West Yorkshire Combined Authority

Working in partnership with the

Leeds City Region Enterprise Partnership

West Yorkshire Combined Authority

Labour Market Report 2021

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Executive Summary

Introduction

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.

COVID-19 has had a profound impact on the workings of the local economy, labour market and education and training supply side. This report seeks to assess this impact and set out the implications of the crisis, so far as currently available evidence allows. But the report also examines 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 around opportunities to participate and benefit from economic opportunities. This report provides an overview of the current performance of the economy and labour market in these areas, taking account of the profound impact of COVID-19.

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. The impact of COVID-19 on unemployment means that there will be an urgent need to get people back into work and to reskill them for new opportunities.

Although broadly in line with the rest of the north of England, West Yorkshire's **productivity** level is below the national average and has grown relatively slowly over the last decade. The evidence suggests that local productivity performance is associated with, among other things, the quality of an area's skills base.

Pay levels also lag behind the national average, reflecting this weak productivity performance. At £14.16 per hour, gross median pay for full-time jobs in West Yorkshire is only 92% of the national average of £15.31. The area faces a significant low pay challenge, with 20% of jobs paying below the Real Living Wage, rising to 28% in Kirklees. The problem of low pay could intensify as a result of COVID-19 as competition for jobs increases. West Yorkshire's pay deficit largely reflects a gap at the upper end of the pay distribution: well-paid workers in the local area are paid less than their national counterparts.

West Yorkshire faces a **gender pay gap**[1] that is somewhat lower than the national average. The overall pay gap for all employee jobs locally is 12%, 5 points below the England average of 17%.

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.

In recent years the number of people in employment in West Yorkshire has grown at a similar rate to nationally, although this has not been sufficient to reduce the long-standing underperformance of West Yorkshire in terms of its **employment rate**. Although Leeds' employment rate is slightly above the national average, the remaining local authorities are below average with Bradford's rate a considerable 11 points lower.

In terms of **employment status**, local employment growth has increasingly come from employee and full-time jobs in recent years. The longer-term increases in part-time and non-permanent jobs have stalled somewhat in the last couple of years. Should we move into a prolonged recession as a result of COVID-19, past experience suggests that part-time working, self-employment and temporary employment could become more important again.

The official ILO[2] rate of **unemployment** has been slow to register the impact of the COVID-19 crisis; however, there has been a sharp increase in the claimant count both nationally and locally, with the number of claimant unemployed almost doubling in West Yorkshire. All local authorities currently have claimant unemployment rates above the national average and Bradford has one of the highest rates in the country. The increase in claimant unemployment has been highest among young people (aged 16-24) even though this group is less likely to be eligible for benefits. Young people are a priority for support because they face a long-term "scarring" effect from unemployment, whilst older workers are more likely to become long-term unemployed and suffer permanent dislocation from the labour market.

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

[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.

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, 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 exposure of elements of the local economy to COVID-19 and to Brexit could adversely impact on West Yorkshire and lead to major changes in the pattern of labour and skills demand.

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 *Wholesale and retail* (15%), *Health and social care* (13%) and *Manufacturing* (9%). 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 significantly 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.

Overall, West Yorkshire has a **deficit of high skilled employment:** 47% of people are employed in higher skilled roles locally, versus a national average of 50%. There is also a disproportionate reliance on lower-skilled jobs. 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, *Elementary administration and service* occupations, *Corporate managers*, *Administrative* occupations and *Caring personal services* account for the greatest numbers of people in employment 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 *Customer service*, *Skilled metal, electrical and electronic trades* and *Business and public service associate professionals' roles*.

The **pattern of sectoral employment growth** was broad-based in the years immediately prior to the crisis. The business service categories of *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*. Looking beyond services, *Manufacturing* and *Construction* also grew over this period.

It seems likely that **COVID-19 and Brexit will disrupt the pattern of sectoral employment growth** moving forwards. In addition to the immediate impact of the crisis on sectors like hospitality and arts and entertainment there is likely to be a wider effect on the economy from any recession plus structural shifts arising out of behaviour change among consumers and businesses. Brexit's primary impact is expected to be on tradable sectors like manufacturing and financial services.

Caring personal services (a category which includes roles in social care, childcare as well as nursing auxiliaries) is the occupational category that saw the largest growth in absolute terms in recent years. The remaining occupations which saw the strongest growth were higher skilled, including *Business and public service associate professionals*, *Corporate managers* and *Science, research, engineering and technology professionals*. So, although employment in higher skilled occupations is under-represented locally (see above) it is still the main driver of net employment growth, contributing around two-thirds of the net increase during this period. Occupations seeing net decline included *Secretarial*, *Sales*, *Process, plant and machine operative* and *Elementary trade occupations*.

Online job postings data provide an insight into the level and **profile of current job openings**. The overall level of postings plunged in the spring as a result of COVID-19 but then entered a steady recovery trend prior to another fall in activity in response to the re-imposition of restrictions in the autumn. With restrictions set to continue for some time the outlook for recruitment activity is uncertain. **How have employers' recruitment needs changed as a result of COVID-19**? A comparison of the sectoral and occupational profile of job postings for late 2020 with the previous year provides an insight.

In sectoral terms, *Health and social work* and *Manufacturing* increased their share of job openings locally during the crisis whilst hospitality's share fell sharply.

Several occupational areas increased their share of total postings, suggesting resilient demand for the associated skills in the face of the crisis. Most higher skilled occupations saw growth, with the most substantial increases in share being seen for *Corporate managers*, *Science, research, engineering and technology professionals* (including digital professionals) and *Health professionals*. Caring roles and roles linked to transport / logistics also increased their shares of total vacancies. The occupational areas which saw a reduction in share include *Administrative and secretarial*, *Sales and customer service*, *Culture, media and sport* and *Elementary administration and service*.

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. The profile of demand for these generic skills has not been significantly affected by the COVID-19 crisis. 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**. Vacancies for engineers of various kinds are most likely to require environmental or energy-related skills but project managers, sales managers and electricians with relevant skills of this kind are also in demand. The analysis also shows

that more specialised identifiably green roles are now coming to the fore, including environmental engineer, environmental scientist and water engineer.

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.

Understanding **automation** risk is all the more important in the context of COVID-19. Firstly, there is evidence to suggest that the effects of the COVID-19 crisis may accelerate the impact of automation on jobs. Secondly, many workers may need to retrain for new roles as a result of the crisis. In selecting a fresh career path, individuals need to understand its susceptibility to automation.

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

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?

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**, most notably its deficit of people with high level qualifications and its relatively large proportion of people with no qualifications or low-level qualifications. The situation differs considerably at local authority level with Bradford and Wakefield facing the most severe challenges. The skills / qualification deficit extends to the employed as well as the unemployed. This has important implications for West Yorkshire's ability to recover from the current crisis since it is more difficult for the low-skilled to re-deploy to other sectors if they are displaced from employment.

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.

The COVID-19 crisis is having a significant impact on the skills pipeline, both locally and nationally. **Apprenticeship** starts for West Yorkshire residents fell by a fifth (-22% or -4,190). This follows a substantial fall in 2017/18, which was only partly offset by a modest recovery in 2018/19, leaving starts 38% lower than at their peak in 2015/16.

Almost all segments of apprenticeship provision experienced decline but hardest hit were Intermediate apprenticeships, apprenticeships delivered to under-19s, apprenticeships delivered by independent training providers, apprenticeships delivered to Leeds residents and subject areas like *Hospitality and catering*, *Administration* and *Retailing and wholesaling*. A key exception to the general decline were the subjects of *Nursing* and *Construction*, both enjoying significant growth in starts.

Higher apprenticeship starts, which are largely funded through the levy, fell by only 4% during 2019/20. There was strong growth at levels 6 and 7 but declines at levels 4 and 5.

Higher apprenticeships remain narrowly focused in subject terms, with three quarters 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 ICT accounts for a limited proportion of the total, 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. The gap appears particularly pronounced for Leeds and Wakefield at Key Stage 4 and for Calderdale and Wakefield at Key Stage 5.

Acute **gender segregation** across subject areas and **underrepresentation 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 2019/20 by 16% for Education and Training and by 25% for Community Learning. The number of enrolments on individual learning aims via the Education and Training strand fell by 15%. The biggest percentage falls in enrolments were in *Manufacturing Technologies*, *Agriculture, Horticulture and Animal Care* (-230; -28%) and *Construction, Planning and the Built Environment*. Learning aims at below Level 2 saw a big fall in enrolments, whereas basic skills provision saw big falls in respect of both English and Maths aims.

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. Should structural changes on the demand-side result from COVID-19 and Brexit these could lead to the emergence of new mismatches or the intensification of existing ones.

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. This is likely to be exacerbated by the immediate impact of COVID-19 and longer term structural trends, such as automation. Many of the jobless have an occupational background in low-skilled roles that are exposed to the impact of COVID-19. The likely displacement of large numbers of workers as a result of the current crisis is expected to intensify competition in the labour market in these same roles.

Higher skilled occupations have been the main source of employment growth both locally and nationally in recent years and this is expected to continue into the future. 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 demand**. Although the available employment and qualification data do not capture the full impact of the COVID-19 crisis, evidence from online job postings suggest that a majority of higher skilled occupations have seen relatively resilient demand in the face of the crisis.

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 is potential for many under-utilised workers to be displaced from their existing employment by COVID-19 and this presents an opportunity for them to be supported into new roles that better align with their capabilities.

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.

Overall, there is a **closer alignment between the profile of apprenticeships and labour market demand than classroom FE**. The proportions of apprenticeship qualifiers in *Engineering and manufacturing technologies*, *Construction* and *Business, administration and law* subjects are somewhat above their respective shares of job openings; but the

opposite is true of *Arts, media and publishing*, *Education and training* and *Retail and commercial enterprise*. There are bigger disparities between the profile of education and training achievements (mainstream FE) and the profile of job openings. Subjects where achievements significantly outweigh job openings comprise *Arts, media and publishing*, *Leisure, travel and tourism*, *Agriculture, horticulture and animal care* and *Health, public services and care. Business administration and law*, *Engineering and manufacturing* and *Retail and commercial enterprise* all account for smaller proportions of total qualifiers relative to labour market demand in related occupations.

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. EU migrant workers continue to be an element within the local and national labour force, accounting for 6% of people in employment in Yorkshire and Humber and 8% across England. Although the scale of the influx of EU migrant workers has fallen there are no signs of a reduction in the size of this group in the local labour force. 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.

At the current time the task of assessing local skills needs is particularly difficult because the country is in the midst of the COVID-19 crisis. Skills needs are to a large extent driven by the profile of employment in the economy – both sectoral and occupational. But at present it is hard to say with certainty what this profile will look like even in a few months' time because of the disruption and potential long-lasting effects of the virus on the economy and society. Added to this, most of our sources of local data have a time lag with the latest data often pertaining to the pre-crisis period or the early stages of the crisis. A further source of uncertainty is the impact of the UK's new trade arrangements with the EU following its exit from the customs union and single market. Nonetheless, it is important to provide a reasoned assessment of current and future skills needs based on the available evidence.

1.1 Employment and Skills Plan

The analysis contained in the report takes account of local policy priorities. The LEP has developed an Employment and Skills Plan that sets out how the LEP and its partners will work together to ensure that action on employment and skills contributes to inclusive growth in the City Region.

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 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. In Leeds City Region the LEP's Employment and Skills Panel has taken on the SAP functions.

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 Leeds City Region.

1.3 Devolution

A devolution deal has been agreed by West Yorkshire's five council leaders and the Government in March 2020 and became law in January 2021. The deal will bring at least an additional £1.8 billion public investment into local control over the next 30 years and is the biggest deal of its kind. This means that more decisions will be taken in West Yorkshire rather than Westminster, and that we will have more influence and ability to invest in the things that matter locally, with accountability provided through a directly elected Mayor.

The devolution deal includes responsibility for the £63m Adult Education Budget (AEB) from August 2021, 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.

A further element of the devolution deal is the creation of the West Yorkshire Local Digital Skills Partnership. It brings together digital advocates and leaders from business, education, local communities and charity sector organisations to support the region's vision to transform lives through digital tech by focusing on inspiring change and tackling local digital skills challenges.

Rich intelligence on local skills needs will be essential to making the most of the opportunities arising out of devolution.

1.4 West Yorkshire

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 £55bn, 92,000 private sector businesses and an employed workforce of 1.1m.

In addition, West Yorkshire is the UK's largest regional finance centre and contains more manufacturing jobs than anywhere in the north.

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.

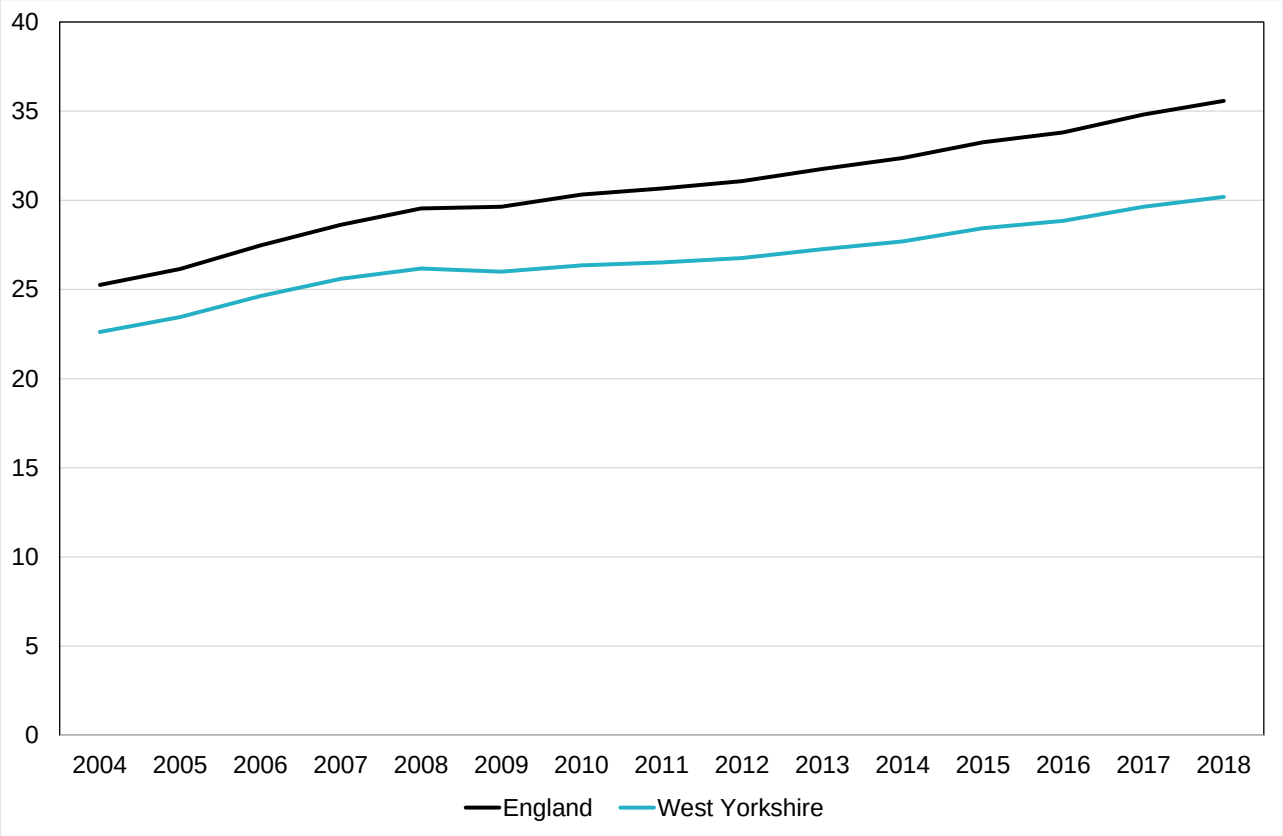
2.1 Productivity

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: Office for National Statistics, Sub-regional Productivity February 2020 Release

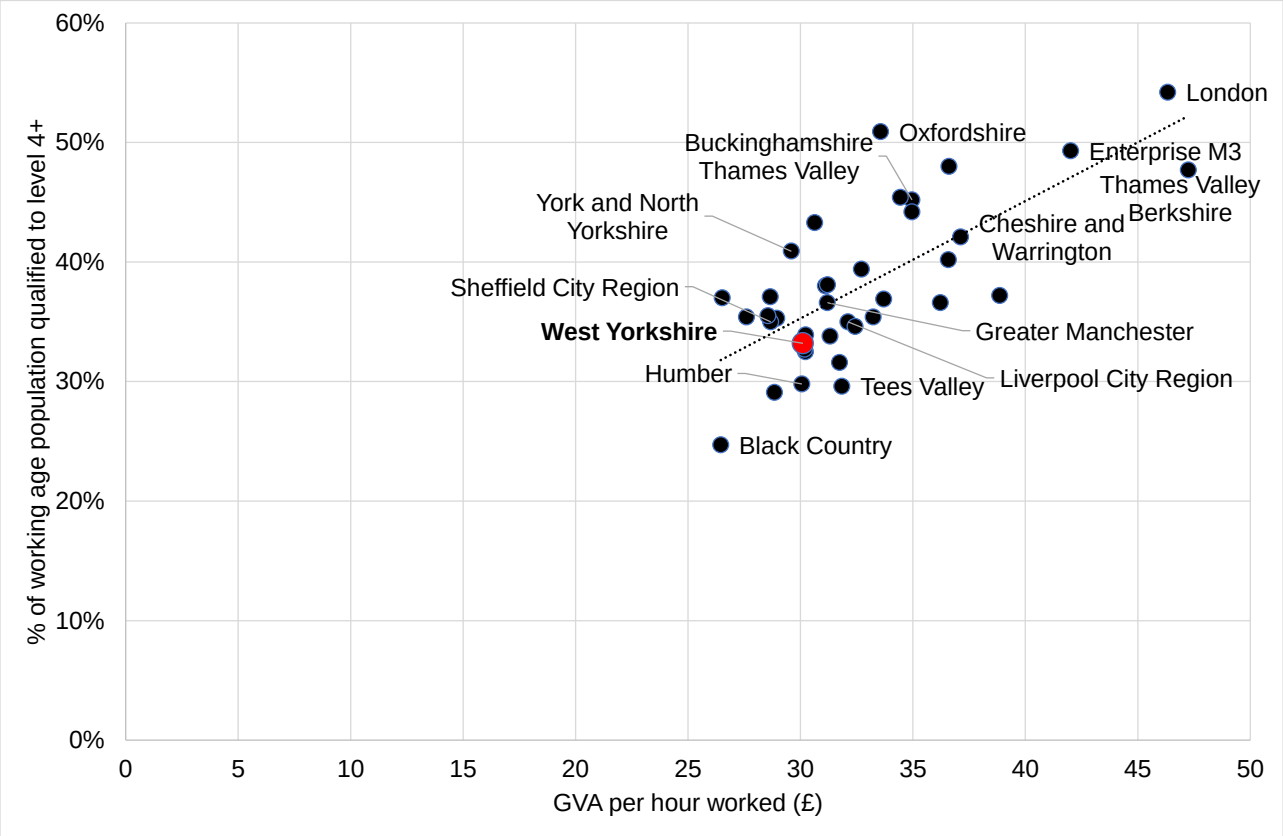
Although productivity in West Yorkshire has followed an upward trend in recent years there is no sign of an improvement in the region's relative performance compared with the

national average. Output per hour worked in West Yorkshire fell from 89% of the England average in 2007 to 85% in 2018, 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 £46.30, 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[3]. 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[4].

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 hourly pay for full-time jobs in West Yorkshire is £14.16, 92% of the England average.

Meanwhile, a fifth (20%) of local jobs, almost 200,000 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. In Kirklees, 28% of jobs fall below the Living Wage threshold.

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. It is likely that the Coronavirus pandemic will only exacerbate these issues. The fall in job vacancies already experienced and the potential rise in unemployment as the Coronavirus Job Retention Scheme ends will create increased competition for jobs, reducing the opportunity for pay rises[5].

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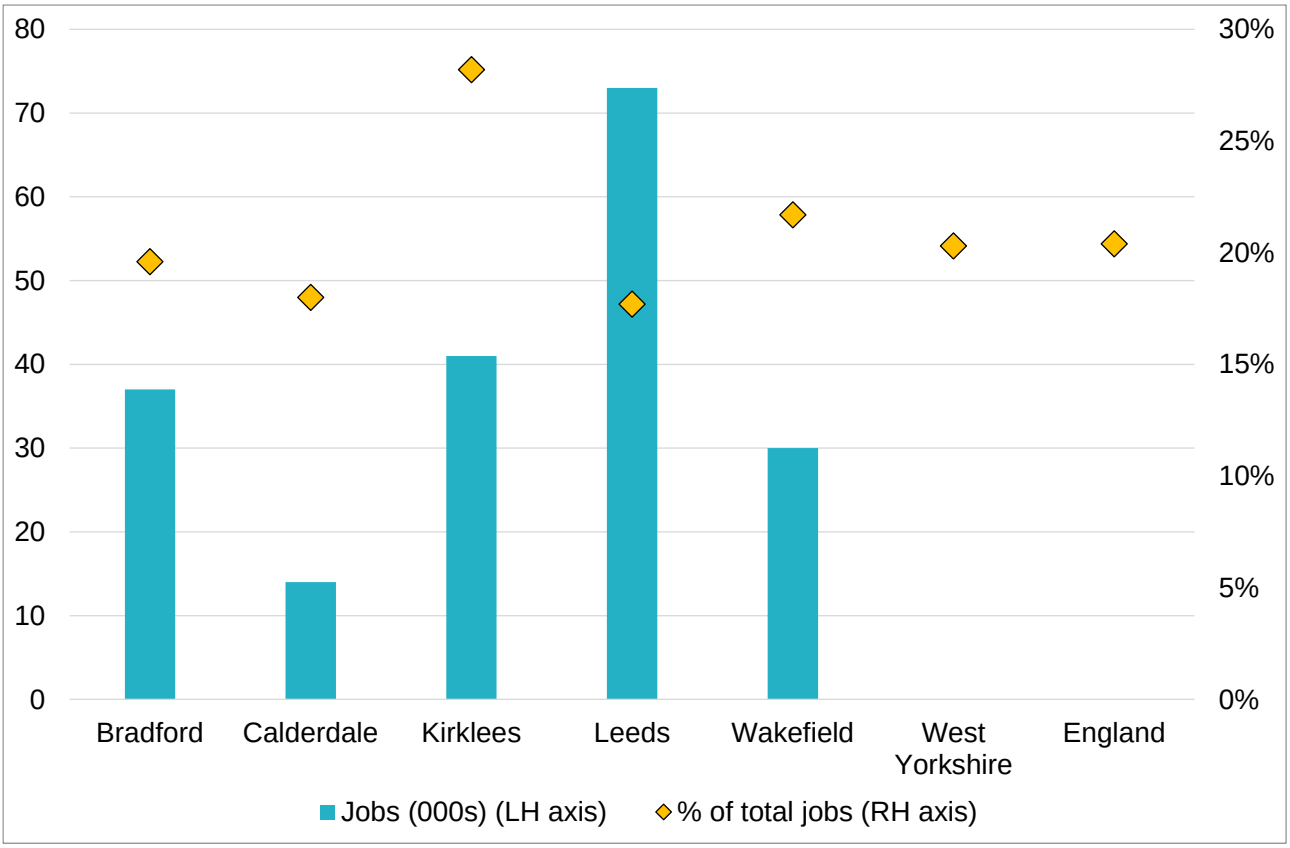
[3] Gambin, L, Green, A.E. and Hogarth, T. (2009), 'Exploring the links between skills and productivity: Final Report', Institute for Employment Research, University of Warwick for the East Midlands Development Agency

[4] 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

[5] Social Mobility Commission (2020) Learning Ladders: The role of adult training in supporting progression from low pay. Available at Learning ladders: adult training and progression out of low pay - GOV.UK (www.gov.uk)

Figure 3: 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 2020

West Yorkshire faces a gender pay gap[6] that is smaller than the England average. The overall pay gap for all employee jobs locally is 12%, somewhat below the national average of 17%. The size of this gap partly reflects the fact that women are more likely to work in part-time roles which attract a lower hourly rate of pay. At 6% the gap for full-time jobs is smaller and also lower than the national average, but still substantial.

The local gender pay gap has consistently been below the England average in recent years but the underlying trend over time remained fairly flat until 2019, when the gap for all jobs fell from 18% to 12% in 2020[7].

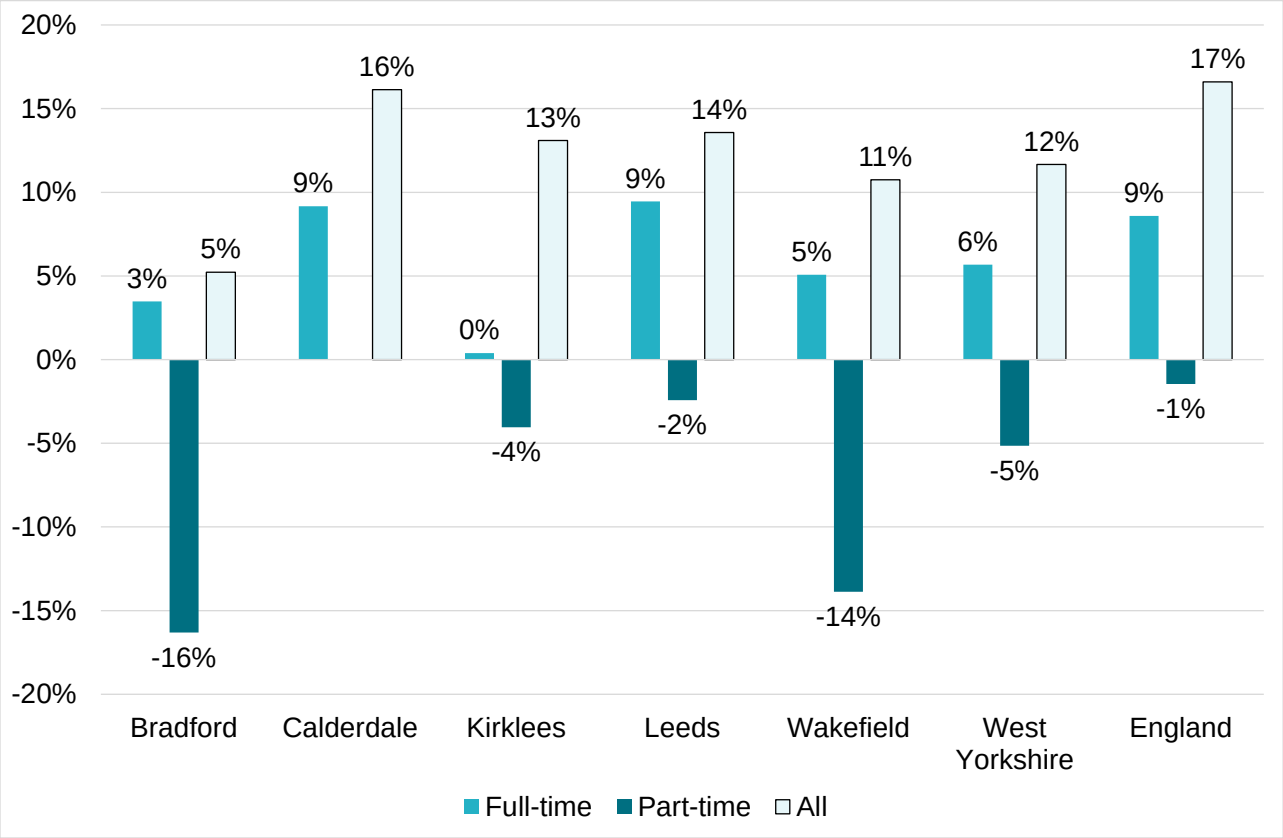
[6] The gender pay gap is calculated as the difference between average hourly earnings (excluding overtime) of men and women as a proportion of average hourly earnings (excluding overtime) of men's earnings.

[7] According to ONS, coronavirus (COVID-19) factors did not have a notable impact on the gender pay gap in 2020; changes reflect underlying employment patterns.

The gender pay gap for all jobs is relatively low in Bradford, at 5% and along with Wakefield it has a large negative gender pay gap for part-time workers. This shows that male part-time workers in the two districts are low-paid relative to their female counterparts.

There are no published estimates of pay by age group at local level but national data clearly shows that the gender pay gap is almost entirely due to pay disparities among the older age bands. The gender pay gap is almost zero for people aged 18-39.

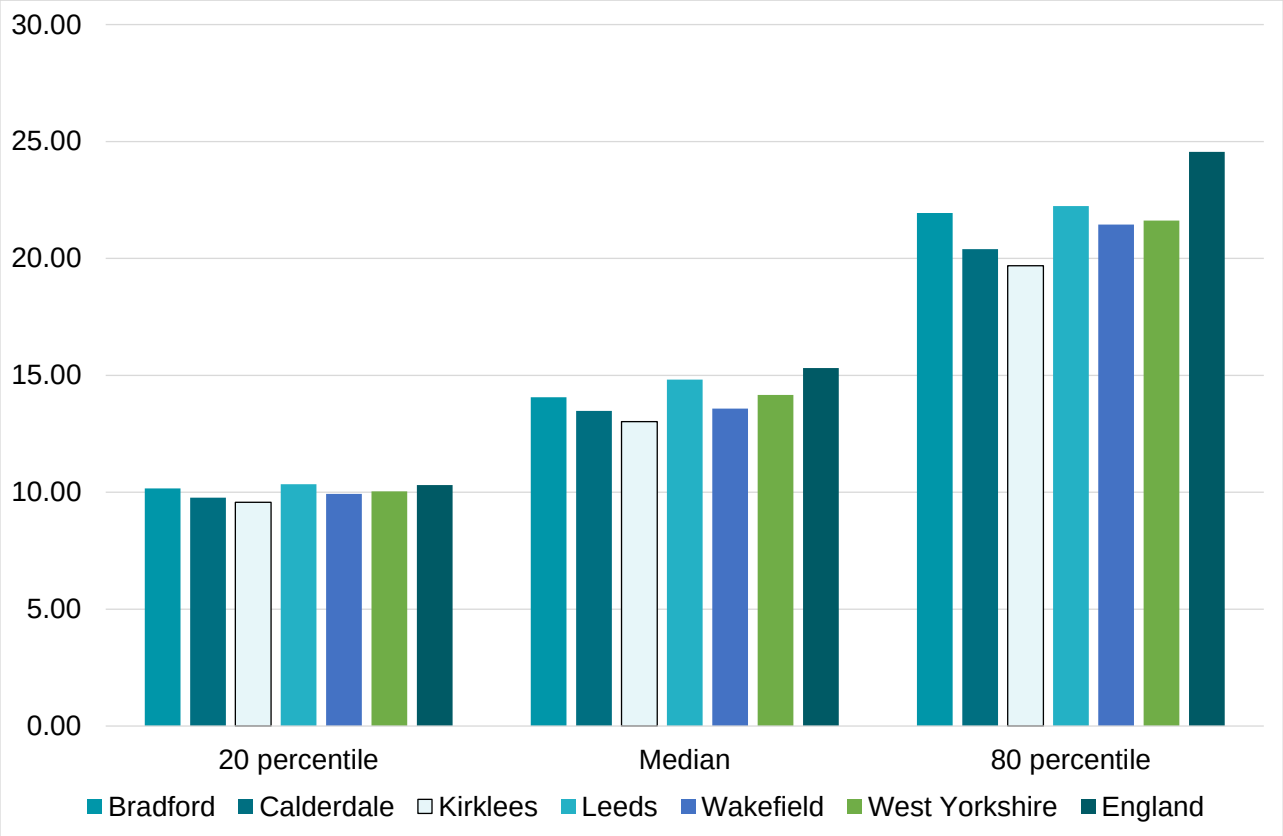
Figure 4: Gender pay gap for median gross hourly earnings (excluding overtime; workplace analysis), 2020



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

Although the region has a significant proportion of people paid below the Living Wage, the main source of the pay deficit with the national average is under-performance at the upper end of the pay distribution.

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



Source: Annual Survey of Hours and Earnings, 2020

The pay level for jobs at the 20th percentile in West Yorkshire is 97% of the equivalent national figure; however, at the 80th percentile it is only 88% of the national figure (falling to 80% in Kirklees and 83% in Calderdale). Even in Leeds, where median pay is 97% of the England figure, the level of pay at the 80th percentile is only 91% 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.

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 2.2 in West Yorkshire compared with an England average of 2.4.

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 8% 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 7% 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

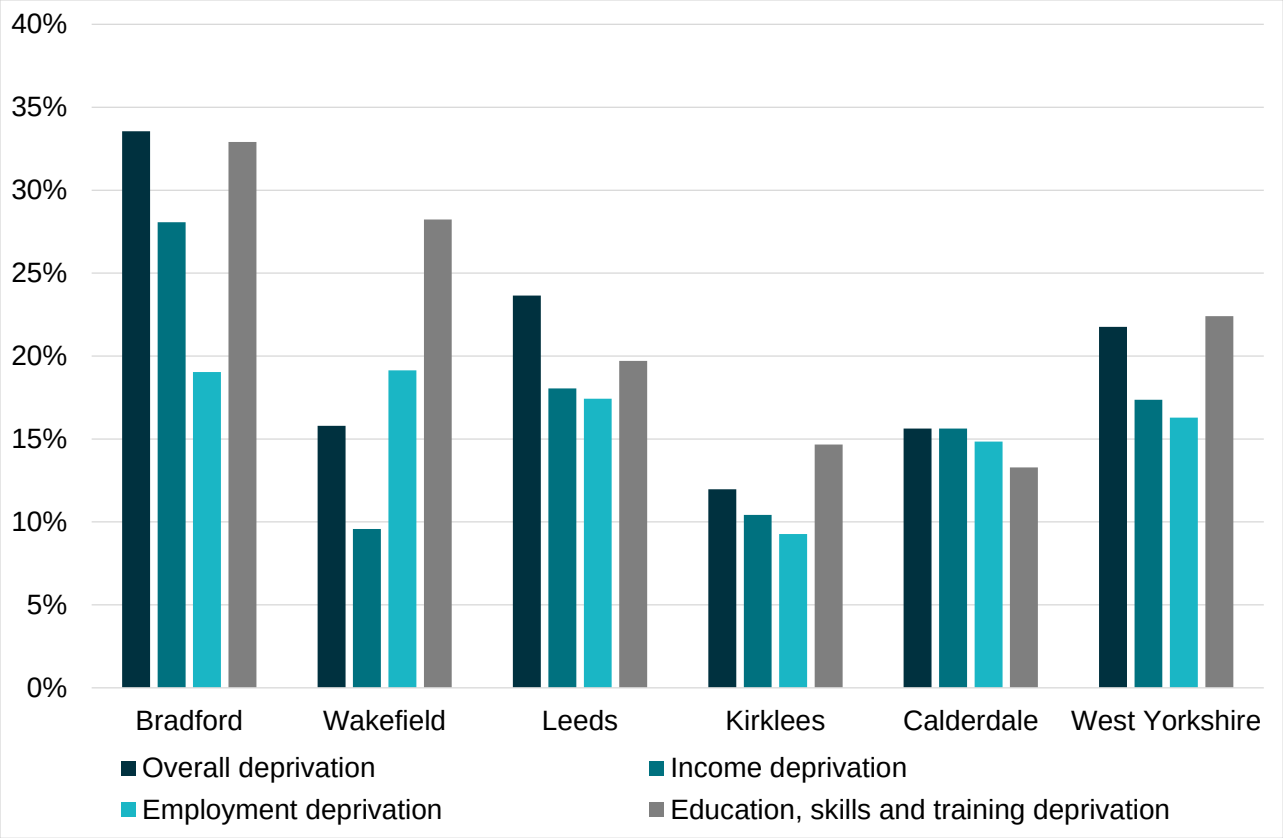
One key challenge is to address concentrated deprivation at neighbourhood level. According to the English indices of deprivation 2019[8], 22% of neighbourhoods in West Yorkshire are among the 10% most deprived nationally, more than twice the share one would expect. There are 302 acutely deprived neighbourhoods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

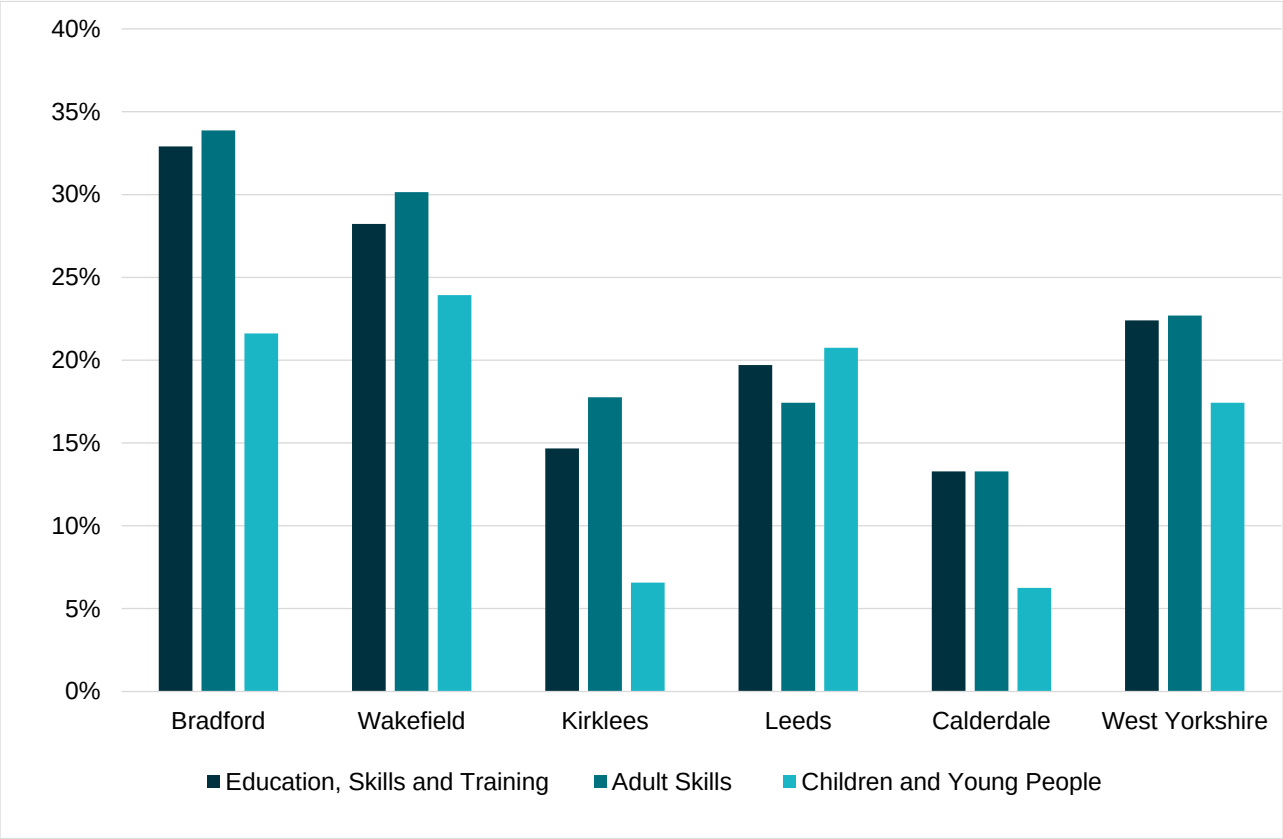
Skills deprivation relating to adults is a key issue for West Yorkshire

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 but in the context of the COVID-19 crisis is an urgent priority in view of the profound impact of the emergency on key sectors of the economy and the potentially long-lasting implications for employment prospects in those sectors.

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.

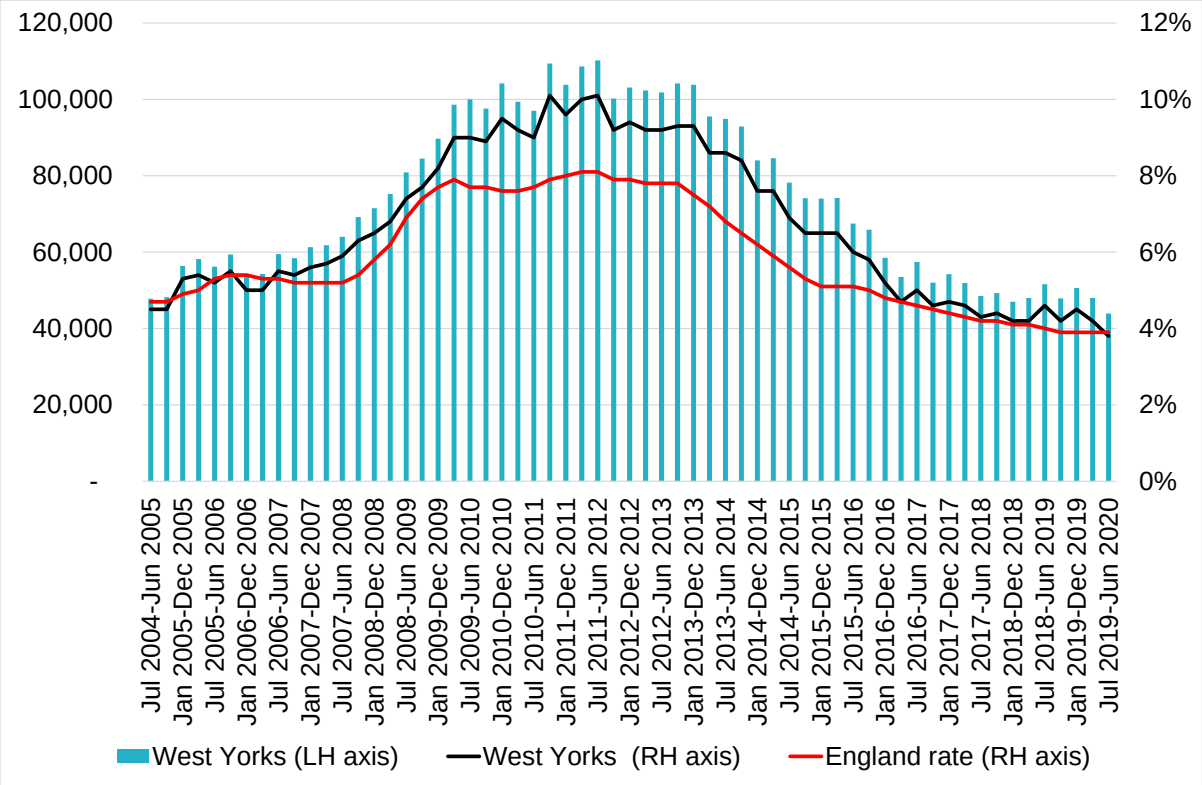
West Yorkshire's unemployment rate is currently similar to the national average, based on the ILO measure

According to modelled estimates based on the Annual Population Survey for July 2019 to June 2020, unemployment stands at 44,000, 3.8% of the population aged 16-64. This is similar to the national average of 3.9%. The local unemployment rate was consistently above the England average during the last recession and during the early part of the recovery but has converged with the national average more recently.

At district level the ILO rate ranges from 3.2% in Kirklees to 5.4% in Bradford, with Wakefield just above the national average at 4.0%.

[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



Source: Annual Population Survey, model-based estimates of unemployment

As the figure above shows, the recent trend in West Yorkshire is one of a gradually declining level and rate of unemployment; the downward trajectory being similar to that seen nationally.

More timely unemployment data are available nationally and for the Yorkshire and Humber region, based on quarterly and monthly estimates from the Labour Force Survey. This shows that the unemployment rate in Yorkshire and the Humber had increased from 4.1% in May to July 2020 to 5.2% in the August to October quarter of 2020.

The extent to which ILO unemployment could potentially increase is presented in the Office for Budget Responsibility's Economic and Fiscal Outlook report (November 2020)[11]. In its central scenario for the impact of COVID-19 it forecasts a peak unemployment rate of 7.5% during 2021, which for West Yorkshire would imply an increase in unemployment from the latest estimate of 44,000 to 87,000. In its downside scenario the rate peaks at 11%, which would suggest a peak level of 127,000.

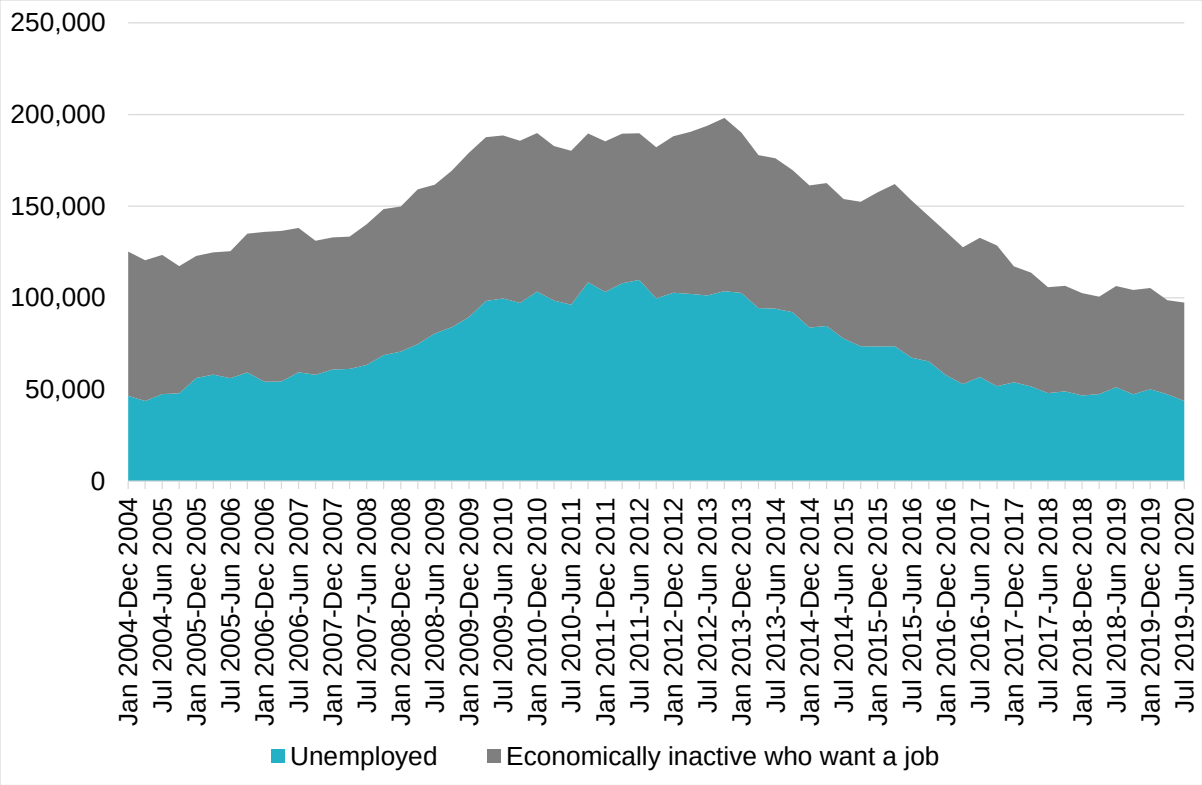
In addition to the 44,000 people who are unemployed, and who are available for and actively seeking work, consideration needs to be given to people who are economically

[11] Economic and fiscal outlook - November 2020 (obr.uk)

inactive but who would like a job. When they are factored in, the count increases to 97,000 or 9% of the working age population.

Prior to the COVID-19 crisis the number of inactive people who would like a job remained stubborn in the face of a strengthening labour market whereas unemployment fell rapidly. The number people ILO unemployed fell by 55% in the last two years (since July 2017 to June 2018) whereas the number of inactive people who would like a job increased slightly.

Figure 9: Number of people unemployed or inactive who would like a job, West Yorkshire



Source: Annual Population Survey

Therefore, there was a large residual group of inactive people in West Yorkshire as the crisis hit. This confirms the continued importance of employment support and investment in skills development for the jobless.

