## West Midlands Combined Authority

# Local Skills Plan Evidence Report

Prepared by the

WMREDI Partnership – WMCA Office for Data Analytics, City-REDI, Black Country Consortium Economic Intelligence Unit

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On behalf of:



**Black Country Consortium** 

Economic Intelligence Unit



UNIVERSITY<sup>OF</sup> BIRMINGHAM BIRMINGHAM BUSINESS SCHOOL



Research England WMCA along with other regional partners have given support to a recently funded research institute in the region. WM-REDI will be a catalyst for a step-change in regional collaboration. Alongside funding from UKRI's Research England and the matching funds from the University of Birmingham, we have secured matched funding from the leading regional stakeholders involved in planning and delivering growth policies. This will be a shared collaborative approach to research and evidence in the region, as such all partners can utilise the structure to deliver research and data activities.

Key partners are:

- West Midlands Combined Authority (WMCA)
- GBS Chamber of Commerce
- Business and Professional Services consortium (BPS)
- West Midlands Growth Company (WMGC)
- Greater Birmingham and Solihull Local Enterprise Partnership (GBS LEP)
- The Black Country Consortium Ltd.
- The Coventry and Warwickshire Local Enterprise Partnership (C&WLEP)
- Aston University
- Birmingham City University (BCU)
- Other partners include Birmingham City Council and the other local authorities in the West Midlands metropolitan area, the Midlands Engine and the University of Warwick.

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### Foreword

The Covid-19 crisis has provided a stress test for the skills system in the West Midlands. The closure of schools, colleges and universities for most students during spring and summer 2020, together with the cancellation of exams, meant pressures and uncertainties for all involved. Despite reopening in autumn 2020, disruption and uncertainty continues. The impact of the ensuing recession is particularly stark for young people seeking to enter employment at a time when some sectors which have traditionally provided openings for young people as they gain work experience, are emerging tentatively from lockdown and workplaces more generally contend with the requirements for social distancing. Apprenticeships have been disrupted, with some apprentices being made redundant and others awaiting assessment, while recruitment numbers are down from last year.

One clear trend emerging from the Covid-19 crisis is the accentuation of existing inequalities, which in turn has implications for social mobility. Disadvantaged sub-groups benefit particularly from apprenticeships, yet the evidence presented here shows that they remain under-represented in higher level apprenticeships. Those from deprived areas have been hit disproportionately hard by the decline in apprenticeships during the crisis. Amongst adults those lacking formal qualifications remain most vulnerable in the labour market. More highly skilled people and those with recent work experience join the queue for jobs at the front pushing those already unemployed further back.

Both immediately and in the longer term, investment in skills development is crucial – for inclusion and for competitiveness. Before the onset of the Covid-19 pandemic there was increasing recognition that an effective lifelong learning system is essential to addressing employers' changing skills needs and ensuring that individuals have the skills they require to find work in a changing labour market. Now lifelong learning is becoming more established as a current and future imperative.

This requires a resilient skills system that is flexible to meet local needs of both employers - who may be re-examining their business models, working practices and skills needs in the light of Covid-19, Brexit and ongoing technological changes – and of residents. Although precise skills requirements vary by sector and by occupation, it is clear that digital skills are ever more important for work and for life. Evidence also points to individuals needing a mix of technical and social skills to navigate and succeed in the current and future labour market.

On 29<sup>th</sup> September 2020, Prime Minister Boris Johnson endorsed a skills-based response to recession, outlining a Lifetime Skills Guarantee to transform the training and skills system and prepare workers for the post-Covid economy. The idea is that adults without an A-level or equivalent qualification will be offered a free, fully-funded college course - providing them with skills valued by employers, and the opportunity to study at a time and location that suits them.

The skills system in the West Midlands has demonstrated adaptability, innovation and resilience in recent months, as provision has been brought online to a greater extent than ever before. It will need these qualities in abundance moving forward. Crucial here is a robust evidence base for local partners to use as they collaborate to ensure the supply of skills that will meet future demand and help achieve regional priorities as the nature of that demand changes. This is what this Evidence Base sets out to do by presenting and interpreting the most up-to-date statistics available.

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## Introduction

This evidence base aims to understand in detail how the supply of skills in the West Midlands Region matches up to current and future demands. This analysis will support the West Midlands Skills Advisory Panel, which is intended to provide valuable insight to the Government's Skills and Productivity Board.

It will look at the skills system at each level, from secondary school to further education, apprenticeships, and graduate outcomes. It will form an evidence base to understand the reach of the skills system, both to different parts of the region and to different population groups, as well as how the system can be improved to meet the goals of the Local Industrial Strategy and other regional priorities. This will be essential to:

- Develop policy to respond to the current economic crisis and move the growing number of young claimants towards suitable training and work opportunities.
- Anticipate long-term trends and future challenges in delivering skills.
- Identify bottlenecks in skills provision to all ages, informing future strategic plans and requests for new funding or powers.

It aims to assess the supply and demand for skills at all levels across the West Midlands (3LEP) region, and to meet the Department for Education's requirement of providing a full analytical toolkit to the new Skills and Productivity Board, where it can support their analysis at the national level. The evidence base includes publicly available data, labour market information from economic insight firm Emsi, and insights from the Individualised Learner Record (ILR), a collection of records of students' participation in the further education system. In terms of structure, it considers first supply, then demand, and finally the interrelations between the two. Given the rapidly evolving nature of the jobs market in the current pandemic, data on current and future economic impacts stemming from the pandemic will be considered alongside skills supply and demand for each stage of education.

## WMCA Productivity & Skills aims to tackle the challenges we face in skills provision in the region, through collaboration with the further education sector to develop high quality tailored support to young people entering the workforce and retraining workers alike.

#### The WMCA aims to:

- Prepare our young people for future life and work
- Create regional networks of specialist, technical education and training
- Accelerate the take-up of good quality Apprenticeships, across the region
- Deliver inclusive growth by giving more people the skills to get and sustain good jobs and careers
- Strengthen collaboration between partners to support achieving more collectively

#### It aims to achieve these goals by:

- Moving more people into employment
- Moving more people into higher skilled jobs
- Making more skilled employees available to support business growth and productivity
- Ensuring all communities benefit from the region's economic growth
- Developing an agile and responsive skills system that is more aligned to the needs of business and individuals

