overview of skill / qualification requirements	Sub-major group	Examples of detailed occupations / job titles
	Require a substantial period of training, often provided by means of a work-based training programme.		vehicle trades, electrical / electronic trades, such as: • Welding trades • Pipe fitters • Tool makers, tool fitters • Vehicle technicians, mechanics and electricians • Electricians and electrical fitters
		Skilled construction and building trades	Includes construction trades and building finishing trades, such as: • Bricklayers and masons • Roofers, roof tilers and slaters • Plumbers and heating and ventilating engineers • Carpenters and joiners • Plasterers • Floorers and wall tilers • Painters and decorators
		Textiles, printing and other skilled trades	• Includes textile trades, printing trades, food preparation • Weavers and knitters • Printers • Chefs • Florists
Caring, Leisure and Other Service	Good standard of general education and vocational training is required. Some occupations require professional qualifications	Caring personal service	• Care workers and home carers • Nursery nurses • Teaching assistants

Major group	Overview of skill / qualification requirements	Sub-major group	Examples of detailed occupations / job titles
	or registration with professional bodies or relevant background checks.		• Nursing auxiliaries
		Leisure, travel, related personal service	• Hairdressers • Sports and leisure assistants
Sales and Customer Service	General education and skills in interpersonal communication. Some occupations will require a degree of specific knowledge regarding the product or service being sold	Sales	• Sales and retail assistants
		Customer service	• Customer service occupations • Contact centre occupations
Process, Plant and Machine Operatives	Most occupations in this group do not specify that a particular standard of education should have been achieved but will usually have a period of formal experience-related training. Some occupations require licences issued by statutory or professional bodies.	Process, plant, machine operatives	• Food, drink and tobacco process operatives • Energy plant operatives • Assemblers (electrical and electronic products) • Rail construction and maintenance operatives
		Transport, mobile machine drivers, operatives	• LGV drivers • Van drivers • Taxi drivers
Elementary	Most occupations in this group do not require formal educational qualifications but will usually have an associated short period of formal experience-related training.	Elementary trades	• Elementary construction occupations (labourers) • Packers, bottlers, canners and fillers • Warehouse operator
		Elementary administration and service	• Cleaners and domestics • Kitchen and catering assistants • Elementary storage occupations • Waiters and waitresses • Bar staff

Find out more

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All information correct at time of writing