2.5 Claimant unemployment

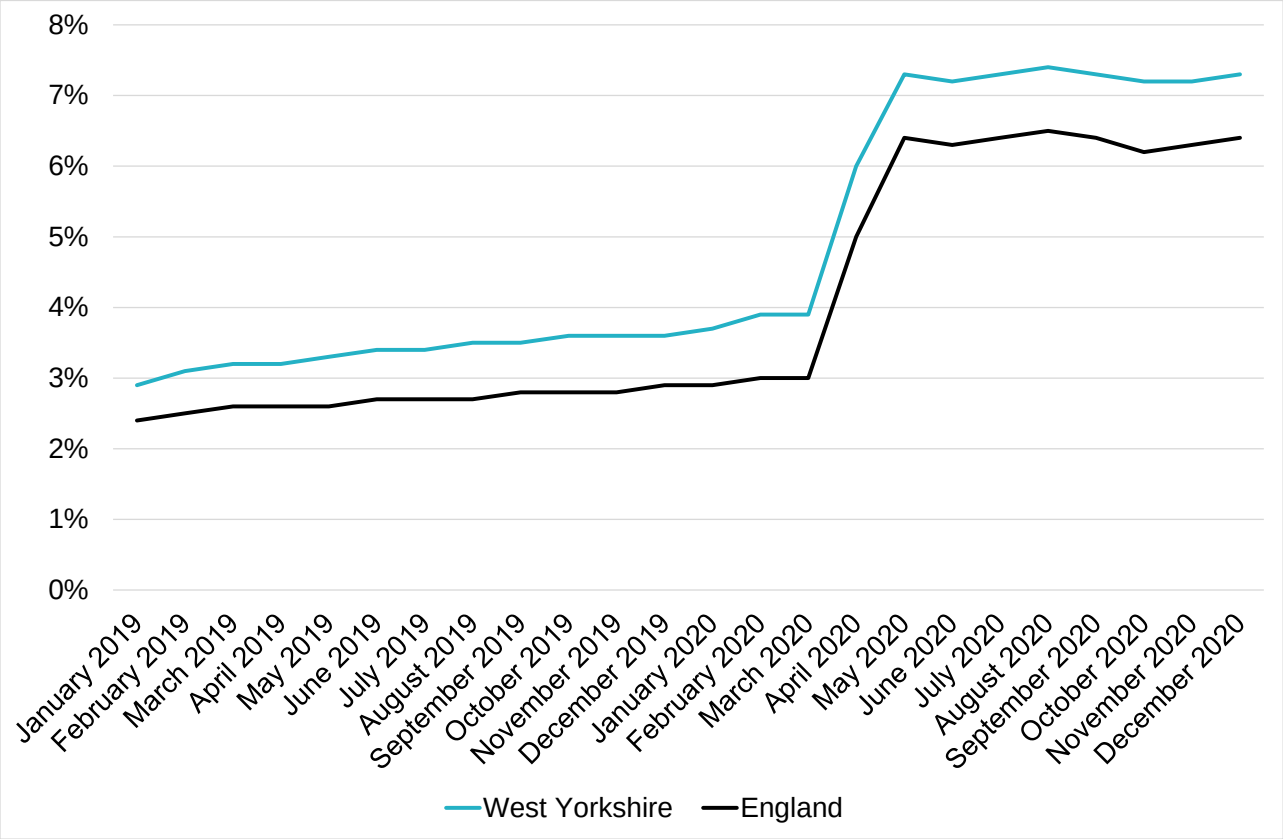
The Claimant Count experimental dataset seeks to measure the number of people claiming benefits (Universal Credit and Jobseekers' Allowance) principally for the reason of being out of work[12]. It provides a more timely picture of joblessness at local level and is therefore a key indicator of the impact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

[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

Claimant unemployment has doubled as a result of COVID-19

Unlike the ILO measure, the claimant count has registered a large increase in response to COVID-19. The number of claimants grew by 30,725 (54%), from 57,100 in March 2020 to 87,800 in April 2020 and saw a further increase of 18,400 (21%) to 106,200 in May 2020. Since then, there has been a levelling off, with the claimant count standing at 106,700 as of November 2020. The local claimant count grew by a smaller percentage rate than nationally between March and November, increasing by 87% compared with the England average of 111%. However, the starting point for the West Yorkshire increase was higher than nationally in terms of claimant rate.

Figure 10: Claimant rate trend (% of population aged 16-64)



Source: Office for National Statistics

The claimant rate (claimants expressed as a proportion of the population aged 16-64) increased from 3.9% in March to 7.3% in December, well above the national average of 6.4%.

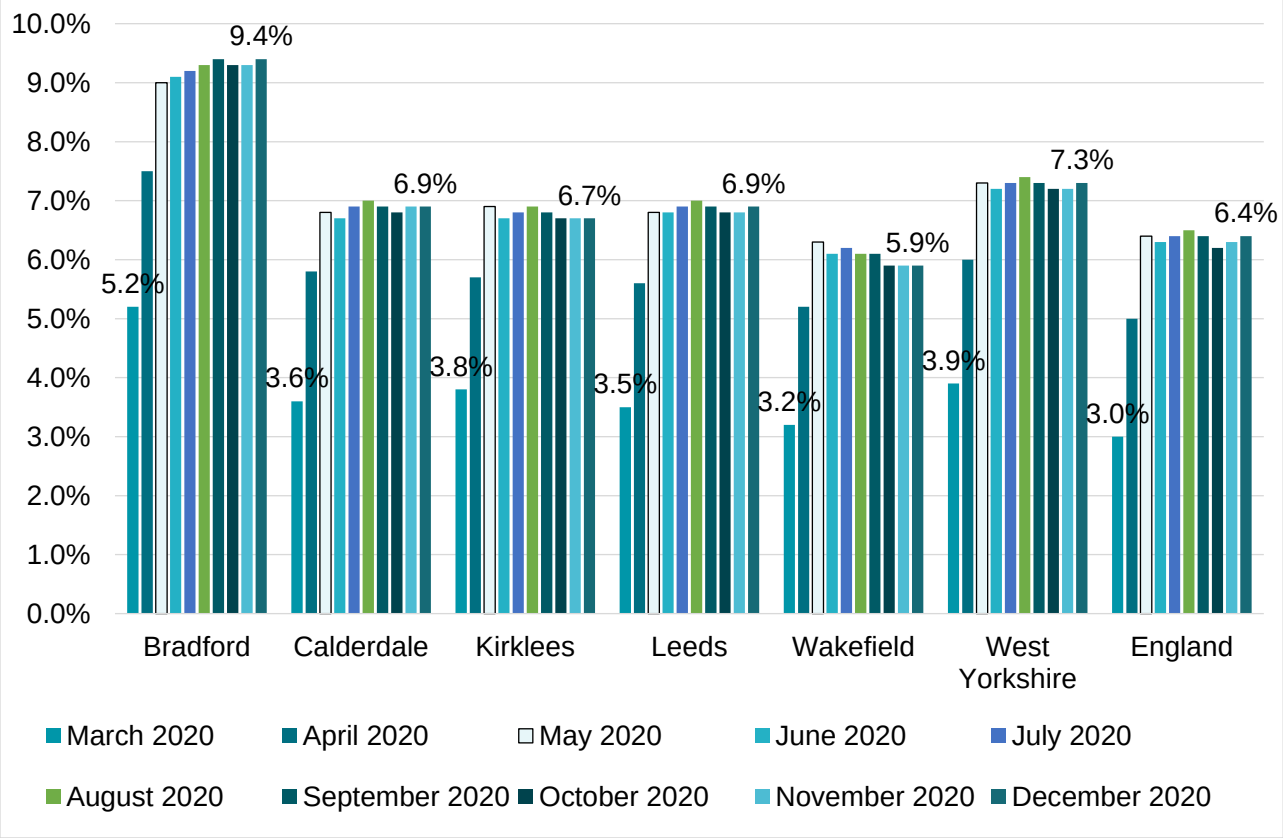
people who are unemployed. However, national data suggest that only around 100,000 (or 7%) of the recent growth in the claimant count is accounted for by people in work but with low earnings.

The claimant rate is highest in Bradford

At district level the increase in the claimant count (March to November 2020) ranged from 79% in Kirklees to 95% in Leeds. Bradford saw an increase of 82%, Wakefield 83% and Calderdale by 89%.

One of the smallest percentage increases in claimants in West Yorkshire was for Bradford, although the growth was still substantial. This reflects the fact that Bradford already had a relatively high level of unemployment going into the crisis, with a claimant rate of 5.1%, much higher than the West Yorkshire average of 3.9% and the national average of 3.0%. Bradford's rate had risen to 9.4% by December. All districts except Wakefield had a claimant rate above the national average at this point.

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

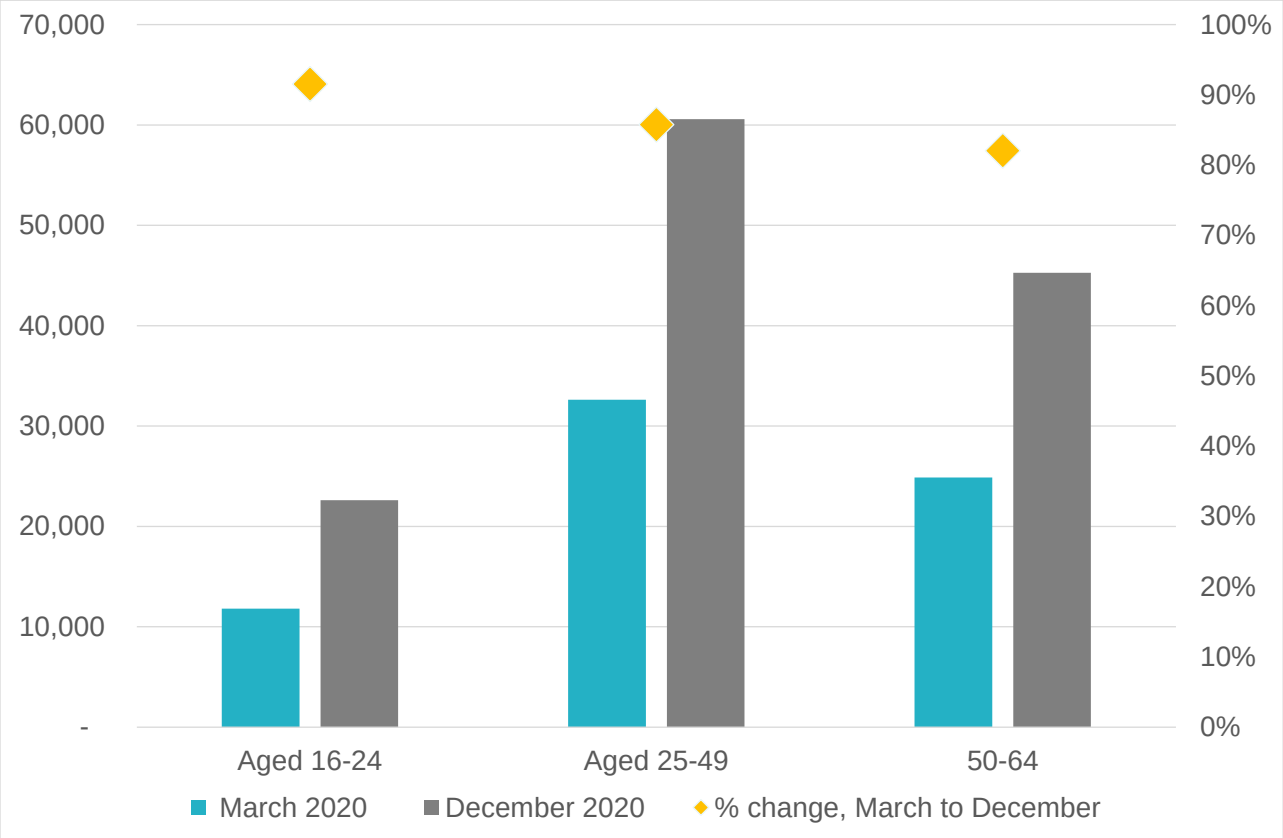


Source: Office for National Statistics

The increase in claimant unemployment has been most marked among young people. Between March and December 2020, the number of claimants aged 16-24 increased by 92% (from 11,800 to 22,810) whilst the rate of increase for people aged 25-49 and people aged 50+ was 86% and 82% respectively.

The estimated claimant rate for young people, using the economically active population as the denominator, is 14.3% (rising from 7.4% in March 2020), compared with an overall rate for people aged 16-64 of 9.6%. This shows that the impact of the COVID-19 crisis on employment has been particularly severe among young people.

Figure 12: Claimant count increase by age band, West Yorkshire



Source: Office for National Statistics

Action to address youth unemployment is critically important because being unemployed when young leads to a higher likelihood of long-term 'scarring' in later life, in terms of subsequent lower pay, higher unemployment and reduced life chances according to a wide range of research[13].

However, older workers who lose their jobs are far more likely to slip into long-term worklessness. Over 50s who are unemployed are twice as likely to be out of work for 12 months or more as younger workers and almost 50% more likely as workers aged 25 to 49[14].

[13] For a summary see McQuaid, R. (2017) Youth unemployment produces multiple scarring effects. London School of Economics. Available at https://blogs.lse.ac.uk/europpblog/2017/02/18/youth-unemployment-scarring-effects/

[14] Learning and Work Institute (2020) A Mid-Life Employment Crisis. Centre for Ageing Better. Available at: https://learningandwork.org.uk/wp-content/uploads/2020/08/A-mid-life-employment-crisis.pdf

It should be noted that some of the increase in the claimant count comprises people whose circumstances would not qualify them as ILO unemployed[15].

- Some are inactive. To be classed as ILO unemployed, someone must have searched for work in the past month and those without jobs are less likely to search for work when there are few jobs on offer (a 'discouraged worker' effect). Analysis of national data suggests that many of this group were previously self-employed.
- Some are working claimants. In the claimant count, people with earned income can be counted as claimant unemployed if their earnings in the reference month are below a set threshold (this is very low at £338 per month for a single person).
- Some are people who classify themselves as being employed but "away" from their job. This captures people furloughed under the Job Retention Scheme (JRS) who are continuing to earn, but it also includes people who consider themselves to be employees or self-employed but who have no earnings.

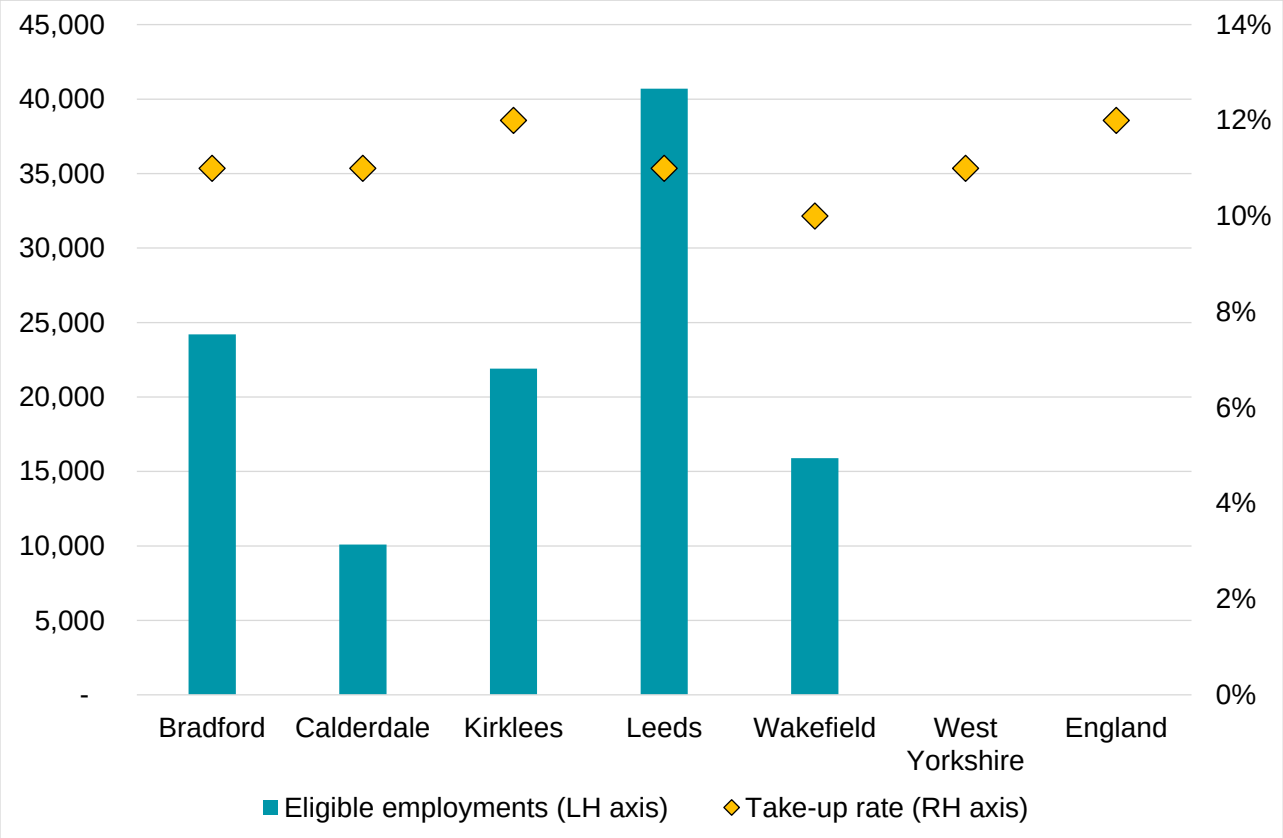
This is not to understate the scale of the problem. The current situation presents a large-scale employment crisis.

Many workers remain on furlough and some could become unemployed

A large number of employees were still on furlough in West Yorkshire based on the latest available local data. In total, 113,000 employments were furloughed as of the end of December, equivalent to a take-up rate of 11% of total employments in the area.

[15] See What's going on with the unemployment data? | Institute for Employment Studies (IES) (employment-studies.co.uk) for a review of the issues.

Figure 13: Employments furloughed by district as at December 31 2020



Source: HMRC

This is a considerable reduction on the figures for the end of July when 326,000 employments were furloughed in the LEP area, a take-up rate of 31%. Although the level of furloughing in West Yorkshire will have increased again in response to the third lockdown.

This gives a broad indication of the number of people who could be directly vulnerable to redundancy when the Job Retention Scheme comes to an end, with the potential to contribute to a significant increase in unemployment during the course of 2021.

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.

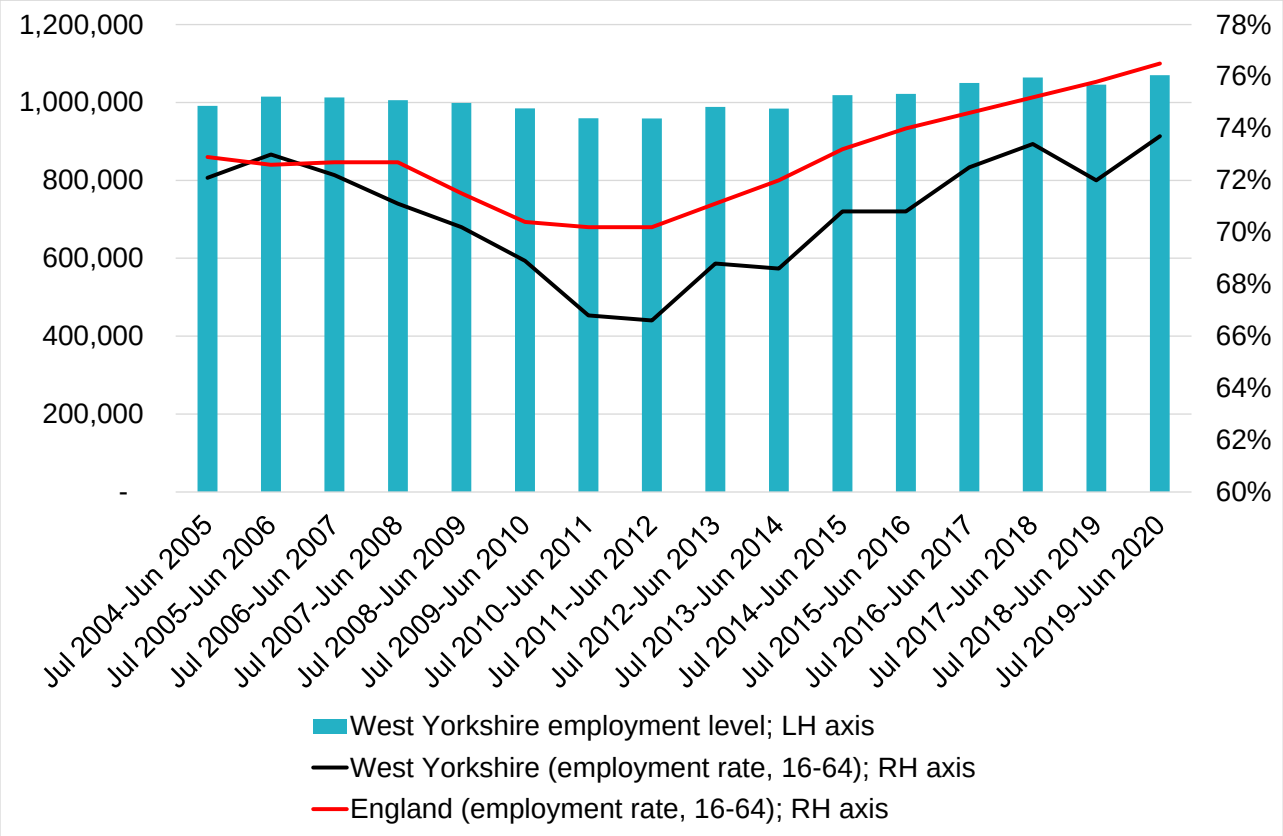
The level of employment in the area is the main indicator of the overall demand for labour in the area. It is difficult to measure the impact of COVID-19 on employment in local economies using official data. This is because we are reliant on the Annual Population Survey, which draws on 12 months of survey 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 the crisis.

The local employment rate has been consistently below the national average since the last recession

There are 1,069,000 people in employment in West Yorkshire based on data for the July 2019 to June 2020 period. The employment rate in West Yorkshire, expressed as a proportion of the population aged 16-64, is three percentage points below the national average at 74% (versus 77%). This is a substantial deficit since an additional 40,000 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 a broadly upward trend since 2012, reflecting the progress of the recovery from the last recession. Between 2013/14 and 2019/20 the level of employment increased by 9% in West Yorkshire, the same rate of growth as seen nationally. However, there has been no indication of a narrowing of the gap in the employment rate between West Yorkshire and the national average.

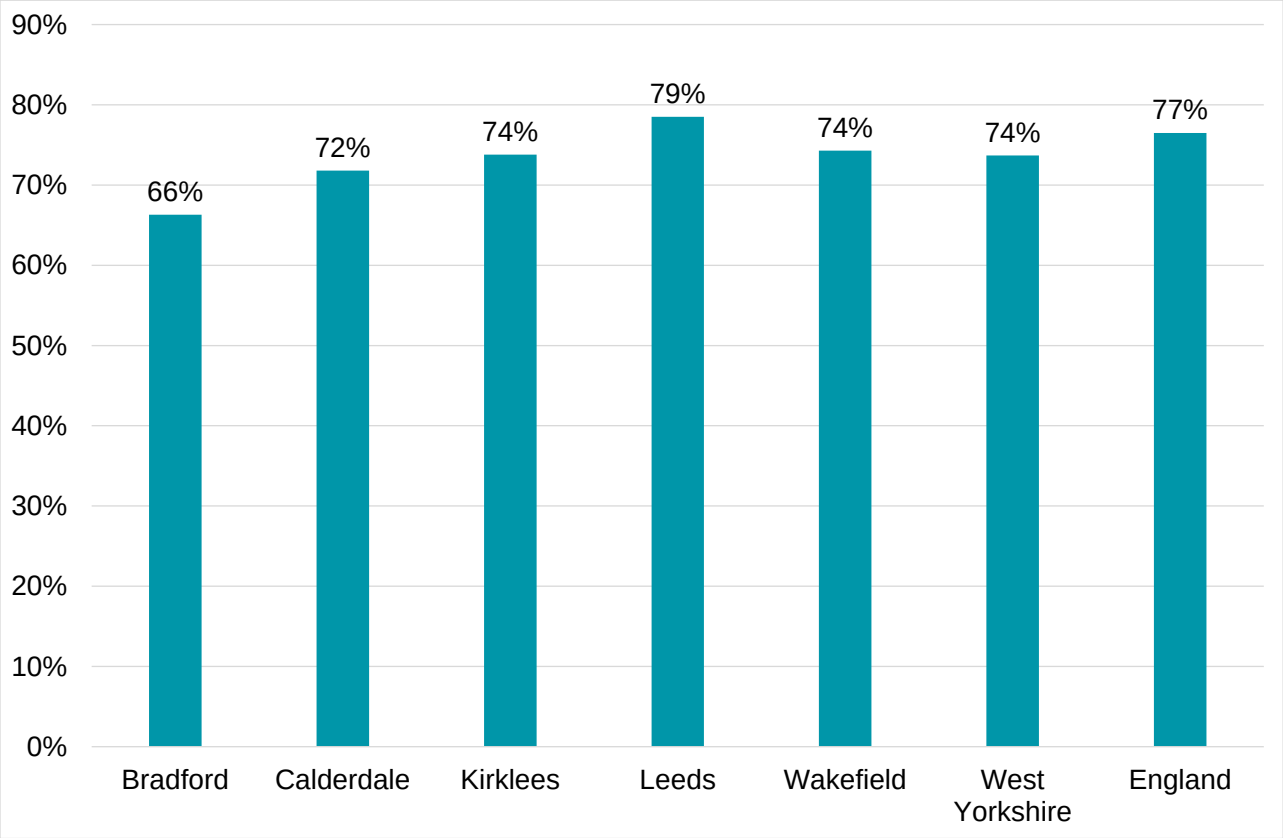
Figure 14: Trend in employment level and employment rate



Source: Annual Population Survey

There is a degree of variation in the employment rate at district level. Bradford's rate is 66%, 10 points lower than the national average and 7 points lower than the West Yorkshire average. All parts of West Yorkshire have an employment rate lower than the England average, except Leeds, whose rate is two points higher.

Figure 15: Employment rate by district (% of population aged 16-64)



Annual Population Survey, July 2019 to June 2020

Data for the local area does not reflect the full impact of COVID-19 on employment, as noted above. However, national data provides an indication of the employment trend since the start of the crisis.

The COVID-19 crisis has mostly impacted on hours worked rather than employment levels

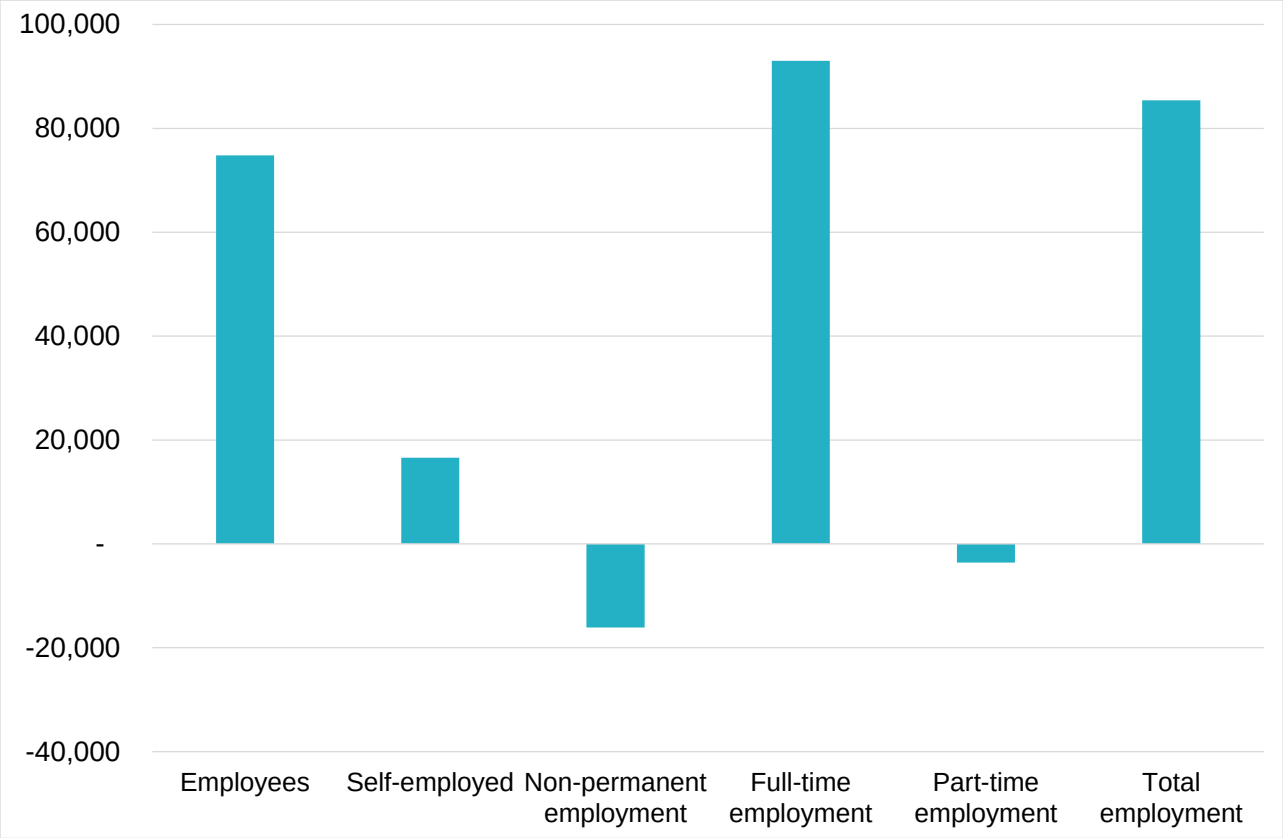
According to ONS, the UK employment rate, in the three months to October 2020, was 75.2%, 0.9 percentage points lower than a year earlier and 0.5 percentage points lower than the previous quarter. In absolute terms this is a quarterly fall in employment of 140,000. This decline appears relatively modest in the context of the crisis but it should be noted that the employment count includes people who are temporarily away from work (on furlough, for example) and this group is estimated to comprise 3.7 million people. It should also be noted that much of the impact of the crisis has been reflected in a fall in hours worked rather than a fall in employment. It is estimated by IES that overall, one in six of the workforce were still away from work or working fewer hours than normal at the end of September.

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 reasonable employment growth in recent years, although not sufficient to narrow the gap with the national average; 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 making a smaller contribution and non-permanent employment making a negative contribution. Full-time rather than part-time jobs contributed to net growth over this period. The number of people in self-employment locally continued to grow steadily, increasing by 13% over this period, faster than the rate of growth of 9% for employees but a smaller increase in absolute terms. Meanwhile, non-permanent employment saw a long-term upward trend locally before peaking in 2018/19 and declining thereafter, broadly reflecting the national pattern.

Figure 16: Change in employment by status, West Yorkshire, 2013/14 to 2019/20

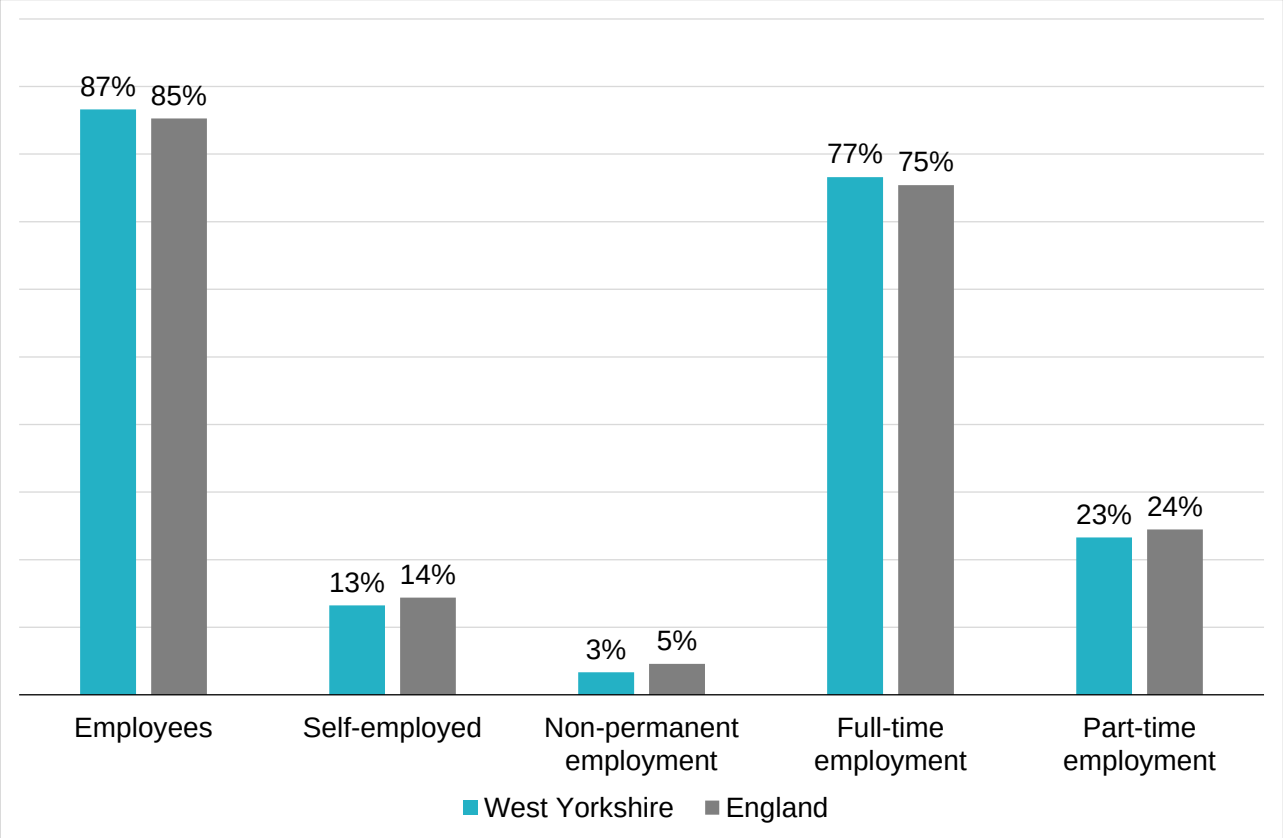


Source: Annual Population Survey, July 2013 to June 2014 and July 2019 to June 2020

West Yorkshire's current employment profile by status is broadly similar to the national average. The key difference is 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, working part-time or employed on a non-permanent basis.

Figure 17: Profile of employment by employment status



Source: Annual Population Survey, July 2019 to June 2020

Published figures are not available at local level in respect of zero hours contracts. People on such contracts account for around 3.5% of all employment across Yorkshire and the Humber[16]. Assuming that West Yorkshire has the same prevalence as regionally this would imply that there are around 37,000 people who are employed on zero hours contracts in the local area.

3.1 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.

[16] Source: EMP17: People in employment on zero hours contracts, ONS, December 2020

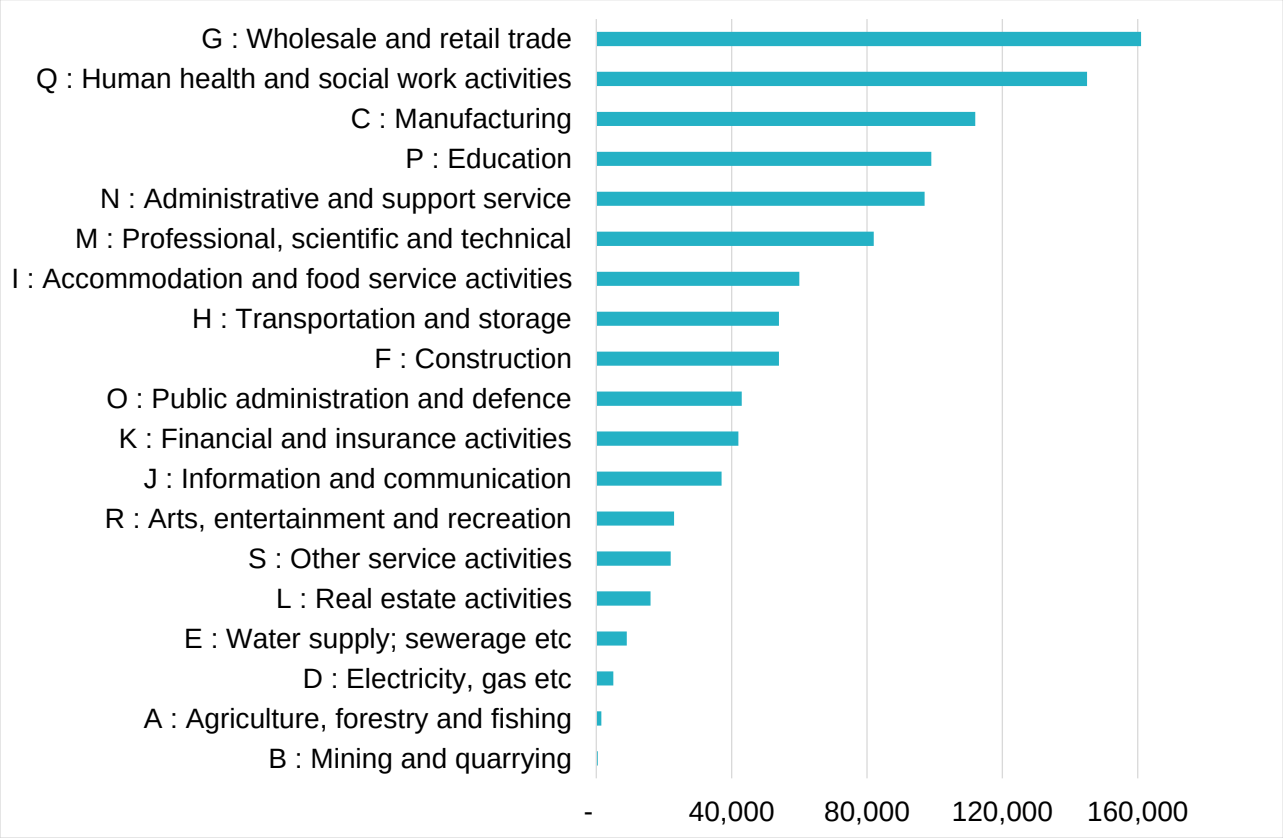
The largest sectors by employment are wholesale / retail, health and social care and manufacturing

There are 1,064,000 employee jobs in total within West Yorkshire. Focusing on the profile of these jobs in absolute terms, the largest broad sectors are Wholesale / retail (161,000 jobs, 15% of the total), Health and social care (145,000 jobs; 14%) and Manufacturing (112,000; 9%).

In addition to health and social care there is also significant further employment in activities that are primarily public sector-based, including education (99,000; 9%) and public administration and defence (43,000; 4%).

Overall, there are 198,000 public sector employee jobs locally, based on the Office for National Statistics' broader definition. This equates to 19% of total employment, only slightly higher than the national average of 16%. The proportion ranges from 15% in Calderdale to 21% in Wakefield and 22% in Bradford.

Figure 18: Employee jobs by industry (SIC section), West Yorkshire, 2019



Source: Business Register and Employment Survey, 2019

With regard to business-related services, professional service activities (section M) and administrative and support services account for 82,000 (8%) and 97,000 jobs (9%) respectively. Finance and information and communication are much smaller contributors to employment, with 4% and 3% of total employee jobs respectively.

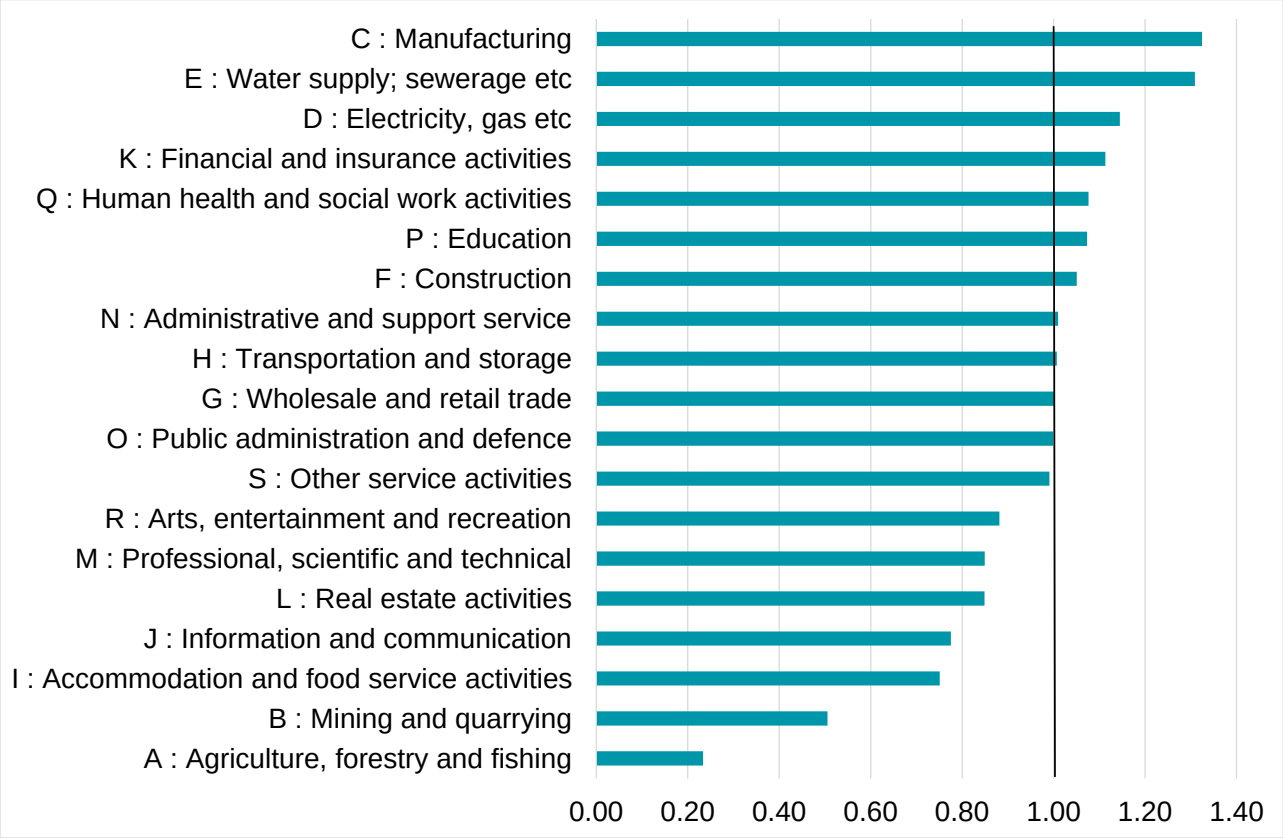
This analysis indicates that there are 54,000 employee jobs in Construction but it should be noted that does not include the large number of self-employed jobs in this sector.

Manufacturing, energy and utilities and financial services are strongly represented in the area's employment base relative to a national benchmark

Location quotients (LQ) are a useful way of quantifying how concentrated a particular industry or occupation is in a local area or region as compared to a reference area such as the nation. It can reveal what makes a particular region distinct in comparison to the national average. This gives an insight into the characteristics of local labour and skills demand and of specialist requirements.

In the following figure, sectors with a location quotient that is greater than one have a bigger share of total employment locally than nationally; i.e. they are strongly represented locally. Conversely, sectors with a location quotient below one have a relatively low representation.

Figure 19: Sectoral employment location quotients for West Yorkshire



Source: Business Register and Employment Survey, 2019

Manufacturing is particularly strongly represented in West Yorkshire. In proportionate terms it is around a third larger than nationally (location quotient of 1.32). Manufacturing activities which have a high quotient but are also significant in absolute terms include, manufacture of food, textiles, chemicals, fabricated metal products, machinery and furniture.

Water supply / sewerage and Electricity / gas are also strongly concentrated locally, although both are small in absolute terms with 9,000 and 5,000 jobs respectively.

Financial service activities account for 42,000 jobs in West Yorkshire and this sector is also strongly represented with a 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 services is large (see above) even though it only accounts for three-quarters of the job share of its national counterpart (quotient of 0.75).

Other sectors that account for a small share of employment locally relative to the national benchmark are Information and Communication, Professional services (section M) and Arts and entertainment.

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 (location quotient close to 1).

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 with regard to the people they employ. Employment in this area contributes 49% of total employment in West Yorkshire, the same proportion as nationally.

Young people concentrated in sectors of economy hardest hit by COVID-19

Young people account for around 13% of employment across the West Yorkshire economy but are much more heavily represented in the sectors directly affected by COVID-19 restrictions, such as accommodation and food services (young people account for 37% of employment), Arts, entertainment and recreation (28%) and Wholesale and retail (21%). More than 50,000 young people are employed in these three sectors, over a third of all young people in employment in West Yorkshire, compared with only a fifth of the labour force as a whole.

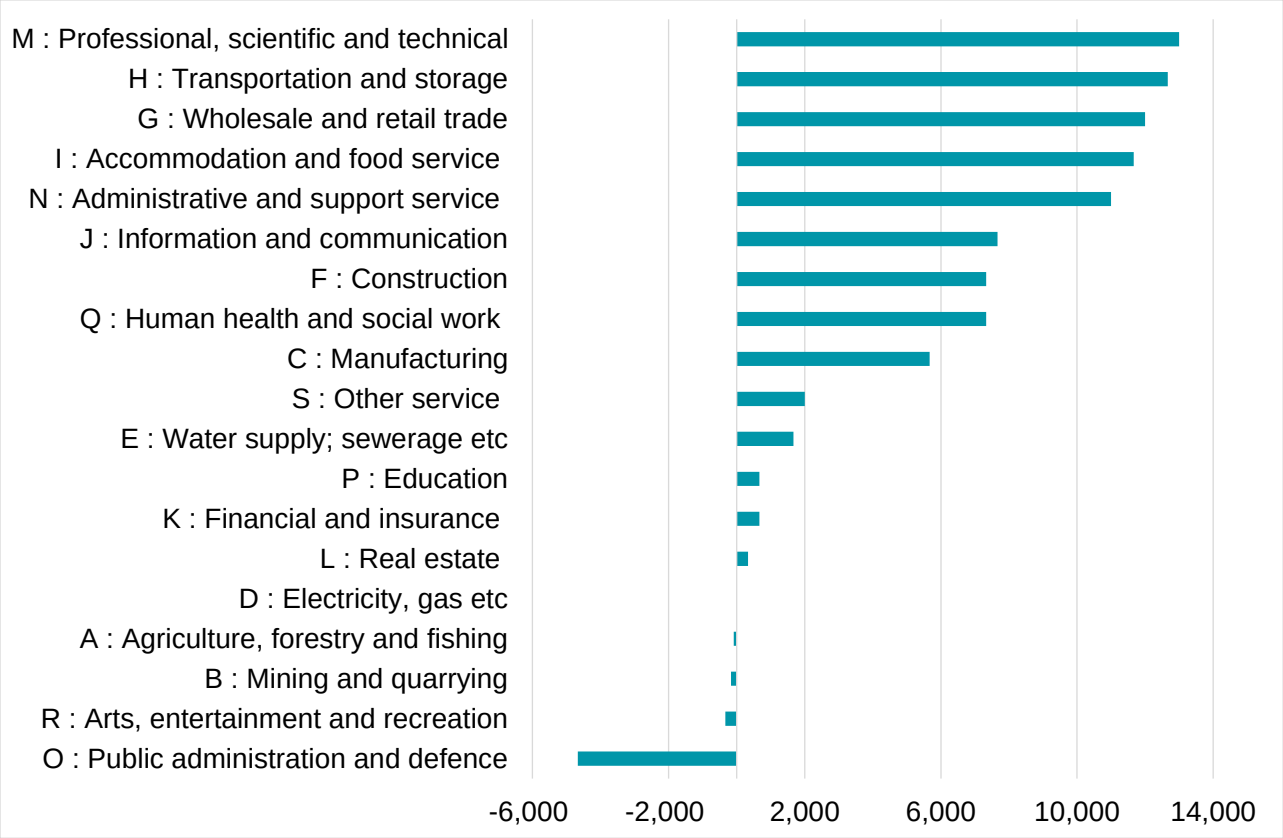
3.2 Patterns of sectoral employment change

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 2017 to 2019) have been used in order to discern underlying trends. Based on these three year averages the total number of employee jobs grew by 8% or 88,000 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, 2017 to 2019 versus 2012 to 2014, West Yorkshire



Source: Business Register and Employment Survey

The business service categories of 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. Looking beyond services, manufacturing and construction also grew over this period.

Only one broad sector saw a notable level of net decline: Public administration.

Existing trends in sectoral employment structure are being disrupted by COVID-19 and the Brexit free-trade agreement

Clearly, pre-crisis employment trends are of limited value in understanding future patterns of growth because of the disruptive impact of COVID-19 and Brexit.

Businesses involved in the provision of non-tradable, face-to-face services such as hospitality, non-food retail, transport, and entertainment have been hardest hit by COVID-19, being directly affected by public health restrictions and facing difficulties in implementing social distancing. The medium outlook for these sectors, and indeed for the wider economy, is highly uncertain and depends upon the future path of the virus, the stringency of public health restrictions, the effectiveness of the vaccine roll-out, and the reactions of households and businesses to all of these. It seems likely that there will be

permanent changes in behaviour that will impact on sectoral prospects, including more working from home, less business travel and the shift to online retail.[17]

The ripple effect of COVID-19 is also likely to affect the performance of other sectors of the economy. Aside from the widespread impact of reduced household spending due to decreased consumer confidence and potential income losses, construction could be hit by reduced demand for and investment in capital projects and material delays from disrupted supply chains. A shift to working from home during the lockdown is likely to change the way workers and employers think about office space and remote working, potentially leading to reduced demand for commercial properties.

Brexit, in terms of immediate output losses associated with the disruption of trade flows, as well as longer-term effects, is expected to impact on different sectors of the UK economy to those that have been hardest hit as a result of the pandemic. This includes firms in the manufacturing and financial services sectors – trade-intensive sectors that are most exposed to the reduction in access to the EU market[18].