## Data Dashboard

Indicator	Theme	Where we are now	Change over the last year	Direction of Travel (Five year trend)	Relative to Peer Group
KS5 Destinations	Destinations	14.1% of young people in the West Midlands conurbation leave KS5 to become NEET in the latest year of data (2018/19). 7.0% do not have a known destination	This is an increase from 7.9% NEET and 4.0% unknown in 2017/18	The earliest data available (2015/16) had a NEET entry rate of 9.6% and lower unknown outcome at 3.34%	The UK average is slightly lower at 13% NEET entry and 6% unknown.
NEET and Unknown 16- and 17-year- olds	Destinations	5.3% across West Midlands (NUTS1) Region. High in Birmingham (7.8%), Herefordshire (9.2%), and Telford and Wrekin (8.6%)	Unchanged on last year.	Rate has increased from the 4.3% seen in 2015.	The rate in England is slightly higher, at 5.5%.
Early Years Foundation Stage Profiles	Destinations	Latest data for the West Midlands conurbation (2019) shows a school readiness rate of 68.6%.	Increased by 0.3% on 2018.	Rapid increase from the 56.4% seen in 2014.	UK has a higher rate (71.8%).
Qualifications - % Working Age Population at each NVQ Level	Destinations	AREA         2         1         NO           BCLEP         19.4%         12.7%         16.7%           CWLEP         17.3%         8.9%         7.3%           GBSLEP         18.6%         10.1%         10.0%           UK         17.2%         9.9%         7.9%	0.3% Increase in 'No Quals' across 3-LEP		Of 38 LEP areas, BCLEP the lowest, GBSLEP third, and CWLEP 15th.
Progress 8	Destinations	Overall Score (2018/19): -0.08 across WMCA conurbation, highest 0.09 (Birmingham) and lowest -0.19 (Sandwell).	0.06 increase in score over the region, with Sandwell improving fastest at 0.12		WMCA still lower than England (- 0.03), though gap has narrowed.
Apprenticeshi ps – Total (2019/20)	Destinations	25,230 new apprenticeship starts across the region (WMCA 3-LEP), with the most in Birmingham (5,830) and Dudley (2,520)	<b>18.7%</b> Increase in apprenticeship starts.	Decrease of 40.0% compared to 2015/16, following introduction of Apprenticeship Levy.	Slightly more rapid Y.O.Y decline than the England average decline of 18.0%
Apprenticeshi ps – Higher (2018/19)	Destinations	4,140 of our new apprenticeship starts were Higher Level apprenticeships	60.7% increase in higher apprenticeship starts.	191% growth in higher apprenticeship starts versus 2014/15	England average grew faster, at 285%

Mid-year population estimates	Demographi cs	The West Midlands (3-LEP) population stands at 4171507	0.71%	8.02% Growth since 2008.	Faster than UK average of 7.46%
House Price to Income Ratio	Demographi cs	West Midlands (3-LEP) house prices exceed average incomes by 7.2 times in 2019.	The ratio increased slightly across the West Midlands (3- LEP), by 1%	Housing in the region is becoming less affordable, with ratio increasing from 6.6 in 2014.	The England average is still worse, at 7.83, though increasing more slowly indicating convergence.
Workforce Conditions and Patterns	Workforce	An increasing share of workers in the West Midlands (3-LEP) work full time, at 51.2% in 2020. 19.9% work over 45 hours per week, 25.8% between 10 and 15, and 3.2% less than 10.	The share of full time workers increased from 50.1% in 2018.	Increase from 47.9% in 2015.	
Gender Pay Gap	Workforce	Gross hourly pay rates (median, all job types) for men and women in 2019 were £13.48 and £12.44 in BCLEP, £15.66 and £13.52 in CWLEP, and £15.33 and £13.19 in GBSLEP.	Ratio of female to male hourly pay was essentially unchanged in BCLEP (92.5% to 92.3%), lower in GBSLEP (88.8% to 86.0%) and significantly improved in CWLEP (80.5% to 86.3%) however this was as much due to a fall in men's pay as it was a modest increase in women's pay.	CWLEP saw a significant improvement over five years (81.0% to 86.3%) as did GBSLEP (83.9% to 86.0%). BCLEP pay ratio worsened slightly (94.1% to 92.3%) though remains much better than most areas in this respect.	The UK has a worse pay ratio than the West Midlands (at 81.9%) and has improved at a slower rate over the last five years (from 80.2%).
Employment rate	Workforce	West Midlands (3-LEP) employment of working-age population stood at 72.4% in 2019.	No change on 2018.	Improvement on 68.1% in 2014.	The UK average was significantly ahead in 2019 at 75.6%
WMCA Average Annual Earnings (Workplace- based)	Workforce	Average earnings of £29,422 in the West Midlands (3-LEP) area, as of 2019.	2.7% increase	15.5% increase on 2014	England average of £30,661 is higher, and increasing at the same 2.7% rate on 2014.
Claimant Count (16-24, 16-64)	Workforce	207,645 people were claiming JSA, Universal Credit, or other equivalent support as of January 2021, including 41,230 16-24- year-olds.	This represents a 85.1% increase on January 2020.	Has increased by 214.6% on January 2016	The UK increase of 111.6% year- on-year has been considerably steeper.

GVA per hour worked	Growth & Productivity	£32.69 in the West Midlands (3- LEP) area, as of 2018.	3.78% increase on 2017	16.7% 5-year increase (on 2013)	UK Average is £35.03, however this increased more slowly than the West Midlands at 12.0%
GVA Per Employee	Growth & Productivity	£56,877 average in West Midlands (3-LEP) as of 2018.	£56,877 average in West Midlands (3-LEP) as of 2018.		England average £63,261. However its 5-year increase was slower at 10.1%
R&D Expenditure by Businesses	Growth & Productivity	Available only for the broad (NUTS1) West Midlands Region. Total expenditure £2,357 million.	14.1% decrease versus 2018 (current prices)	22.5% increase versus 2013	Expenditure in England grew slower at 29.3% on 2013 and 6.5% on 2017
Productivity by Region and Industry	Growth & Productivity	The West Midlands (NUTS1) had an average hourly output of £88.86 in 2018, and is one of few regions to see an increase in recent years by this metric.	3.7% increase between 2013 and 2018.	1.07% increase between 2017 and 2018	Only Northern Ireland and the East of England saw a comparable increase, at 3.15% and 2.11%.
Apprenticeshi p Vacancies	Demand	2,226 (Dec. 19– Jan.20	Decline: -301 (- 11.9%) (versus Dec. 18 – Jan. 19)	Decline: -255 (- 10.3%) (versus Dec. 16 – Jan.17)	WMCA – Highest CA Greater Manchester CA: 1,783 (2nd) North of Tyne: 155(10th)
Job postings	Demand	86,046 unique postings in July 2020	39.9% Decrease in unique job postings compared to July 2019		
Further Education Provision - ESFA datacube	Provision	325,989 course completions in 2018/19 in the West Midlands conurbation.	9.7% Decrease in course completions compared to 2017/18	1.9% Decrease on earliest available year (2016/17)	
HE graduating students	Provision	The West Midlands (NUTS1) region produced 71,530 graduates in 2018/19, consisting of 46,140 undergraduates and 25,390 postgraduates.	This represents an overall increase in undergraduates of 4.4% on 2017/18, and a 6.6% increase in postgraduates.	Overall increase in undergraduates of 13.5% on 2014/15, and a 19.26% increase in postgraduates	UK average growth over last five years of 2.63% for undergraduat es, and 16.95% for postgraduates