3.3 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

Business and public service associate professionals the largest category in employment terms followed by Elementary administration and service occupations, Caring personal service and Administrative occupations

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

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

- Business and public service associate professionals, a diverse category which includes sales and marketing, human resource, financial and public service roles at the associate professional level.
- Elementary administration and service roles, a category which includes hospitality staff such as waiters / waitresses, bar staff and kitchen and catering assistants; as well as cleaners.
- Caring personal services, which includes care workers and home carers, teaching assistants, nursing auxiliaries and nursery nurses.

[17] OBR (2020) Economic and fiscal outlook, November 2020. Available at https://obr.uk/docs/dlm_uploads/CCS1020397650-001_OBR-November2020-EFO-v2-Web-accessible.pdf

[18] Social Market Foundation (2020) Assessing the economic implications of coronavirus and Brexit.

- Administrative occupations, including book-keepers, payroll managers, and admin roles in finance and local government.

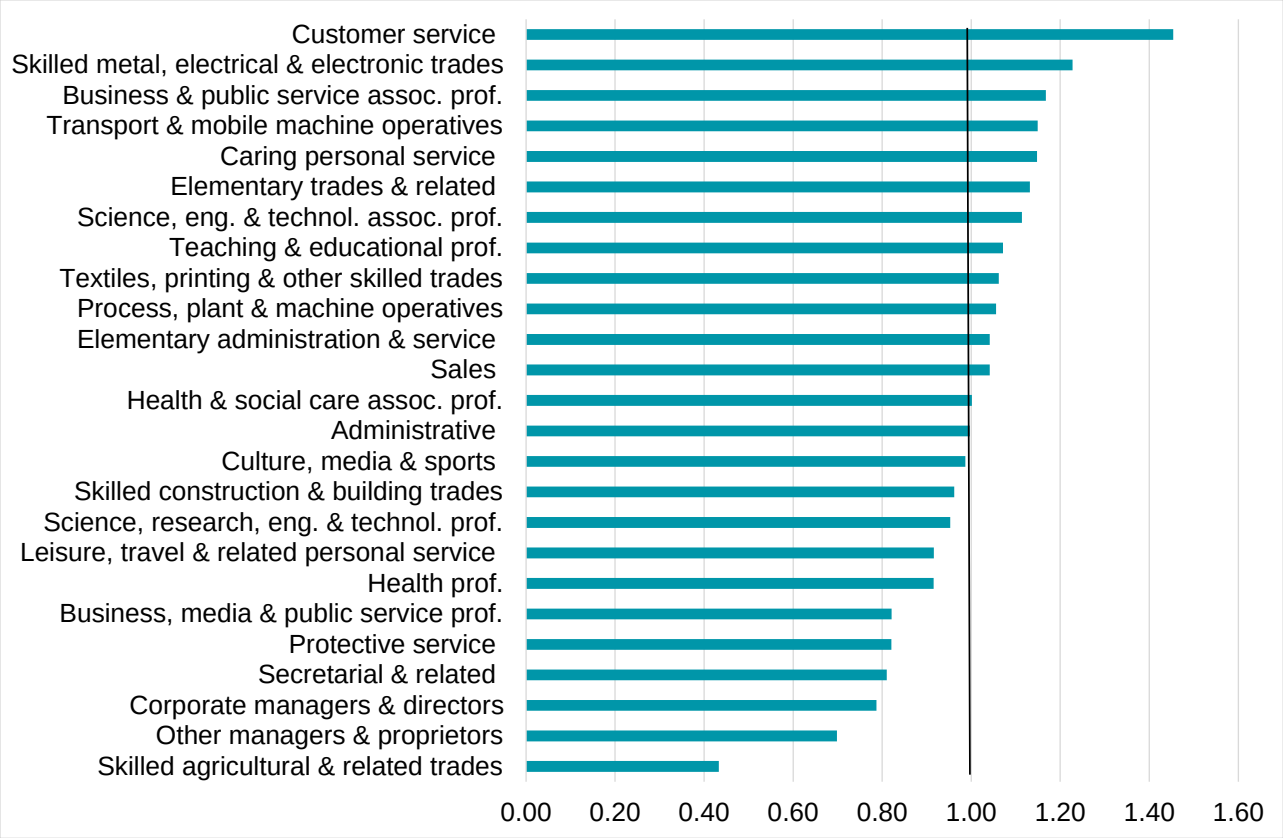
Figure 21: Employment by SOC sub-major group, West Yorkshire

Source: Annual Population Survey, Jul 19 – Jun 2020

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 47% of total employment compared with 50% nationally. In absolute terms this represents a deficit of 33,000 fewer people in higher skilled employment.

Figure 22: Location quotients for occupational employment in West Yorkshire; benchmark area = England



Note: Workplace employment
Source: Annual Population Survey, Jul 19 – Jun 2020

Occupational employment in West Yorkshire is weighted towards lower-skilled service and labour-intensive roles, as the above figure demonstrates. The share of local employment accounted for by Customer service roles far exceeds the national average and this is also the case for a range of skilled and semi-skilled manual roles plus caring 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) and Protective service roles (partly reflecting the lack of military bases etc in West Yorkshire). In addition, though some higher skilled roles appear to be substantially under-represented, including Corporate managers and Business, media and public service professionals.

Growth in employment is being driven by higher skilled occupations and by caring occupations

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**Error! Reference source not found.** have been averaged for a pair of three-y ear periods: 2011/12 to 2013/14 and 2017/18 to 2019/20. This time frame broadly corresponds with the economic recovery from the last recession.

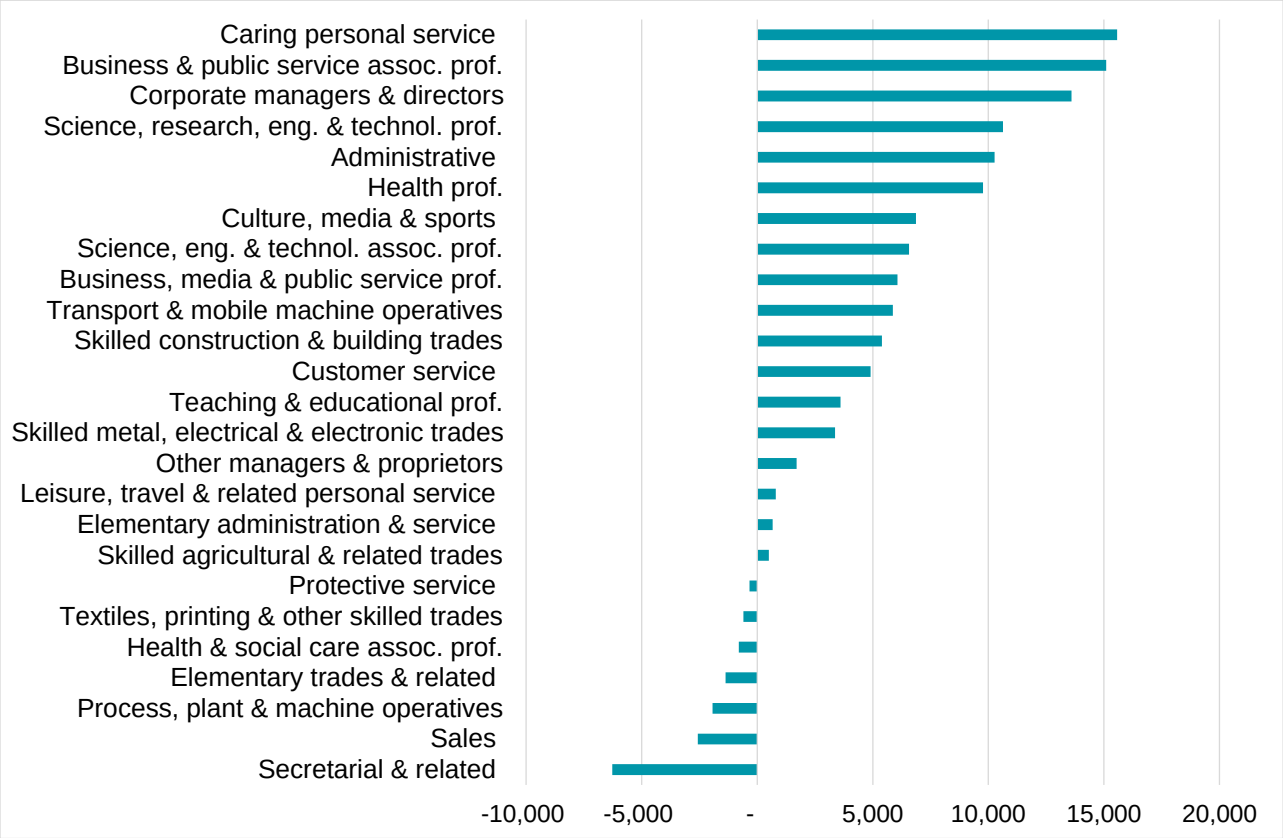
Caring personal services (a category which includes roles in social care, childcare as well as nursing auxiliaries) was the occupational category that saw the largest growth in absolute terms, with a net increase in employment of 16,000 (+21%).

The remaining occupations which saw the strongest growth were higher skilled, including Business and public service associate professionals (+15,000; +20%), Corporate managers (+14,000; +21%) and Science, research, engineering and technology professionals (+11,000).

So, in spite of the fact that employment in higher skilled occupations is under-represented locally (see above) it is still the main driver of net employment growth, contributing around two-thirds of the net increase during this period.

Employment in Administrative occupations also grew substantially (+10,000; +13%) during this time frame, although over the longer-term employment in this category has been on a downward path.

Figure 23: Net employment change by occupation, West Yorkshire



Note: Shows change between average employment levels for 2011/12 to 2013/14 and 2017/18 to 2019/20
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.

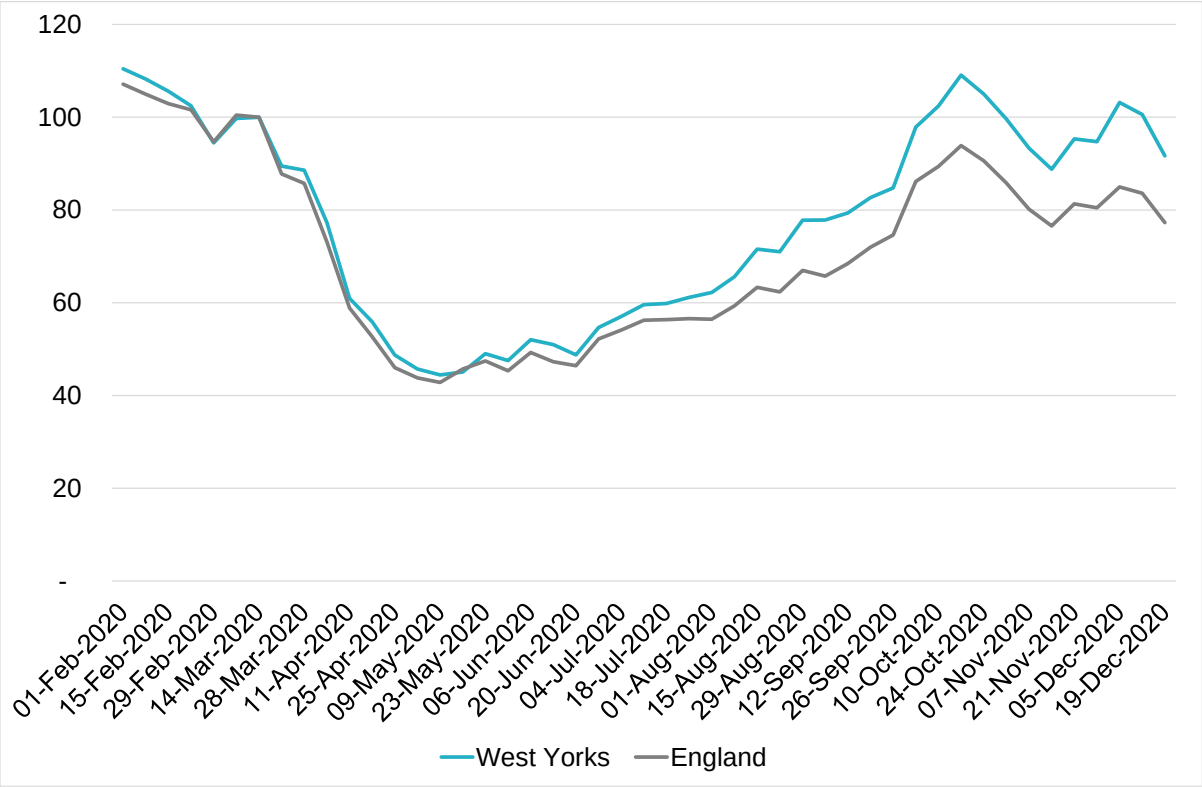
3.4 Current job openings – online job postings

Another way of understanding demand is by examining the types of job that are being advertised via online job postings. This gives an insight into current recruitment levels and patterns and the timeliness of these data provide an insight into the impact of the COVID-19 crisis on labour demand.

Online job postings saw a steady recovery prior to the re-imposition of autumn restrictions – but outlook is uncertain

The level of recruitment activity in the local labour market was profoundly affected by the COVID-19 lockdown, with the level of weekly postings falling by 56% in the period between March 14 and May 9. However, from that point onwards postings recovered steadily in West Yorkshire, regaining their pre-crisis level by early October and outperforming the national picture – at this stage England's weekly postings count remained 11% below its March 14 level.

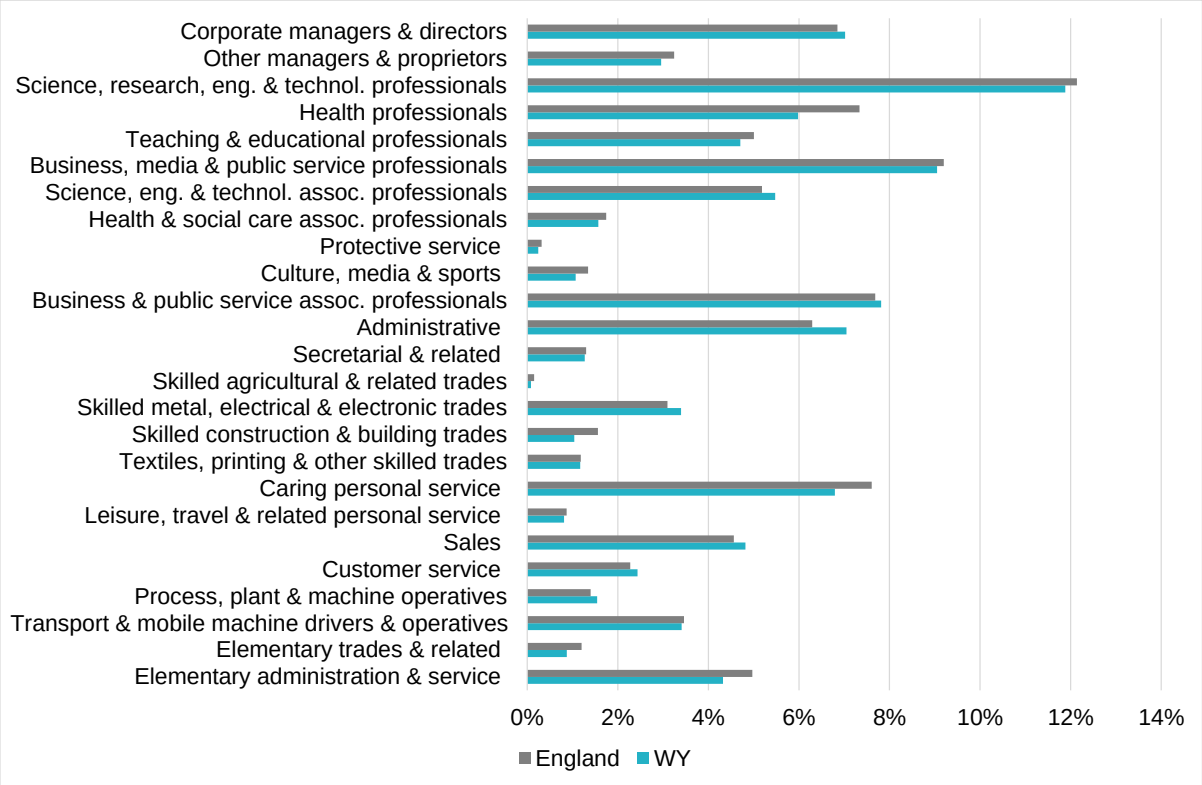
Figure 24: Index of weekly count of online job postings (week ending March 14 2020 = 100)



Note: 4-week moving average
Source: Labour Insight

However, the move towards fresh COVID-19 restrictions starting in mid-October saw the weekly postings count fall for several consecutive weeks and the latest counts of job postings show West Yorkshire at 92% of its pre-crisis level whilst the figure is 77% nationally. With restrictions set to continue into spring the outlook for recruitment activity is uncertain.

Figure 25: Occupational profile of online job postings, September / November 2020



Source: Labour Insight

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. As the only source of local data on job openings, it is useful to examine the profile of local online job postings relative to the national picture in order to gain an understanding of the distinctive patterns of local recruitment demand. Differences in the profile of demand in some cases align with the area's employment profile.

The occupational profile of local job postings is similar to the national average

In broad terms, the occupational profile of West Yorkshire's job postings is very similar to the national average reflecting the diversity of the local economy.

Higher skilled occupations account for a slightly smaller proportion of total postings locally compared with nationally, at a combined 58% versus 60%. In particular, postings for health professionals are under-represented in West Yorkshire.

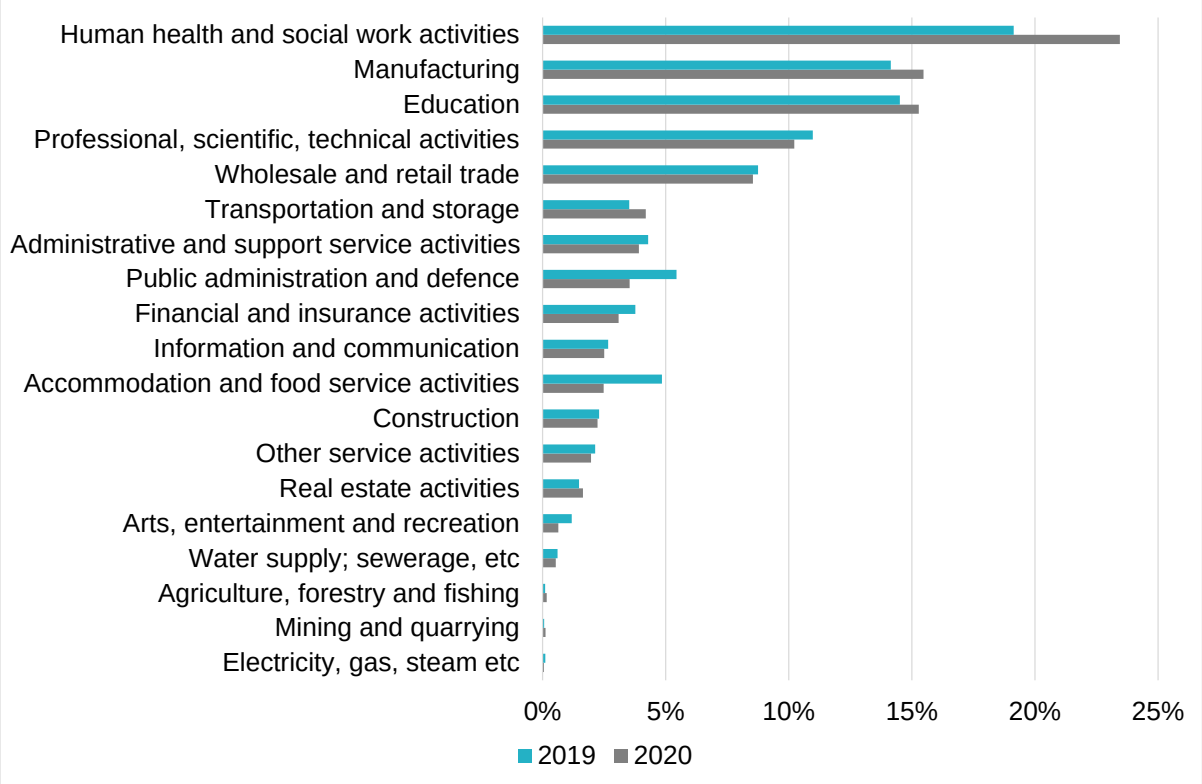
Postings for *Caring personal service* and *Elementary administration and service* roles also account for a bigger share of the national total than of the local one. The latter deficit reflects proportionately fewer vacancies for hospitality and cleaning roles in West Yorkshire.

Conversely postings for *Administrative*, *Sales*, *Customer service* and *Process, plant and machine operatives* are strongly represented locally.

Health and manufacturing increased their share of job openings during the crisis whilst hospitality's share fell

How have employers' recruitment needs changed as a result of COVID-19? A comparison of the sectoral and occupational profile of job postings for September - November 2020 with September - November 2019 provides an insight into how the COVID-19 crisis has impacted on the nature of employer demand.

Figure 26: Change in sectoral profile of job postings West Yorkshire, September / November 2020 vs September / November 2019



Source: Labour Insight

In terms of industry sector, there has been an increase in share of total job postings for Health and social care, Manufacturing and Education, suggesting that recruitment demand in these sectors has remained relatively strong.

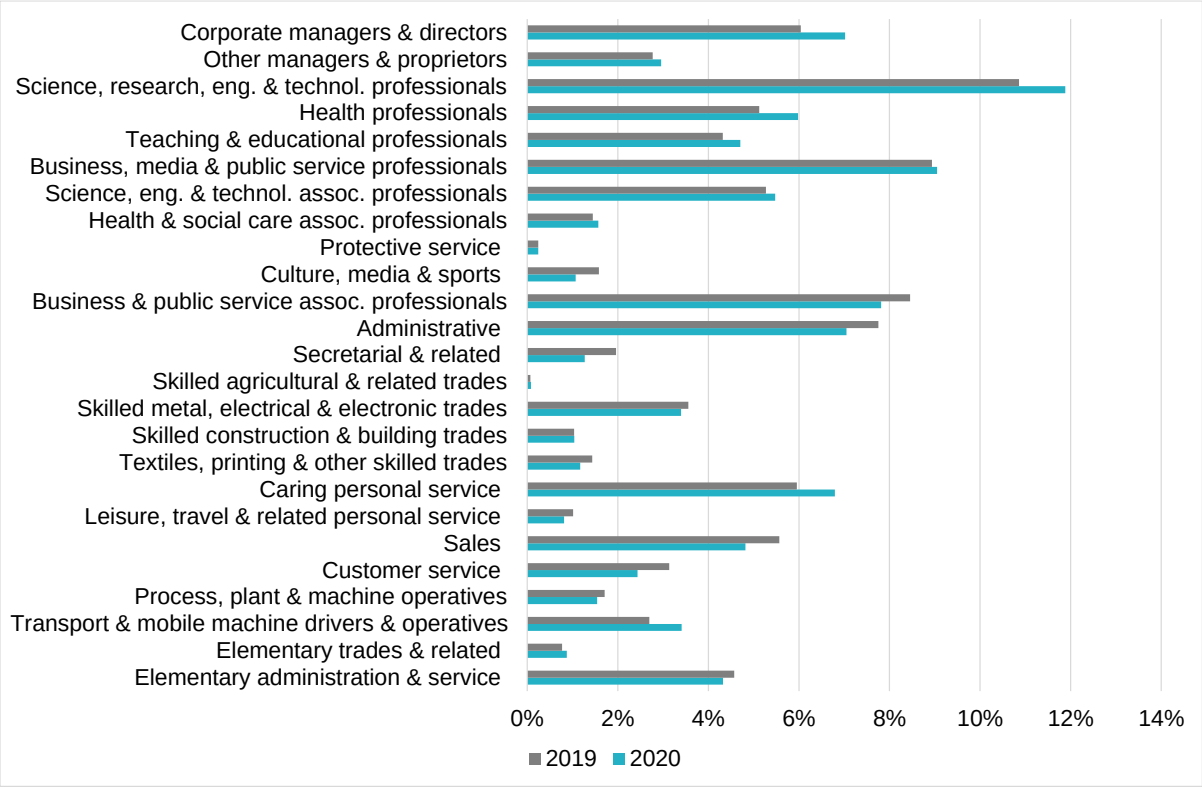
Within the broader Human health and social work sector, there was broad-based growth in health activities, residential care and social work.

Although manufacturing as a whole saw an increase in its share of postings food manufacturing fell steeply. However, this fall was largely offset by growth in beverages manufacturing which may suggest technical issues around the classification of vacancies.

There was a small increase in the share of openings accounted for by *Transportation and storage* as *Land transport* and *Warehousing* both saw a growth in share.

The sectors that experienced the biggest declines in their share of job postings included *Accommodation and food services*, *Public administration*, *Finance and insurance*, *Wholesale and retail* and *Professional services*.

Figure 27: Change in occupational profile of job postings West Yorkshire, September / November 2020 vs September / November 2019



Source: Labour Insight

Higher skilled occupations have mostly maintained or grown their shares of total postings

Several occupational areas have increased their share of total postings, suggesting resilient demand for the associated skills in the face of the crisis. This category includes most higher skilled occupations, with the most substantial increases being seen for the following:

- Corporate managers – with increased shares for a variety of manager roles including financial managers, marketing and sales managers and health service managers.
- Science, research, engineering and technology professionals – driven primarily by strong demand for digital professionals including programmers and software developers (although there was reduced demand in this category for some engineering occupations).
- Health professionals – driven principally by strong demand for nurses.

Caring roles and roles linked to transport / logistics have also grown

A range of occupations requiring intermediate and lower-level skills also grew their share of postings between 2019 and 2020:

- Caring personal service occupations – with net increases in postings for care workers / home carers and teaching assistants.
- Van drivers and Large goods vehicle drivers, both part of the Transport and mobile machine drivers category, saw an increase in demand between 2019 and 2020. A greater emphasis has been placed on transport and logistics during the crisis with the increased reliance on online shopping.
- Elementary trades – with strong demand for elementary storage trades, again reflecting the increased importance of transport and logistics as a result of COVID-19 restrictions.

Some occupational areas have undergone a decrease in their share of total postings between 2019 and 2020, suggesting that the COVID-19 crisis has had a negative impact on demand for these roles. This includes:

- *Administrative and secretarial* – driven by reduced demand for receptionists, personal assistants and a range of administrative occupations. This decline could reflect longer-term structural factors as well as the impact of coronavirus.
- *Sales and customer service* occupations, reflecting the impact of the crisis and the related restrictions on retail and other customer-facing sectors.
- *Leisure, travel and related personal service occupations*, saw a decline linked to reduced demand for roles like cleaning and housekeeping managers, travel agents and sports and leisure assistants.
- *Elementary administration and service* and *Textiles, printing and other skilled trades*. In both cases this largely reflects the impact of COVID-19 on the hospitality-related job roles contained within these categories, including chefs, kitchen staff and bar staff.
- *Culture, media and sport* is a small area in absolute terms; its reduced share was driven by an across-the-board decline in postings, including for authors / writers, actors / entertainers / presenters, as well as photographers and graphic designers.
- *Business and public service associate professionals* – this broad-ranging category has seen a reduction in demand for specific occupations like conference / exhibition managers, HR officers, vocational trainers / instructors but also growth for finance-related roles and estate agents.

Health, care, digital and administrative roles are featured among those in greatest current demand

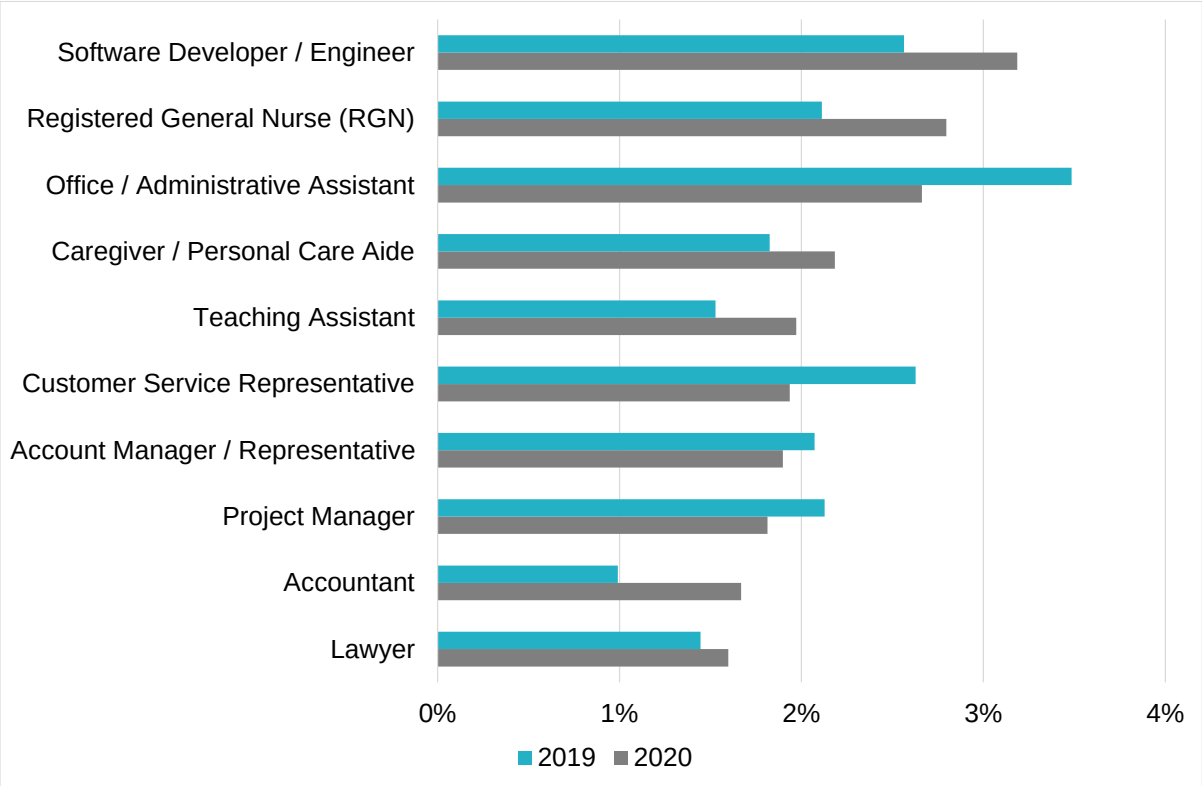
Turning to the individual detailed occupations in greatest demand currently (and using the proprietary occupational categories developed by Burning Glass for Labour Insight) the 10 occupations with the greatest number of postings are drawn from a diverse range, covering digital, health, care, and administration.

Some occupations have seen growth in the last year, based on a comparison between September to November 2019 and the same period of 2020, with potential links to the impact of COVID-19 and reflecting the broader analysis of change set out above.

Office / administrative assistant was the top occupation in 2019 based on the volume of job postings, but as noted above recruitment demand for workers in administration has been adversely affected by COVID-19 and it falls to number 3 in the 2020 rank. Other occupations to see a reduction were customer service representative, account manager and project manager.

Several occupations saw an increase in their share of job postings, most notably software developer, registered general nurse, personal care aide and teaching assistant. This reflects the general trend described above, of resilient demand for digital, health and care workers. There was also a marked increase in the share of total postings for accountant roles.

Figure 28: Top occupations in greatest demand overall based on volume of job postings, West Yorkshire, September / November 2020 vs September / November 2019



Source: Labour Insight

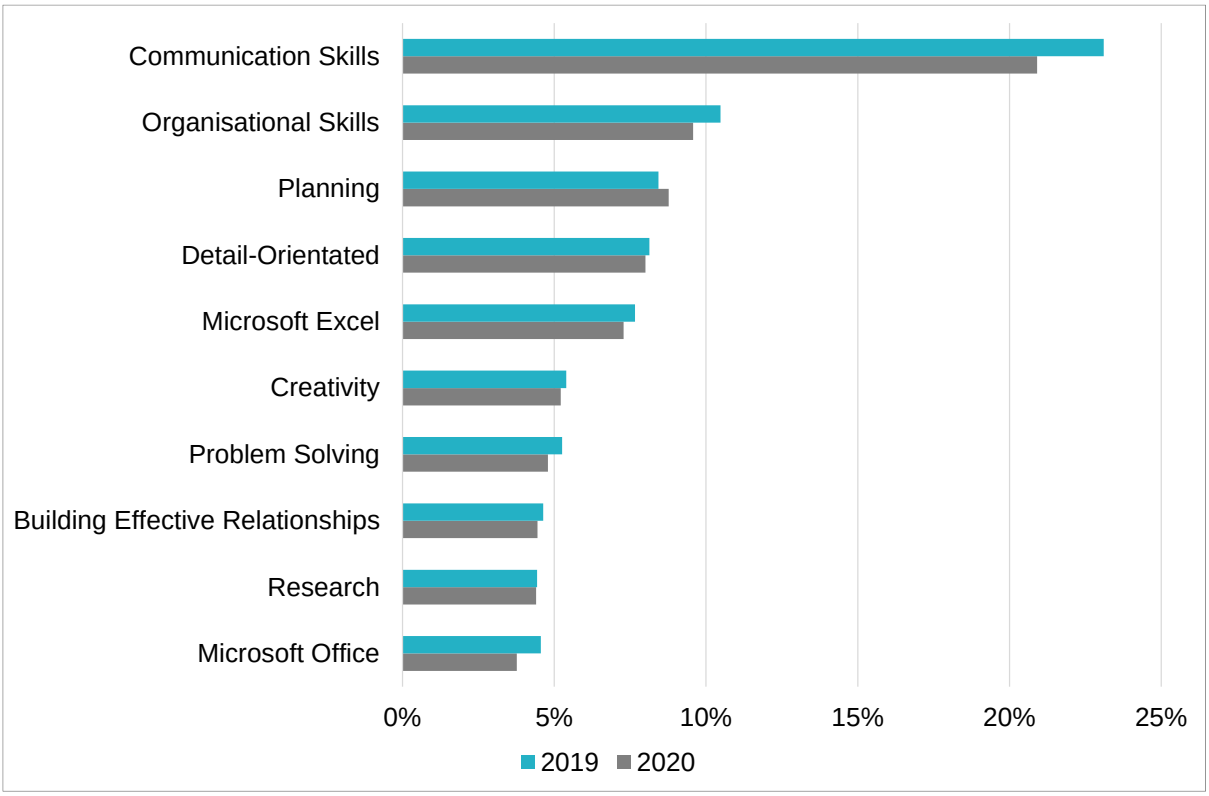
The above chart shows the top 10 detailed occupations by volume of current job postings. The range of occupations is diverse and includes information technology, health care and clerical roles. The occupations making up the top 10 have remained fairly constant over time, although the ranking of roles within the top 10 has changed with Office / Administrative Assistant formerly ranked at number one and Customer Service Representative formerly at number two. Software Developer / Engineer and Registered

General Nurse (RGN) have both advanced up the rankings from number 3 and number 4 respectively. The broader shifts in occupational demand underlying these changes are considered below.

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.

The analysis presented in **Error! Reference source not found.** focuses on baseline skills – generic skills in widespread demand across different types of job.

Figure 29: "Baseline" skills in greatest demand, West Yorkshire, September / November 2020 vs September / November 2019

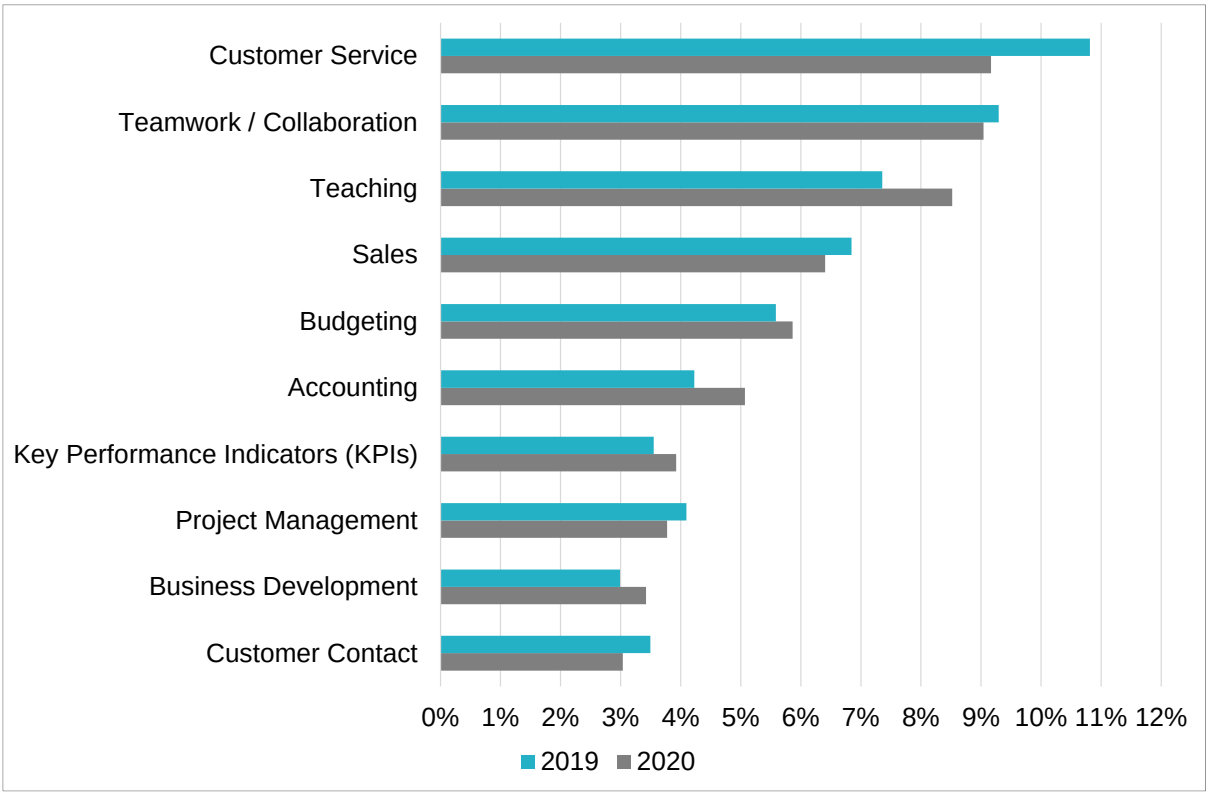


Source: Labour Insight

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 in spite of COVID-19. Although the proportion of vacancies requiring communication skills has fallen slightly it remains the most in-demand skill by far. It is notable that social interaction / communication, creativity and problem solving are among those that are classed as most difficult to automate.

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.

Figure 30: Specialised skills in greatest demand, West Yorkshire, September / November 2020 vs September / November 2019



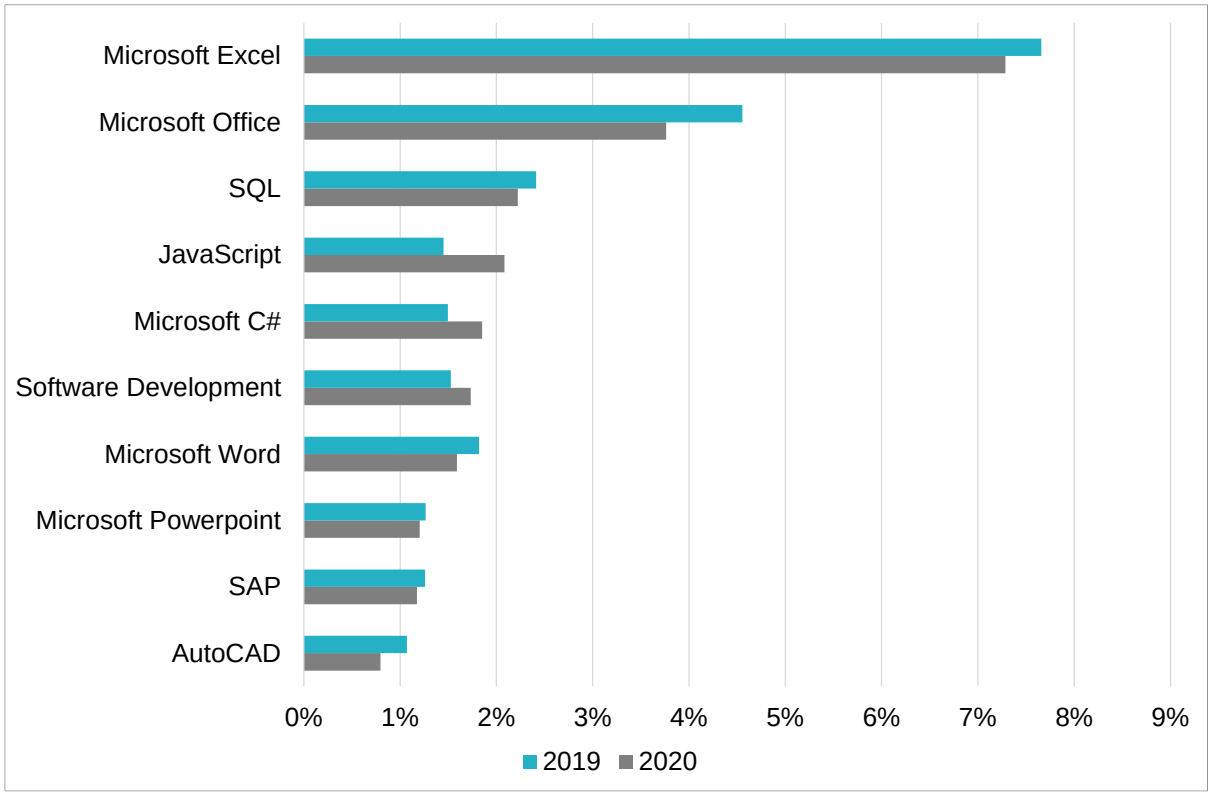
Source: Labour Insight

As with Baseline skills, the hierarchy of skills in greatest demand has remained broadly the same over time, although some skill types have increased their share of total postings whilst others have seen a reduction. Customer service, teaching and team working / collaboration are the specialist skills in greatest demand. We could infer a link between some of the changes in demand and the impact of the COVID-19 crisis. For example, the proportion of postings for which customer service and sales skills were required fell, perhaps reflecting the impact of the crisis on retail and other customer-facing sectors. Teaching and accounting skills saw increases in their shares of total postings. However, it is important to remember that these modest changes, which may be linked to COVID-19, may not prove to be long-lasting.

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

In view of the central importance of digital skills to employability across most jobs, it is useful to drill down on the specific computing skills that are cited in employers' job postings. The figure below sets out the top 10 requirements for all jobs irrespective of their overall skill level. Not surprisingly an ability to use packages within the Microsoft Office suite is in widespread demand, particularly Excel but also Word and Powerpoint. This requirement has not been significantly affected by the COVID-19 crisis.

Figure 31: Top 10 computing skill types in greatest demand, West Yorkshire, September / November 2020 vs September / November 2019



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.

3.5 Green Economy Skills

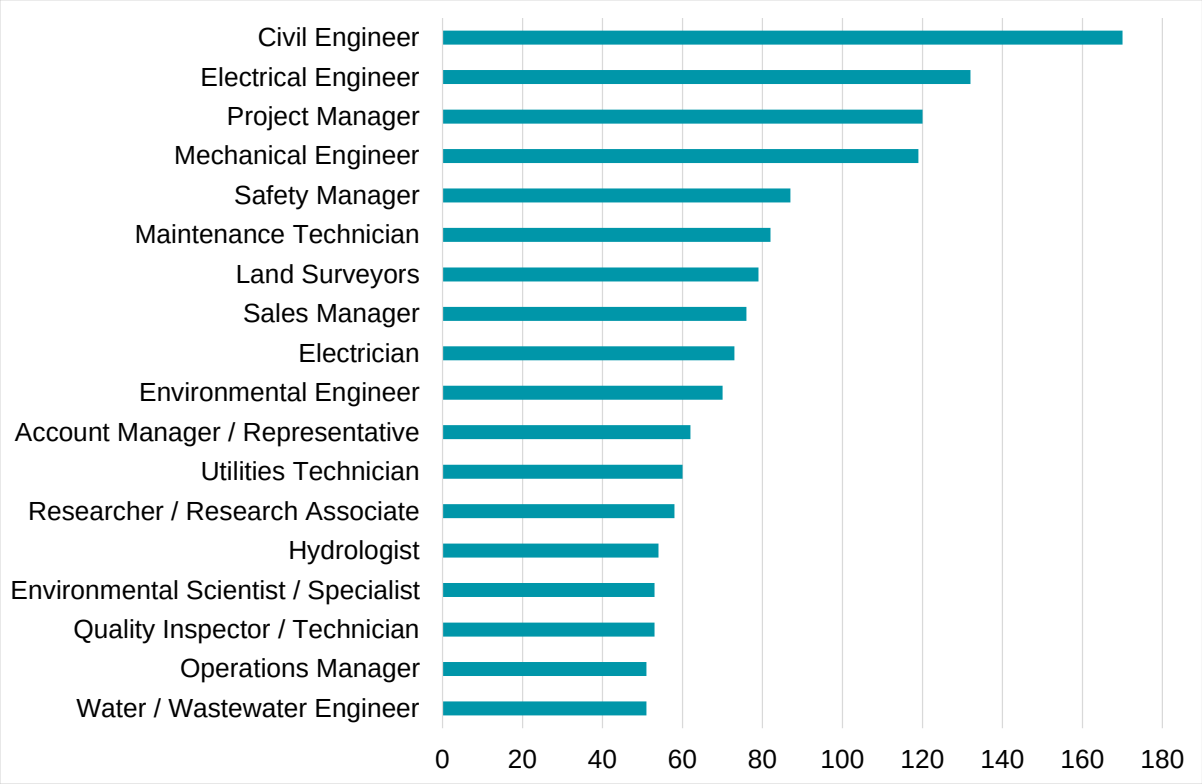
Green jobs and skills will in future be critical to the local economy as large-scale measures are implemented to meet West Yorkshire's commitment to achieve a net zero carbon economy by 2038. However, it is difficult to assess current demand for "green" skills in the local labour market because job tasks 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.

Engineering roles strongly associated with demand for "green skills"

The analysis, below, looks at job postings that refer to environmental or energy-related skills and categorises and ranks them by occupation. Environmental skills include air quality, emissions management and conservation and waste management. Energy skills include electrical power generation, energy efficiency, clean energy, solar energy and wind energy.

Figure 32: Top ranked occupations by number of job postings requiring environmental or energy-related skills, Leeds City Region, November 2019 to October 2020



Source: Labour Insight

In terms of occupations, the analysis shows that vacancies for engineers of various kinds are likely to require environmental or energy-related skills but that project managers, sales managers, electricians with relevant skills are also in demand.

The analysis confirms that the occupations in demand are by no means exclusively at the top of the skills hierarchy, with technician and trade roles also represented.

Civil engineer is at the top of the ranking; and drilling down to specific roles, examples include site engineers, geotechnical engineers – jobs within which environmental considerations are crucial when looking at developing sites etc.

Construction trades and operative roles are probably under-represented in the analysis because they are less likely to be advertised online than some other types of occupation. Nonetheless, they play an important role in aspects of the green agenda – for example in energy-saving retrofit operations (e.g. installation of insulation, double-glazing etc).

The analysis also shows that more specialised identifiably green roles are now coming to the fore, including environmental engineer, environmental scientist and water engineer.

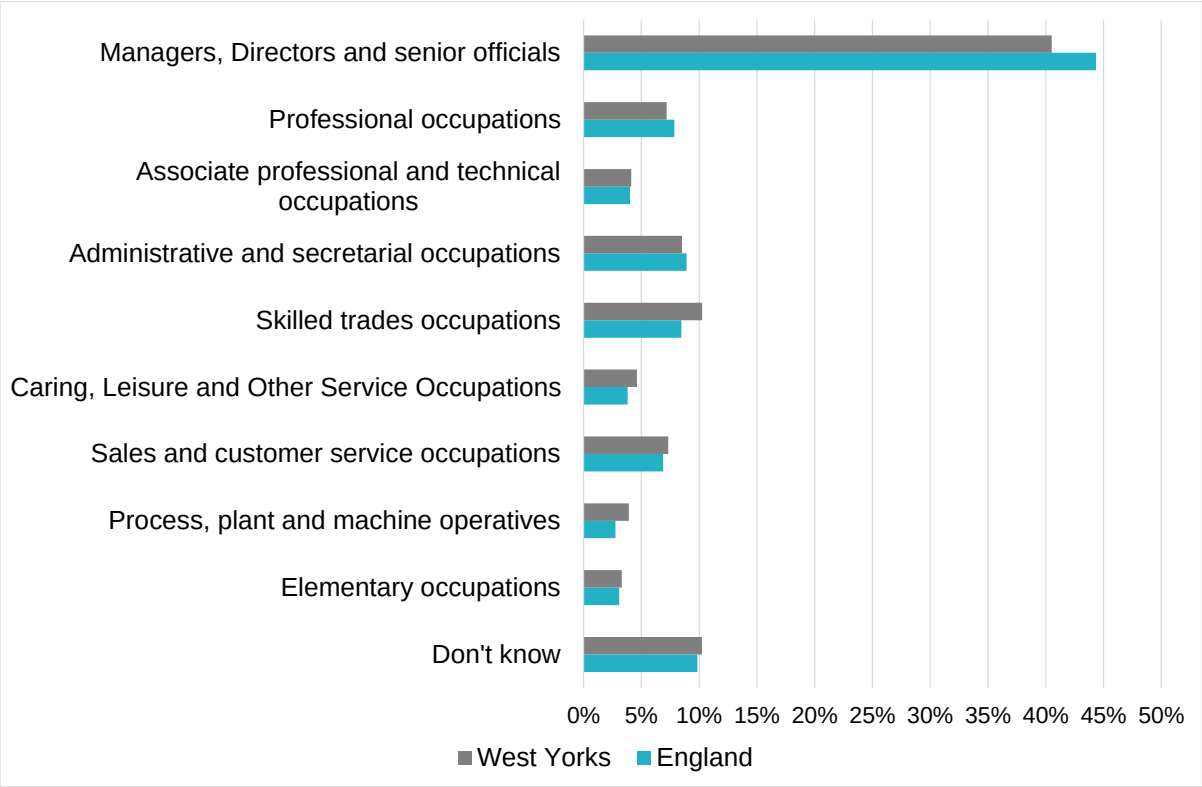
3.6 Upskilling needs

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.

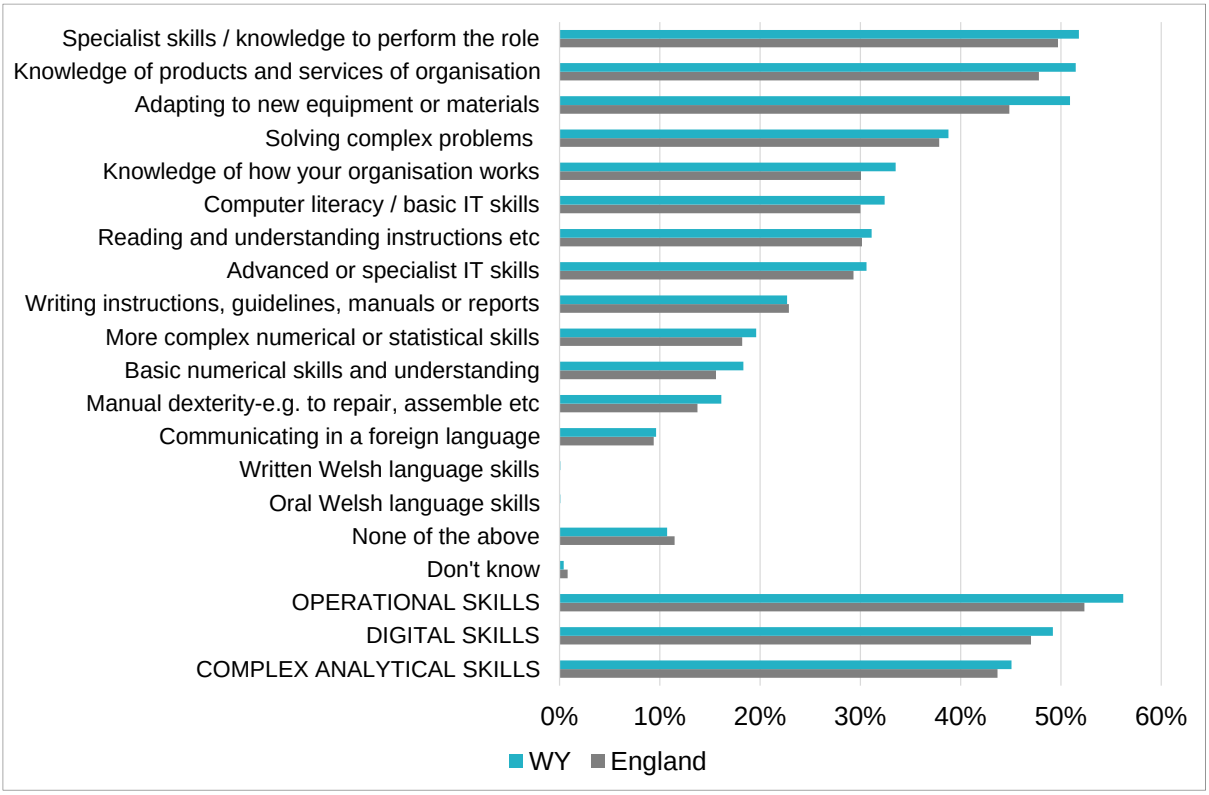
Figure 33: Occupation most affected by need for new skills, among employers who anticipate a need for new skills in next 12 months, West Yorkshire



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.

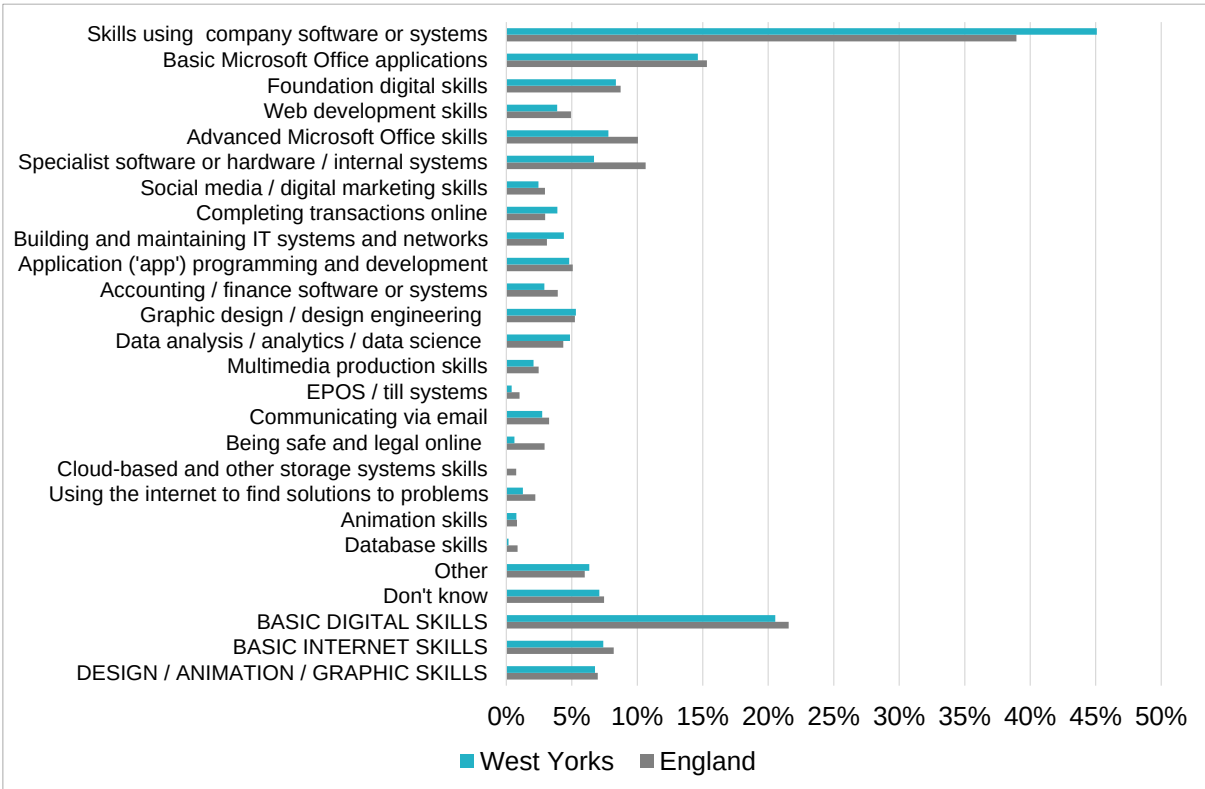
Figure 34: Skills that will need developing among workforce, West Yorkshire



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 35: 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.

3.7 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[19] 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.

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

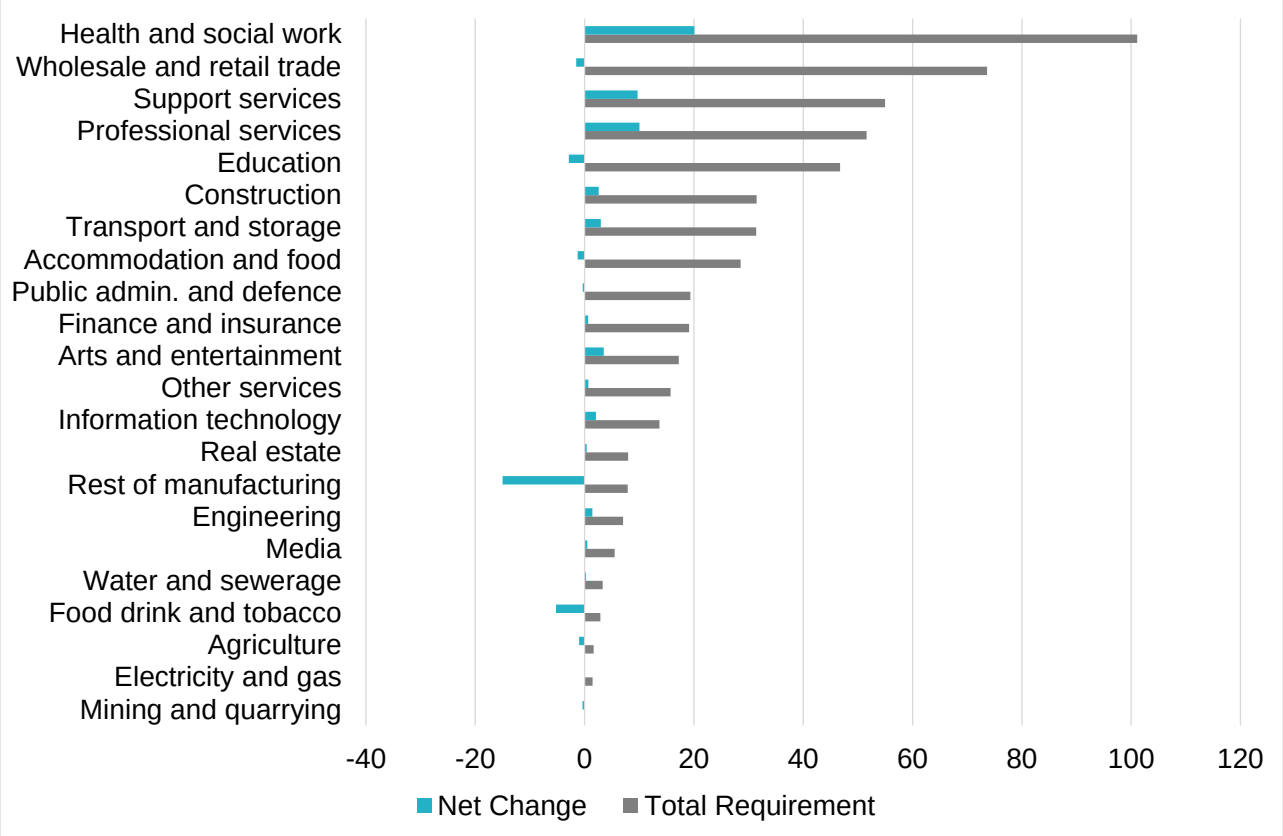
There are a number of aspects to consider: net change in the level of employment by sector and occupation; replacement demand and the net recruitment requirement.

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 36: Net employment change and net requirement by sector, 2017-2027, West Yorkshire



Source: Working Futures

The fastest rates of growth will be seen in 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.

COVID-19 and Brexit will undoubtedly impact on the accuracy of these forecasts. Some sectors could see a boost to forecast growth such as Health and social work, others may be impacted negatively, such as Arts and entertainment, Hospitality, Agriculture and parts of Manufacturing.

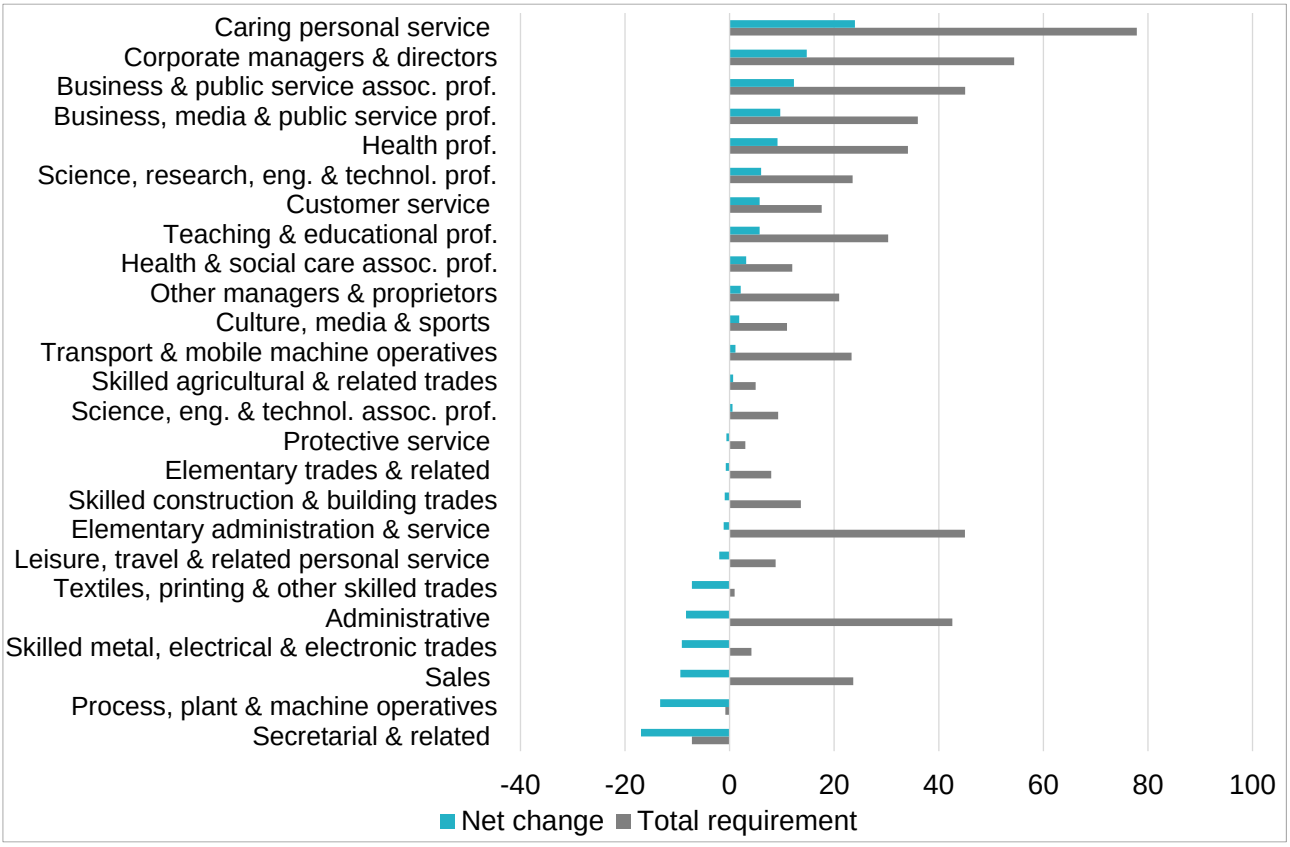
Retail employment could fall victim to an acceleration of existing structural change resulting from a decline of town and city centres and a shift to online shopping as well as technological change in the form of automation.

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 huge 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 37: 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 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.

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.

3.8 Automation

Understanding automation risk is all the more important in the context of COVID-19. Firstly, there is evidence to suggest that the effects of the crisis may accelerate the impact of automation on jobs[20]. Secondly, many workers may need to retrain for new roles as a result of the crisis. In selecting a fresh career path individuals need to understand how it susceptible it is to automation.

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

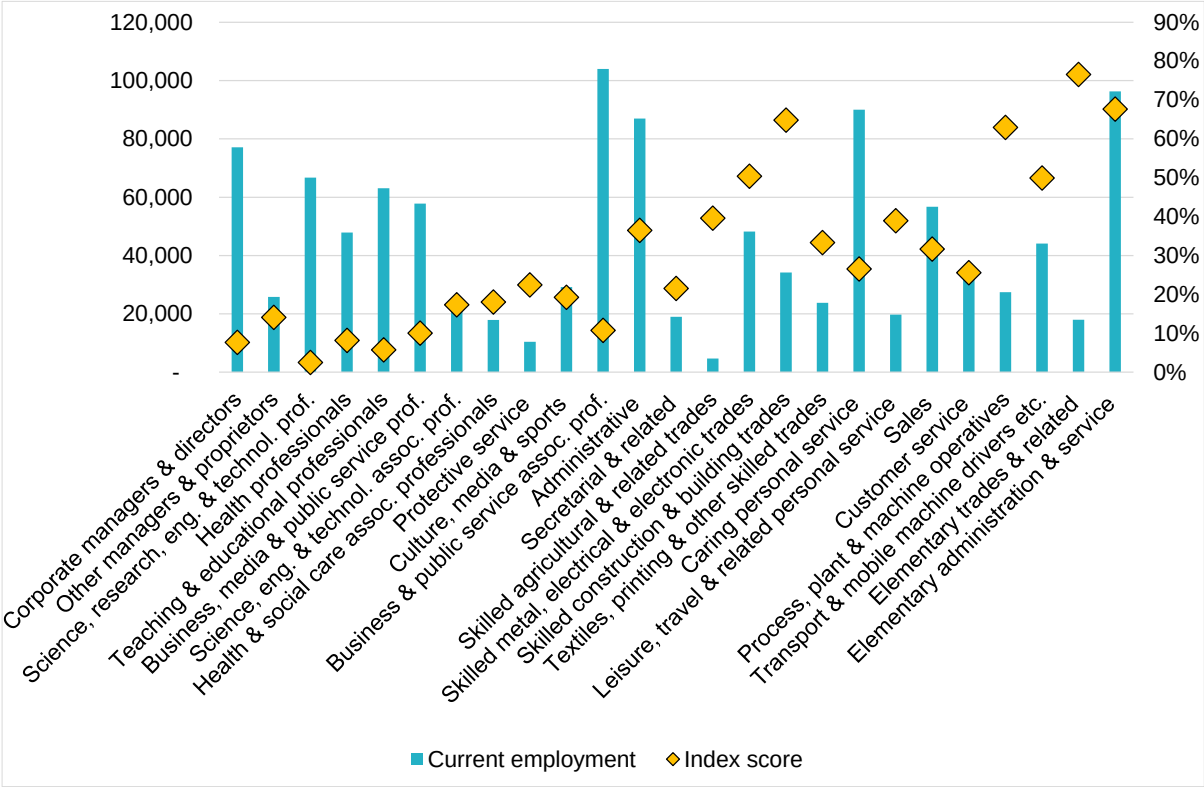
The figure, below, presents the current profile of occupational employment in West Yorkshire alongside the risk of automation for each occupation, based on EMSI's

[20] Sven Smit et al., 'The Future of Work in Europe: Automation, Workforce Transitions, and the Shifting Geography of Employment' (discussion paper, McKinsey & Company, London, 2020

Automation Index[21]. 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 into account 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.

Figure 38: Automation risk by occupation in West Yorkshire



Source: EMSI and Annual Population Survey, July 2019 to June 2020

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.

[21] 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.

Elementary occupations 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.

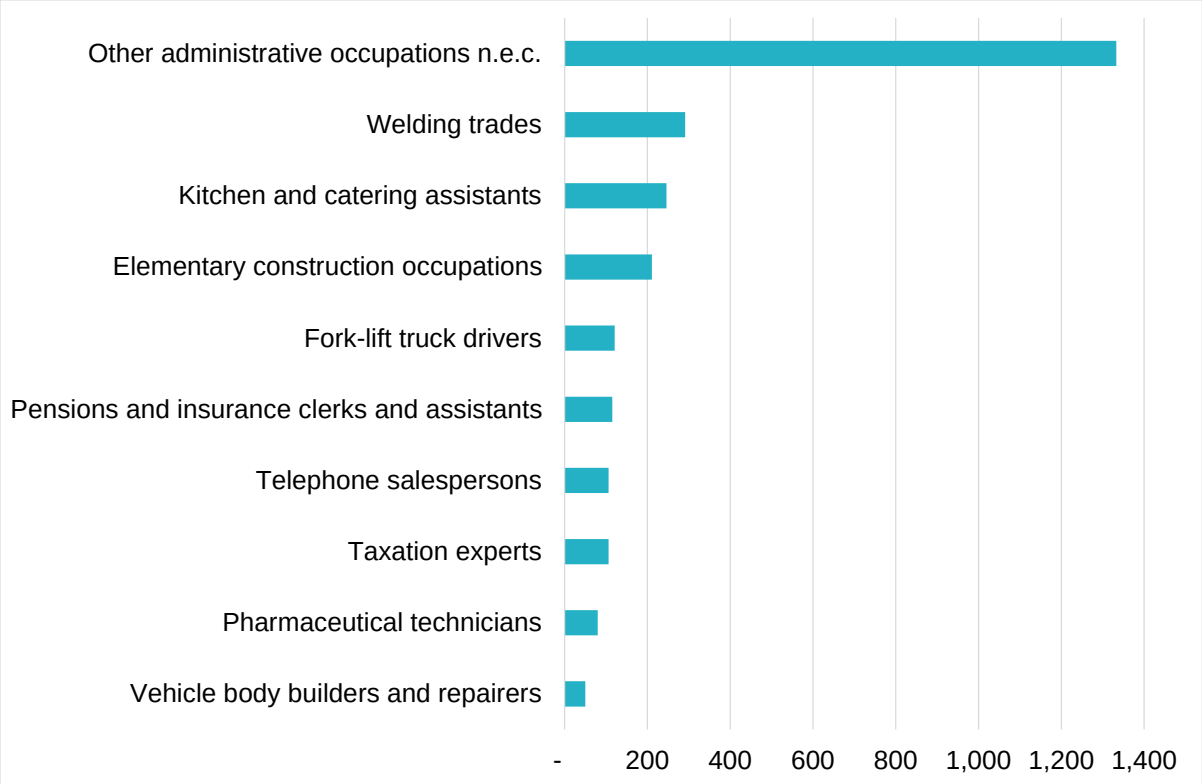
The nature of the Automation Index is such that it highlights occupations that are not only at risk of automation but also that present limited options for escaping the effects of automation by transitioning to similar occupations– workers in these roles face a situation in which their skills are required 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 judged to be at high 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[22] and also have a high (50%+) under the EMSI automation index.

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

Figure 39: Occupations at high risk of automation ranked according to volume of job postings, West Yorkshire



Note: Based on an analysis of online job postings for the period September 2020 to November 2020.
Source: Labour Insight, EMSI

It shows a variety of occupations at high risk, most notably administrative occupations ("Other administrative occupations" but including general admin assistant type roles), skilled trades (welders and vehicle body builders), elementary manual roles from construction and hospitality and operatives (fork lift truck drivers). The list is not confined to intermediate and lower-skilled occupations: taxation expert and pharmaceutical technician roles include a high proportion of tasks that have the potential to be codified and automated.

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.

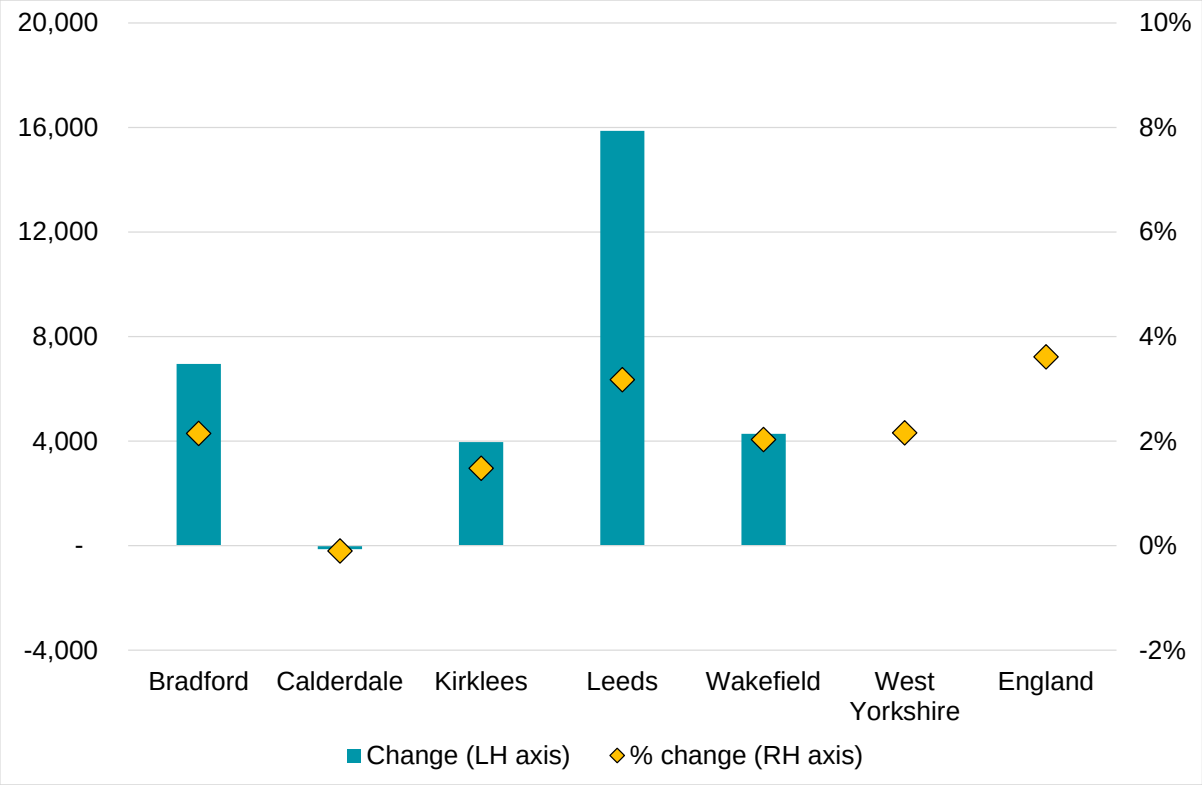
4.1 Demographic Trends

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 2,332,000 with 1,465,000 (63%) people of working age (16-64). The working age population of the area grew by 2% over the course of the last decade (2009 – 2019), less quickly than the national average, which saw an expansion of 4%. Four-out-of-five districts grew at a rate below the national average, whilst Calderdale's working age population remained static over this period.

Figure 40: Change in working age population by district, 2009 to 2019



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

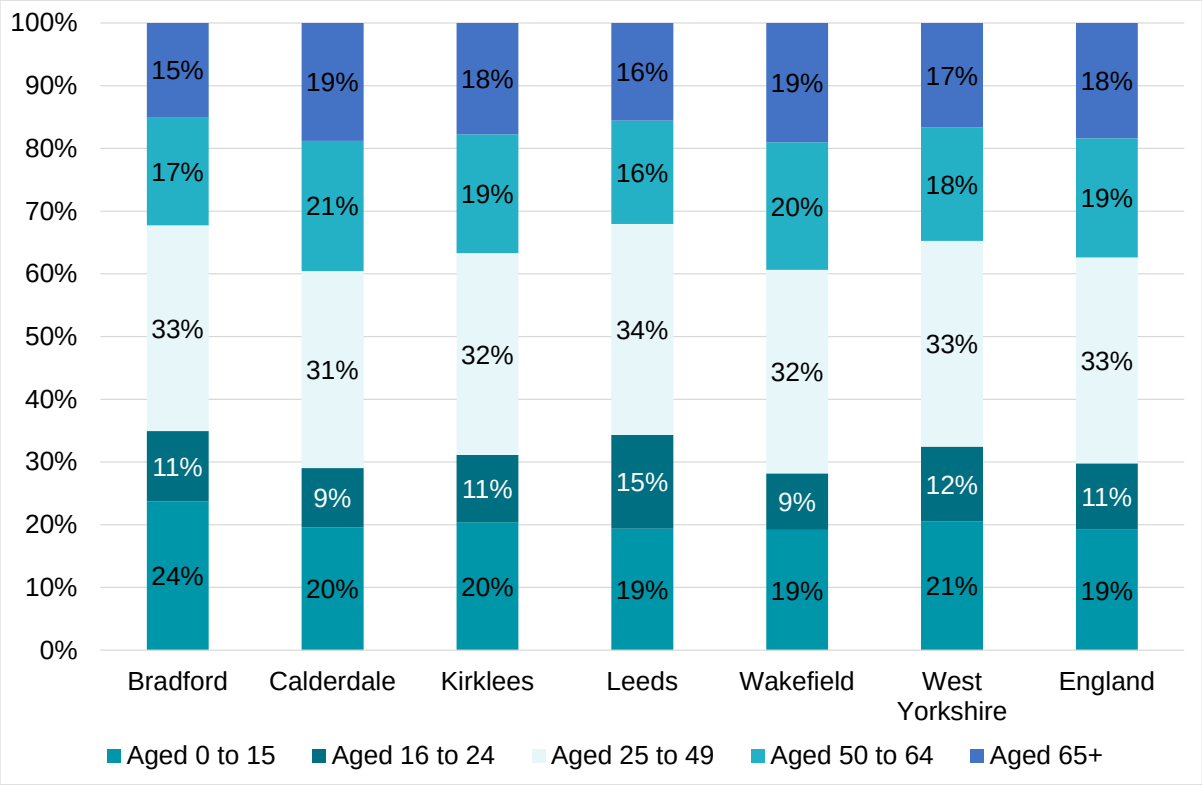
The age profile of West Yorkshire is broadly similar to the national picture, with 63% of the total population being of working age (16-64) compared to the national average of 62% and a median age of 38 locally, compared with an England average of 40.

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 and 16% are aged 50-64, 3 points lower than the England average share.

The populations of Calderdale and Wakefield are relatively old: both have a median age of 42.

Figure 41: Age profile of population, 2019



Source: Mid-year Population Estimates 2019, Office for National Statistics

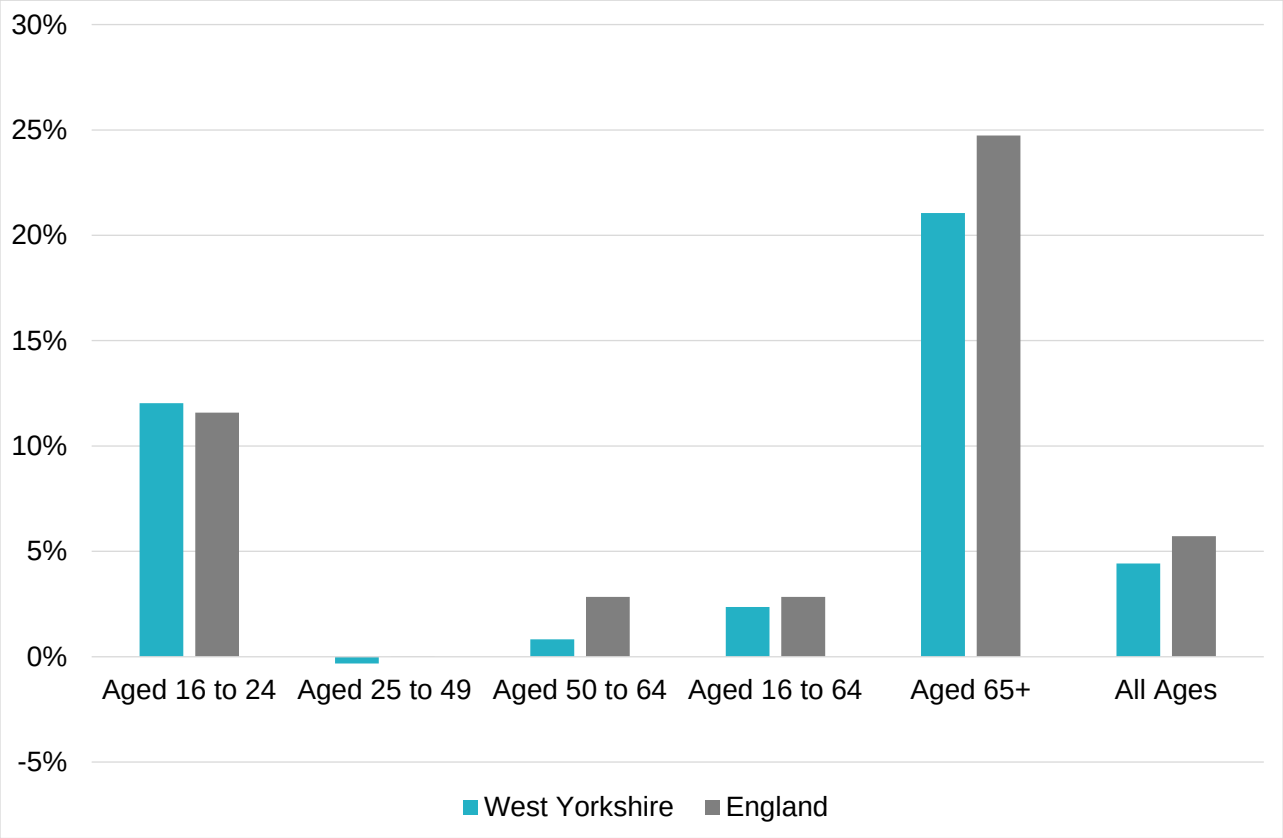
Population projections produced by ONS suggest that the number of people of working age in West Yorkshire will increase in the period to 2030, but at a slightly slower rate than the expected national position.

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. Much of this growth is driven by an increase in the number of young people aged 16-24 of 12%.

Meanwhile, the number of people aged 65 and over is expected to grow by 21% or 81,000.

Figure 42: 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.

4.2 Inclusive labour supply

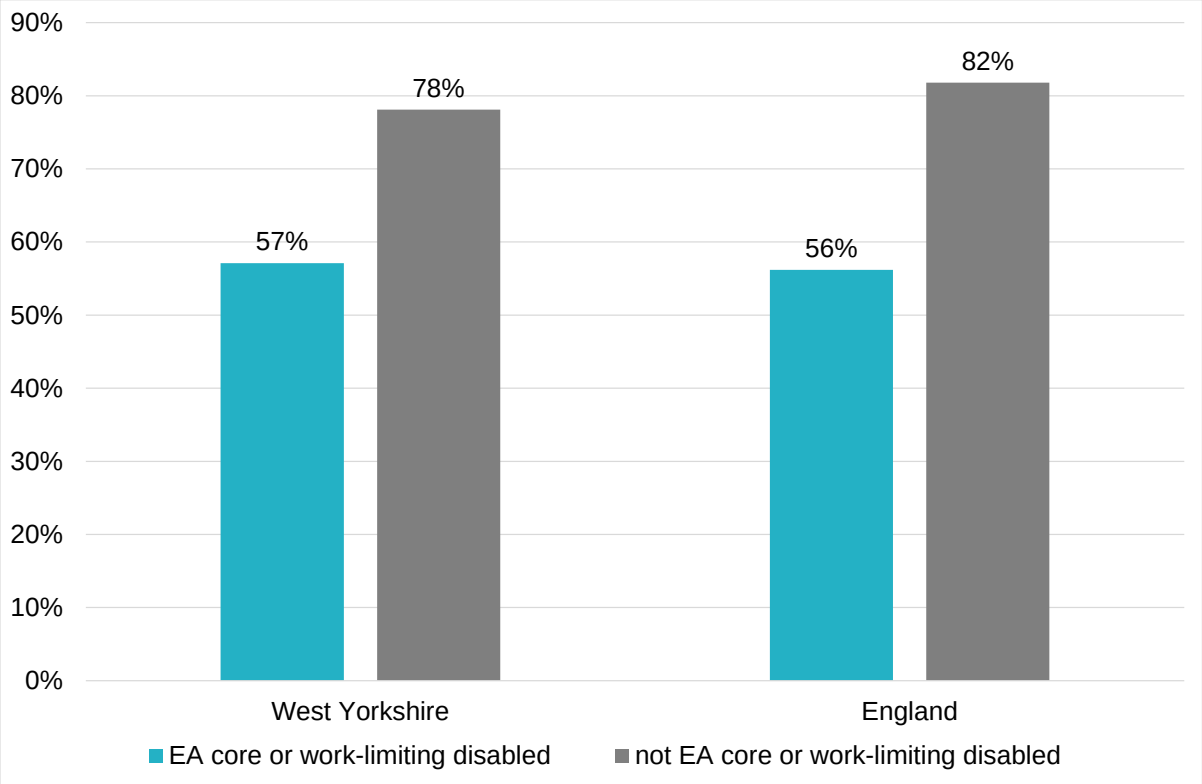
The LEP is committed to supporting local business to develop an inclusive and diverse workforce. A key challenge in this area is the employment rate gap faced by specific groups in the labour force. As well as acting as a limitation on individual opportunity, this also constrains the labour supply available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

Around 336,000 people of working age in West Yorkshire are Equality Act core or work-limiting disabled[23], equivalent to 23% of the total working age population and somewhat above the national average of 21%. The proportion of people who are disabled varies at

[23] 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.

local authority level: the figure is below average in Bradford (22%) and above average in Wakefield (27%).

Figure 43: Employment rate by disability status



Source: Annual Population Survey, July 2019 to June 2020

The proportion of disabled people in employment is well below the rate for those who do not have a disability, at 57% and 78% respectively - a gap of 21 percentage points. The local employment rate for disabled people is similar to the national average but four points lower for people who are not disabled, meaning that the local employment rate gap is lower than the national average, at 21 points versus 26 points. The employment rate gap for disabled women is somewhat lower than for men at 18 points compared with 23 points.

The employment rate for disabled people differs across the five West Yorkshire local authority areas, from 51% in Wakefield and 52% in Bradford to 65% in Leeds.

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 2020, a net increase in absolute terms of 1.1m people in employment (37% increase). In West Yorkshire, the rate increased by 12 points over the same period, with a net increase of 60,000 disabled people in work, a 46% increase.

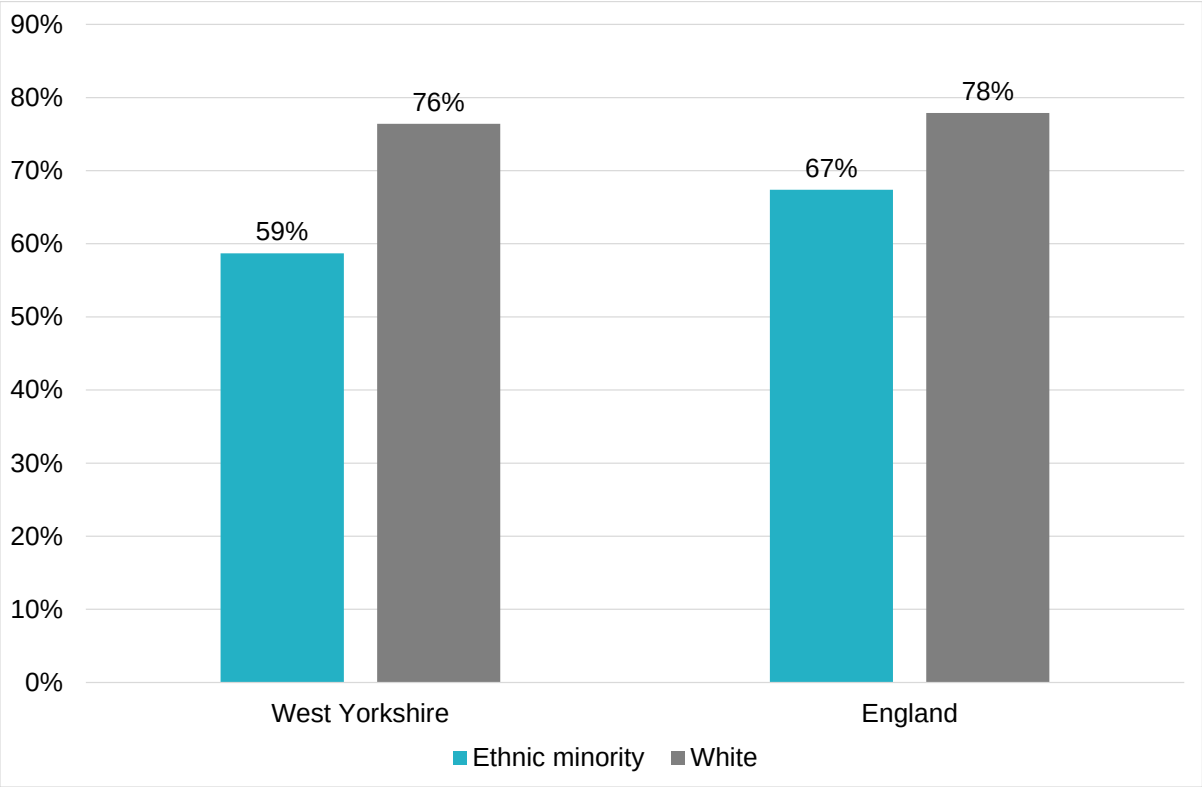
It is also notable that the majority of disabled people in employment are women, at 56% of the total. This reflects the fact that there are more working age women with disabilities than men both nationally and locally.

Figure 44: People from ethnic minorities face an employment rate gap

253,000 people of working age in West Yorkshire are from an ethnic minority, 23% of the total working age population and higher than the national average of 16%.

The bulk of the ethnic minority population is concentrated in the three districts of Bradford (42% of the West Yorkshire total), Leeds (29%) and Kirklees (19%).

Figure 45: Employment rate by ethnicity



Source: Annual Population Survey, July 2019 to June 2020

The employment rate gap for this group is 18 points locally, much wider than the national gap of 11 points. Again, the employment rate varies at local authority level. For example, the ethnic minority employment rate in Leeds is 65% but is only 54% in Bradford.

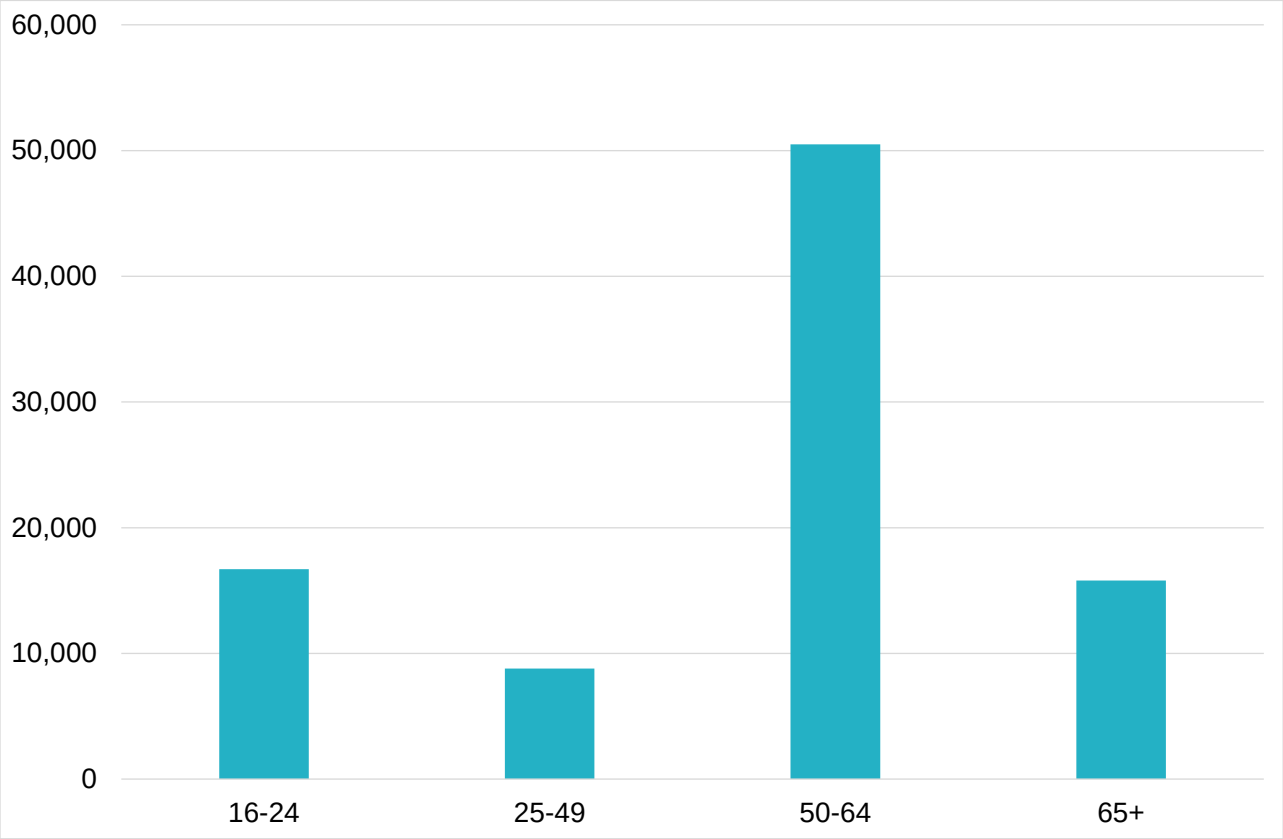
The Pakistani / Bangladeshi ethnic group is the largest in West Yorkshire, accounting for 49% of the working age population. This group also has a relatively low employment rate of 55%.

Much of the employment rate gap for people from ethnic minorities is due to the gap for ethnic minority females, which stands at 25% (73% versus 47%) compared with 10% for males (80% versus 71%). A key factor behind this gap is low economic activity rates among Pakistani / Bangladeshi females.

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.

Figure 46: Net change in employment by age band, 2012/13 to 2019/20, West Yorkshire



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

Between 2012/13 and 2019/20, total employment in West Yorkshire saw net growth of 76,000 or 8%. 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 50,000, equivalent to two-thirds of total employment growth over this period. Whereas the number of people in employment aged 50-64 increased by 20%, for 16-24 year olds it was 13% and for 25-49 the number employed remained virtually static. The number of people aged 65 and over increased fastest – by 77% - but from a small base. The over-50s now account for almost a third (31%) 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 72%, 10 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[24].

4.3 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.

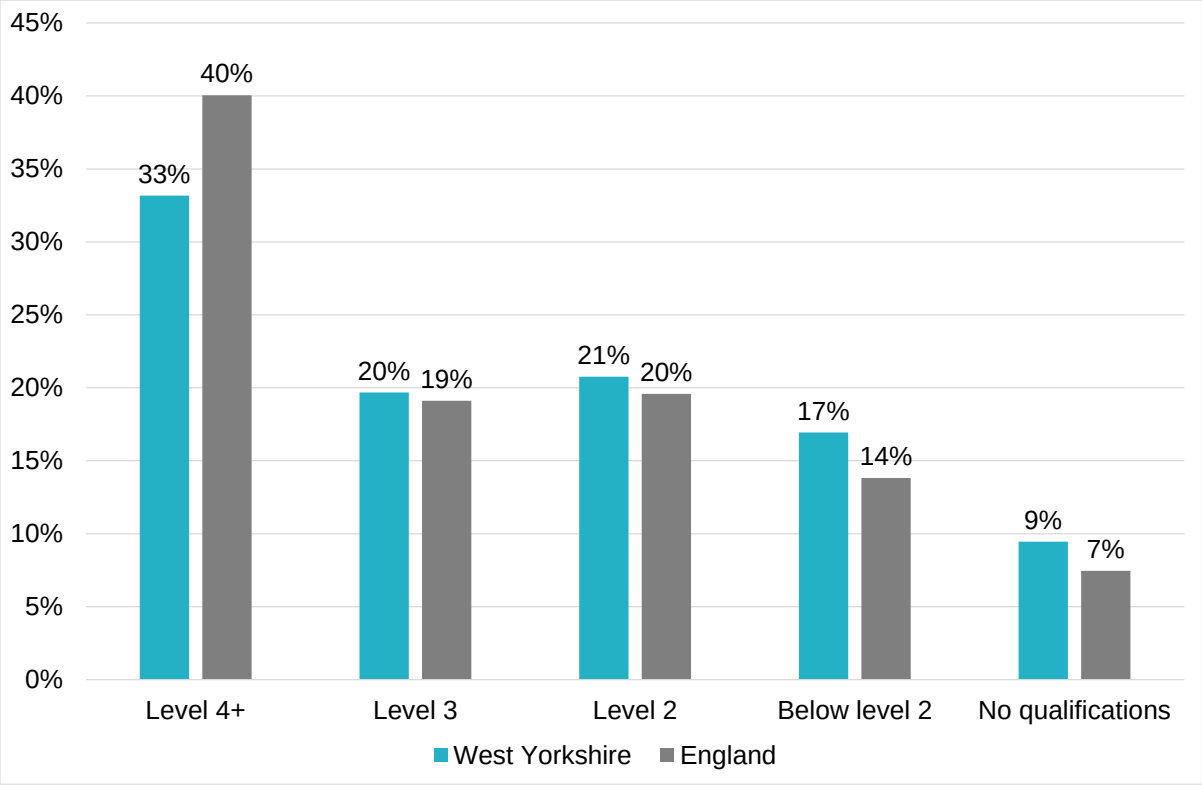
West Yorkshire has fewer people qualified at Level 4 and above than nationally

West Yorkshire is seven points below the national average with regard to the proportion of its working age population qualified to a higher level – Level 4 and above. Instead, its qualification profile is skewed towards people with no qualifications or who are qualified at the lowest level (below Level 2). In absolute terms these percentage differences are equivalent to 100,000 fewer people locally with qualifications at Level 4 and above and 74,000 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.