#### **Characteristics of the local skills stock**

- The West Midlands is behind the UK average in qualification levels, with a larger share of working-age people without any formal qualifications. The Department for Education's Working Futures 2017-2027 analysis projects that the West Midlands will also be the slowest region to reduce 'no qualifications' status, and, while the long-term trends have been positive, we saw an increase of 0.3% in 'no qualifications' last year.
- The NEET (Not in Education, Employment or Training) rate in the region has increased in the long run, from 4.3% in 2015. While these trends in NEETs reflects the experience of 17 and 18-year-olds, there has also been a significant increase in the proportion of young people leaving Key Stage 5 (generally at 18) and becoming NEET. The Department for Education collection of schools data shows a concerning increase in the rates of NEET and unknown outcomes, with 14.1% of young people in the West Midlands conurbation leaving KS5 to become NEET in the latest year of data (2018/19). 7.0% do not have a known destination. This is a significant increase on the same figures in 2017/18, which were 7.9% and 4.0% respectively.
- Fewer pupils achieved at least two substantial Level 3 qualifications in 2018/19 than the England average (83.1% in the full West Midlands region versus 85.9%) in almost all local authorities in the West Midlands, with only Stoke-on-Trent beating the average at 87.8% and Dudley far behind it at 78.1%. It should be noted that the relatively small sample (a few thousand students per Local Authority) means that we should expect some fluctuation year to year. However, the fact that almost the whole region underperforms relative to the England average suggests that we are not yet fully equipped to close the skills gap.
- Of equal concern is the gulf in attainment of high A Level grades (Three A\*-A grades), with the West Midlands region once again significantly behind the England average, at 9.5% versus 13%. Only Telford and Wrekin (13.7%) beat this average, and the small sample size (906 pupils) means we should not attribute too much to this difference. Many Local Authorities in the region are far behind this; only 2.9% of pupils in Sandwell achieved these grades, and 4.7% in Stoke-on-Trent.
- Recent research by the Social Mobility Commission found that, while disadvantaged learners benefit most from apprenticeships, they are under-represented in higher-level apprenticeships, with 48% from the 20% most deprived areas at the lowest-level 'intermediate' apprenticeships, versus 41% for the rest of the population. Those from more deprived areas were also more impacted by the decline in apprenticeship numbers (a fall of 36% versus 23% for more privileged apprentices) between 2015/16 and 2017/18.
- Graduate retention in the region is somewhat weaker than the UK average. Fewer students stay for both study and subsequent employment (19.8% in the Black Country, 17.9% in Coventry and Warwickshire, and 24.3% in GBSLEP vs 29.3% nationally.) Given the size of the university system in the region, this gap in retention represents a significant constraint on skills supply.

#### Understanding the movement of skilled people within the region

- 2011 Census travel-to-work data indicate commuting patterns in the region that are largely
  within each individual LEP area. For instance, commuters to Birmingham are overwhelmingly
  travelling from within the GBSLEP area. Travel to work distance is more restricted in BCLEP,
  likely as a result of more limited transport infrastructure. A large proportion of workers therefore,
  travel to work from commuter areas. However, there is an imbalance in the quality of
  transportation, enabling so potential workers from commuting.
- Universities earn higher fees by admitting international students, and there has consequently been a growth in international students over the last decade. However, the region struggles with the graduate retention, exacerbating the shortfall in individuals qualified to Level 4+. This may in part reflect lack of opportunities in the labour market.
- We expect significant population growth across the region (5.41%) between now and our demand forecast end-date of 2027. This should provide a greater workforce to the region, however it is important that schemes are focused on bridging the skills gap between demand and supply, to ensure that this growing local workforce matches the skills demands of employers.

## Gaining insight into business and employer environments (wages, practices, renumeration)

- Workers in the West Midlands are more likely to earn less than the Living Wage Foundation rate, the highest proportion in Wyre Forest at 28.9%, the lowest in Warwick at 12.9%, and the UK average being 20.1%. Those earning below this rate are likely to either be on the National Minimum Wage or potentially in the gig economy, and consequently at risk of in-work poverty. As a result, travel costs (as well as time) may represent a major impediment to working in the urban centre.
- The gender pay gap in the West Midlands is both lower, and improving faster, than the UK average. In the last five years (Annual Survey of Hours and Earnings, 2014-2019), the ratio of women's hourly pay to men's increased from 84% to 86% in GBSLEP, 81% to 86% in CWLEP, but declined from 94% to 92% in BCLEP. The UK average increased from 80% to 82%. This implies a better situation for women in the workforce, as they are more likely to earn a similar amount to their male counterparts.

#### Identifying strengths and weaknesses in local education and training provision

- During the COVID-19 lockdown period when schools were closed, most students across the UK received around 2.5 hours a day of study, which may significantly hinder the learning of students. This will likely have consequences for pupils preparing for exams next year and for their long-term educational development in general.
- Apprenticeships within the region were recovering from the fall following the introduction of the apprenticeship levy in 2017/18. There has been a fall in the number of apprenticeship placements available following COVID-19, as it became more expensive for businesses to take them on.
- Apprenticeships are also increasingly concentrated in larger employers. This has the effect of reducing the range of apprenticeships on offer, and is also a transport and access problem, as opportunities are becoming less evenly distributed across the region.
- More positively, apprenticeship provision currently does a good job of reaching people of different ethnic backgrounds, with apprenticeships at each level closely matching the general population. This puts the system in a good position for creating bridges to opportunity, provided we can boost overall recruitment and bring apprentices up to higher skill levels.
- The Adult Education Budget (AEB) is the primary means by which the West Midlands Combined Authority funds adult education courses. It is available to fund course fees for adults aged 19+, and from August 2019 was devolved from the ESFA to the West Midlands. In the long term, this gives the region flexibility to rewrite funding rules to suit local requirement. For instance, this may include pilot schemes, shifting the way we think about the effectiveness of FE provision to focus more on impact, co-locating provision with other public services, and de-risking new courses and new methods of teaching.
- While the NEET rate in the region last year, prior to the crisis, was lower than the UK average (5.3% to 5.5%), there has been an increase in the conurbation in how many pupils people leave Key Stage 5 and become NEET. This increased from 7.9% in 2018 to 14.1% for those completing school in 2019. KS5 pupils whose end destination was unknown also climbed from 4.0% to 7.0%. The caveat here is that many of these young people may later find employment in subsequent years.
- Traineeships are funded by the Education and Skills Funding Agency (ESFA) and help young
  people qualified below Level 3 through an unpaid course (expenses can be paid) of up to 6
  months. During this period they have work experience to prepare them for work or an
  apprenticeship. This offers practical work experience and training to those who struggled to
  meet level 3 by mainstream means, which will boost the skills of the workforce supply. However,
  there is already an oversupply of level 3 within the workforce and the region needs to focus on
  promoting level 4 training and education.
- The Work and Health programme is intended to support those out of work. It is voluntary unless
  except for those unemployed and claiming benefits for more than 24 months. People who are
  disabled, carers or former carers, former members of the armed forces, refugees, victims of
  domestic violence, are considered a priority group and also may receive support. Through this

programme it has been estimated that 15% find employment within 12 months. However, over the last 9 months there has been a sharp decline in the number of people being admitted to the scheme, which may impact the training resources and help. This may hinder those who have been long-term unemployed from gaining training and education which matches the current market.

#### Outline of the key strengths, weaknesses and drivers of current and future skills supply

- Service sector job positions predominate in employment growth with the most new job postings in catering (1,327), waiting and bar staff (1,030 and 738), care work (811), and book-keeping and payroll (676).. As this was the fastest growing sector in the region, focusing on training courses in this area may be beneficial if there is an expected bounce back post pandemic.
- However, it should be noted that whilst demand for this labour has been increasing, these jobs are frontline and therefore amongst the hardest hit by the pandemic, as businesses have to restrict or close their businesses to the public or reduce output to meet the new generally low demands of the market.
- The large number of graduates in business indicates that there is sufficient supply of this general skillset, provided that these students graduate with the specific competencies they will need for the roles available. However, the most common 'hard skills' cited in recent job postings in the region include auditing (11,959 postings), business development (9,480), accounting (9,427), key performance indicators (8,369), selling techniques (6,322), forecasting (5,166) and risk analysis (4,628). The high demand for forecasting and risk analysis skills in particular hint at the large number of positions which emerging data science products and techniques may disrupt in the coming decade. As therefore, whilst there is current demand for these position, as automation improves there may be a fall in the demand for labour in this sector.
- Marketing and sales, administration, care work, HGV licenses, accounting, and hospitality are the main areas in which demand is expected to outstrip supply.
- T-levels are new certifications aimed at pupils aged 16+, and intended to provide a rigorous vocational alternative to three A Levels, including work placements and also guaranteeing a basic level of English and Maths competency. They are a framework which can include existing vocational qualifications within it. 24 subjects will ultimately be covered, with the first three new available for new starters as of September 2020. This will provide a new route for young people who wish to continue which further education, but do not want to go down the A-levels or apprenticeship route.
- Over the next few months it is likely that a larger proportion of school leavers will continue into further education than in previous years, as the pandemic has reduced the number of jobs available in the region.