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

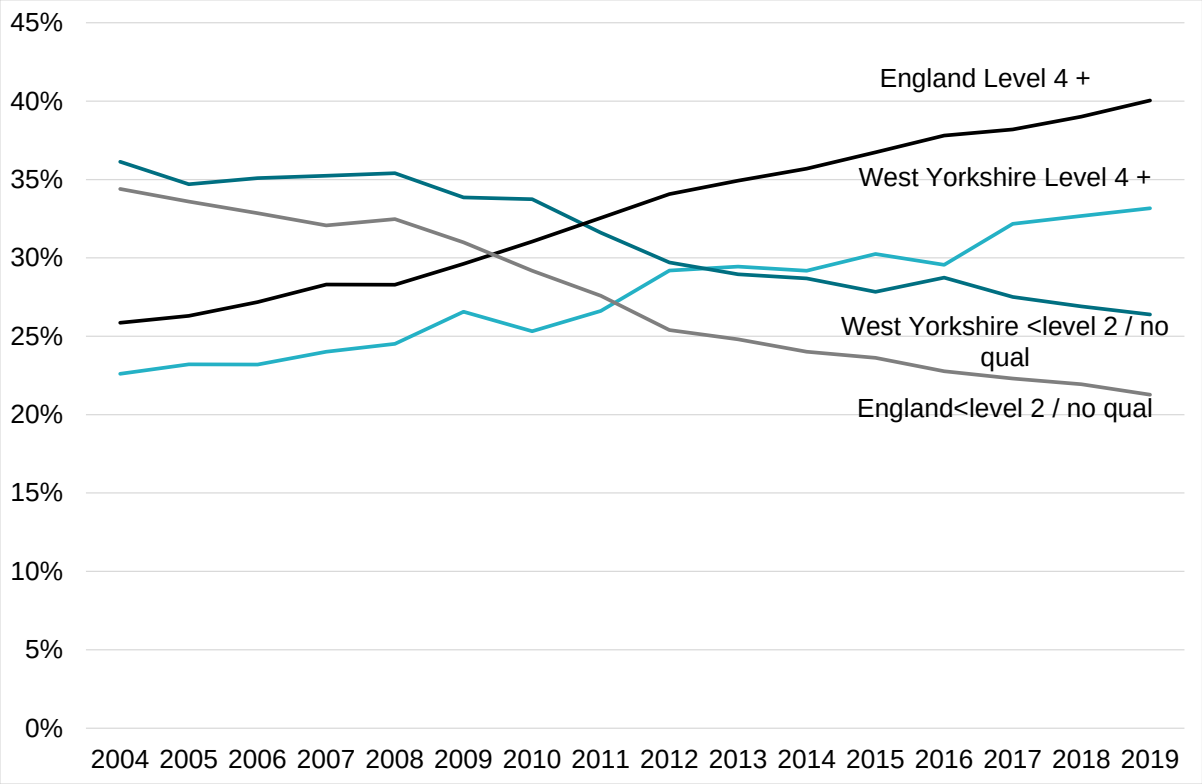
Figure 47: Profile of highest qualification held by working age (16-64) population, 2019



Source: Annual Population Survey, January – December 2019

In 2019 the proportion of people of working age in West Yorkshire qualified at level 4 and above saw no change, remaining at 33%. This follows a 1 percentage point improvement in 2018. Meanwhile the national average (England) saw a small improvement of 1 point in 2019 to 40%, resulting in a widening of the gap between the local and national position.

Figure 48: Trend in in proportion of working age population qualified at Level 4+ versus proportion with no qualifications / qualified below Level 2

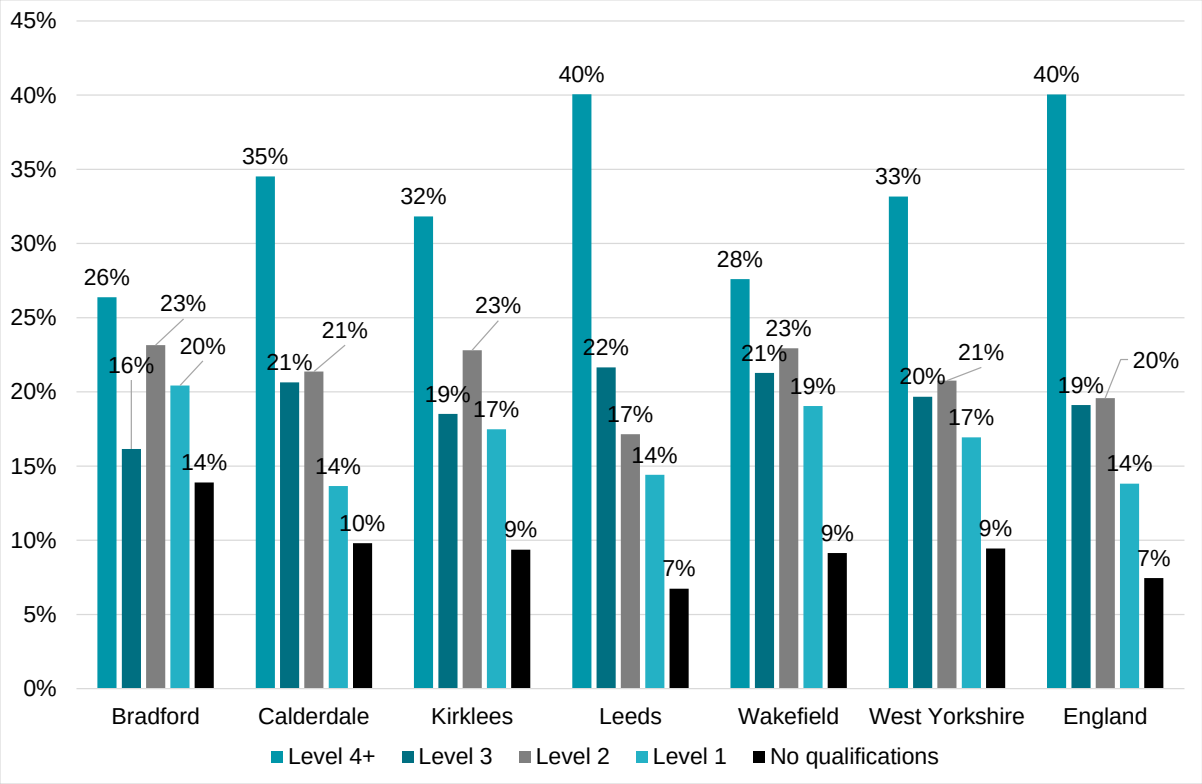


Source: Annual Population Survey

More than a quarter (26%) of the working age population are qualified below Level 2 or hold no qualifications, compared with 21% nationally but this is on a downward trend. The proportion of working age people with no qualifications in West Yorkshire also remained the same in 2019, although it did fall by 3 points in the previous year. In spite of ongoing improvements in West Yorkshire's qualification profile there is no evidence that the gap with the national average is narrowing.

The overall qualification profile of West Yorkshire conceals marked differences at district level. For example, the proportion qualified at level 4 and above is similar to the national average in Leeds. Conversely, in Wakefield it is 12 points lower (at 28%) and 14 points lower in Bradford (at 26%). Moreover, 14% of the working age population in Bradford have no formal qualifications, twice the national proportion.

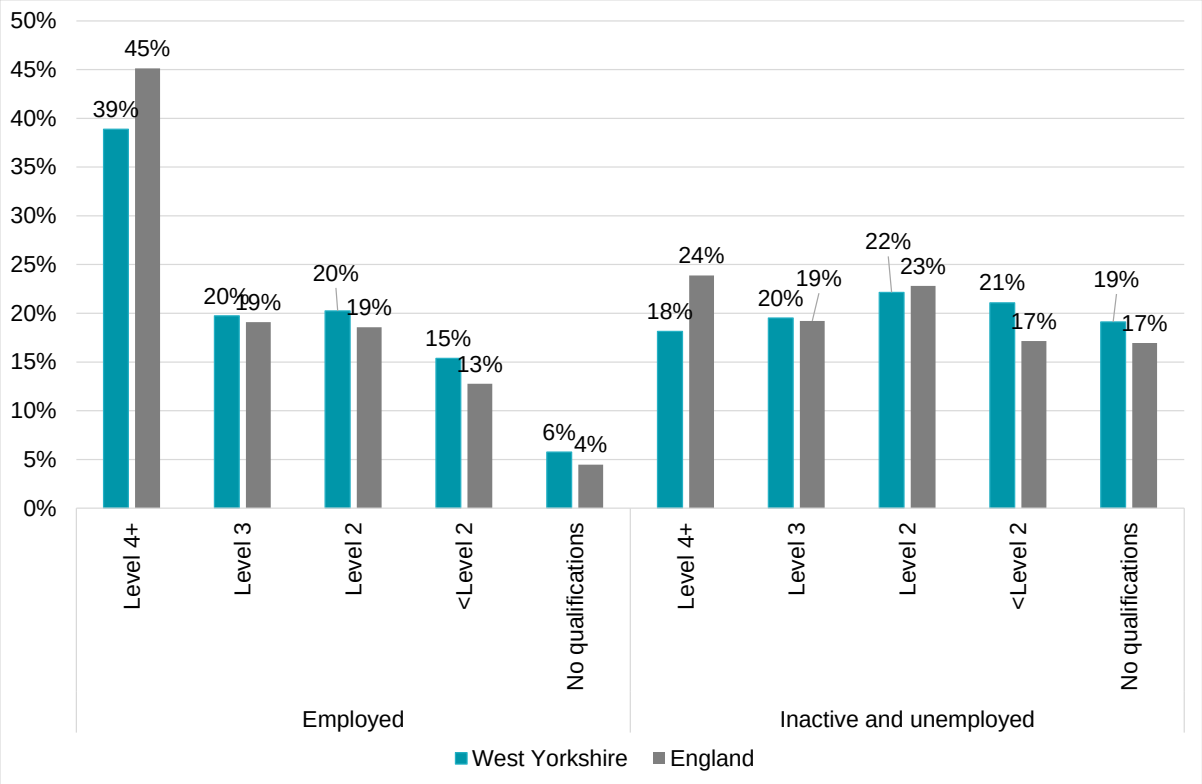
Figure 49: Profile of highest qualification held by working age (16-64) population by local authority area, 2019



Source: Annual Population Survey, January to December 2019

The deficit with the national average in terms of qualification performance applies to people in work as well as the unemployed and inactive. The main 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 6 points lower than nationally, whilst the equivalent gap for the employed is also 6 points.

Figure 50: Profile of highest qualification held by working age (16-64) population by economic status, 2019



Source: Annual Population Survey, January – December 2018

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

West Yorkshire's qualification deficit is likely to have implications for the recovery from the COVID-19 crisis. Lower qualified people who become unemployed are likely to find it more difficult to reskill for alternative career opportunities, particularly since COVID-19 seems to be reinforcing the trend towards more skills intensive employment.

4.4 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 into the in-flow into the labour market of qualified people.

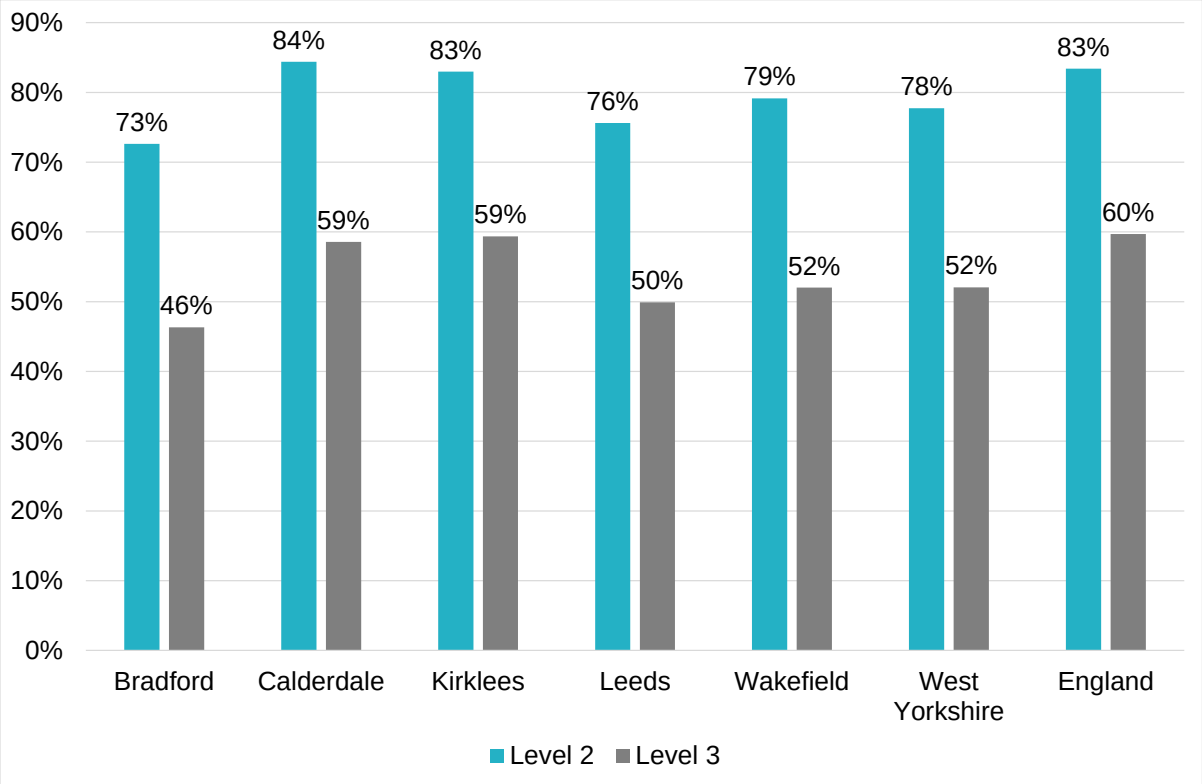
As noted above, the qualification profile of West Yorkshire's population is relatively poor, with a smaller proportion of people qualified at level 4 and above than nationally and a greater proportion with no qualifications or qualified below level 2. Although there is some evidence to show that much of this gap is due to the qualification profile of adults already in the labour force, data relating to the qualifications of young people at age 19 suggests 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 78%, 5 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, 10 points behind the national average, whilst Leeds is 6 points behind on 76%.

This underperformance at level 2 feeds through into a wider gap at level 3. Only 52% of young people have achieved level 3 by the age of 19, 8 points below the national average of 60%. Again, Calderdale and Kirklees perform close to the national average but Bradford is 14 points behind the average at 46%.

Figure 51: Proportion of young people achieving qualifications at level 2 and level 3 equivalent by age 19 in 2019



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.

4.5 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[25] 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.

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

Figure 52: 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

4.6 Apprenticeships

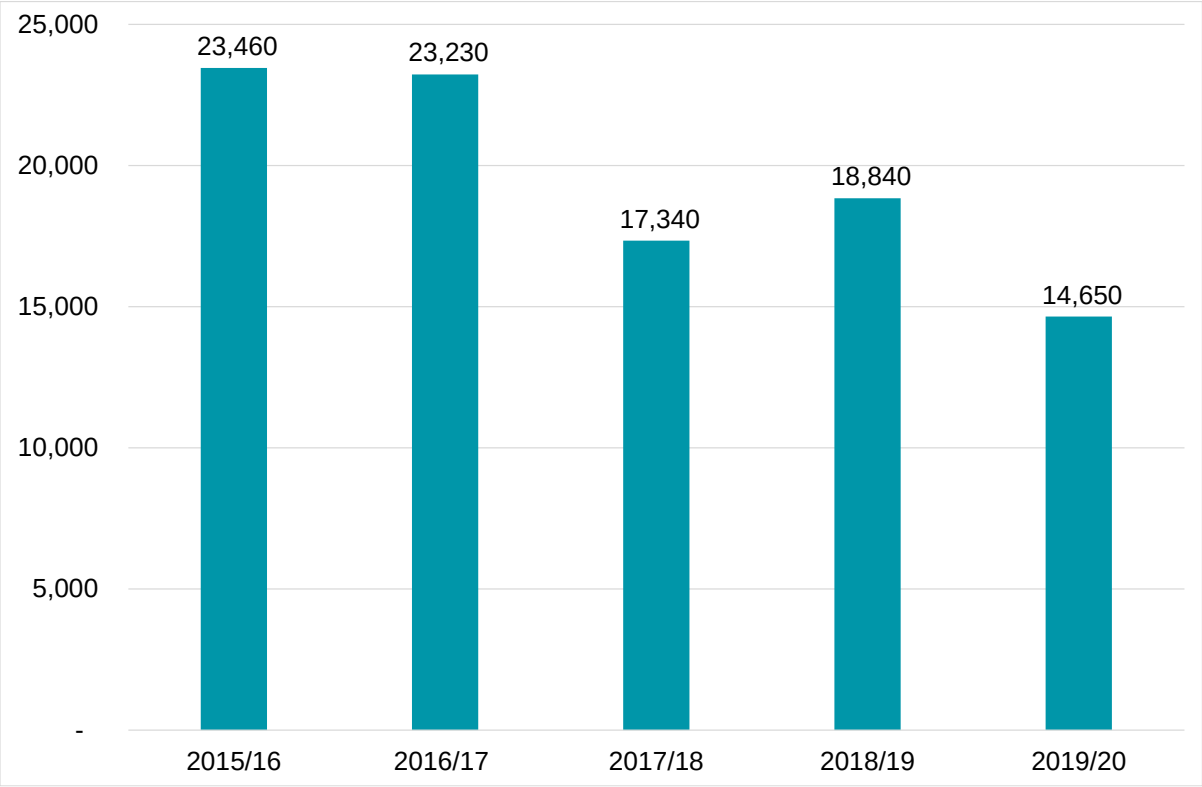
Apprenticeships are a key means for employers to grow their own skills and to address their specific needs, particularly in areas of skills shortage, as well as providing workers with a sustainable career pathway.

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

There were 14,650 apprenticeship starts in West Yorkshire in the academic year. Starts fell by 4,190 (-22%) compared with the previous year, somewhat faster than the England average rate of -18%. This follows an increase of 9% in 2018/19 and a decline of 25% in 2017/18. Local starts in 2019/20 were therefore 38% lower than at their peak in 2015/16.

Levy-funded starts accounted for 60% of the total in 2019/20, increasing from 57% in the previous year and 48% in 2017/18. Levy-funded starts saw a smaller reduction than other starts in 2019/20, falling by 13%, compared with 30% for non-levy starts. More than three quarters of both higher apprenticeships and adult apprenticeships were levy-funded but the proportions for intermediate and under-19 apprenticeships were only 54% and 34% respectively.

Figure 53: Trend in total apprenticeship starts, West Yorkshire

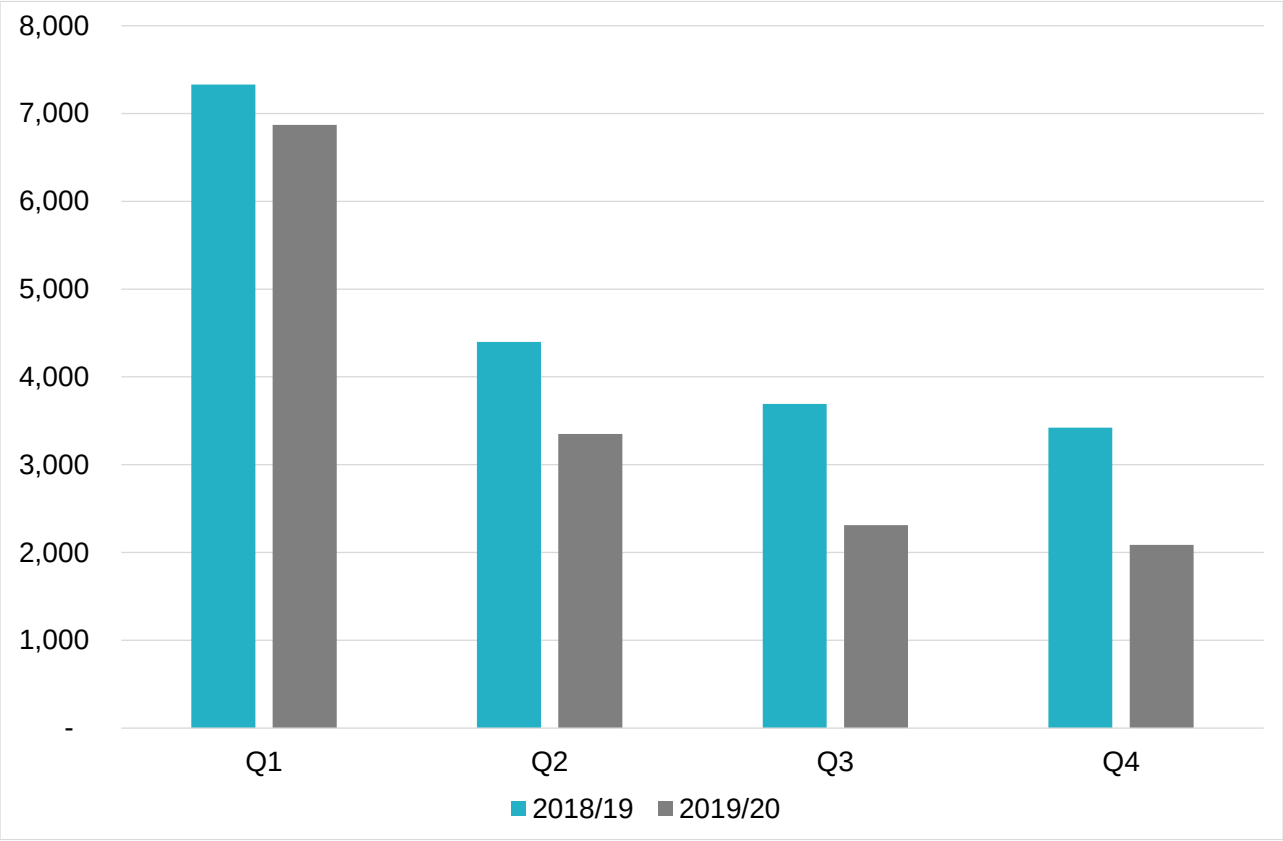


Source: Department for Education

During 2019/20, there were 6,660 apprenticeship achievements in West Yorkshire, a fall of 20% on 2018/19.

The decline in starts and achievements was associated with the impact of COVID-19 as the imposition of lockdown resulted in the closure of colleges and some employers were unable to start or continue apprenticeships as planned.

Figure 54: Apprenticeship starts by quarter – comparison of academic years for West Yorkshire



Source: Department for Education

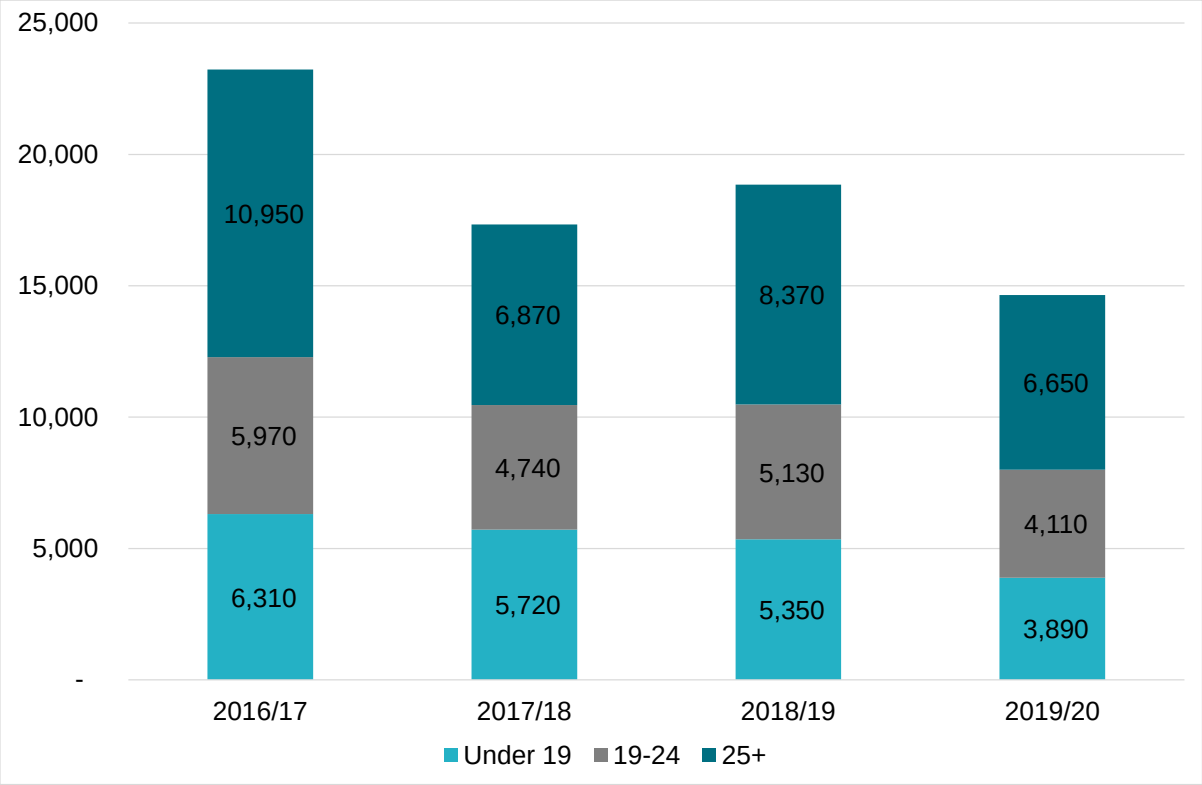
The decline in starts was mainly felt in quarters 3 and 4 of the academic year (March to May and June to August), reflecting the impact of the pandemic. Although starts were near to the previous year's level in quarter 1 of the academic year, they fell to 63% of the previous year's level in quarter 3 and only 61% in quarter 4. This gives an indication of the likely impact of subsequent restrictions on starts in the 2020/21 academic year.

Age

During 2019/20, 45% of starts were for apprentices aged 25 and over, with the remainder split fairly evenly between under-19s and 19-24 year olds.

Starts among the under-19s fell most rapidly in 2019/20 – by 27% compared with 20% for 19-24 year-olds and 21% for those aged 25+. All age bands saw a sharper decline than nationally (under-19: -22%; 19-24: -18%; 25+: -16%).

Figure 55: Trend in apprenticeship starts by age, West Yorkshire

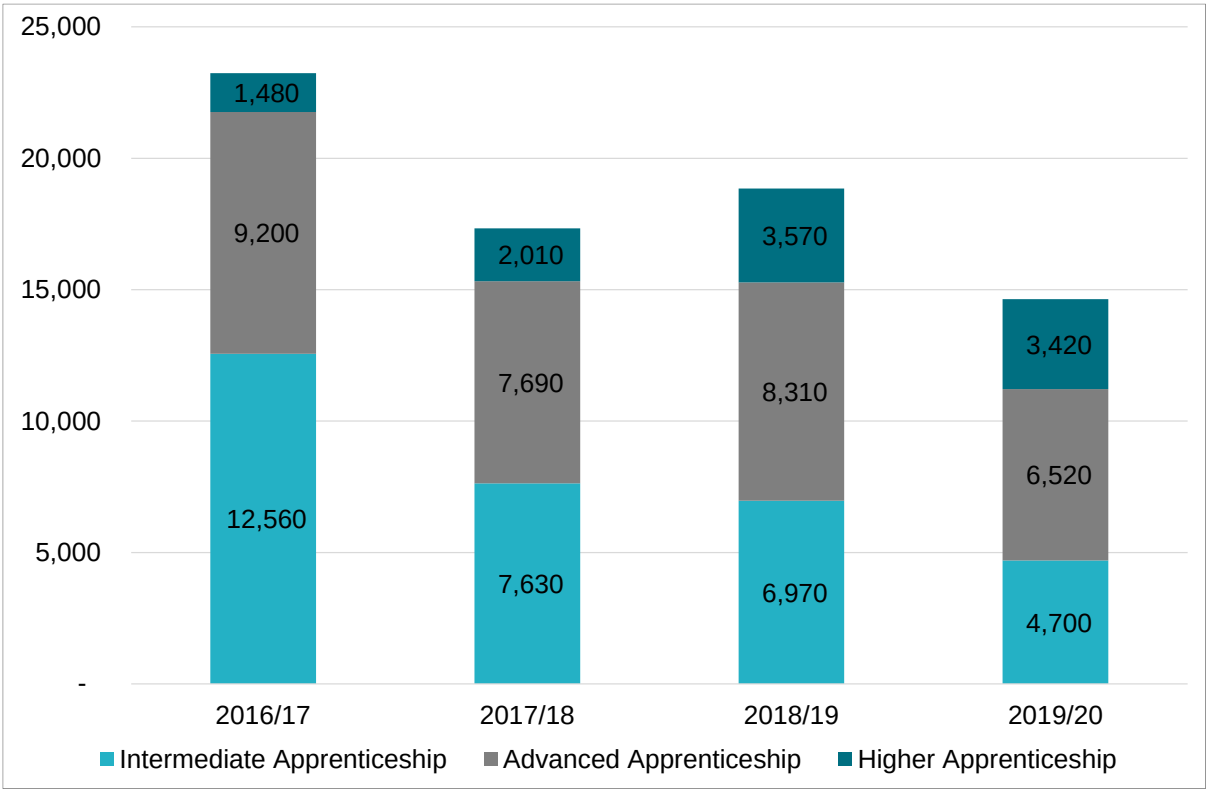


Source: Department for Education

Level

During 2019/20, 32% of total starts were intermediate apprenticeships (down from 37% in the previous academic year and from 54% in 2016/17), advanced apprenticeship starts contributed 45% (similar to the previous year) and higher apprenticeships 23% (up from 19% in 2018/19 and only 6% in 2016/17).

Figure 56: Trend in starts by level, West Yorkshire



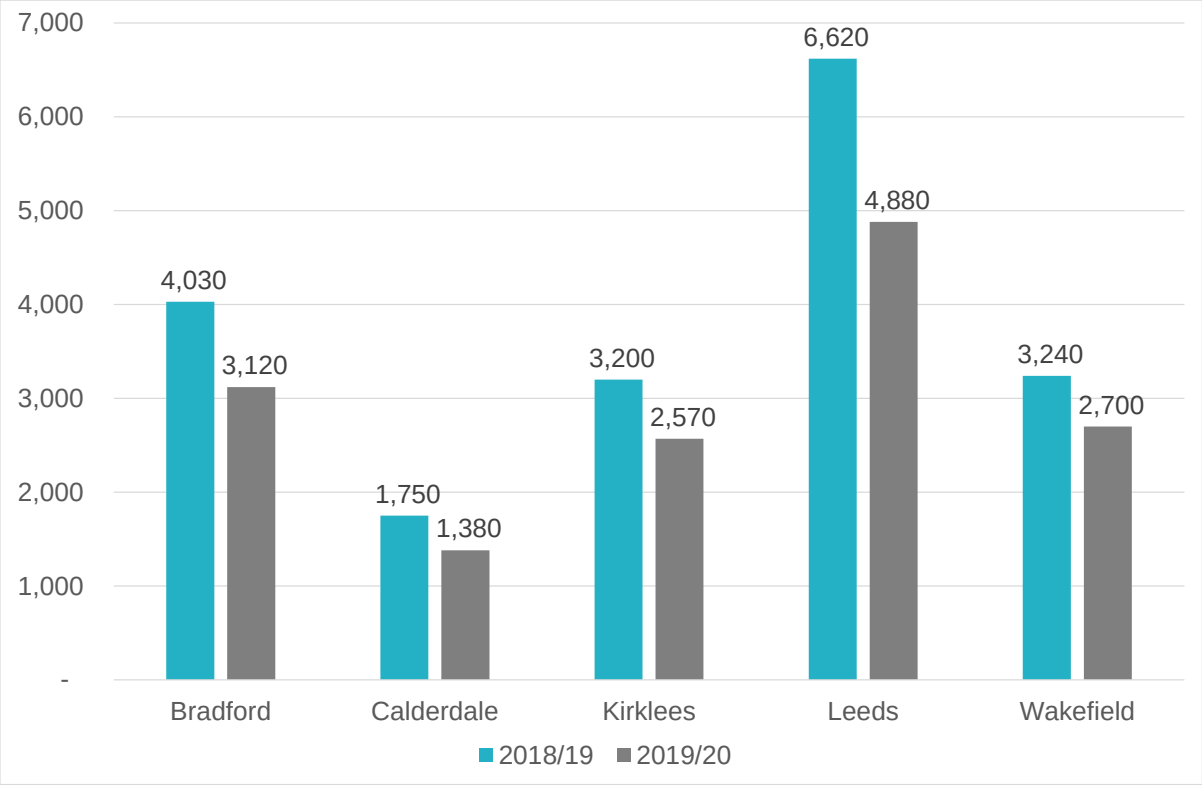
Source: Department for Education

This change in shares reflects a sharp decline in intermediate apprenticeship starts (by 2,270 or -33%), whilst advanced apprenticeships fell at the average rate (-1,790, -22%) and higher apprenticeships saw only a small decline (-150, -4%). West Yorkshire underperformed the national average at all levels in 2019/20 (England rates: -31%, -19%, +10% in ascending order of level).

Districts

Based on location of learner residence, Leeds contributed the greatest number of apprenticeship starts during 2019/20 (33% of the West Yorkshire total) followed by Bradford (21%), Kirklees (18%), Wakefield (also 18%) and Calderdale (9%).

Figure 57: Change in total apprenticeship starts by local authority



Source: Department for Education

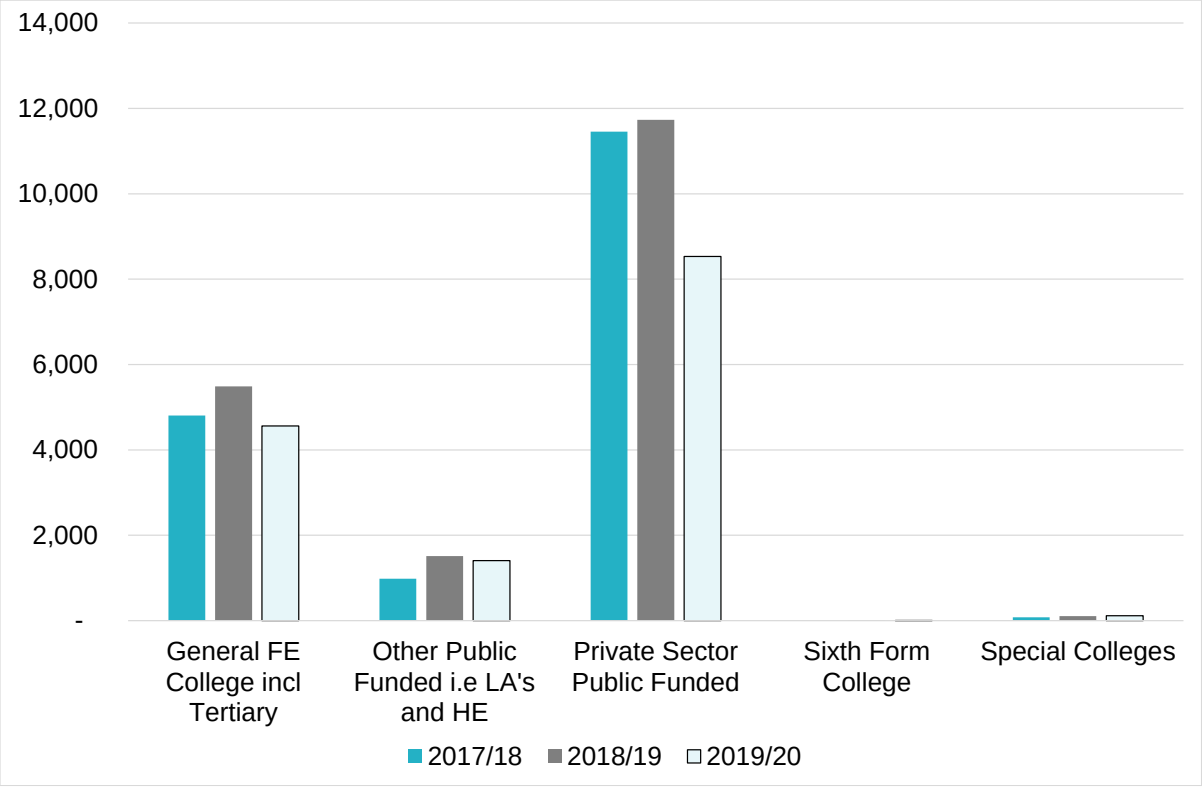
All districts saw a decline in starts in 2019/20, ranging from -17% in Wakefield to -26% in Leeds. The other districts were close to the average decline for West Yorkshire (Bradford:-23%, Calderdale: -21%, Kirklees: -20%).

Providers

Private-sector public funded providers delivered 8,532 apprenticeship starts in West Yorkshire in 2019/20, a majority (58%) of total starts. This figure represents a decline of 27% on the previous academic year, slightly higher than the overall decline of 22%.

General FE colleges contributed 4,563 starts, 31% of the total. College starts fell by 17% compared with 2018/19.

Figure 58: West Yorkshire apprenticeship starts by provider type



Source: Department for Education

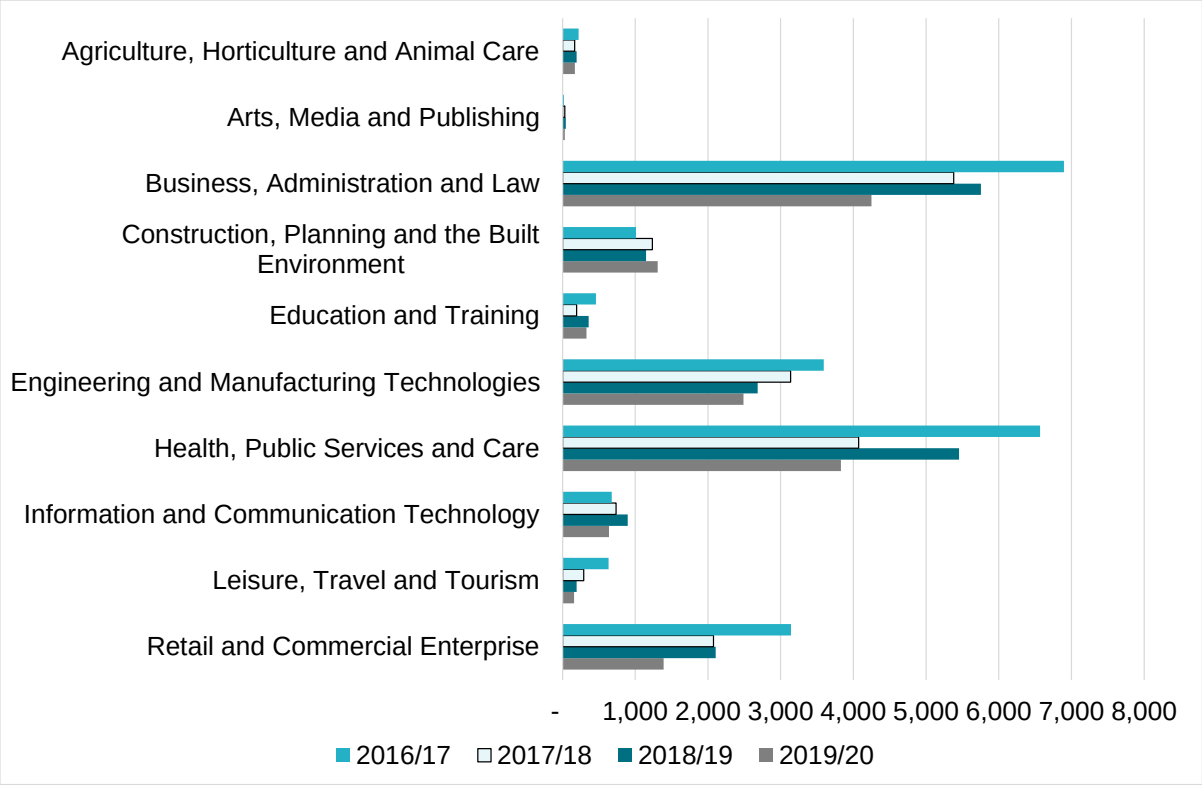
Other publicly funded providers (including local authorities and HEIs) were responsible for 10% of total starts but saw a fall of only 7% year on year.

Subject area

The three largest subject areas in terms of starts in 2019/20 were *Business, Administration and Law*, *Health, Public Services and Care* and *Engineering and Manufacturing Technologies.* The table, below, provides details of the most in-demand apprenticeships by subject area in West Yorkshire.

All but one of the 11 Tier 1 sector subject areas saw a decline in the number of starts in 2019/20 – the exception being *Construction*, which grew by 14% (+160 starts). The subjects seeing the most significant falls were *Health, Public Services and Care* (-1,620; -30%), *Business, Administration and Law* (-1,500; -26%), *Retail and Commercial Enterprise* (-720; -34%) and *Information Technology* (-260; -29%), *Engineering and Manufacturing Technologies* did better than average with a fall of -7% (-190) in 2019/20 but this follows several years of decline in this subject.

Figure 59: Trend in apprenticeship starts by sector subject area, West Yorkshire



Source: Department for Education

Drilling down into Tier 2 subject areas, a number of categories saw strong growth during 2019/20:

- Nursing and subjects and vocations allied to medicine (+210; +269%)
- Building and construction (+136; +12%)
- Teaching and lecturing (+45; +45%)

Conversely, some subject areas of substantial size in terms of starts experienced rates of decline that exceeded the average, including:

- Health and social care (-1,285, -37%)
- Administration (-829; -39%)
- Hospitality and Catering (-276; -39%)
- Retailing and wholesaling (-234; -43%).

Some features of the pattern of change at this level perhaps 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. As noted in the section on demand, above, there has also been a decline in job openings for administrative roles.

The number of apprenticeship starts for young people (aged under 25) saw particularly large falls in the subjects of Administration (-677; -40%), Health and social care (-501; -39%); Child development and well-being (-295; -31%); and ICT (-204; -34%).

Table 1: 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. Higher apprenticeships are a relatively small element of apprenticeship provision but have starts have been growing strongly prior to 2019/20.

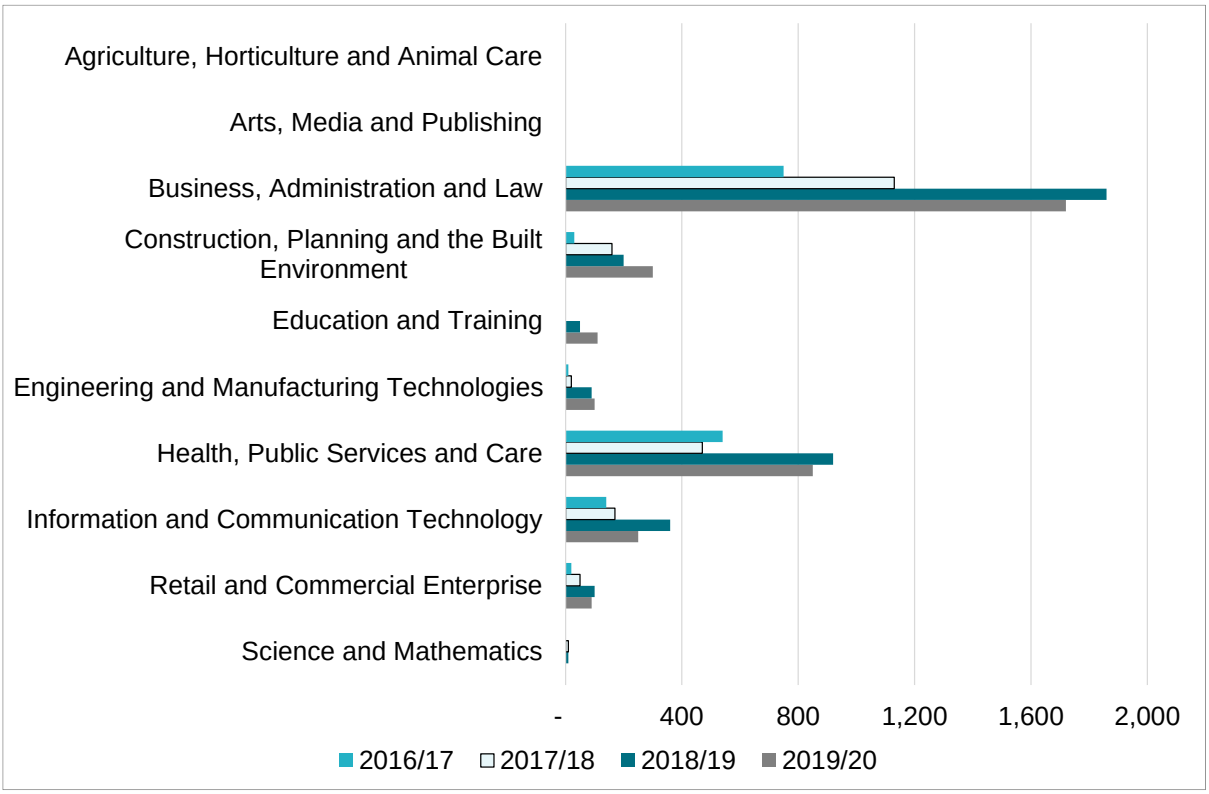
As noted above, the number of higher apprenticeship starts in West Yorkshire decreased by 4% in 2019/20, giving a total of around 3,400 starts during the academic year.

Apprenticeships at levels 6 and 7 grew in terms of starts, by 27% and 26% respectively; but starts at levels 4 and 5 declined in both cases, by 8% and 22% respectively.

The biggest subject areas in terms of starts all declined: *Business, Administration and Law* (primarily comprising *Management* apprenticeships) fell by 140 (-7%), followed by *Information and Communication Technology* (-110; -30%) and *Health, Public Services and Care*, albeit to a lesser extent (-70, -7%).

However, several subject areas grew, most notably *Construction* (+110, +54%) and *Education and Training* (+60, +112%).

Figure 60: 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 75% of all higher level starts falling within *Business, administration and law* (50%) and *Health, public*

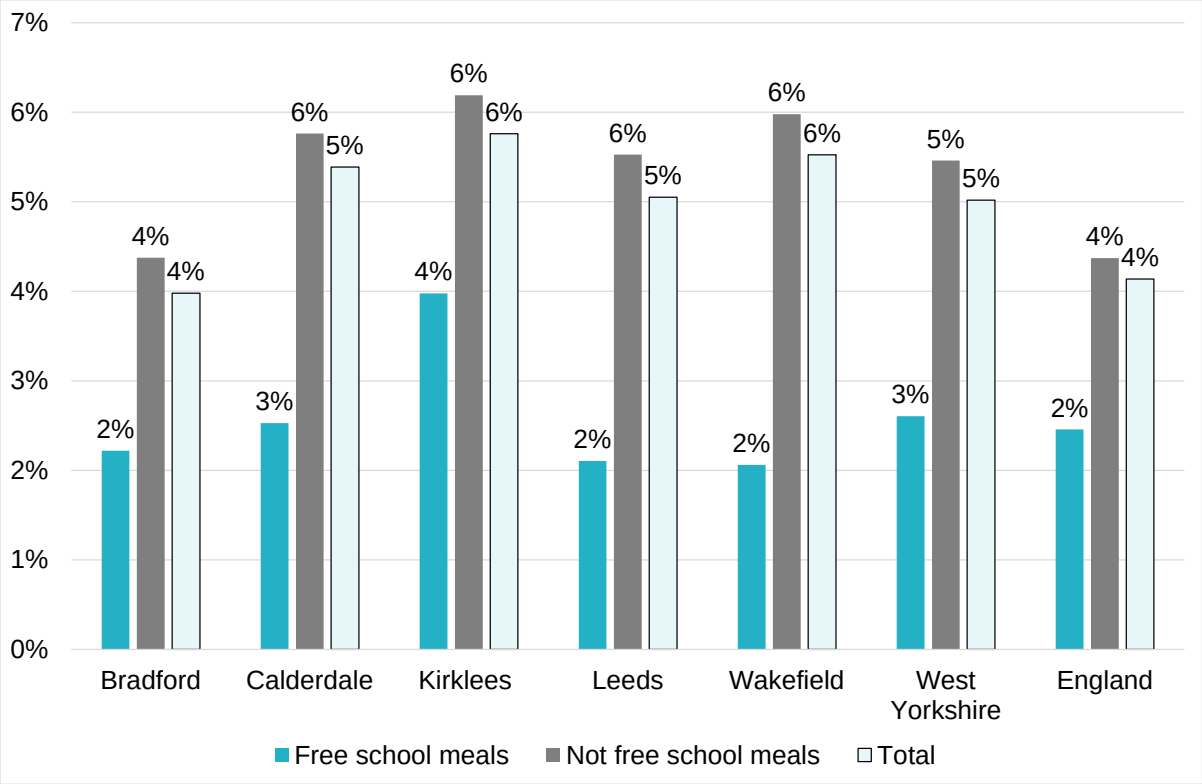
services and care (25%). This proportion has remained fairly constant over the last three years. Of the first of these subject areas most starts are in management and accountancy apprenticeships; of the second, care leadership and management, nursing associate and registered nurse degree apprenticeship have the highest take-up.

The number of higher apprenticeships in the technical areas of construction, engineering and information technology have all grown in the last three years but from a low base; they currently account for 9%, 3% and 7% of total higher apprenticeship starts respectively. 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 in these subject 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.

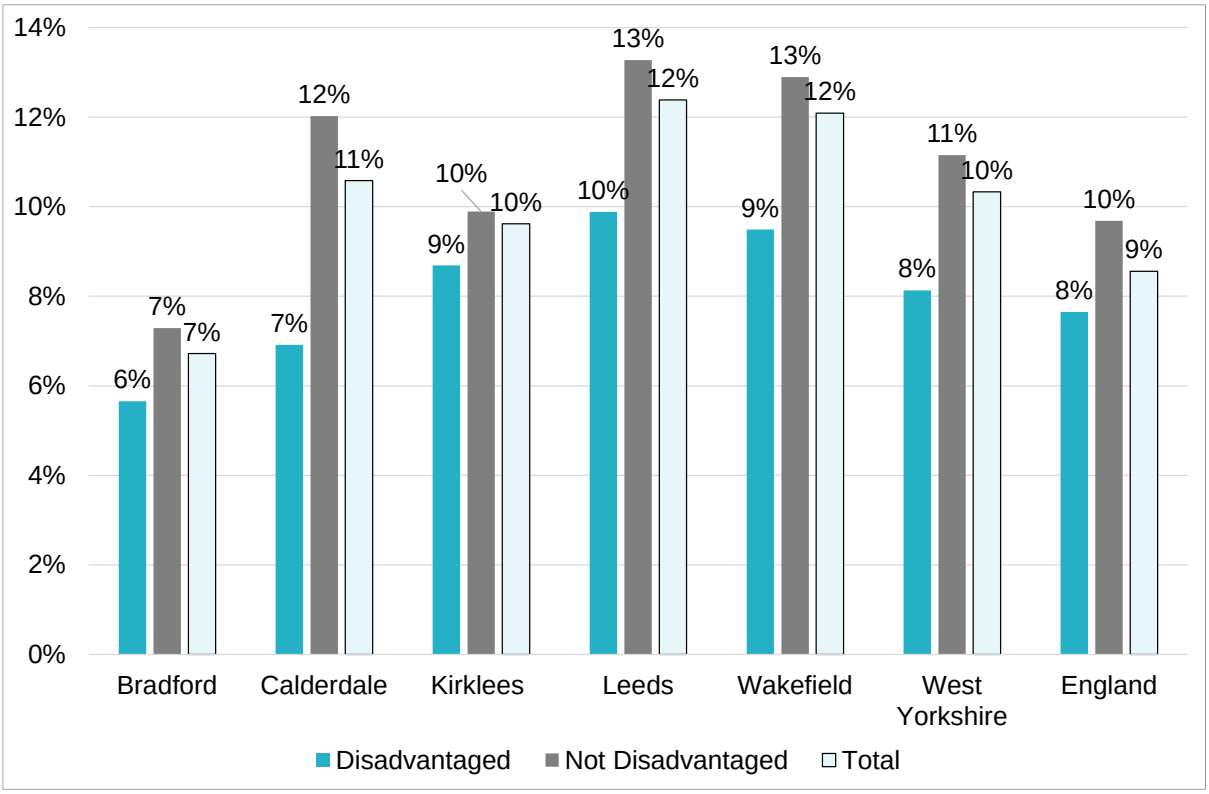
Figure 61: Proportion of pupils entering apprenticeships following completion of key stage 4, by free school meal status



Note: Analysis shows 2018/19 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 62: Proportion of pupils entering apprenticeships following completion of Key Stage 5, by disadvantage status



Note: Analysis shows 2018/19 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 12% in both Leeds and Wakefield.

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

Although 50% of apprenticeship starts overall are by women in West Yorkshire 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 2019/20 academic year but the proportion for *Construction, planning and the built environment* was only 6%, only 10% for *Engineering and Manufacturing Technologies* and 25% for *Information Technology*. National research shows that male-dominated apprenticeships such as construction and engineering offer better pay and prospects than those in which women are concentrated.

15% of apprenticeship starts in West Yorkshire during the 2019/20 academic year, were from people with an ethnic minority background, a decrease of 2 points on the previous

year but slightly higher than in 2016/17 and 2017/18 (13% and 14% respectively). This is slightly lower than ethnic minority representation in the working age population of West Yorkshire of 17%. The proportion of apprentice starts for those aged under 25 who were from an ethnic minority was lower than average at 14%. By comparison, 24% of the West Yorkshire population aged 16-24 is from an ethnic minority.

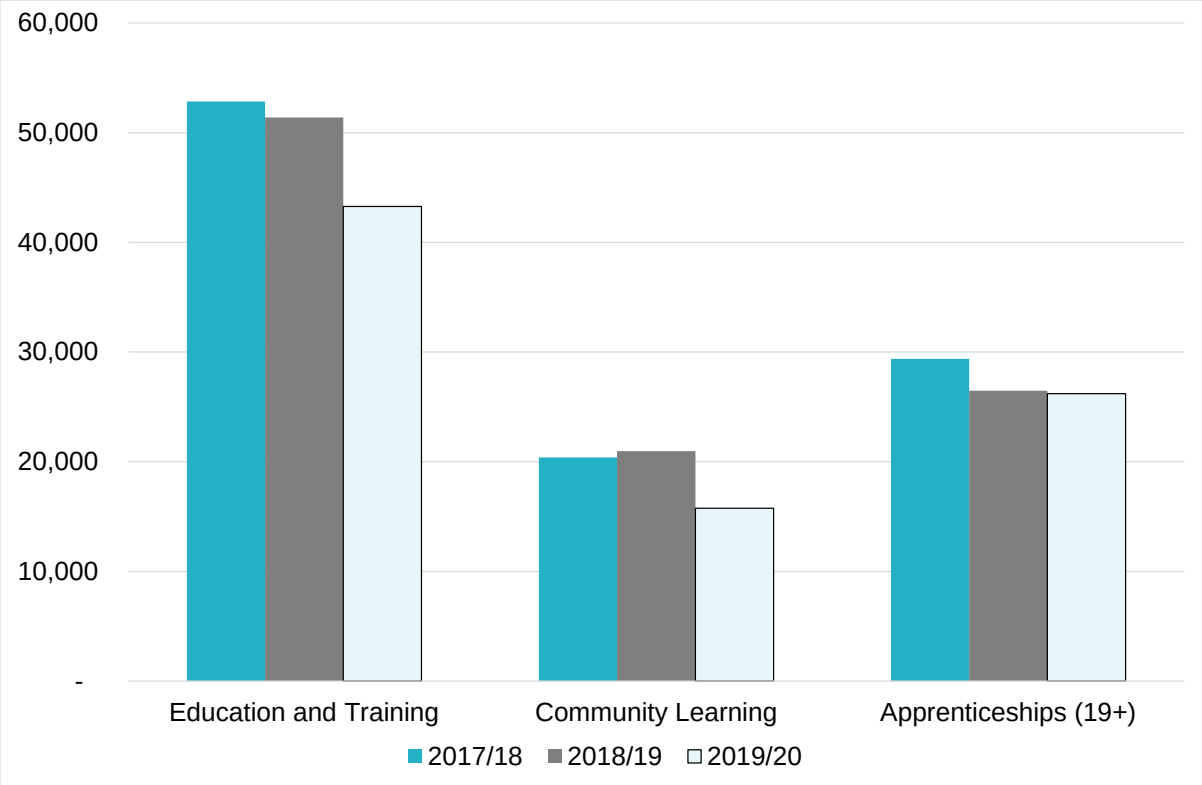
4.7 Adult Education

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

COVID-19 also impacted on take-up of further education provision

There was a marked decline in the take-up of further education by adults in 2019/20, reflecting the impact of COVID-19. The level of participation on Education and Training courses fell by 8,110 (16%) between 2018/19 and 2019/20, while take-up of Community Learning saw a more pronounced fall in percentage terms of 25% or 5,220. In contrast, adult apprenticeship participation remained stable during 2019/20, reflecting the multi-year nature of apprenticeships (although the number of starts on adult apprenticeships is known to have fallen – see above).

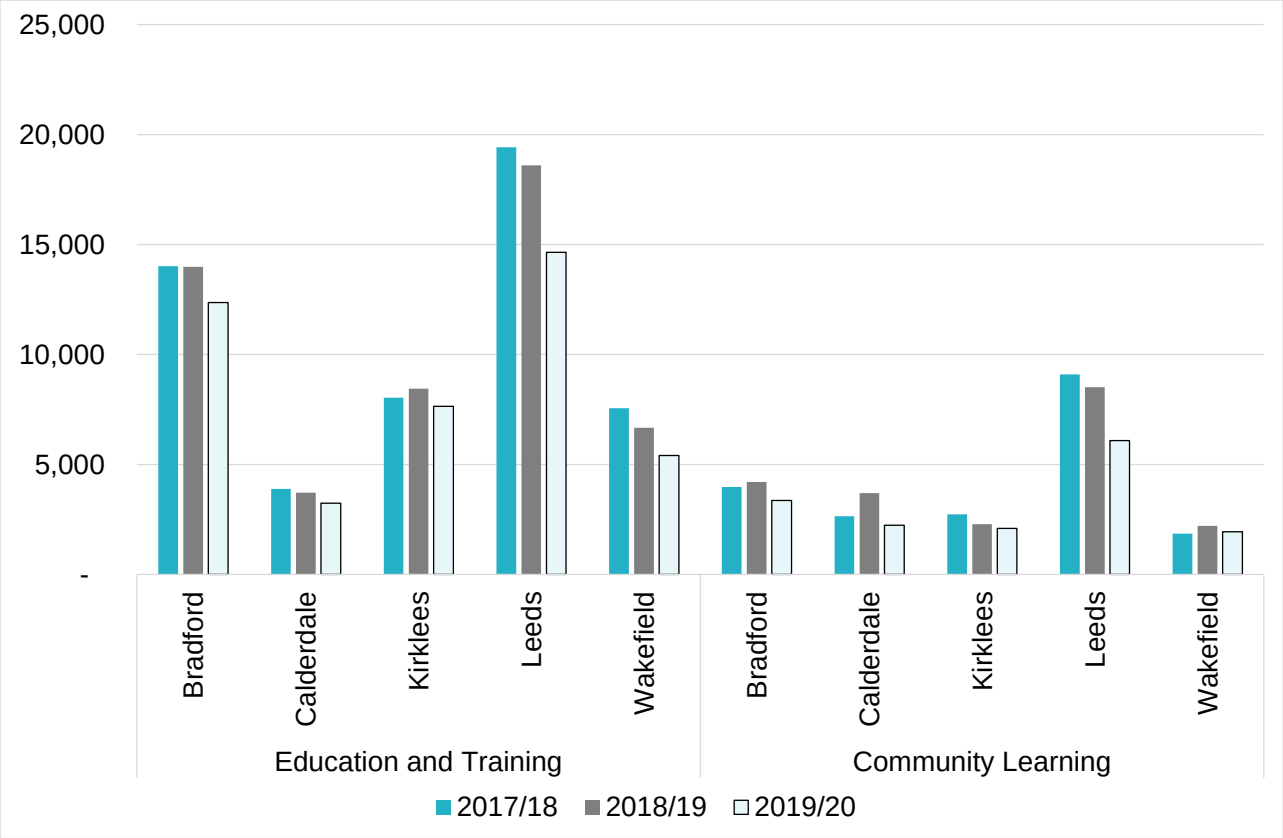
Figure 63: Participation on FE and Skills programmes (learners aged 19+), West Yorkshire



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 19% across England and Community Learning declining by 27%.

Figure 64: Participation on FE and Skills programmes (learners aged 19+) by home district



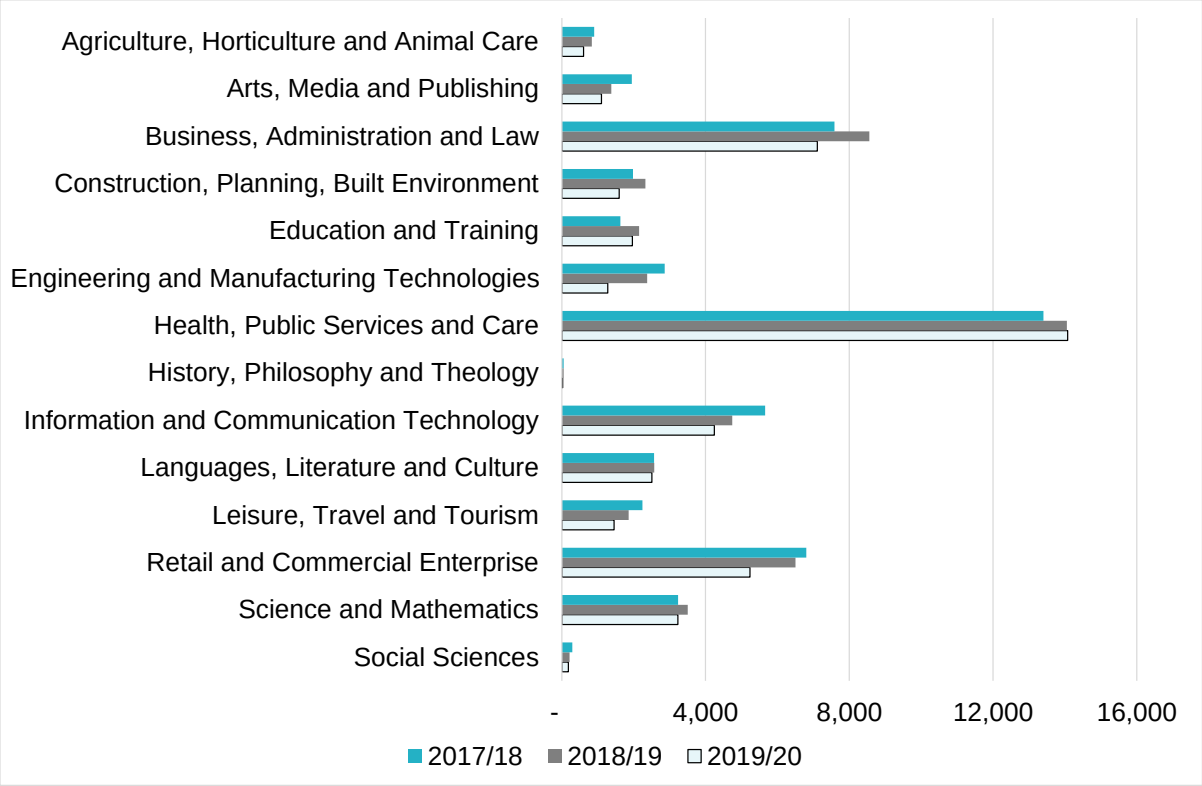
Note: Participation is a count of all publicly-funded learners who were in learning at any point during the year
Source: Further Education and Skills Statistical First Release, Department for Education

The extent of the decline in participation varied considerably by local authority area. Leeds saw the largest fall in Education and Training participation of 21% (-3,950), while in contrast Kirklees saw only a 10% reduction. For Community Learning, Calderdale saw a 40% decline (albeit following an increase in the previous year), followed by Leeds with a 28% fall. Kirklees again fared much better with a reduction of 8%.

The number of enrolments funded through Education and Training fell by 15%

There were 77,500 funded enrolments on adult Education and Training courses in West Yorkshire in the 2019/20 academic year. This represents a 15% fall (-13,200) on the previous year. Around 84% of enrolments were funded through the Adult Education Budget in 2019/20.

Figure 65: Education and Training funded enrolments by sector subject area, (learners aged 19+), West Yorkshire



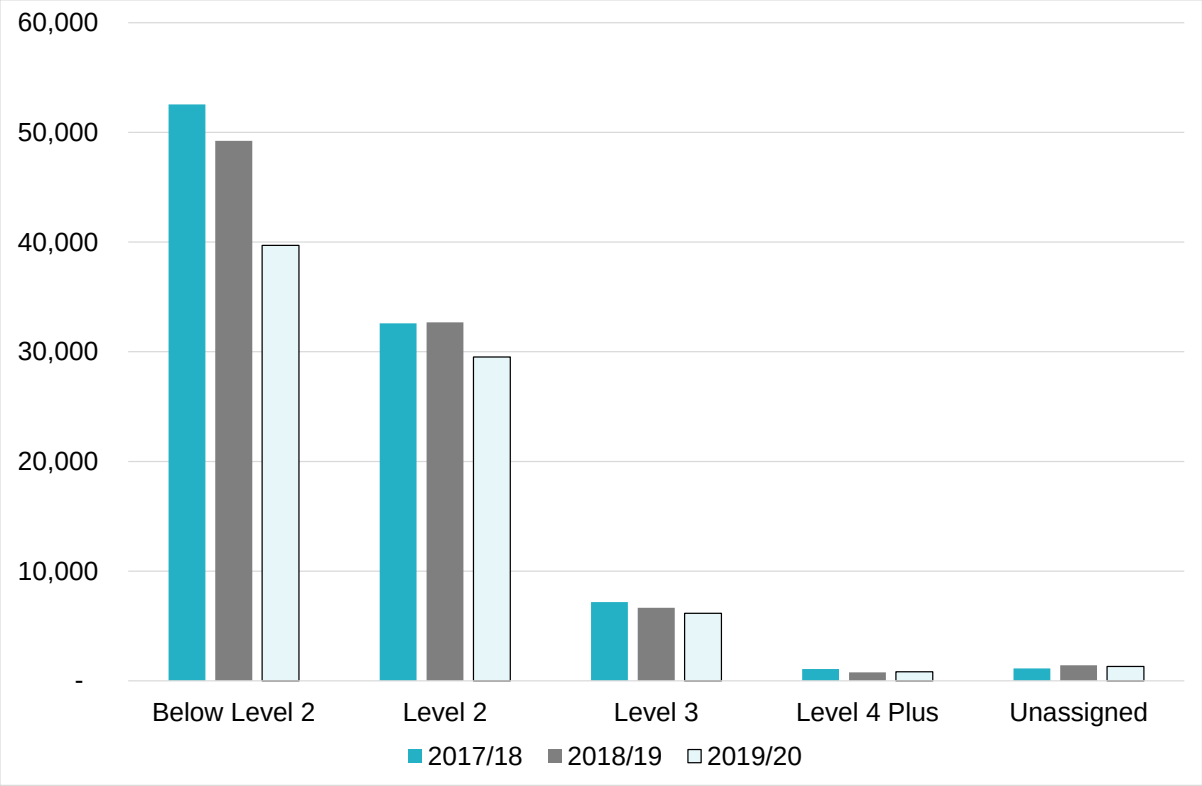
Note: Preparation for Life and Work excluded to aid readability of chart (values for this subject: 2017/18: 43,157; 2018/19: 39,470; 2019/20: 32,725)
Source: Further Education and Skills Statistical First Release, Department for Education

Health, public services and care, the largest subject area aside from *Preparation for Life and Work*, maintained its level of enrolments during 2019/20, but all other subject areas saw declines. The biggest absolute falls were in the following areas:

- *Preparation for Life and Work* (-6,750; -17%)
- *Business, Administration and Law* (-1,450; -17%) with a large fall of 40% in *Business Management* enrolments
- *Retail and Commercial Enterprise* (-1,260; -19%) with a 46% fall in *Hospitality and Catering*
- *Engineering and Manufacturing Technologies* (-1,096; -46%) with a particularly large fall in *Manufacturing Technologies*.

In addition to *Engineering and Manufacturing Technologies*, there were also large percentage falls in *Agriculture, Horticulture and Animal Care* (-230; -28%) and *Construction, Planning and the Built Environment* (-732; -31%).

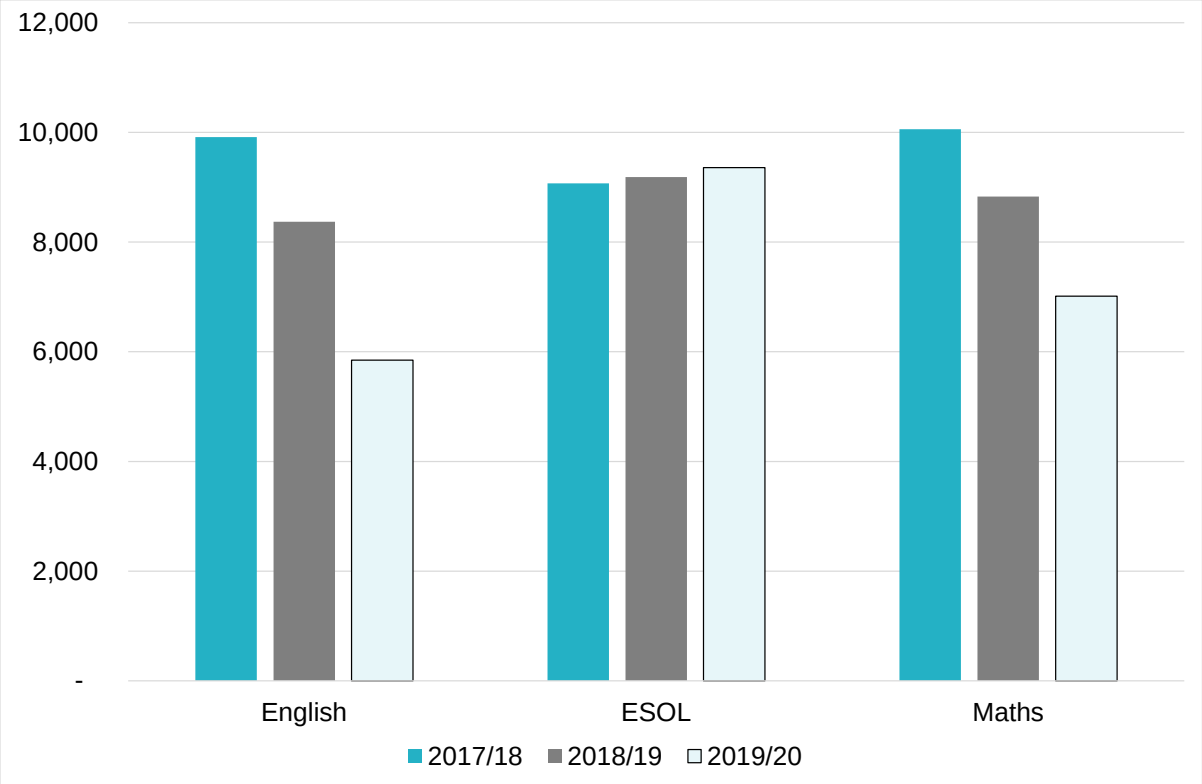
Figure 66: Education and Training funded enrolments by level, (learners aged 19+), West Yorkshire



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

Much of the decline seen in 2019/20 was concentrated in learning aims at below level 2 and level 2, which fell by 9,530 (-19%) and 3,160 (-10%) respectively. Enrolments at level 3 fell by 7% (-500) whereas they grew for aims at level 4 and above by 7% (+60) albeit from a small base.

Figure 67: 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 22,220 enrolments on basic skills aims in West Yorkshire during 2019/20. The total level of enrolments fell by 16% (4,170) on the previous year. Although enrolments on ESOL provision remained stable, there was a fall of 30% (-2,530) for English aims and 21% (-1,820) for Maths provision.

4.8 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 92,900 students enrolled at its seven institutions during the 2018/19 academic year, West Yorkshire has one of the largest higher education sectors outside London. There was a net inflow of 34,000 students into the area during the academic year, based on the fact that there were 31,000 HE students from West Yorkshire who studied elsewhere, compared with 65,000 students from outside West Yorkshire (including foreign students) who came to study at local institutions.

The total number of student enrolments at West Yorkshire institutions has remained stable in recent years, as has the number of entrants at around 31,000 per annum; whilst the

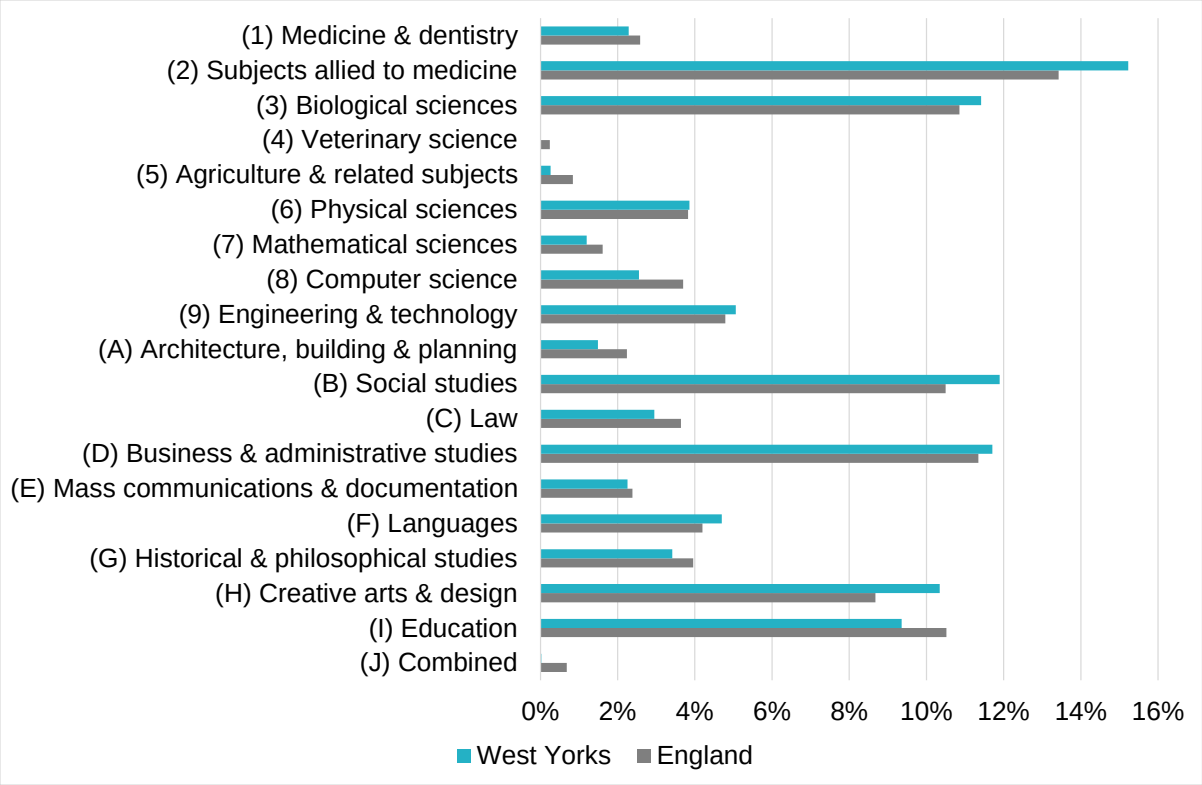
number of UK-domiciled qualifiers (graduates) has also been stable at around 23 to 24,000 per annum. Just over a third of students enrolled at West Yorkshire institutions are from West Yorkshire.

The subject profile of qualifiers has also remained broadly stable over time with *Computer Science* accounting for 3% of the total (around 600 per annum), *Engineering & technology* for 5% (c.1,200) and *Architecture, building & planning* around 1-2% (3-400).

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 *Computer science* both account for smaller proportions of total qualifiers than is the case nationally, although *Engineering and technology* contributes a similar proportion. Conversely, West Yorkshire is above average in terms of *Subjects allied to medicine* (a category which includes nursing), *Social studies* and *Creative arts and design.* More broadly, science and technology subjects account for a similar proportion of total qualifiers as nationally, at 43% and 44% respectively.

Figure 68: Higher education qualifiers from West Yorkshire institutions by subject area, 2018/19 academic year



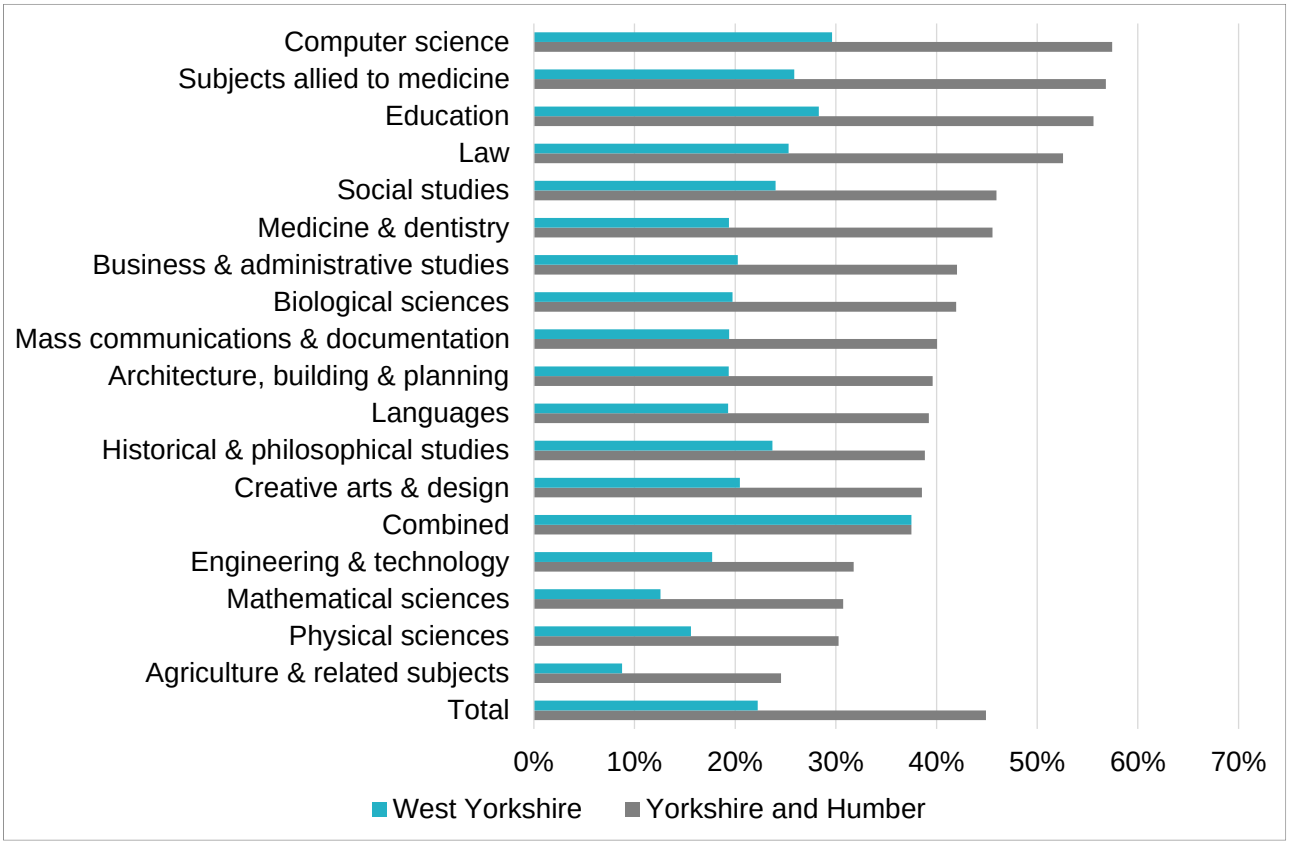
Note: UK domiciled qualifiers
Source: HESA

Attraction and retention of graduates in the regional economy is key to maximising the economic benefits of higher education. Based on the 2017/18 *Graduate Outcomes*

Survey, around 45%[26] 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. More than three quarters (78%) of graduates who were employed in West Yorkshire at this point were in a high skilled job.

The extent to which qualifiers are retained in West Yorkshire varies by subject, based on the most recent figures for 2017/18[27].

Figure 69: 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, 2017/18

For some technical subjects, West Yorkshire retention rates are relatively low; for example, 19% for *Architecture, building and planning*, and 18% for *Engineering and technology*. *Agriculture*, *Physical Sciences* and *Maths* also have low retention rates.

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

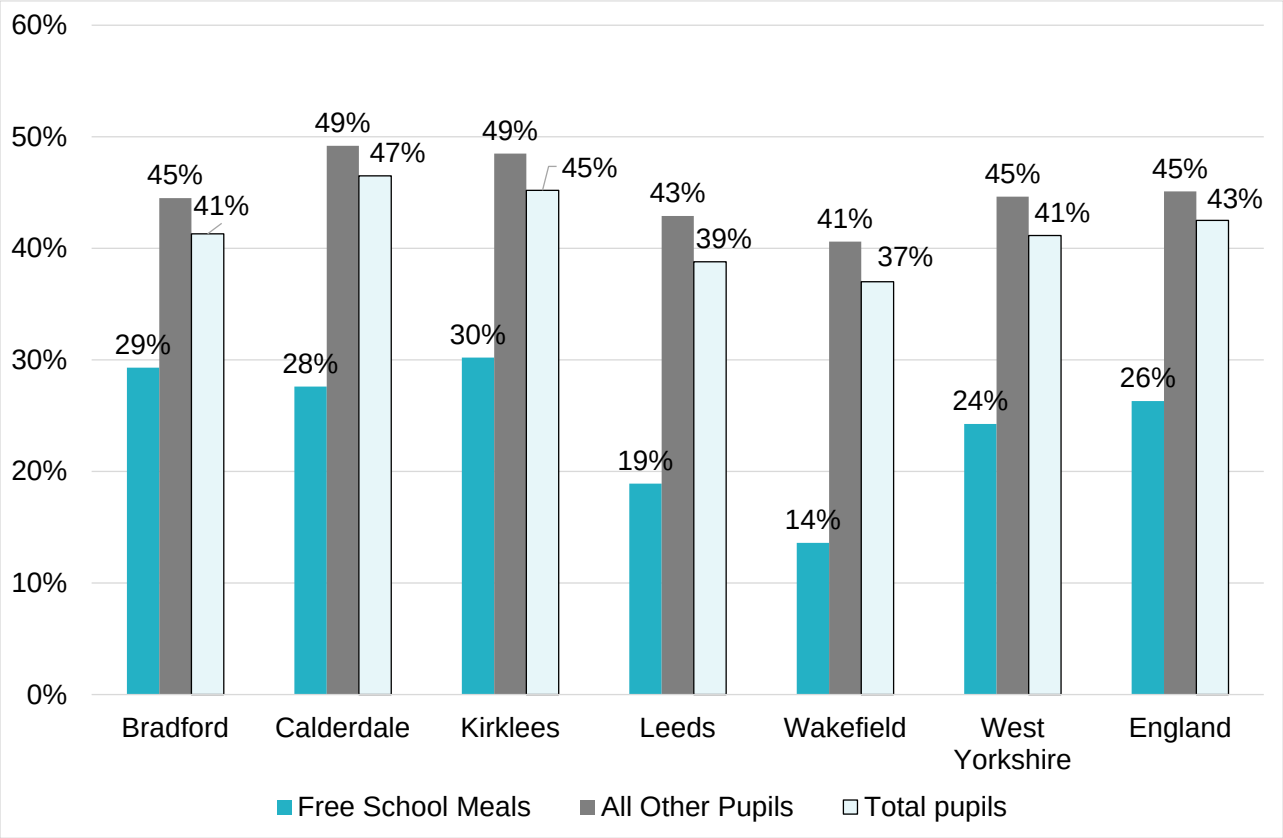
[27] The retention rate estimates presented here differ from previous figures because of a shift from *Destinations of Leavers from Higher Education* survey to the *Graduate Outcomes Survey*. The census point in Graduate Outcomes is at approximately 15 months after gaining qualifications whereas for DLHE the main census point was at 6 months. There are also differences in the content and wording of the two questionnaires.

Computer Science is at the top of the ranking, however, with a rate of 30%, followed by *Subjects allied to medicine*, *Education* and *Law*.

Disadvantaged pupils in West Yorkshire less likely to enter higher education

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..

Figure 70: Proportion of students entering higher education by free school meal status



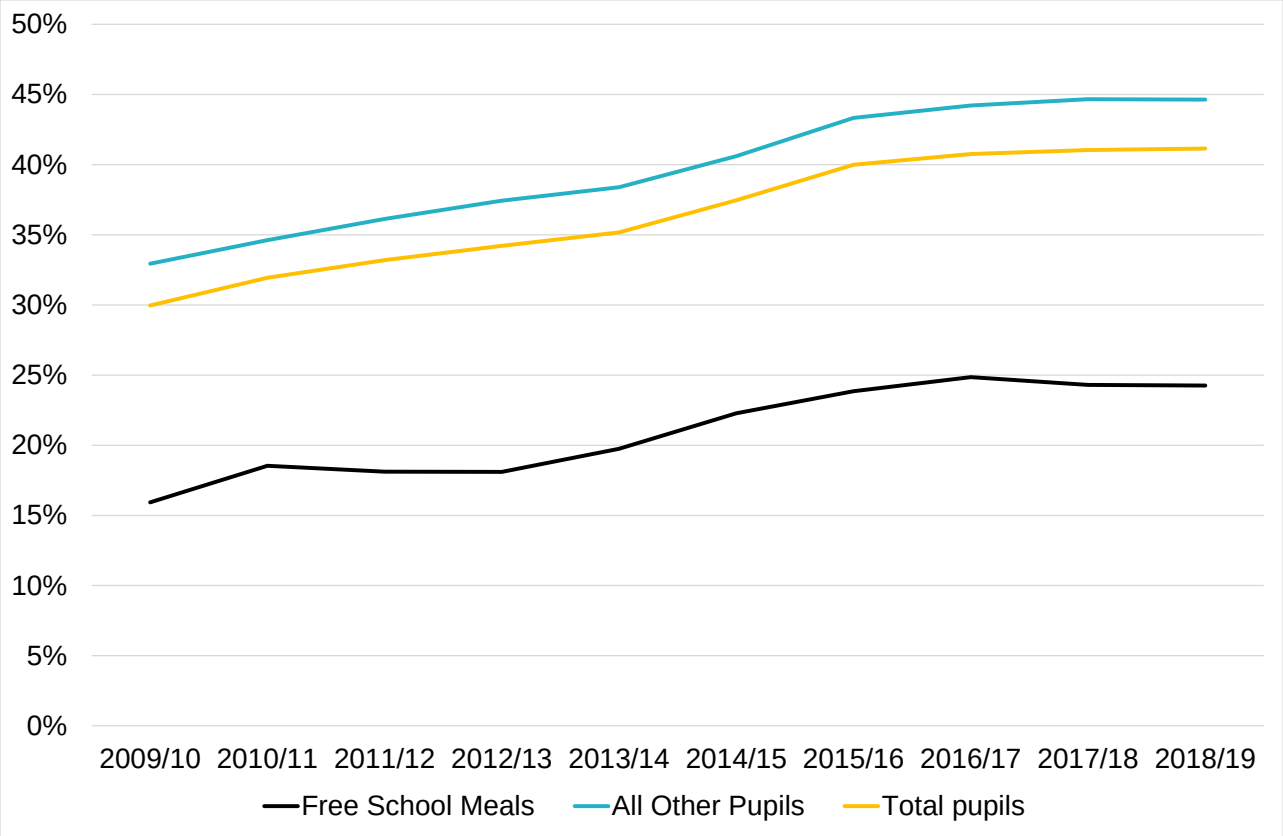
Source: Department for Education
Note: Entered HE by age 19 in 2018/19 academic year

Performance on overall entry rates varies by district. Pupils in Wakefield and Leeds are much less likely to go into higher education than the national average. Conversely, Calderdale and Kirklees have rates that are above the national average.

The local authorities with low entry rates also have very low entry rates among disadvantaged pupils eligible for free school meals: 14% in Wakefield and 19% in Leeds; this compares with a national average rate of 26%.

It is notable that Bradford and Kirklees have the highest entry rates for FSM pupils in the City Region and the lowest “disadvantage gaps” and both outperform the national average.

Figure 71: Trend in proportion of pupils entering higher education by free school meal status, West Yorkshire



Source: Department for Education

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.

4.9 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

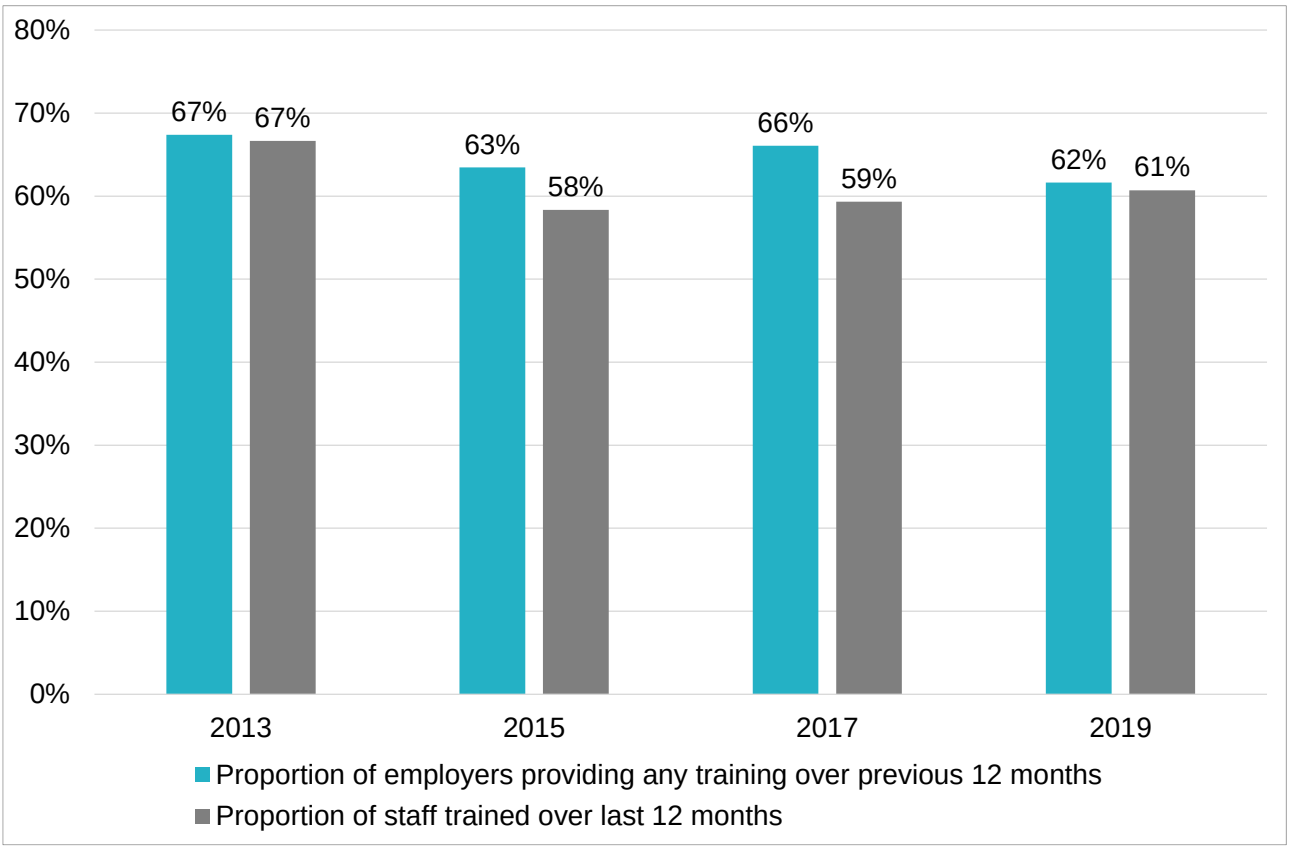
[28] Industrial Strategy Council (2020) UK Skills Mismatch in 2030. Available at: UK Skills Mismatch 2030 – research paper | Industrial Strategy Council

Employer Skills Survey it is estimated that employers in the 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 72: Performance against training indicators over time, West Yorkshire



Source: Employer Skills Survey 2019

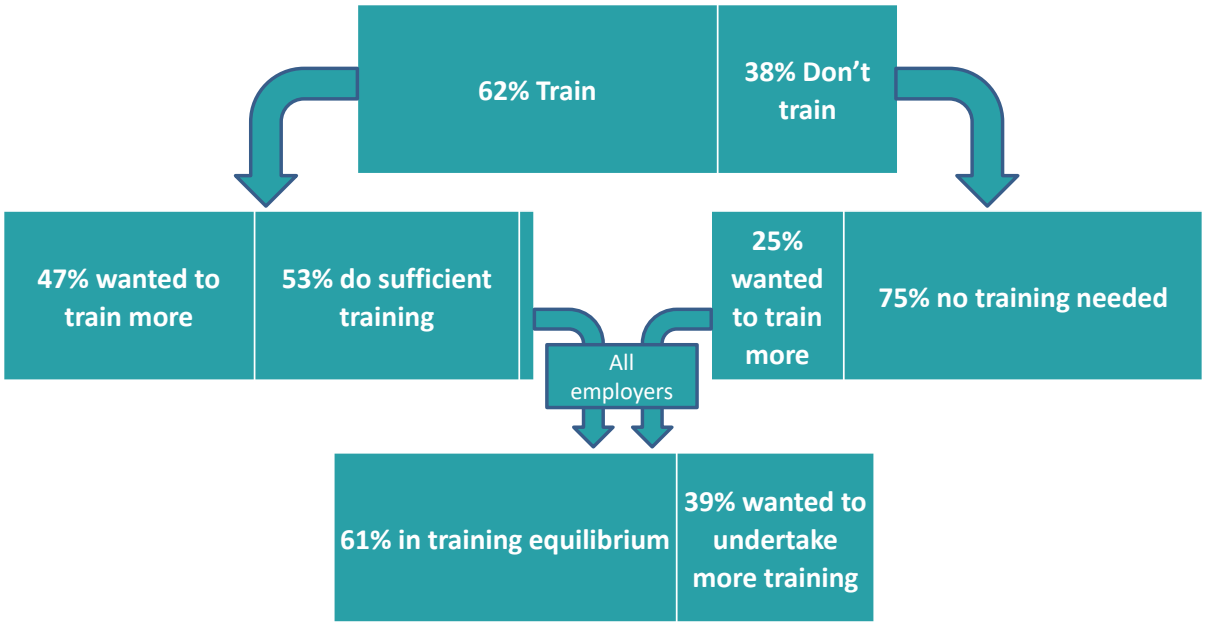
There has been so sign in recent years of a sustained improvement in the proportion of employers providing training nor in the proportion of staff receiving training.

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 73: Training equilibrium summary, West Yorkshire

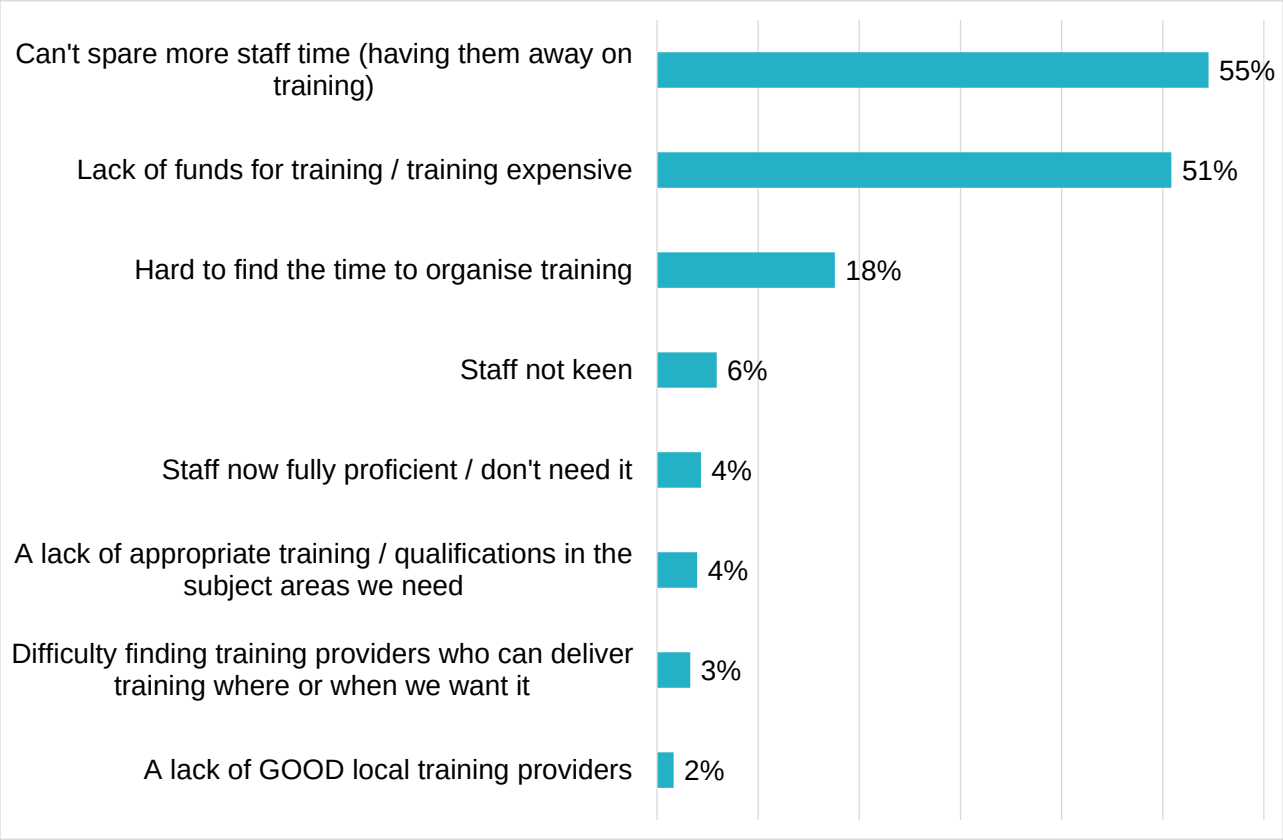


Source: Employer Skills Survey 2019

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 74: 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.