#### Assessing current employers' skills needs

- The most recent Employer Skills Survey (2017, published August 2018) highlighted the strong demand by employers for increasingly necessary digital and analytical skills. To meet this demand, 55% of employers in the Black Country anticipate that digital skills will need enhancing over the next 12 months, compared to 47% in CW LEP and 49% in GBS LEP, and 48% nationwide. There is an undersupply of NVQ2 and NVQ4 and an oversupply of NVQ3 and NVQ1, within the West-Midlands, the skills set therefore, of the current workforce is not meeting the current skills needs of employers.
- On average in the WMCA 24% of all vacancies are skills shortage vacancies, higher than the national average of 22%, but lower than the West Midlands region average of 25%. There is the acute problem of skills shortage vacancies in the manufacturing, construction, information and communications, business services and education sectors. Some sector-geography combinations are not available where sample size is inadequate. Skilled trades occupations are the most common occupation to be suffering from skills shortage vacancies in both BC LEP (38%) and GBS LEP (21%), associate professionals in CW LEP (41%). This indicates an opportunity for Further Education and apprenticeships to bridge the gap for new applicants or upskill existing workers.
- There is a mismatch of skills as there is an undersupply of NVQ4 and an oversupply of NVQ3 with the West Midlands labour market. As students have to stay in some form of education till

the age 18, this would suggest students are staying in education till they are 18, but then few are continuing into Further Education. Creating a shortfall in those trained to level NVQ4.

#### Identifying key market barriers and business barriers to meeting skills demand

- The West Midlands faces a significant gap between the level of qualifications required by employers, and the level currently prevalent in the working population. This may potentially worsen under in the current climate, as the COVID-19 lockdown saw a reduction in time spent learning by state children at home to 2.5 hours a day for several months. This will potentially hinder their further education in the future, especially as there is a second expected wave of COVID-19, which may further disrupt the education system. May young children will have been adversely affected at a key stage of development, a particular concern given that the West Midlands has a lower level of school readiness than the UK average.
- There is a shortfall in the number of new teachers completing PGCEs in the region, with 3,103 trained the last academic year. This will impact the quality of education that students receive within the region, for instance by affecting class sizes and the availability of the best staff.
- Apprenticeships within the region were increasing; however this represents a recovery from the fall following the introduction of the apprenticeship levy in 2017/18. This recovery was not complete and has now been imperilled by COVID-19.

#### Short-term impact of Covid-19 on skills supply and demand

- As consumers have changed their shopping and consuming habits under Covid-19 many businesses have seen demand for the goods or services fall. While furlough has helped some businesses retain staff, government support will eventually taper which will mean redundancies. The number of people receiving claimant account benefits has increased with there being 85.1% more claimants in December 2020 than in December 2019. This indicates that not all jobs can be saved by the furlough scheme.
- While students have been learning from home it has been estimated that state school children are only receiving 2.5 hours of learning time per day. This will not only hinder the quality of their learning but, will also impact greatly on the social interaction that is crucial in childhood for interrelationship development.
- Going into the COVID-19 crisis, apprenticeships were recovering from a fall following introduction of the Levy in 2017/18. Research from the Sutton Trust in May showed that apprenticeships have been badly hit by the crisis, with 60% of employers having ceased all new starts.
- Conversely, Further Education course provision has changed little in recent years in terms of number of qualifications and level and subject breakdown. However, we should expect many more people to enrol in FE as a result of the crisis putting people out of work, meaning the system will need to adapt to serve more people.
- The COVID-19 pandemic has also highlighted the level of risk to universities of relying on international students to fund their expansion, though the pandemic has not significantly hit recruitment in the 2020/2021 academic year.
- The use of teachers' predicted A Level grades has caused significant grade inflation this year. This is likely to cause problems for universities with lower entry requirements who will miss out on student tuition. It may also mean that some students will attend university who in a normal year would not have passed their exams, meaning some may be unprepared for the rigors of university study.
- Furthermore, the pandemic has hindered the number of international students attending the universities within the region, as there are restrictions on travel. Or an unwillingness for students to travel in such uncertain times. It is more likely that due to a fall in the demand for jobs locally, due to the pandemic, that there will be a rise in the number of students attending university from the local area.

## Long-term impacts of COVID-19, technological change, and global trends on the skills needs of firms

- To meet the demands of technological change, 55% of employers in the Black Country anticipate that digital skills will need enhancing over the next 12 months, compared to 47% in CW LEP and 49% in GBS LEP, and 48% nationwide. This suggests that workers in the Black Country are on average marginally less competent at digital skills than employees elsewhere in the WMCA. The rise of automation across multiple sectors is likely only to exacerbate this shortfall. Especially, as the recent pandemic has revealed that some jobs can be done via automation, rather than labour.
- Changes to international migration stemming from Brexit may be better understood through the lens of specific skills than through qualification levels. The points-based system introduced in the UK Immigration Bill may preserve access for STEM fields but others, such as nursing and care work, may face shortfalls.
- The NESTA report Democratising the Knowledge Economy notes that new, knowledge and digital infrastructure-intensive industries are prone to concentration into a few large firms with high R&D expenditure, converging at geographical clusters with a high concentration of skills. This makes it particularly important that 1. Available funding (including temporary funding such as the High Value Courses offer for Further Education), much of which is targeted at these skills, is made accessible and advertised to all young people (all ethnic groups, male and female) to support inclusive innovation. 2. We make use of existing clusters of expertise in the region and diffuse technical skills widely, as most of these skills are valuable in many different domains and sectors. 3. Ensure we analyse job postings and skills requirements across existing sectors, as many new analytical skills are cross-cutting and do not form a neat and distinct sector of their own. For example, 'Proftech', which refers to the application of data science and advanced analytical tools to existing areas such as the legal and financial sectors.
- The current pandemic has caused a lot of businesses to reduce the number of apprenticeships they have to offer, as the focus on their short term survival, especially as there may have been significant falls in demand of their product due to the change in consumer patterns in the current climate. How long it will take for this threat to disperse depends on the timelines for vaccination and long-term economic recovery.
- As there is greater advancements in technology globally more and more jobs are becoming automated. With there being a large manufacturing industry within the area, labour could be severely hit, as employers switch to automated machines instead of human labour.
- As the pandemic takes hold there has been a fall in demand for goods and services, as consumers change their habits to meet the new restrictions in place. This will inevitably led to a fall in the number of job postings as seen in the West Midlands, and potentially leading to job losses in the future if the pandemic continues to impact demand for goods and services. As businesses reduce their staffing levels to meet the new demand levels. Increases in the claimant count within the region would suggest that this is already occurring.
- Furthermore, the pandemic has hindered the number of international students attending the universities within the region, as there are restrictions on travel. Or an unwillingness for students to travel in such uncertain times. It is more likely that due to a fall in the demand for jobs locally, due to the pandemic, that there will be a rise in the number of students attending university from the local area.
- While the Working Futures report projects good progress in the growth of the graduate population in the region (3.1% growth annually, the second-highest in England after the East of England) it also predicts the slowest growth in postgraduates anywhere in the country (0.7% annually). Where new, highly skilled professions emerge in the future, such as the application of technology and automation to professional services, we will need to create a compelling offer to attract the most highly skilled to the region.