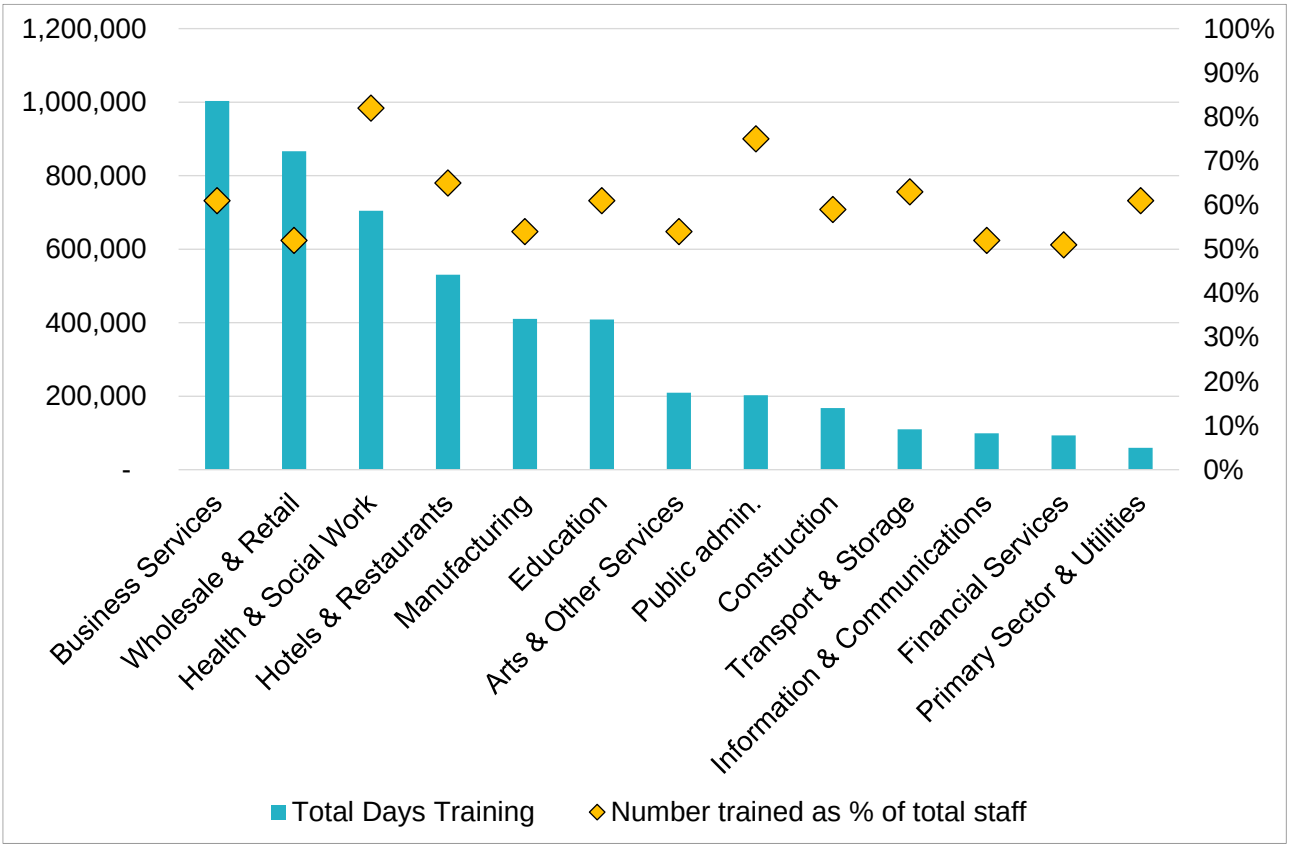
The prevalence and volume of training varies markedly across different parts of the economy.

The largest volume of training is undertaken in the business services sector but staff in the health sector are most likely to receive training

Looking at the sector profile of the training that is undertaken, *Business services* accounts for the largest number of training days, with 21% of the total, followed by *Wholesale and*

retail with 18%. *Health and social care* contributes 14% of the total days of training provided with more than four-out-of-five staff receiving training. *Hospitality* and *Manufacturing* are the next largest sectors, in volume terms, accounting for 11% and 8% of total training days respectively.

Figure 75: Training activity by industry sector, Leeds City Region[29]



Source: Employer Skills Survey 2017

Workers in *Health and social work* and *Public administration* are most likely to receive training.

With regard to the average number of training days provided per staff member, the *Public administration* sector has easily the highest figure at 15, followed by *Health and social care* with 8 and *Hotels and restaurants* with 5. This is in comparison with an all-industry average for the City Region of 3.9. In the transport and storage, primary and utilities and manufacturing sectors, the figure are 1.1, 1.5 and 2.0 respectively.

Data from the Annual Population Survey[30] shows that the proportion of people receiving job-related training declined locally between 2004 and 2010, with the extent of the decline

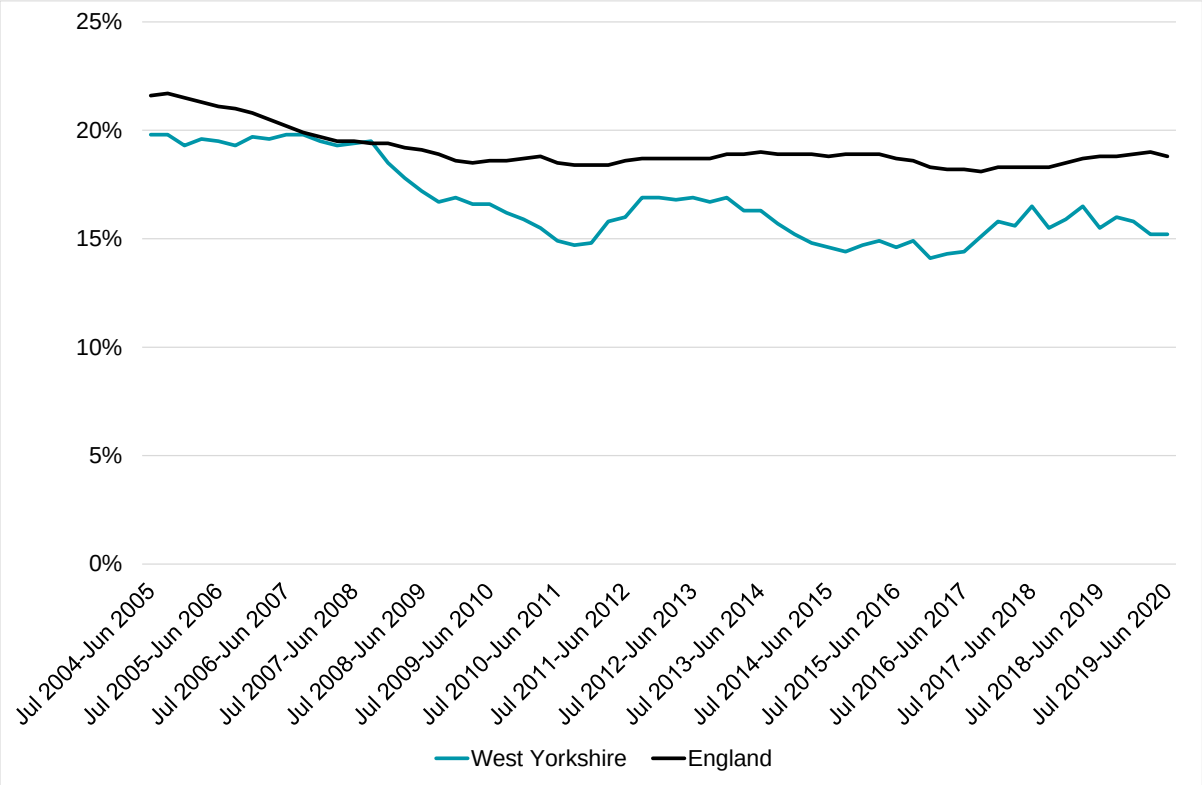
[29] Data not available for West Yorkshire.

[30] This measure is based on a household survey of individuals whereas the measures drawn from the Employer Skills Survey are based on a survey of employers.

being more pronounced in the City Region. Since then, the proportion of workers receiving training has remained below the national average on a fairly consistent basis and with little sign of recovery in recent years.

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



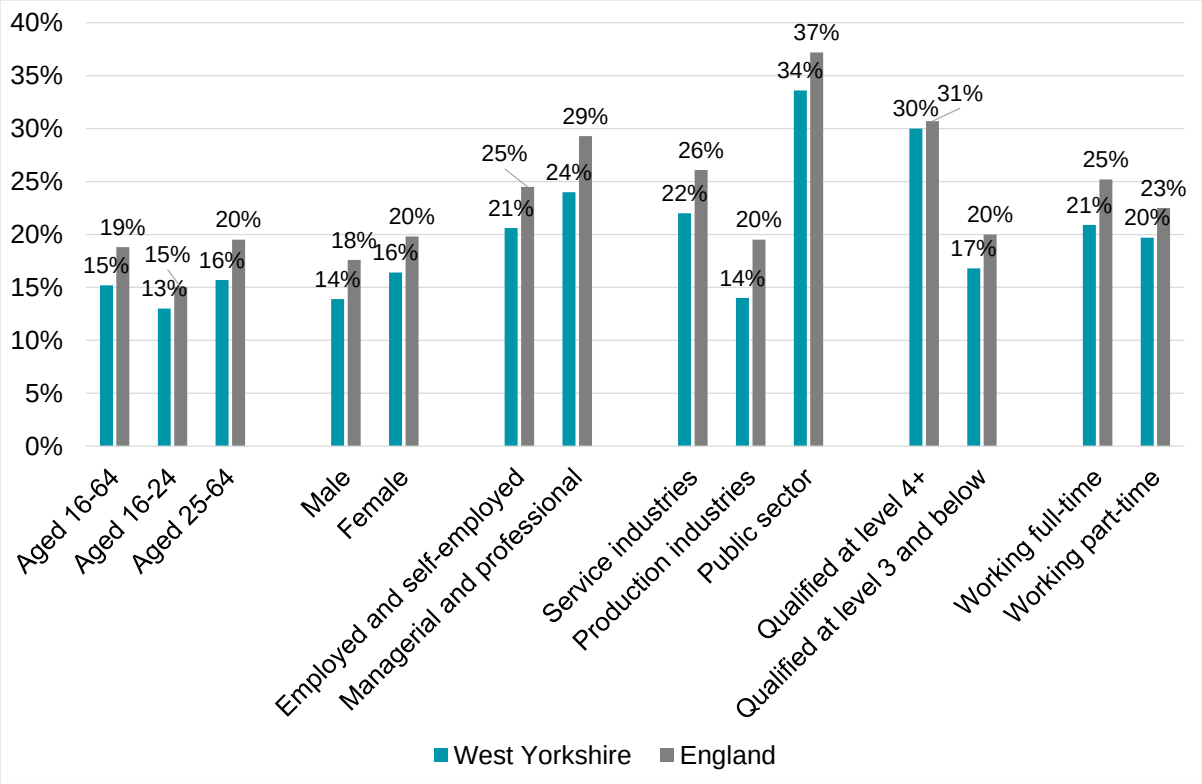
Source: Annual Population Survey

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 19%. West Yorkshire performs consistently below average with regard to 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 77: Proportion of people receiving job-related training in last 13 weeks by labour market group



Source: Annual Population Survey, July 2019 to June 2020

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 almost twice as likely to receive training than their less qualified colleagues.

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.

Data are not available at LEP level relating to access to job-related training by the disabled. However, data for Yorkshire and the Humber suggest that disabled people are equally likely to undertake training as the non-disabled.

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[31].

4.10 Work experience and work inspiration

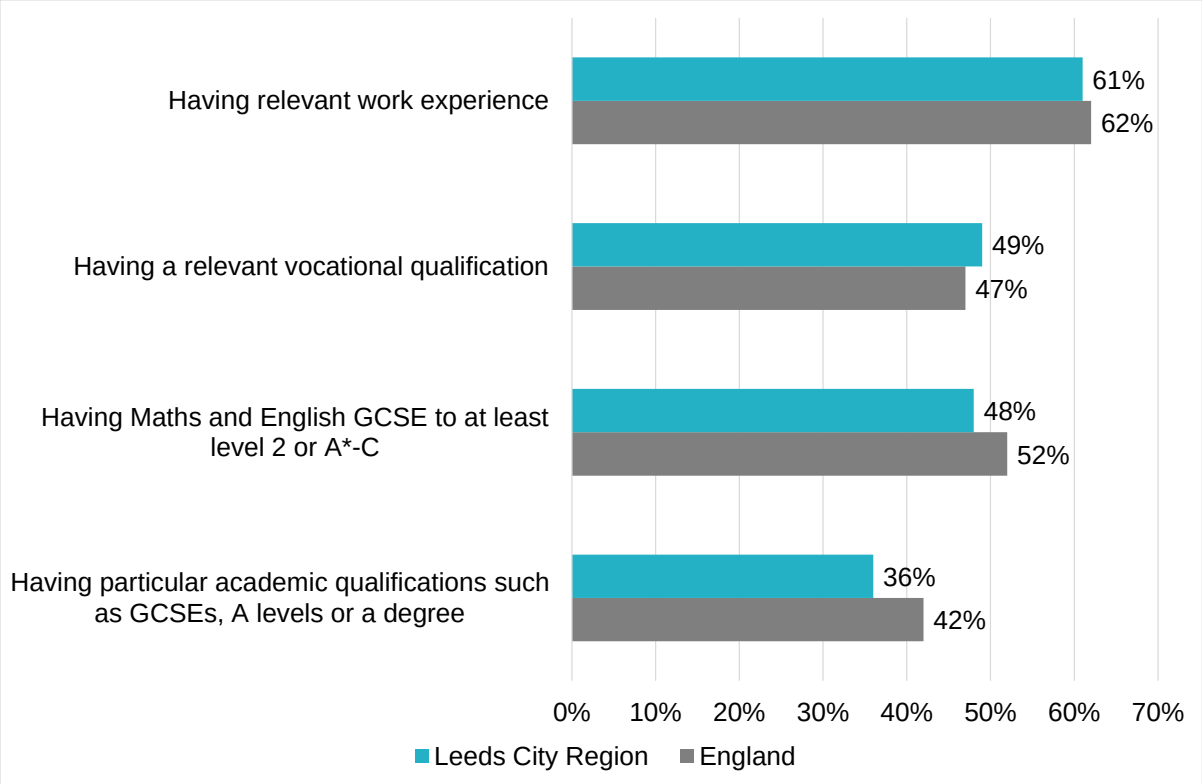
Work experience and work inspiration are important ways in which the world of business can engage with education. These activities play a key role in supporting an effective transition into the world of work for young people and other groups by helping individuals to understand and meet the requirements 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.

[31] 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 78: Factors looked for by employers when recruiting (proportion rating as critical or significant)



Source: Employer Skills Survey 2019

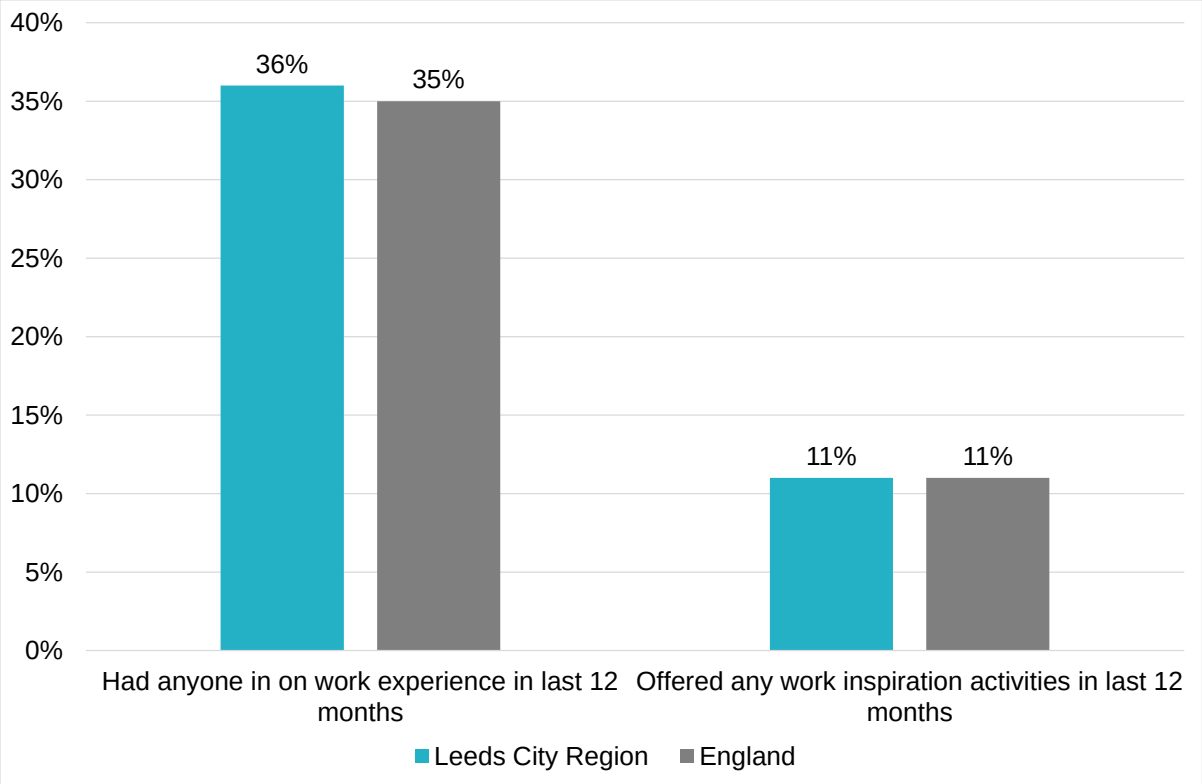
The results show that a greater proportion of employers, both locally and nationally, reported that they valued relevant work experience more than any of the other factors when assessing potential new recruits: 61% of employers in Leeds City Region rated relevant work experience as either critical or 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 79: Proportion of employers who have had anyone on a work experience placement and / or have offered work inspiration in previous 12 months

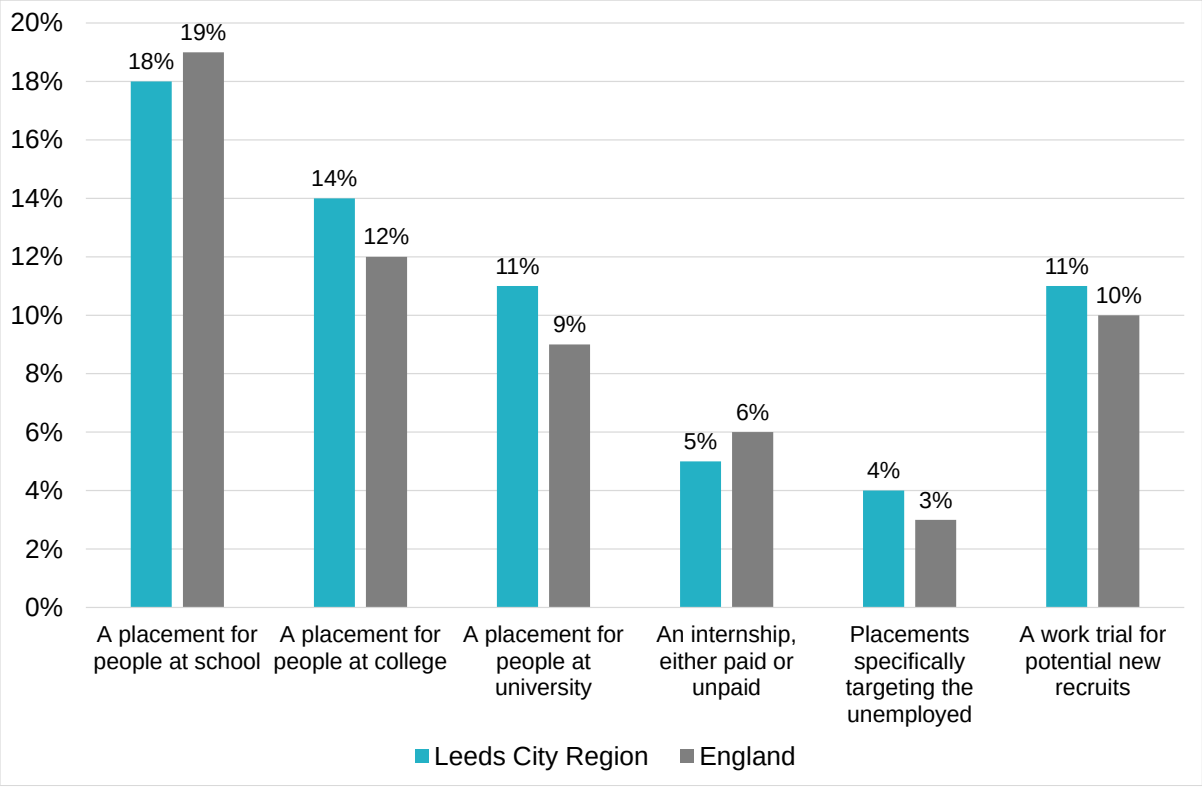


Note: Work experience placements include adult placements, work trials and internships, as well as placements for those in education. Work inspiration activities include careers talks, site visits, mentoring, mock interviews, enterprise competitions and input to design of coursework
Base: All establishments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

The survey finds that 36% of employers in West Yorkshire 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 80: 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 Skill shortages

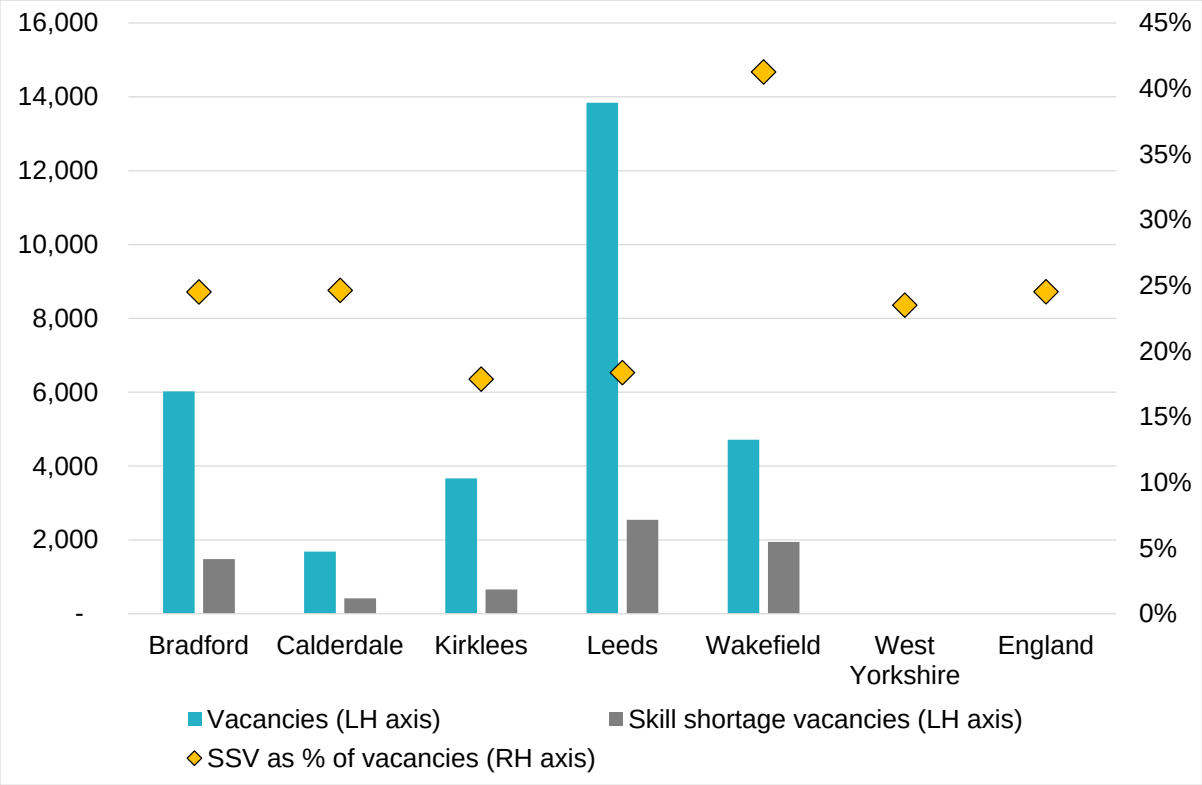
Skill shortages occur when employers find it hard to fill their vacancies because the available candidates lack the necessary skills, qualifications and experience to do the job.

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

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 81: 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.

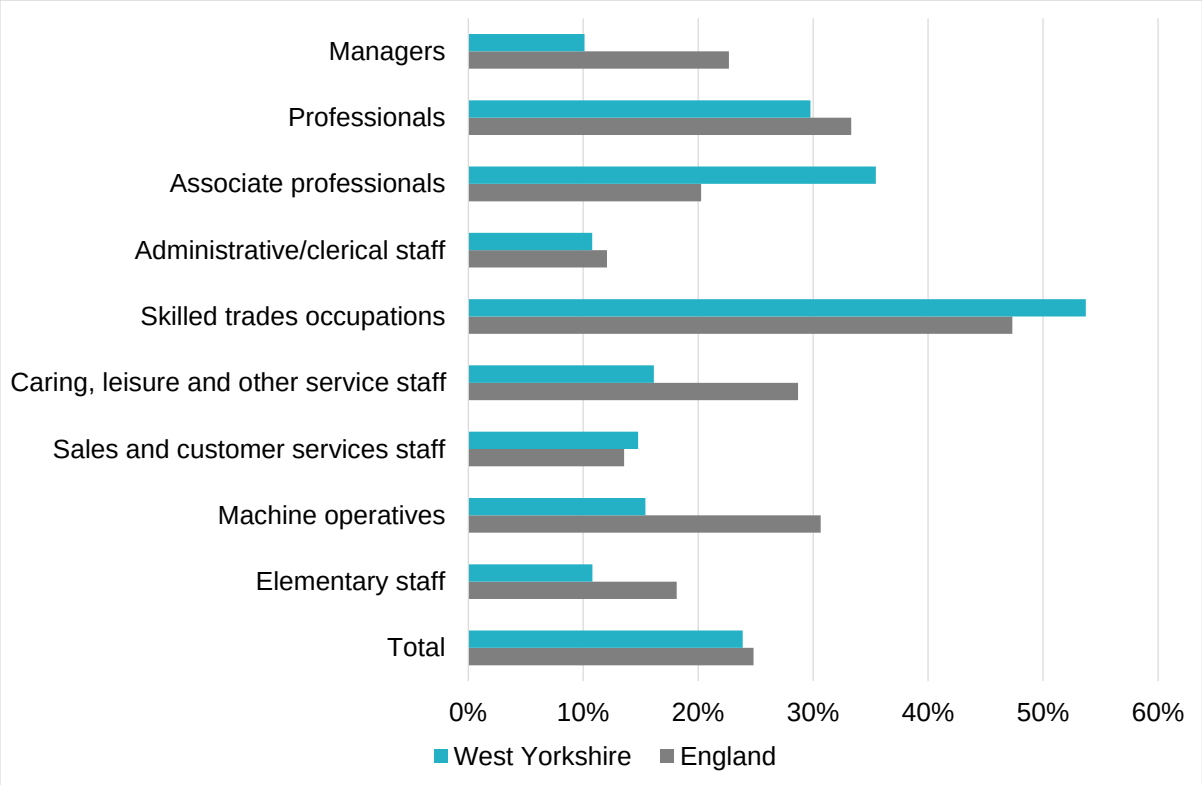
The occupational pattern of shortages provides an insight into the particular types of jobs that are most affected by a lack of candidates with the skills needed by employers.

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 82: 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.

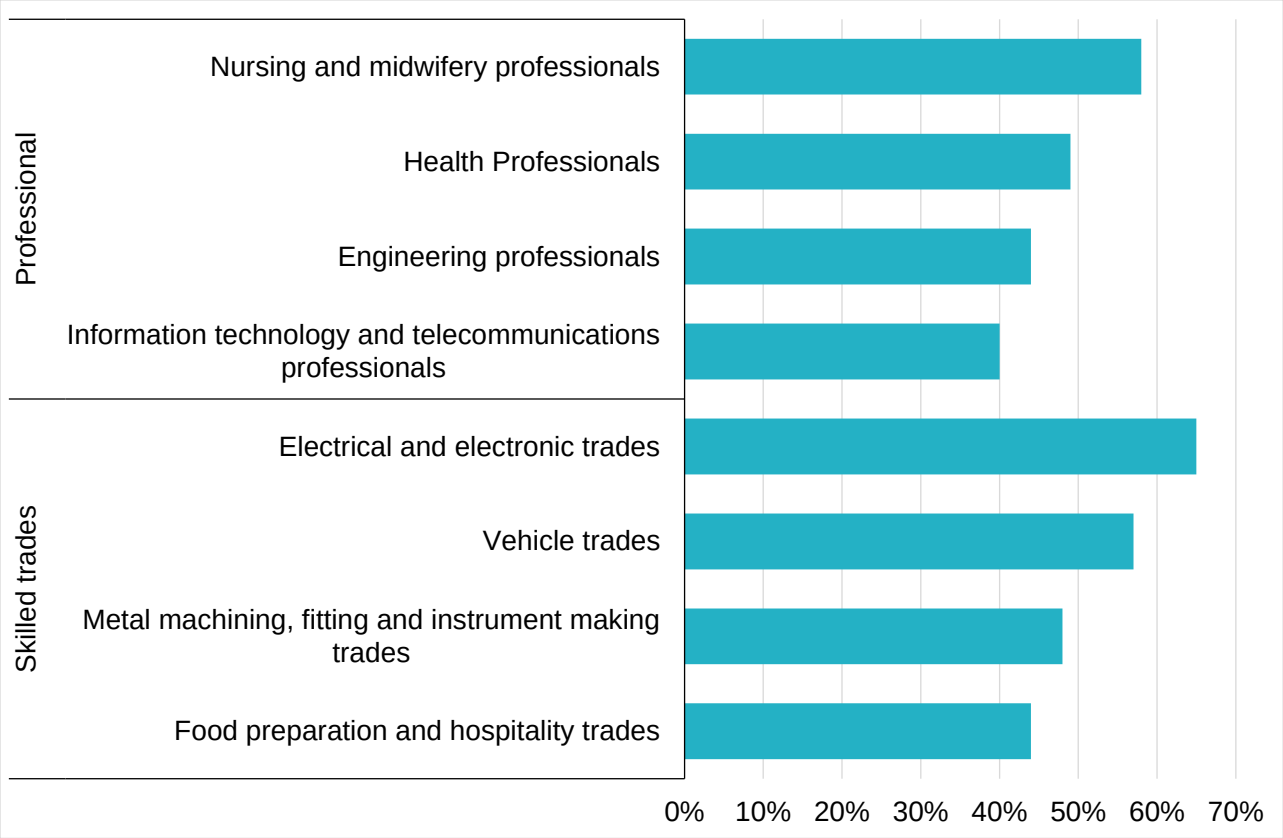
The detailed occupations with the most acute shortages in Yorkshire and the Humber include health, engineering and digital professionals plus a range of skilled trades

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

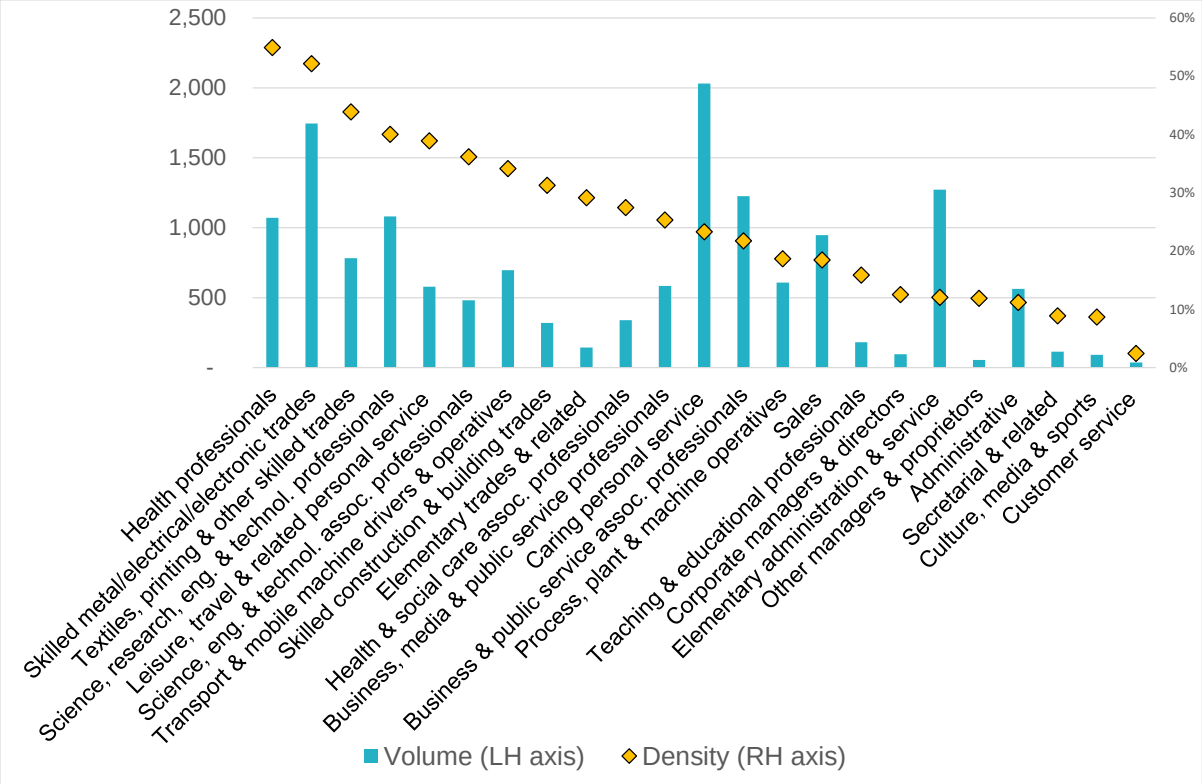


Note: Density measure shows skill-shortage vacancies as a proportion of all vacancies
Source: Employer Skills Survey 2019

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 84: 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

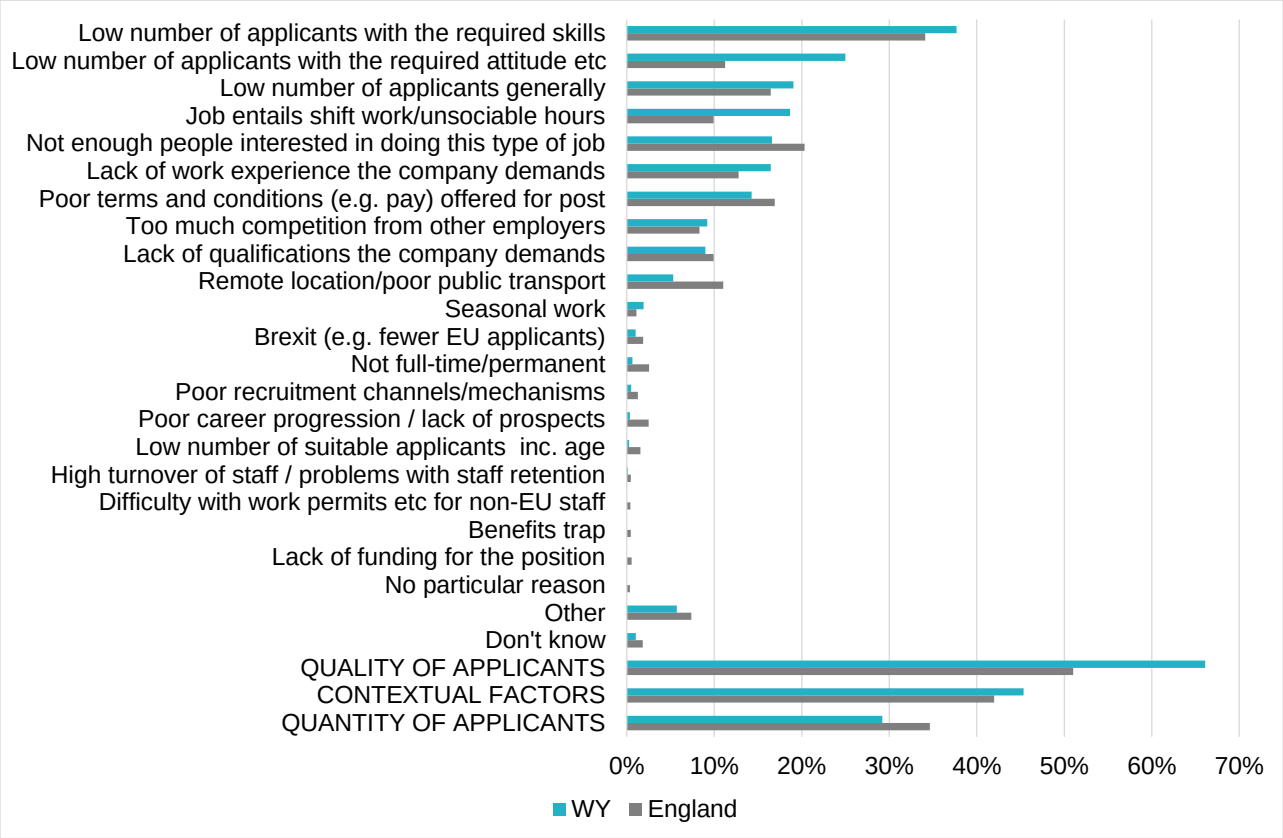
It confirms that the highest prevalence of shortages is among higher skilled occupations with significant technical requirements, including health professionals and STEM professionals, plus skilled trades of various types, most notably skilled metal, electrical and electronic trades. It also shows that 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, suggesting that the structural factors underlying shortages are likely to remain unchanged.

5.2 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 85: 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.

5.3 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.

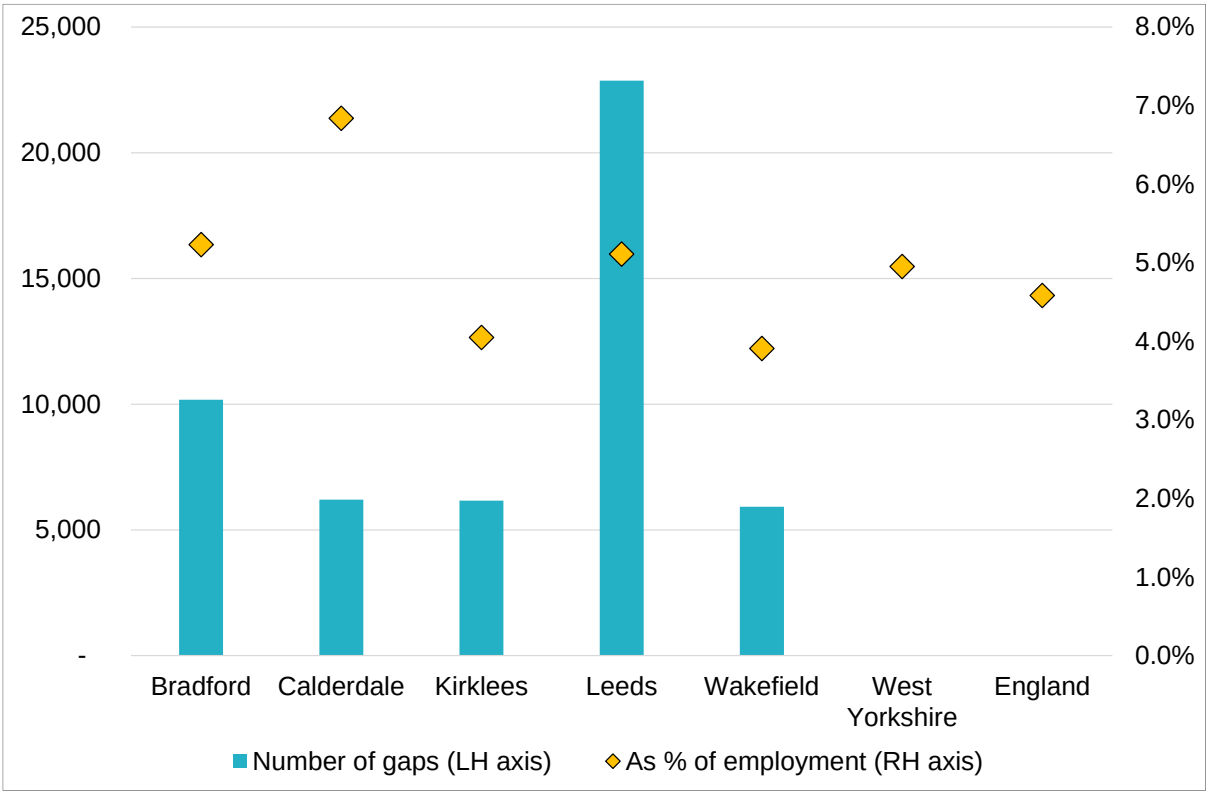
15% of employers are affected by skills gaps, with administrative and sales and customer service staff most susceptible to gaps

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.

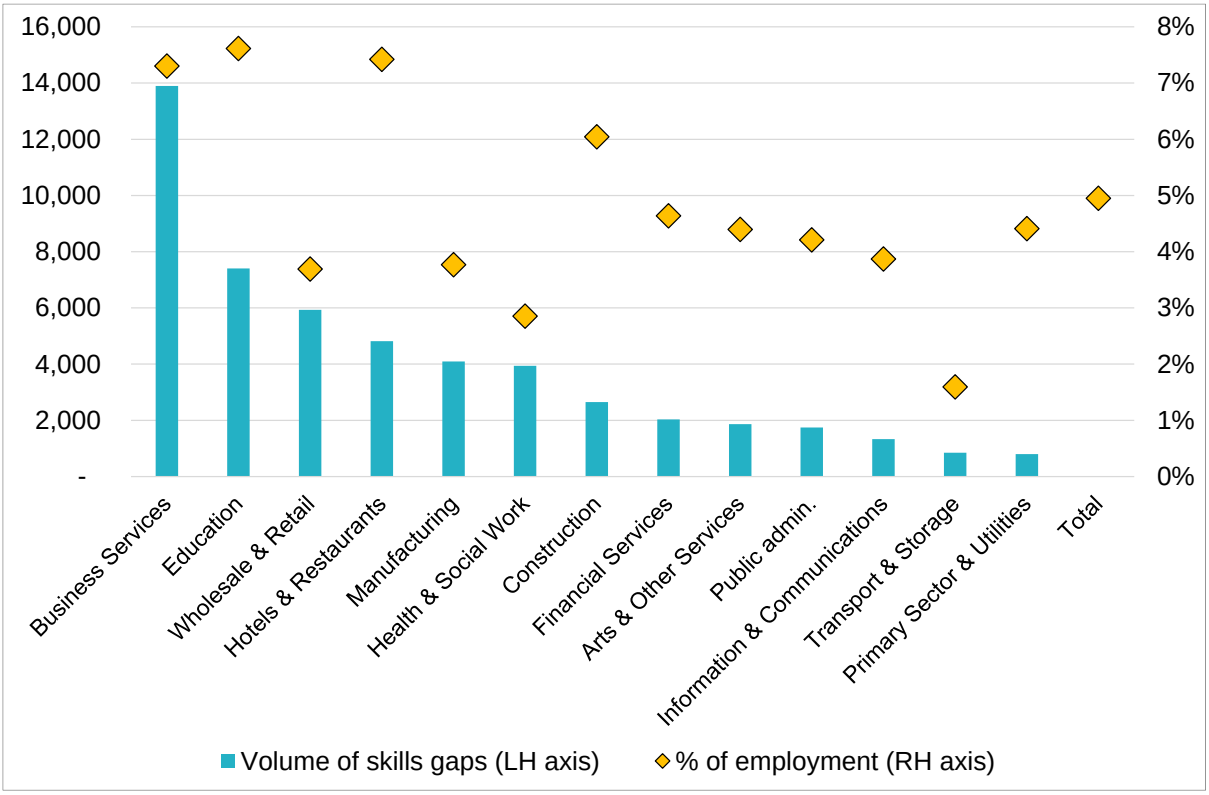
Figure 86: Volume and prevalence of skills gaps by local authority area



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%.

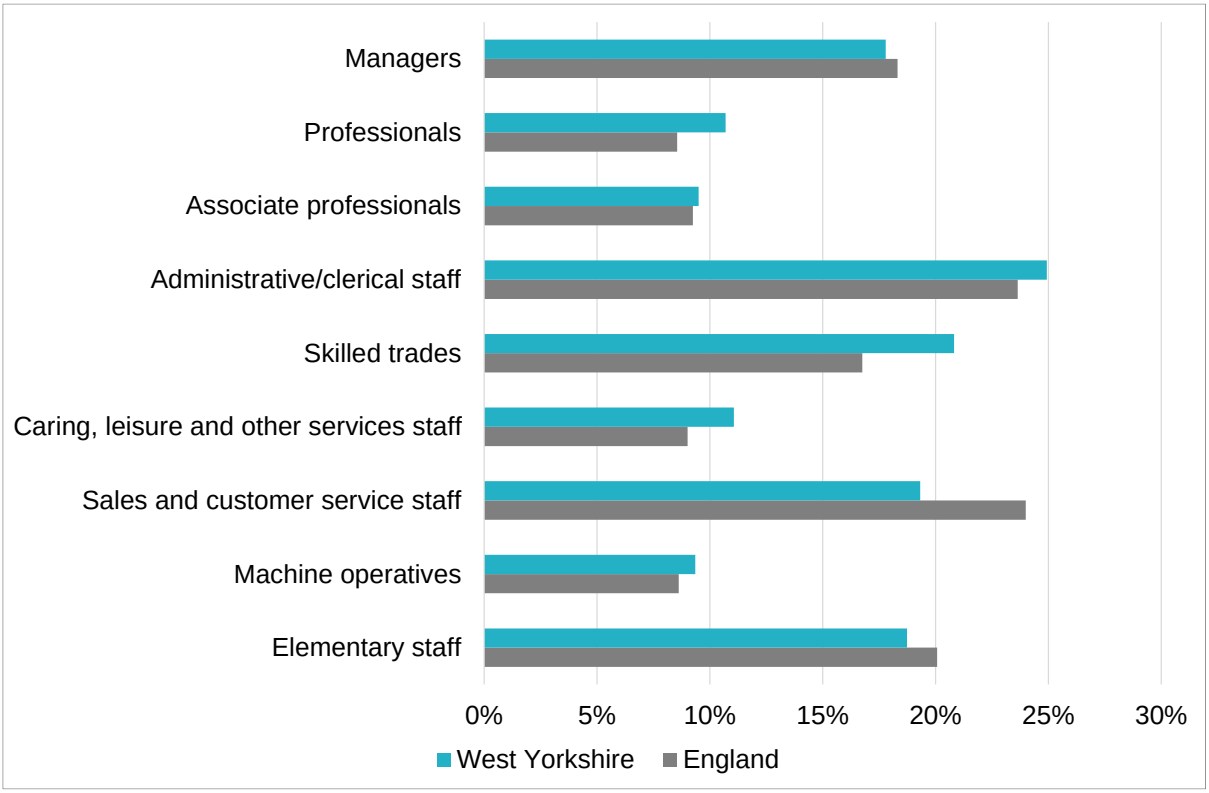
Figure 87: Volume and prevalence of skills gaps in West Yorkshire by industry sector, 2019



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



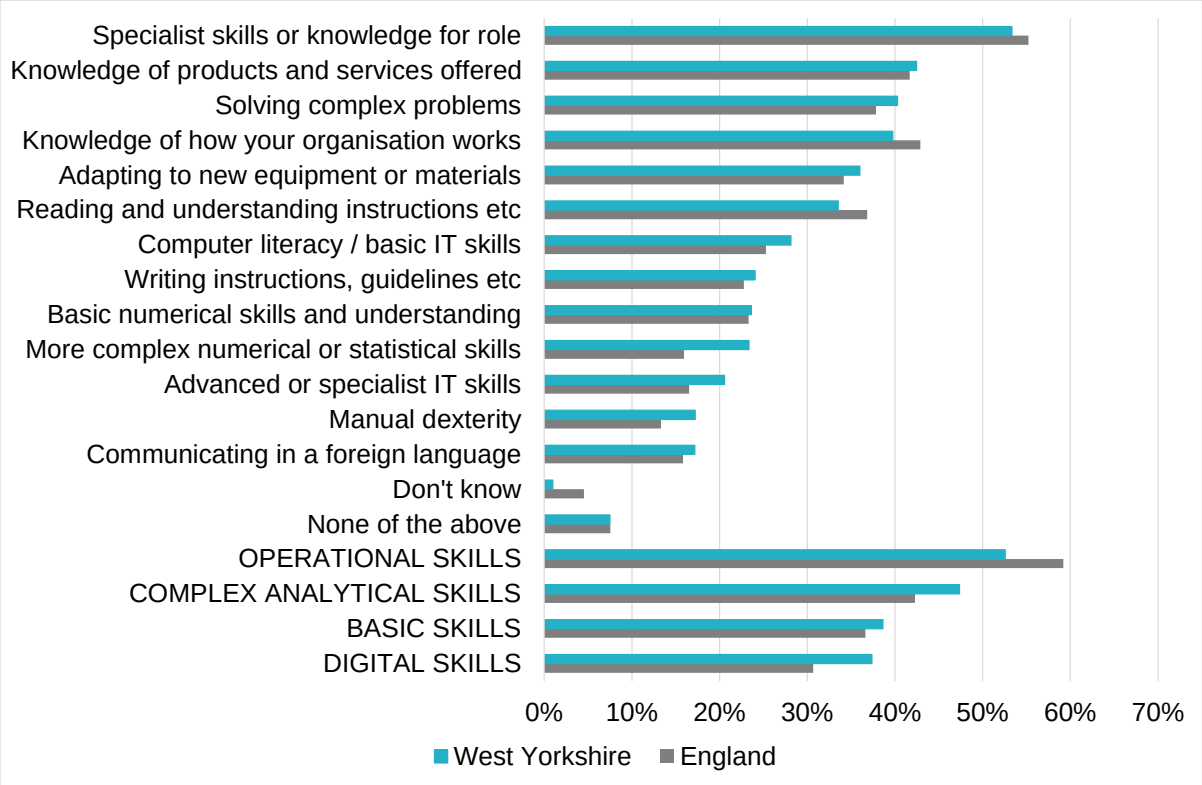
Source: Employer Skills Survey 2019
Base: all establishments with skills gaps

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.