## **Policy Challenges**

Putting the skills evidence in the content of the wider impact of the pandemic and recession and the trends now emerging and evidenced in the West Midlands State of the Region Report and the Weekly Economic Monitoring, a number of challenges emerge:

#### Rise in unemployment

For many years (even post the 2008 crash) there has been a tight labour market, with low unemployment that has led to services and provision being tailored to the hard to reach groups, such as long term unemployed. The current crisis and rise in claimants and unemployment (the full effects of which are yet to be seen post furlough) will shift the demand on services. Large parts of the economy may not return to the levels of employment seen previously - this points to the prospect of major structural shifts in the labour market, and a risk of a new generation of long term unemployed as their roles disappear. At the moment furlough is disguising potential unemployment and potentially depressing the true figures; areas with greater current furlough levels, such as Birmingham and Solihull may see a rapid acceleration of unemployment post October. This impacts on retail particularly, as the rise in online shopping and technology has shifted consumer habits. We are also a region with stubbornly high numbers with no qualifications, which exposes us further as higher qualifications make individuals more resilient to shocks.

This rise in unemployment is also affecting people who have never been unemployed before and areas that have never seen these levels of unemployment. Similar to other major recessions, this presents new challenges for employment support provision. As people who have never entered the system arrive, the current approach may not be suitable either due to type of provision (too low level) or the opportunities available through the current employment systems. The change for policy is preparing and adapting for this potential change in demand for services.

This raises a number of challenges for policy. How do we prepare people for the future and new roles, and what future is there for people in those roles currently? The lack of roles and opportunities will drive a growth in education which will increase demand in the supply system as has happened in previous recessions. Will the system cope and adapt to this increased demand?

#### Changes in demand

This change in demand will also be coupled with significant population growth which is expected for the region over the next 7 years, particularly concentrated in Coventry and Warwickshire. This is expected to be in the younger population which is likely to be driven by an increase in student population, as the Universities in those areas have grown considerably, whilst student retention has also been increasing. This could drive demand in services and expansion of provision in the future. It also continues the trend in the region of being protected from the aging population demands compared to other areas. But with the instability in the higher education sector will this trend continue?

#### Employment impact on women and BAME

The impacts of the pandemic are being particularly felt by women, the young and the BAME communities, who dominate employment in sectors which are currently still not back to normal and may never return. The continuing closure of tourism, food and accommodation services, ongoing issues with retail, which is going through major changes with large employers announcing redundancies are all reducing the availability of roles normally taken by the young, women and BAME. Significant impact is falling on the young (who simultaneously have the least impact from a health point of view), and the region is disproportionately young compared to other places, and although the true impact on NEET and education has not appeared in the data as yet, there are significant risks for young people across the whole skills system, and particularly this year and next in transition points between school and FE, and FE and University. The system is subject to closure and lockdowns, which may have a chilling impact on long-term planning and increase the likelihood that young people will drop out the system. These combination of factors could leave these groups with a long term 'scarring' effect on their wellbeing, mental health, and skill development, which damages their long term prospects. Although

there is significant provision aimed at these groups, will it be appropriate in the future with such structural changes?

#### Business demand and growth in technology

Every business is going through major change, this is impacting on their current and future demand. Businesses throughout the pandemic have been reassessing business models and activities, the reduction in demand is driving a move towards leaner employment models. Businesses are recognising that technology and innovation mean that they can reduce employment, this has accelerated the trend already in train. Ultimately this will improve productivity, but this acceleration will mean it is harder for people to adapt in time and will further exacerbate the employment prospects for those who cannot gain the skills needed. The acceleration of complex digital and analytical skills is happening across all sectors and demand and competition for people with both good client relationship skills, deep subject knowledge and high end analytical skills is increasing. The switch to home working as created a new divide in the employment market where many sectors have continued unaffected. The switch in skills however is at the higher end, where automation was already knocking out roles and the demand for knowledge workers has grown. This further impacts on those in the occupations highlighted above. The challenge here is ensuring people can adapt and change quickly and ensure the skills and training is there for those most able to adapt.

#### Demand for high level skills

The region still has a significant gap between the level of qualification in the supply side and demand from employers, and this will increase under the current circumstances. There is a significant deficit particularly in the Black Country. However, the region is in a significant position of strength, in terms of the volume of graduates produced by out university system relative to other places. In recent years retention has been improving and to ensure businesses have the right supply of skilled people this needs to continue and accelerate. A buoyant, skilled labour market creates resilient places, improves entrepreneurship, encourages adaptability and strengthens wider demand. The current impact on employment in cities could impact on this, as young people are attracted to vibrant city centres and wider environment. This means the wider attractiveness of places is vital to a skilled labour force and what role does the skills supply system have in this attraction and retention process and how does it link job opportunities to the graduate?

#### **Future of Apprenticeships**

Apprenticeships were recovering post the introduction of the levy, but they have been badly hit by the crisis. The numbers of apprenticeship vacancies have remained high in the region and we outperform others, but there are considerable risks going forward as businesses deal with the ongoing pandemic and recession. The challenge for policy is supporting businesses to continue to fund these roles, in a climate where they are reducing employment, investing in productive workers and although they recognise the need for future workforce investment the immediate risks to business survival far outweighs this need. As above, demand for technical knowledge is changing and can supply keep up with change?

#### **Further Education resilience**

Within these circumstances FE could face considerable changes in demand. Engaging with businesses has always been a barrier to effective provision, under current circumstances this will get considerably harder. Against a backdrop of provision which has changed very little how will the sector respond to significant shifts in the labour market, especially where some sector will reduce dramatically in the next few years? The seismic shifts in the sectors which FE normally supply to could change the demand in the longer term and therefore the provision demand. Young people may also recognise that these sectors are under significant strain and that there is a significantly reduced opportunity, which may reduce demand for provision in the short term. The current situation also impacts on the provision of good advice and guidance as there is so much uncertainty and there is a risk that young people are disadvantaged through lack of knowledge to adapt plans. A key issue for policy is working with these sectors to continually assess the demand and to ensure there isn't a supply/demand imbalance in coming years.

## The Skills Funding System

#### Adult Education Budget (AEB)

The Adult Education Budget is the primary means by which the West Midlands Combined Authority funds adult education courses. It is available to fund course fees for adults aged 19+, and from August 2019 was devolved to the West Midlands, having previously been managed by the Education and Skills Funding Agency (ESFA).

In the long term, this gives the region flexibility to tweak funding rules to suit local requirements. For instance, this may include pilot schemes, shifting the way we think about the effectiveness of FE provision to focus more on impact, co-locating provision with other public services, and making use of risk-sharing to support new courses and new methods of teaching.

With the funding comes the responsibility to secure provision of appropriate facilities and education and training suitable to people aged 19+, except those under 25 who have an educational, health, and care plan. As well as meeting the age requirement, people in receipt of the funding must also not already have a comparable or higher-level qualification than the one they are applying to study. For study to be free, the applicant should be aged under 24 on commencing the course. Those earning less than £17,004 also have co-funding support for access to levels 1 and 2.

The WMCA's function is to determine worthy courses of study and providers, for which it can pay tuition fees on behalf of the student. According to the statutory instrument which devolved this power to the region, the WMCA must also 'encourage' uptake of this education and training and 'encourage employers to participate in the provision' and 'contribute to the costs' of it.

The WMCA can also work concurrently with the Secretary of State to provide funding directly to providers, people proposing to receive education or training, for encouraging provision, for supporting student costs (such as transport, childcare.)

In total, the WMCA is responsible for AEB funding of around £130million per annum. It aims to rapidly prototype, test, and mainstream new and improved provision across further and higher education estates, targeted at new emerging sectors and supporting those currently with low/no qualifications.

#### **T-levels**

T-levels are new certifications aimed at pupils aged 16+ and intended to provide a rigorous vocational alternative to three A Levels, including work placements and guaranteeing a basic level of English and Maths competency. They are a framework which can include existing vocational qualifications within it. 24 subjects will ultimately be covered, with the first three new available for new starters as of September 2020.

These will use the existing funding arrangements, with new bands based on the hours spent on the T Levels. There will be a flat rate of Industry Placement funding, and funding for students who need to retake level 2 in maths and English to meet the exit requirements of the T Level.

#### 16-19 Funding

A national funding formula is used by the ESFA to provide funding to sixth form colleges, FE, and special schools/academies as well as some specialist institutions. This formula considers the number of students, depth of study, a 'retention funding' component based on how many students stay on the course, level 3 maths/English, and 'disadvantage funding'.

Disadvantage funding is aimed at students from areas of high IMD (Index of Multiple Deprivation). A second block supports students with moderate learning difficulties and other additional needs, based on low prior attainment in maths and English. The WMCA has some discretion about how disadvantage funding is allocated.

This 16-19 funding also supports a few other bonus funding elements for particular course content, placements, or student costs.

The funding is calculated using the Individualized Learner Record for FE, plus the school Census conducted each autumn.



Figure 1: Total funding for 16-19 year-old provision in the West Midlands (3LEP) area, 2018/19 academic year.

Table 1: Total 16-19 funding by Local Authority, 2018/19 academic year.

Local Authority	Total (£millions)
Birmingham	£134.76
Coventry	£33.00
Dudley	£57.52
Sandwell	£38.42
Solihull	£41.92
Staffordshire	£78.36
Walsall	£46.55
Warwickshire	£63.79
Wolverhampton	£29.83
Worcestershire	£36.31
Grand Total	£560.46

#### **Apprenticeships and Traineeships**

Apprenticeships and traineeships are not devolved.

**Apprenticeships** are funded by the Apprenticeship Levy, in which employers with an annual wage bill of over £3m are required to pay into an Education and Skills Funding Agency (ESFA) fund. This can then be recouped by employers for up to two years to fund training of apprentices.

**Traineeships** are still funded by the ESFA (they are unpaid but expenses can be paid) and put young people qualified below Level 3 through a course of up to 6 months, during which they have work

experience to prepare them for work or an apprenticeship. This may be coupled with English and maths support if needed.

#### Work and Health Programme

This programme is intended to support those out of work. It is voluntary unless an individual has been unemployed and claiming benefits for more than 24 months. People who are disabled, carers or former carers, former members of the armed forces, refugees, victims of domestic violence, are considered a priority group and also may receive support.

In the West Midlands (cases processed at the Shaw Trust charity and covering the WMCA metropolitan area), there has been a sharp decline in the total number of people admitted to the scheme over the last nine months for which data is available.

Figure 2: Trend in laces funded by the Work and Health Programme, funded by the Shaw Trust in the West Midlands Metropolitan area.



Since the scheme was first available in the region, it has enrolled **10,746** people with disabilities, **1,240** people in priority groups,

While outcome-level figures are not available for the West Midlands, UK figures from March 2018 (when the scheme was rolled out nationally) to March 2019 indicate that an average of **15%** of those on the scheme find employment within 12 months. This proportion is similar regardless of the reason the person was admitted to the scheme due to disability, long-term unemployment, or due to being in one of the other priority groups mentioned.

Age breakdown: while the age of those on the scheme skews young, there are still a significant number of people enrolled in each age group:

 Table 2: Proportion of Work and Health Programme provision (2018-2019) by age range, West

 Midlands Metropolitan area.

Age Range	Percentage Provision
18 - 24	13.1%
25 – 34	20.1%
35 – 44	18.5%
45 – 49	11.4%
50 – 54	13.0%
55 – 59	12.8%
60+	10.8%
Total recipients (average)	14,932

#### High value courses offer (Covid-19):

Additional funding has been made available by the government for a single year, from September 2020, to support Level 2 and 3 provision for 18-19-year-olds during the pandemic. This provision is concentrated in health and social care, construction, ICT, transport operations and maintenance, engineering, and GCSEs and A Levels maths, English, and science:

**Engineering:** Including fabrication and welding, engineering technologies, and other specific and general engineering skills.

Manufacturing: particularly fashion and textiles, and product design.

**Construction:** With a full range of skills at levels 2 and 3 including digital skills and building information modelling.

**ICT:** Level 3 qualifications including general IT competence, coding, cyber security, and computer science including scripting and app programming.

Health and Social care: largely general diploma/certificates in the area, with specific courses on learning disability support.

**Transport operations and maintenance**: Including aviation, bus and coach, rail engineering and specific qualifications of maintenance by vehicle type.

#### Future funding arrangements and asks

- The winding down of the European Structural and Investment Fund, which includes the Social Fund and the Regional Development Fund, will make it important for the region to obtain funding via the new UK Shared Prosperity Fund to make up the shortfall.
- **National Skills Fund**: The Conservative Government's 2019 election pledge to make £3bn available over the parliament, starting 2021, is intended as a first step towards a 'Right to Retrain.' £2.5bn was put forward in the 2020 budget for this purpose to bolster further education.
- The WMCA aims to support high quality skills provision using a 'single pot', targeting skills challenges in the region with AEB, the UK Shared Prosperity Fund, the Work and Health Programme, the National Retraining Scheme, and the National Skills Fund in tandem.



*Figure 3* - Summary diagram of the West Midlands Skills System in terms of geography, funding, and WMCA responsibilities.

## Methodology

**Scope**: Most analysis in this report relates to the three Local Enterprise Partnerships: The Black Country LEP, Coventry and Warwickshire LEP, and the Greater Birmingham and Solihull LEP, and the local authorities that make them up. Unless otherwise specified, 'West Midlands' refers to this 3-LEP geography. 'West Midlands Region' refers to the wider region of 30 local authorities, including Worcester, Shropshire, and Staffordshire. Analysis of the status quo for skills is based on the most recent data available, and the 2027 date analysed in the Department for Education's Working Futures report is used as an end-point for considering future developments.

Central to skills and education strategy is the prospect for young people in entering the workforce. Consequently, many of the education statistics highlighted here refer to 18 to 24 year-olds.

For further education, primary data on further education course provision, sourced from the Individualised Learner Record (ILR), is available only for the West Midlands metropolitan area, consisting of WMCA constituent members Birmingham, Coventry, Dudley, Sandwell, Solihull, Walsall, and Wolverhampton. It includes those who commute into this area to study (i.e. it is based on place of study). However, data on qualification levels, apprenticeships, and Higher Education provision are all discussed at the 3-LEP geography.

**Supply** data is sourced from ILR, which comprises a list of students registered to further education courses in the WMCA metropolitan area, as well as a pivot dataset made available by the Education and Skills Funding Agency. This dataset provides detailed background criteria for each student in the further education system, including age, ethnicity, and area- and district-level postcodes. These data

permit us to understand how effectively the skills system is reaching different groups and locations. Apprenticeship figures are derived from the same learner records data, but available for the full West Midlands Region.

Course title, duration, and qualification type are available for each student, making it possible to analyse the skills supply in detail. For analysis of the age, ethnicity, and level of study in further education data for the last full year available (February 2019 to January 2020 inclusive) is used. In comparing course completions and apprenticeships to job postings, the focus is on the last six months for which data is available (August 2019 to January 2020 inclusive). University graduation rates from the most recent academic year available (2018/2019) are also contrasted with current job postings.