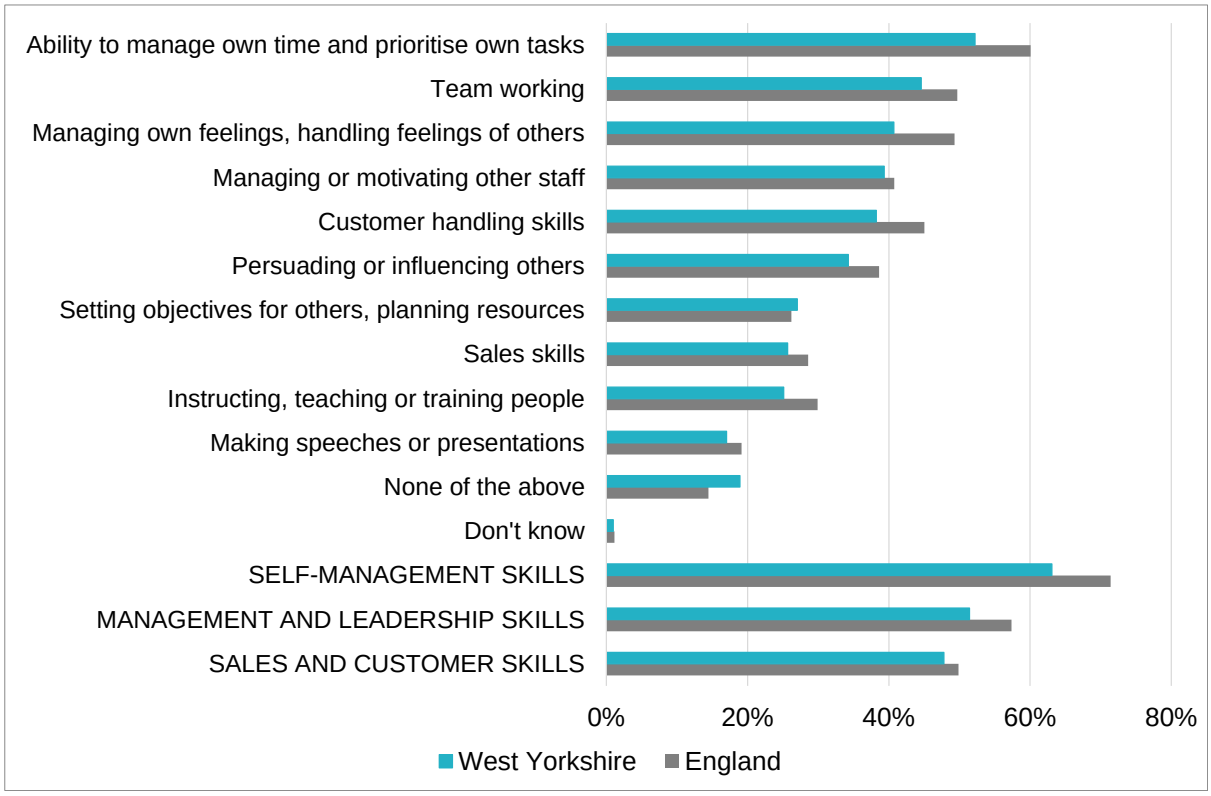
Figure 89: Technical / practical skills that need improving in occupations with skills gaps



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 90: 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[32].

5.4 Skills underutilisation

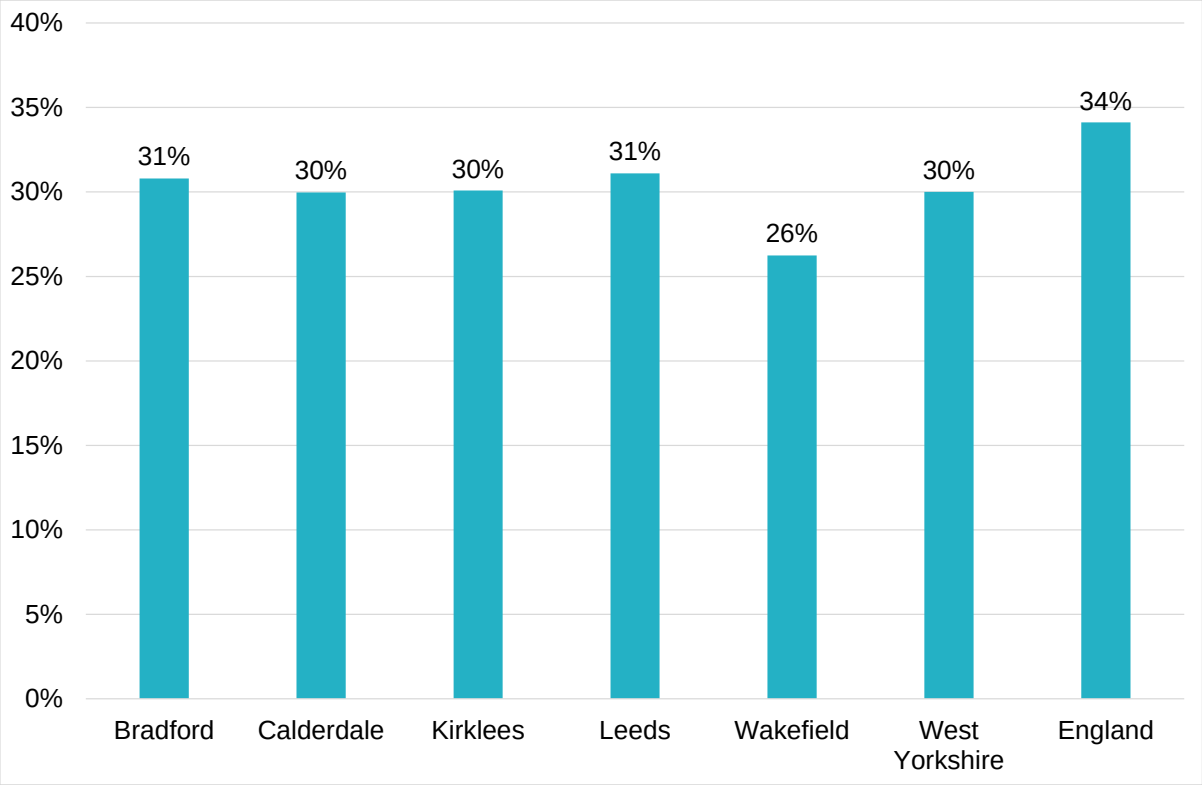
Skills mismatches are not only due to skills deficits. It is important to understand the extent and nature of skills underutilisation as this issue implies a significant misallocation of resources in view of the large-scale investment in higher education by individuals and the state. An inability to 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%.

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

Figure 91: 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[33] 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 116,000 people working in non-graduate roles[34] (as their main job) hold qualifications at level 4 and above. This is equivalent to 24% of all people working in non-graduate roles. Around 21,000 (18%) 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 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

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

[34] In this context non-graduate roles are defined as SOC major groups 4-9.

potential. The COVID-19 crisis could lead to the displacement of many these under-utilised workers presenting an opportunity to re-position them in the labour market with appropriate support.

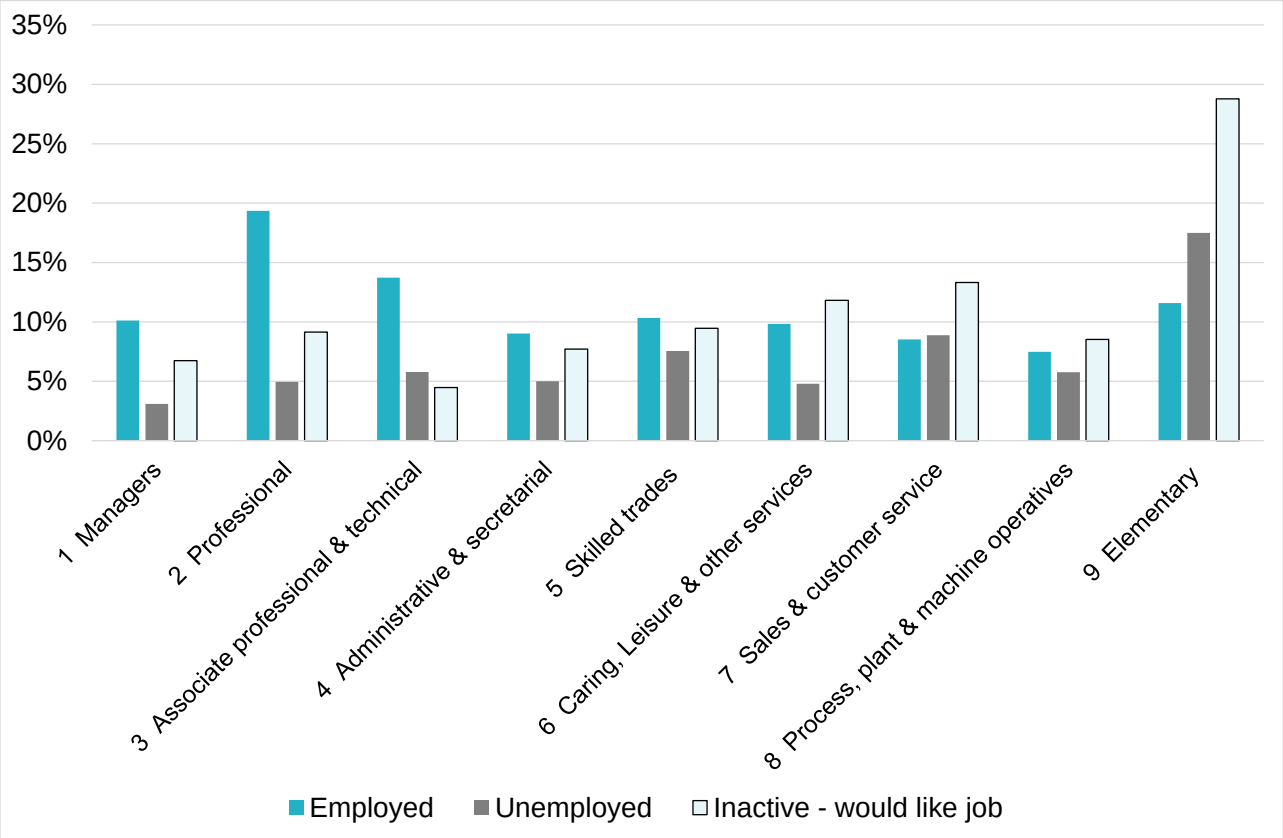
5.5 Structural joblessness

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

Forecasts (from the OBR, for example) indicate that the structural and long-term component of unemployment will increase as the economy struggles to adjust to the impact of COVID-19 and individuals need to move sectors and occupations to find work. This is likely to be compounded by the effects of Brexit and longer-term drivers of structural change such as automation. This situation will increase the need for targeted support to help people get back into work.

Figure 92: Occupational profile of the unemployed and inactive (based on last job), Yorkshire and the Humber



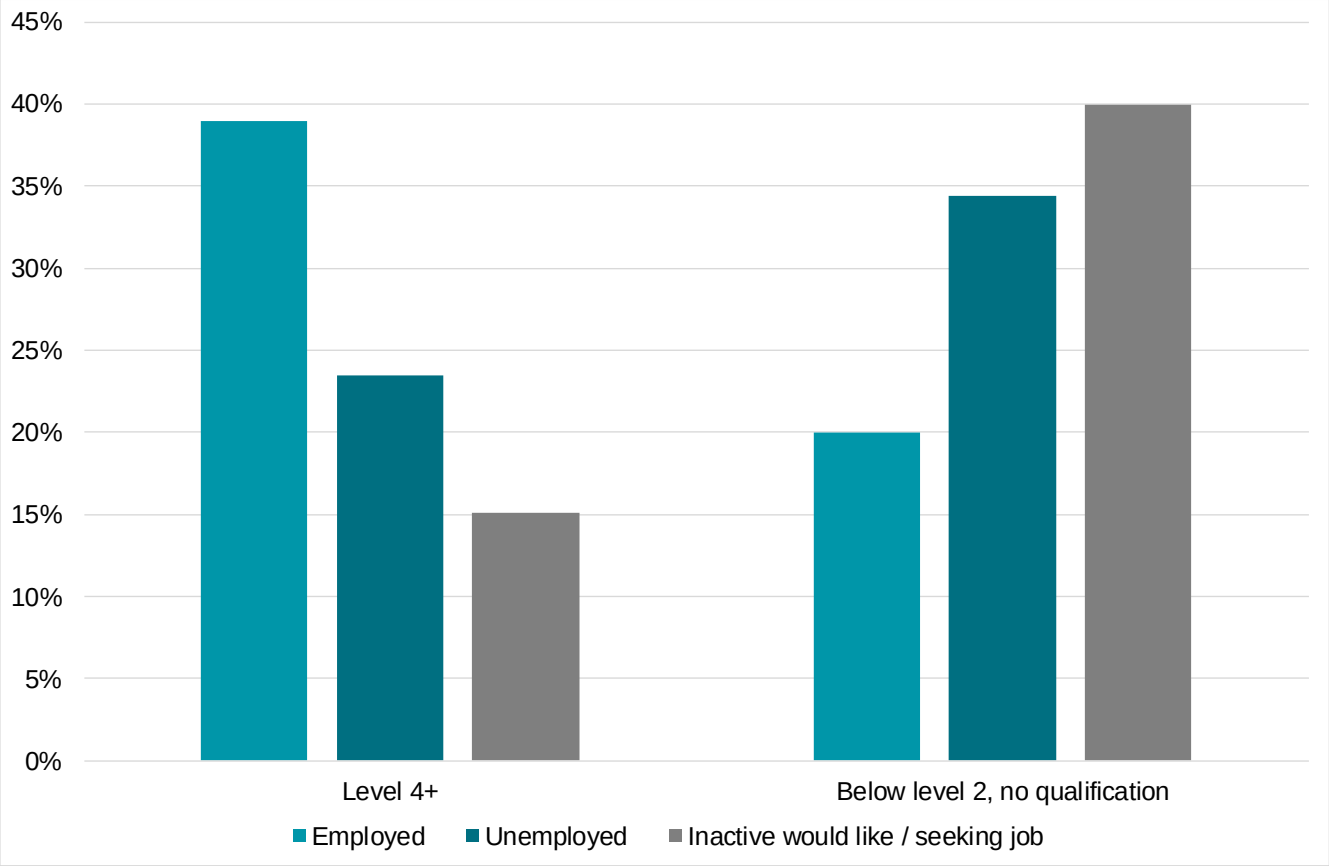
Source: Labour Force Survey, July to September 2020

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 strongly weighted towards lower-skilled occupations, principally elementary but also sales and customer service, plus caring roles and operative roles in the case of the inactive. The proportion of unemployed and inactive people with a background in higher skilled management, professional and associate professional is less than 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 challenge facing the unemployed and inactive is likely to worsen as a result of COVID-19. For example, many of the people displaced from employment by the crisis work in sales / customer service (retail) and elementary roles (particularly in hospitality). This means added competition in the labour market for many of those who are already unemployed or inactive.

Figure 93: Level of highest qualification held by the unemployed and inactive, Yorkshire and the Humber



Source: Labour Force Survey, July to September 2020

The unemployed and inactive are also disadvantaged by their qualification profile. Both groups are less likely to hold a qualification at tertiary level than the employed and are more likely to hold a low-level qualification or have no formal qualifications at all. Inactive people who are seeking or would like a job are twice as likely to have no / low qualifications and less than half as likely to be qualified at level 4 and above.

5.6 Responsiveness of education and training sector

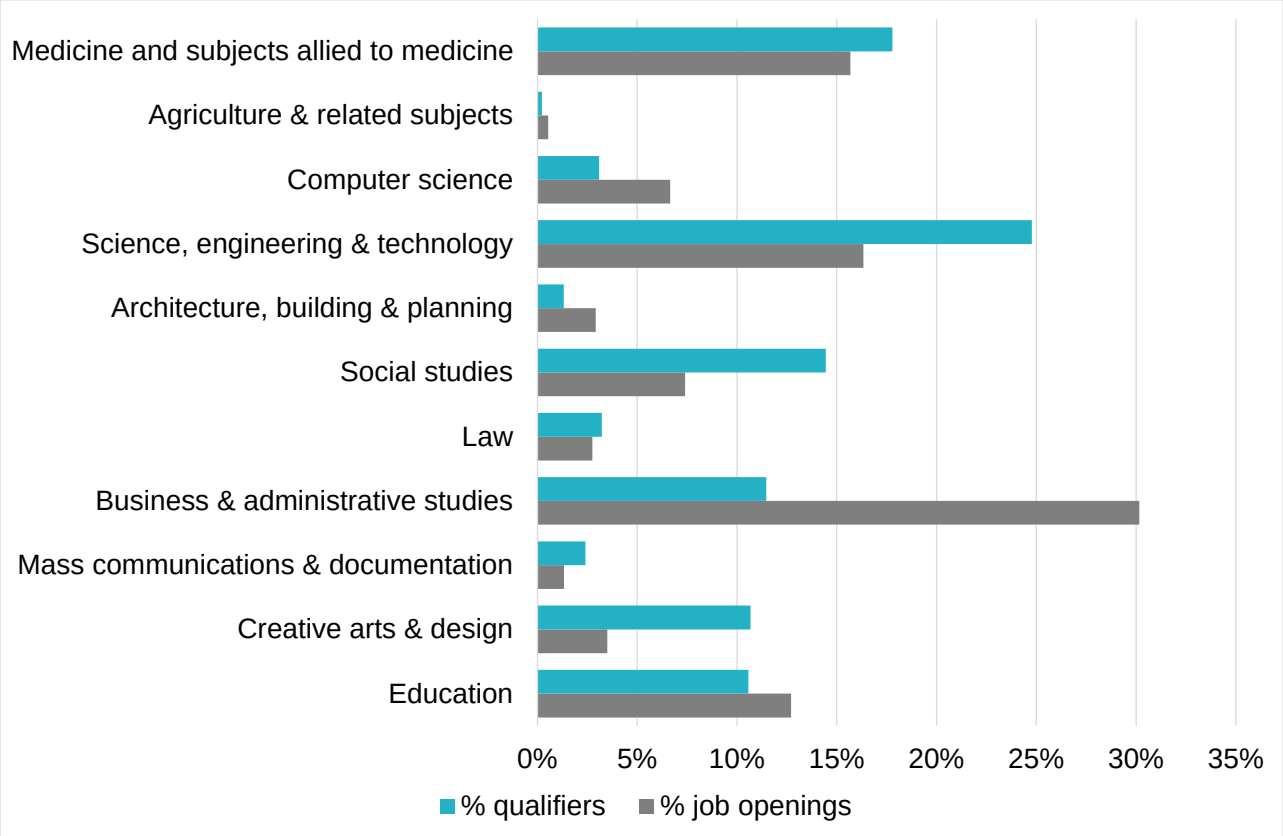
One way of assessing the relevance of HE provision to the needs of the local labour market is to compare the profile of provision to that of projected future job openings. This involves mapping subject categories to occupations[35]. Clearly, there is a major caveat around the transferability of skills. 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) rather than confining their efforts to meeting local needs and many qualifiers are not retained in the local area.

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. Key instances are *Computer science* and *Architecture, building and planning*. Both are particularly important as priority skills areas for the City Region. However, the most obvious area of apparent undersupply is for *Business and administrative qualifiers*.

[35] 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 94: Comparison of subject profile of higher education qualifiers with projected job openings in related occupations



Note: Limited to qualifiers with UK domicile
Source: LEP calculations based on HESA data for 2018/19 academic year and Working Futures projections

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* and *Social studies*. Further evidence of oversupply is provided by relatively low annualised graduate earnings in these subjects at national level[36].

The proportion of people who qualify in Science, engineering and technology also 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*.

[36] Department for Education (2020) Employment and earnings outcomes of higher education graduates: by subject studied and graduate characteristics in 2017/18. Available at: Graduate outcomes (LEO): Employment and earnings outcomes of higher education graduates by subject studied and graduate characteristics in 2017 to 2018 (publishing.service.gov.uk)

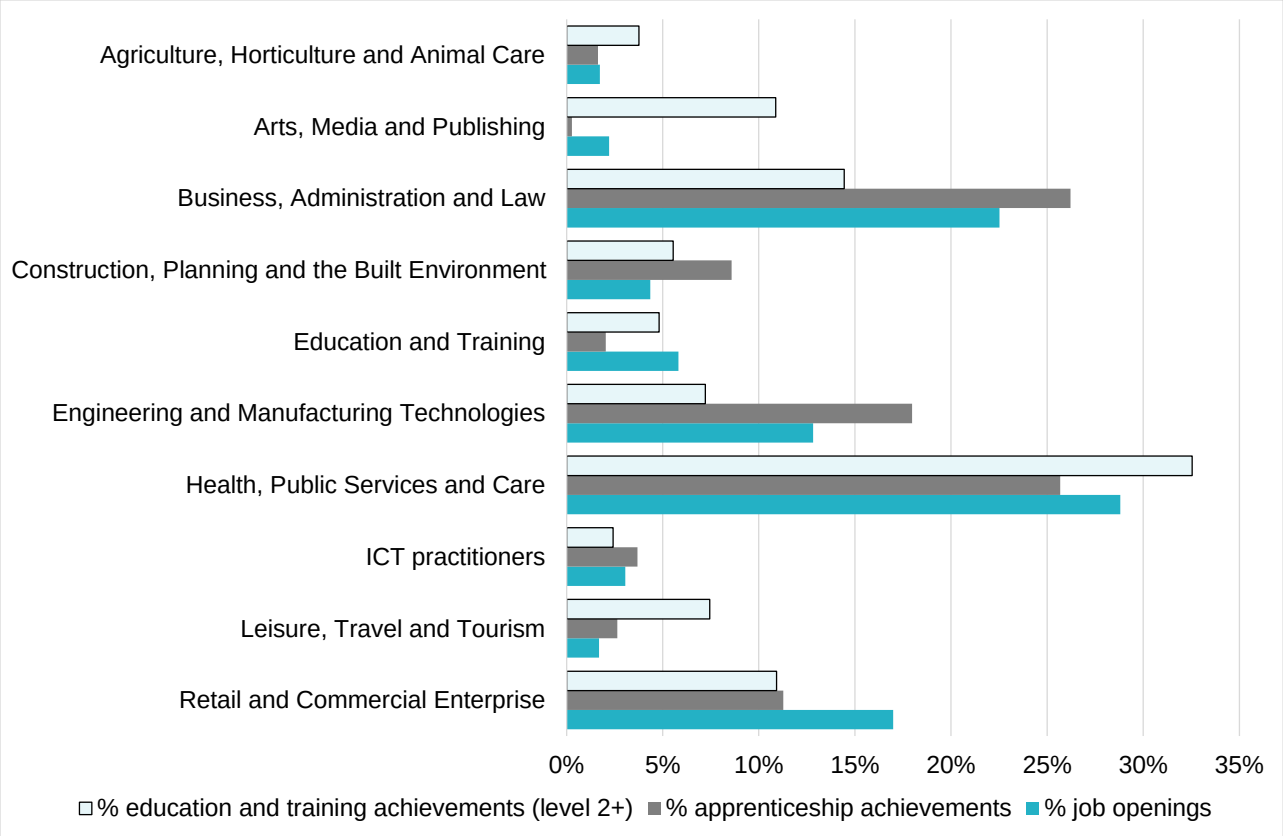
A similar approach to comparing supply and demand is applied to further education and skills, below.

There are also imbalances between the profile of FE provision and labour market demand

There is a broad alignment between the subject profile of apprenticeships and the profile of future job openings, although there are exceptions to this. The proportions of apprenticeship qualifiers in *Engineering and manufacturing technologies*, *Construction* and *Business, administration and law* subjects are somewhat above their respective shares of job openings. This may be partly because apprenticeships are traditionally a key entry route into engineering and construction roles.

There are several subject areas where the proportion of apprenticeship qualifiers is small compared with the proportion of job openings 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.

Figure 95: Comparison of subject profile of FE / Skills achievements vs projected job openings in related occupations, Leeds City Region[37]



Source: LEP calculations based on ESFA data (2018/19) and Working Futures projections

However, there are bigger disparities between the profile of education and training achievements (mainstream FE) and the profile of job openings. There are a number of areas where achievements significantly outweigh job openings, most notably *Arts, media and publishing* and *Leisure, travel and tourism*. *Agriculture, horticulture and animal care* and *Health, public services and care* also account for a high proportion of education and training achievements relative to job openings but the disparity is less marked.

Conversely, there are areas that are markedly under-represented in terms of FE achievements, most notably *Business administration and law*, *Engineering and manufacturing* and *Retail and commercial enterprise*.

There is a broad balance between the profile of qualifiers and job openings for *Construction*, *Education and training* and *ICT practitioner* subjects.

[37] Analysis is for Leeds City Region because Working Futures data not available for West Yorkshire.

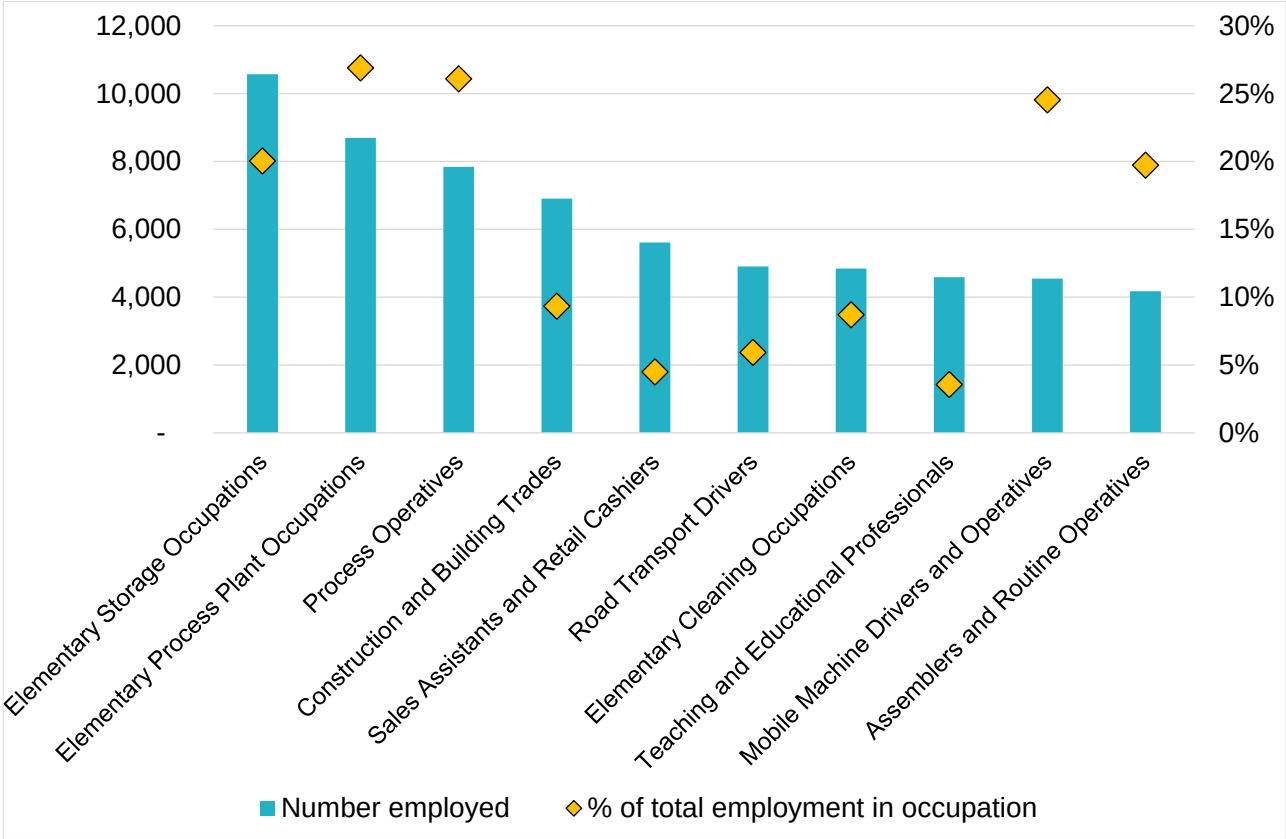
5.7 Migrant workers

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 141,000 EU migrant workers equivalent to 6% of total employment in the region, somewhat lower than the England average of 8%. The level of EU migrant worker employment is largely unchanged compared with last year's report, which may mean that labour supply issues arising from Brexit prove to be moderate at least in the short-term.

Figure 96: Occupations with the highest level of EU migrant employment, Yorkshire and the Humber



Source: Annual Population Survey, Jan – Dec 2019

EU migrant employment is concentrated in certain sectors, most notably manufacturing (23% of total migrant employment), wholesale and retail (18%), transport and storage (11%) and health and social work (9%). At a more detailed level, particular industries, especially sub-sectors of manufacturing, rely on EU migrant labour to a significant extent. Key examples include food manufacturing (within which EU migrants comprise 23% of employment), manufacture of electrical equipment (34%) and manufacture of furniture

(also 34%). Manufacturing aside, there is a high prevalence of migrant employment in wholesale and warehousing.

EU migrants are concentrated primarily in routine and low-skilled occupations

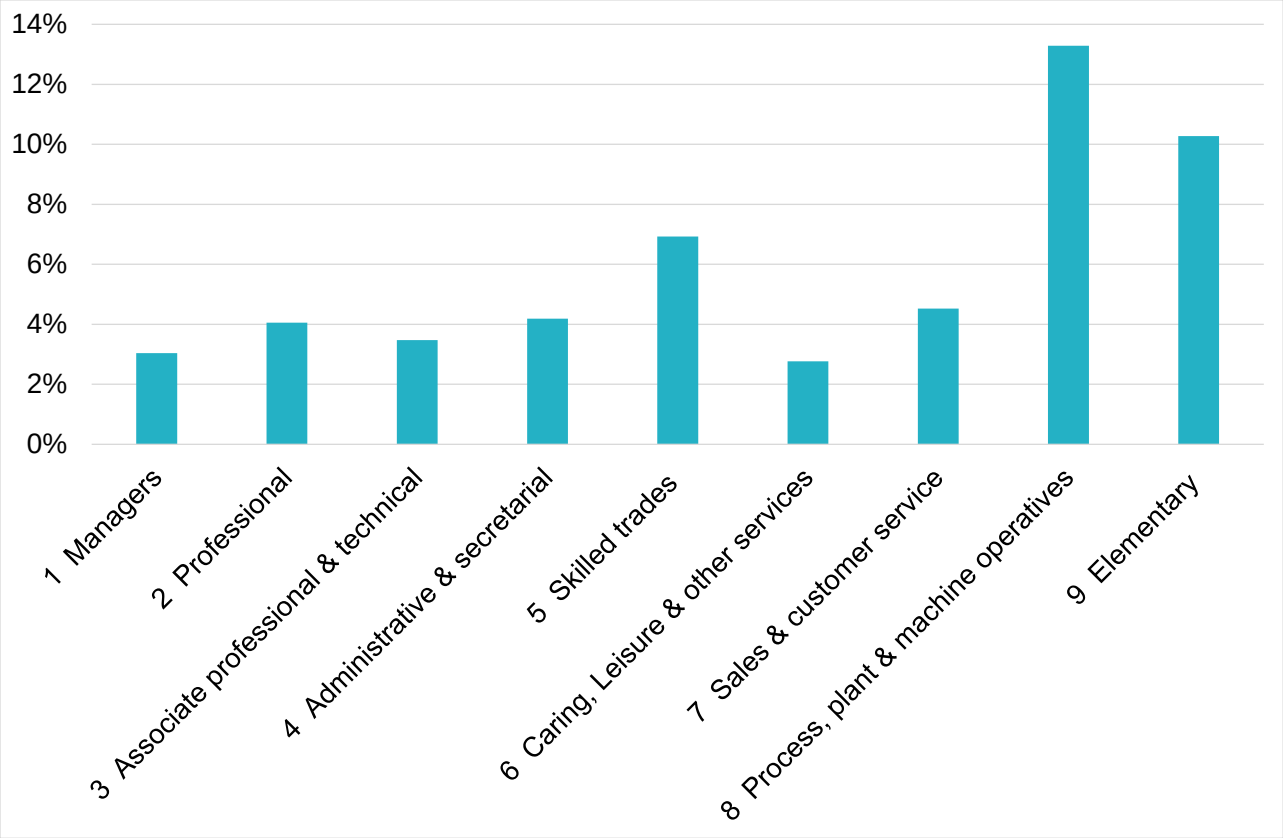
As the chart shows, the occupational groups with the highest level of employment among EU migrants are classified as lower-skilled elementary occupations, mostly manual, including storage occupations (such as warehouse labourers), process plant roles (such as packers, bottlers etc.), service roles (such as kitchen assistants and bar staff) and cleaning occupations. More than a quarter of elementary process plant and a fifth of elementary storage roles are undertaken by EU migrants.

Semi-skilled process operatives and assemblers also have a significant level of EU migrant employment. A quarter of all workers in process operative roles and a fifth of assembly roles are EU migrants.

Occupations related to agriculture do not feature in the chart and the available data for Yorkshire and the Humber indicate that there are few EU migrants working in agricultural trades and elementary agricultural roles. However, it is likely that official data understate the prevalence of migrant labour in this part of the economy.

Just over a quarter (28%) of EU migrant workers in Yorkshire and the Humber are employed in higher skilled management, professional and associate professional occupations, compared with 43% of all employment in the region. EU migrant employment in higher skilled occupations is concentrated in teaching professional and health professional and nursing occupations.

Figure 97: EU migrant employment as % of total employment in each occupational major group



Source: Annual Population Survey, Jan – Dec 2019

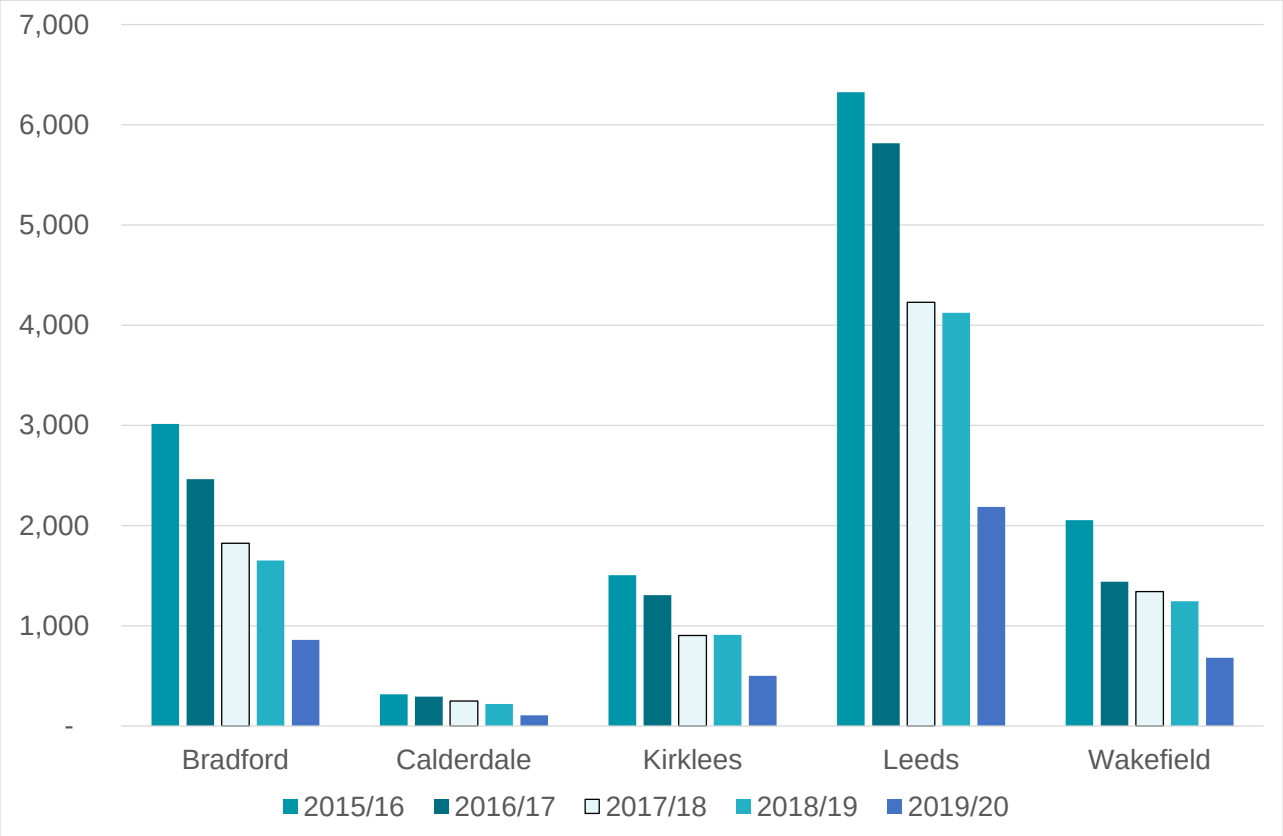
Although lower-skilled occupations are where the direct impact of Brexit could be greatest in the form of disruption to labour supply, there could still be significant implications for skills. For example, some employers may decide to move to a more skills-intensive business model founded on capital investment in labour-saving equipment.

Influx of EU migrant workers continues to fall

There is evidence that the influx of EU migrants into the local labour market is reducing. According to figures from the Department for Work and Pensions the number of EU nationals registering for a National Insurance number (NINo) within West Yorkshire declined by 47% between 2018/19 and 2019/20[38] from 8,150 to 4,340. This means that registrations are around a third of their peak level of 2015/16.

[38] A NINo is generally required by any overseas national looking to work or claim benefits / tax credits in the UK, including the self-employed or students working part time. NINo statistics are a measure of in-flow to the UK, primarily for employment, including both short-term and long-term migrants and include foreign nationals who have already been in the country but not previously required a NINo as well as migrants who may have subsequently returned abroad.

Figure 98: NINo registrations to adult European Union nationals entering the UK



Note: Year ending September
Source: Stat-Xplore, Department for Work and Pensions

All West Yorkshire council areas saw a similar decline in proportionate terms. As the economy recovers from Covid-19 this trend could have implications for the level of labour market slack in some occupational segments.

5.8 Demand and supply for high skilled workers

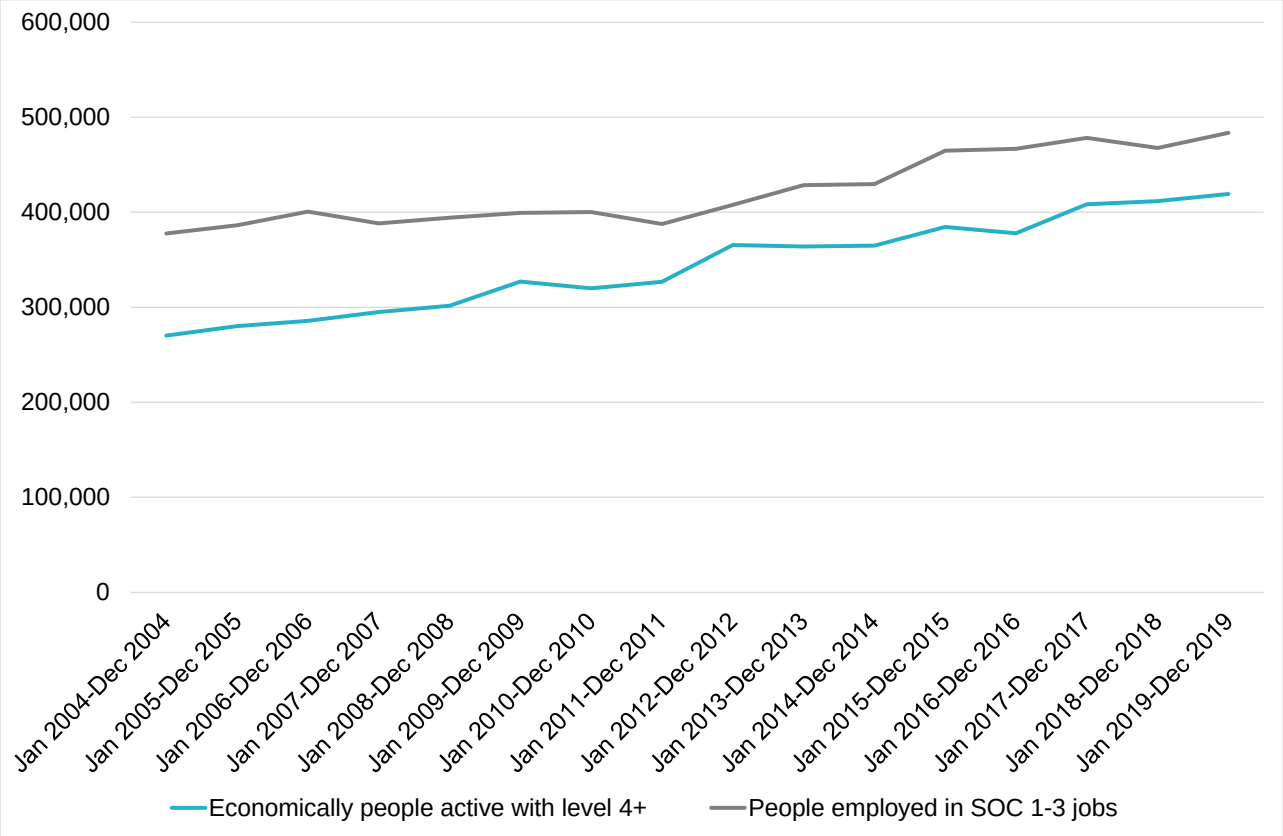
How is supply measuring up to growing demand for higher skilled workers? The figure, below, shows that the LEP area has more people working in high skilled jobs in the LEP area workplaces than it has economically active people qualified at level 4 and above.

Employment in higher skilled jobs has outpaced the number of higher qualified people

As of the period from January to December 2019 the number of higher qualified workers stood at 419,000 whilst the number working in high skilled occupations stood at 484,000.

Both of these indicators have followed an upward trend over the last fifteen years,. 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 99: 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 SOC 1-3 jobs is a workplace-based measure.
Source: Annual Population Survey

6 Conclusions

In this concluding section we consider the main skills needs facing the City Region and review the effectiveness of the local skills system in responding to these needs.

6.1 Key skills needs

Our understanding of local skills needs has been clouded by the disruption caused by COVID-19. It is important to distinguish the longer-term, underlying structural trends in demand from the shorter-term effects of COVID-19 but there is a great deal of uncertainty about what the lasting effects of the crisis will be and how they will interact with the impact of Brexit.

The continued **broad-based growth in the number of higher skilled jobs** in West Yorkshire presents a major opportunity for the area, although appropriate progression routes need to be put in place to enable people who are starting from a lower point on the skills hierarchy to take advantage of higher skilled job openings. With a few exceptions, job openings for higher skilled occupations have been relatively resilient to the COVID-19 crisis, just as they were during the previous recession and this suggests that the underlying upward trend in demand is likely to continue.

There are other examples where the effect of COVID-19 may serve to intensify existing labour market trends. For example, job openings for **care workers** have remained relatively strong during the crisis, building on longer-term growth in employment for this occupational area and the potential for labour shortages has not gone away. Conversely, demand for Administrative and secretarial and Sales and customer service workers appears to have been hard hit, perhaps reflecting an acceleration of an existing downward trend.

In some instances, changes in the pattern of demand for skills brought about by COVID-19 are less likely to persist. For example, job openings in the **Culture, media and sport** occupational category have reduced markedly, partly as a result of the impact of the restrictions on the arts and entertainment and leisure sectors. Since this category was one of the fastest growing in the economy in employment terms prior to the crisis it is likely to recover in the medium-term.

Demand for **goods drivers and for storage trades** has been strong during the crisis as e-commerce has grown in importance. Whether this will be a lasting effect is difficult to gauge. Even if the shift to online shopping is maintained automation could continue to impact on some of these roles in the medium to longer term.

Demand in the labour market for **green economy skills** linked to energy and the environment 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. Demand for digital specialist workers with higher level skills has been robust during the COVID-19 crisis. Meanwhile 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 are a number of key areas of current market failure where supply is not meeting demand.

Information on **skills shortage vacancies** largely dates from before the COVID-19 crisis but it seems likely that the pattern of shortages has not been fundamentally changed by the crisis and will persist into the future, particularly since many of the occupational areas most susceptible to shortages have seen resilient demand in recent months as measured by the volume of online job postings. 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.

Since **skills gaps** largely affect lower-skilled occupations with high rates of labour turnover, many of which have been directly affected by COVID-19, it seems likely that this issue has been dampened down by the COVID-19 crisis. However, widespread skills deficiencies relating to digital skills (see above), problem-solving, basic literacy and numeracy and a range of “soft” skills are likely to continue to be an ongoing challenge for the local economy.

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. Under-utilisation may to worsen as recent graduates struggle to compete for suitable opportunities in the labour market.

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 Skilled trades, Administrative occupations and Sales and customer service.

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 will present new challenges to the employment and skills system in West Yorkshire.

Although parts of London and the South East of England have seen the greatest direct disruption from COVID-19, areas like West Yorkshire potentially face a greater challenge in terms of their ability to recover from the crisis because of a lack of local resilience, reflected in weak performance on output and employment in the period leading up to the crisis[39]. West Yorkshire's relatively weak skills base is likely to be a disadvantage as the local economy seeks to adjust to the ongoing impact of COVID-19 and Brexit.

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 LEP's local economic strategy.

Over the coming months the local skills system will need to gear up to meet the challenge of the reskilling of the unemployed and people at increased risk of redundancy. There has already been a sharp increase in the number of people who are claimant unemployed and there is expected to be further increase in the jobless during the course of 2021. Forecasts indicate that the structural and long-term component of unemployment will increase as the economy struggles to adjust with the impact of COVID-19 and individuals need to move sectors and occupations to find work. Many of the people who are affected are poorly positioned in terms of formal qualifications and the range of workplace skills that they hold.

The impact of COVID-19 has greatly increased the barriers and challenges that face young people in making the transition into the world of work. Access to employment opportunities for education leavers has been severely disrupted whilst the employment prospects of young people already in work have also been affected. The career landscape that young people will need to navigate in future has been disrupted by COVID-19 and there could be further shifts as a result of COVID-19. Existing occupational pathways for young people in sectors like retail are likely to be disrupted by structural changes to the economy brought about by COVID-19 and the information, advice and guidance provided to young people needs to be re-calibrated. Action to address youth unemployment is critically important because being unemployed when young leads to a higher likelihood of long-term 'scarring' in later life, in terms of subsequent lower pay, higher unemployment and reduced life chances.

Although a large number of people have recently been made unemployed as a result of COVID-19, a focus needs to be maintained on disadvantaged groups that were struggling in the labour before the crisis hit and who without support risk long-term dislocation. This includes disabled people, people from ethnic minorities, older people and lone parents. The evidence shows that the employment rate gaps faced by these groups are mitigated when individuals have improved skills and qualifications.

[39] Social Market Foundation (2020) Levelling down: The medium term local economic impact of coronavirus. Available at Levelling down: the medium term local economic impact of coronavirus - Social Market Foundation (smf.co.uk)

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**. 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 an often complex range of individual needs.

Take-up of **higher apprenticeships** has been relatively resilient in the face of the COVID-19 crisis, partly reflecting the fact that the majority are funded through the levy. This 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 2019/20.

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. The disruption brought about by COVID-19 and Brexit will make this more important as firms seek to adapt to changing business conditions and to realign their workforce, while adjusting to other developments like the shift to remote working. 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