Demand data is derived primarily from three sources:

- Business sentiment regarding skills from the most recent (2019) Employer Skills Survey. This consists of responses to a questionnaire about how skills shortages affect productivity and opportunities for businesses.
- The Department for Education's Working Futures report (Published February 2020), which projects total jobs growth and changes in qualification levels in the broad sectors of the economy both for the UK and for each English region. Given the extent of the economic impact of Covid-19 in 2020 it should be kept in mind that the projections were made before the pandemic. In this report use is made of the Working Futures forecasts alongside risk factors arising from the pandemic.
- Job postings data sourced from economic analysis firm Emsi. These data run up to the latest complete month. Emsi produce the unique job postings figures by collecting data from multiple online job platforms before removing any duplicate entries. It is important to be aware for this data that:
  - $\circ$   $\;$  Job adverts may not be immediately removed once the position is filled.
  - A large proportion of jobs are likely not posted online, particularly for technical jobs in fields such as construction and manufacturing, and casual customer service work.
  - Some positions may only be advertised internally.
  - The same job may also be posted on and removed from multiple jobsites at different times.
  - With these limitations in mind, the data provides a useful profile of change throughout the period of pandemic lockdown, and lets us compare job posting numbers to the supply of qualified entrants from further education courses.

## **Supply Analysis**

#### Key issues

- Large skills deficits in the Black Country, with a larger proportion of people with no formal qualifications.
- The West Midlands Region faces a significant gap between the level of qualifications required by employers, and the level currently prevalent in the working-age population.
- Coventry and Warwickshire LEP, GBSLEP and the Black Country have an undersupply of labour at level NVQ4+ (degree level), but an oversupply at the NVQ3 level, highlighting the importance of the Adult Education Budget in supporting the up-skilling people at this level.
- **14.1%** of young people in the West Midlands conurbation left KS5 to become 'Not in Employment, Education, or Training' (NEET) in the latest year of data (2018/19). **7.0%** do not have a known destination.
- A large proportion of the West Midlands active workforce are on the government's Job Retention Scheme, which may leave a large proportion of the active workforce unemployed when the scheme winds down.
- Housing affordability has worsened most rapidly in areas where a significant number of people commute into the conurbation. If the cost of housing becomes prohibitive in these areas, this may become a long-term constraint on attracting the necessary skills to the region.
- The region is in short supply of apprentices and has a comparatively low level of qualifications in the workforce.
- Graduate retention in the region is somewhat weaker than the UK average. Fewer students stay for both study and subsequent employment. Given the size of the university system in the region, this gap in retention represents a significant constraint on skills supply.
- Apprenticeships have been hit hard by the pandemic with 61% of apprentices being either furloughed, made redundant or have had their off-the-job learning suspended. With 60% of firms ceasing all new apprenticeship starts, this will leave a lot of apprentices both unemployed and without the training that they need.
- Enrolment of international students remains a risk factor for universities, though enrolment was higher in 2020 than might have been expected. Social distancing requirements have been a particular challenge for technical and lab-based study. This may affect the viability of some degree courses, a particular concern for those courses which could underpin the priority sectors identified in the Local Industrial Strategy.
- 71% of state school children have received zero or less than one daily lesson online during the early months of the Covid-19 pandemic. This will impact economic inequality, as private

In understanding the skills supply, first the current labour market is considered, including population trends, the nature of work, and claimants. 'Claimants' here refers to people claiming Jobseeker's Allowance and other forms of unemployment-related benefits including Universal Credit. Second, the focus moves to the state of existing skills provision, with a consideration of the effects the current pandemic and its mitigation efforts may have on provision of education and skills at each level of the system.

#### Labour Market Structure of Supply

#### Population and trends, 2018-2027:

As of the 2018 mid-year population estimates, the West Midlands has a population of **4,171,500**, with **2,040,300** in the Greater Birmingham and Solihull LEP, **937,800** in Coventry & Warwickshire, and **1,193,400** in the Black Country. Significant population growth is expected across the region (**5.41%**) between now and our demand forecast end-date of 2027, which also represents the end date of the Working Futures forecasts of skills trends. Growth is expected to be particularly concentrated in Coventry and Warwickshire:

Table 3: Projected population change by local enterprise partnership,	including young
working-age people (20-29).	

LEP	2018 (Total)	2018 (Youth)	2027 (Total)	2027 (Youth)	Change (Total)	Change (Youth)
Black Country	1193400	151,500	1252126	144,139	4.92%	-4.9%
GBSLEP	1825600	299,700	1893685	292,185	3.73%	-2.51%
Coventry and Warwickshire	937900	147,400	1025101	148875	9.30%	1.00%
West Midlands	3956900	598600	4170912	585199	5.41%	-2.24%
UK	66,436,000	8,712,000	69,163,000	8,184,000	4.10%	-6.06%

While the Black Country and GBSLEP are closer to the UK average for total population growth, all three areas can expect a slower decline in the population of young people, with that of Coventry and Warwickshire even expected to increase. The population pyramids for each of the three LEPs are outlined in the Annex. These show an overall 'demographic dip', highlighting that the number of people in their twenties will decline in the coming years.

This shows the region to be comparatively insulated from the effects of an ageing population. It does, however, raise challenges, as there is likely to be greater competition from young people for the 'replacement demand' created by older workers retiring. However, rapid changes across industries stemming from technological innovation will still necessitate upskilling and retraining of older workers as well as the equipping the young.

Department of Work and Pensions (DWP) data for 2020 show that the West Midlands has a relatively high employment rate for those aged 50 and over, with **74.7%** employed versus a **84.9%** rate for those aged between 35 and 49. This **10.2 percentage point** gap is the second-smallest for a UK region, with only London smaller (**9.5%**).

There is likely a complex mixture of reasons behind this, which could include differences in health, family composition, participation of women in the workforce, and differences in demand for the skills this cohort has.

If workforce participation in this age group remains higher in the West Midlands than elsewhere, this may help to insulate the region from the impact of an ageing population. However, it also heightens the need for retraining of these workers as industries change.

#### **Qualifications and status:**

**Geography:** The West Midlands faces a significant gap between the level of qualifications required by employers, and the level currently prevalent in the working-age population. By placing qualifications in a hierarchy based on the equivalent National Vocational Qualification (NVQ, described in Annex), we can see the co-incidence between a high proportion of the population with no qualifications and a high score on the Indices of Multiple Deprivation, and ranking of Census areas based on the different dimensions of deprivation:

Figure 4: Left: Comparison of Indices of Multiple Deprivation by Census Lower Super Output Area, with darker areas more deprived. Right: The same layer of deprivation indices along with an overlay of NVQ qualification level by parliamentary constituency level. Again, darker areas have a higher concentration of working-age people with no skills. It is clear from this comparison that the correlation between deprivation and lack of qualifications is strong, with some exceptions (notably Wyre Forest).



The proportion of the population with no formal qualifications is shown in **Table 2** for each of the three LEP areas compared to the UK average (**7.9%**) with Coventry and Warwickshire within the margin of error at **7.3%**, followed by GBSLEP at **10.0%** and the Black Country far behind at **16.7%**. The skills deficit in the Black Country is still apparent when looking only at the metropolitan area, with the highest percentage in Sandwell at **20.3%**. This difference may be partly explained by the population in this area being older and more likely to have performed manual and semi-skilled work which did not require formal qualifications.

**Table 4**: Qualifications by LEP area, 2019, Annual Population Survey.

Variable	Black Country	C&W	GBSLEP	West Midlands	UK
% with NVQ4+ - aged 16-64	24.70%	40.20%	35.40%	33.5%	40.20%
% with NVQ3 - aged 16-64	16.40%	18.80%	18.30%	16.7%	16.80%
% with NVQ2 - aged 16-64	19.40%	17.30%	18.60%	17.4%	15.70%
% with NVQ1 - aged 16-64	12.70%	8.90%	10.00%	10.5%	9.90%
% with other qualifications (NVQ) - aged 16-64	10.00%	7.50%	7.80%	8.3%	6.60%
% with no qualifications (NVQ) - aged 16-64	16.70%	7.30%	10.00%	11.3%	7.90%

**Trends:** Across the 3-LEP area, the proportion without qualifications has fallen from **18.2%** to **11.3%** in the last ten years (2009 to 2019). Across the UK, it fell from **13.7%** to **7.9%**. This is a greater percentage reduction in the West Midlands, versus the UK, but a smaller one proportionally to the starting point (a **37.9%** reduction in 'no qualifications' status over ten years in the West Midlands, versus the UK). This indicates that we are not currently closing the qualifications gap with the UK as a whole.

**Levels:** Across each qualification level (as below), Coventry and Warwickshire LEP is consistently within the margin of error of the UK, with GBSLEP behind (most notably at the NVQ4+ level) and the Black Country further behind. The contrast at NVQ4+ between the Black Country (**24.7%**) and the UK (**40.2%**) is particularly striking. As discussed further later, the West Midlands has an oversupply at the NVQ3 level, highlighting the importance of the Adult Education Budget in supporting the up-skilling people at this level.

#### Not in Education, Employment, or Training (NEETs):

The impact of Covid-19 on the economy and employment can be expected to fall heavily on young people in the region. As much of this impact will be contingent on the easing of the lockdown and how rapidly the economy recovers, its extent is not yet apparent in the available data. The proportion of young people in the NEET category before the pandemic, and the current growth of claimants, gives a sense of the changing fortunes of young people as a result of economic turmoil.

Department for Education figures indicate that in 2019 the broad West Midlands Region (NUTS1) had a rate of **5.3%** in the number of 16 and 17-year olds who have either NEET or unknown status, lower than the UK average at **5.5%**. Unknown status reflects individuals for whom local authorities have not been able to track destinations after leaving school.

The NEET rate in the region has increased in the long run, from **4.3%** in 2015. While these trends in NEETs reflect the experience of 17 and 18-year-olds, there has also been a significant increase in the proportion of young people leaving Key Stage 5 (generally at 18) and becoming NEET. The Department for Education collection of schools data shows a concerning increase in the rates of NEET and unknown outcomes, with **14.1%** of young people in the West Midlands conurbation leaving KS5 to become NEET in the latest year of data (2018/19). **7.0%** do not have a known destination. This is a significant increase on the same figures in 2017/18, which were **7.9%** and **4.0%** respectively.

#### **Claimant count and Job Retention Scheme**

For both young people and all ages, the greatest total increase in claimants at the onset of the pandemic was in the conurbation, while the proportional increase is greater in areas outside the conurbation, as seen in Figure 5.



Figure 5: Map of changes

in youth (16-29) claimant count during the onset of the Covid -19 pandemic (January to April 2020) by Census Middle Super Output Area. Darker areas correspond to a greater increase. Left: total increase, Right: Increase in proportion to existing claimant count.

This may raise challenges in the future for people who are now out of work in areas unaccustomed to high levels of unemployment, where the support infrastructure may be less developed.

Claimant count figures for January 2021 continue the trend of a steep increase in the claimant count during the course of the pandemic, with the bulk of the increase between March and May. The table below indicates that the West Midlands has so far seen a slower increase in claimants than the UK as a whole:

Date	BCLEP	CWLEP	GBSLEP	UK
November 2019	36,140	14,820	60,955	1,196,765
February 2020	37,115	15,460	62,485	1,255,770
April 2020	54,965	26,170	90,110	2,113,560
June 2020	64,010	32,640	107,715	2,590,175
August 2020	66,820	34,505	112,835	2,726,510
November 2020	65,980	33,505	112,090	2,631,280
December 2020	65005	32905	110660	2589740
January 2021	64890	32485	110270	2572015
Year on year % change	81.36%	118.02%	79.33%	111.59%

#### Table 5: Increase in claimant count, UK compared to West Midlands, total

Table 6: Increase in claimant count, UK compared to West Midlands, youth (16-24 year olds)

Date	BCLEP	CWLEP	GBSLEP	UK
November 2019	7,440	2,775	11,640	21,855
February 2020	7,445	2,850	11,845	236,220
April 2020	10,720	4,695	17,035	382,635
June 2020	13,405	6,560	21,970	517,345
August 2020	13,830	6,760	22,860	535,730

November 2020	13,725	6,585	22,540	42,850
December 2020	13530	6300	22125	500660
January 2021	13290	6155	21785	497605
Y.O.Y Percentage Change	84.97%	125.87%	92.19%	119.55%

The pattern is similar with youth unemployment (aged 16-24), with slightly higher increases across the board:

However, while the West Midlands region has not felt the largest absolute impact in job numbers, a greater proportion of its active workforce were on the government's Coronavirus Job Retention Scheme than in any other English region outside London (though the take-up rate does not differ greatly). As the scheme winds down at the end of April 2021, a large number of people on the scheme may then end up out of work:

Region	Economically Active Population on Job Retention Scheme			
ENGLAND	14%			
NORTH EAST	13%			
NORTH WEST	14%			
YORKSHIRE AND THE HUMBER	13%			
EAST MIDLANDS	13%			
WEST MIDLANDS	15%			
EAST	14%			
LONDON	17%			
SOUTH EAST	14%			
SOUTH WEST	14%			
WALES	15%			
SCOTLAND	15%			
NORTHERN IRELAND	13%			

Table 7: Percentage population on job retention scheme, as of 31st July 2020.

Figure 6: Total number of people receiving payments through the Government's furlough scheme, May 2020. Darker areas correspond to more people receiving payments.



**Geography of furloughed workers:** Within the LEP areas, the count of workers on furlough is particularly concentrated in the Greater Birmingham and Solihull LEP area. As a result, this area is likely to be particularly exposed to the impact of the phasing out of the scheme. This may reflect a higher proportion of service-sector work in Birmingham, and a higher proportion of key workers in the Black Country who have continued to work.

The Black Country, on the other hand, has a lower number of furlough workers, indicating that a larger share of their working-age population are either in key roles, have lost employment, or were not economically active prior to the pandemic.

#### Hours and pay

For those in work, the proportion who want more hours (sourced from the Annual Population Survey of the 2017/18 financial year) varies between **4.74%** (Walsall) and **11.54%** (Birmingham). The overall picture is not dissimilar to the UK average for the same period (**8%**). Workers in the West Midlands are more likely to earn less than the Living Wage Foundation rate, the highest proportion in Wyre Forest at **28.9%**, the lowest in Warwick at **12.9%**, and the UK average being **20.1%**. Those earning below this rate are likely to either be on the National Minimum Wage or potentially in the gig economy, and

consequently at risk of in-work poverty. As a result, travel costs (as well as time) may represent a major impediment to working in the urban centre.

The gender pay gap in the West Midlands is both lower, and improving faster, than the UK average. In the last five years (Annual Survey of Hours and Earnings, 2014-2019), the ratio of women's hourly pay to men's increased from **84%** to **86%** in GBSLEP, **81%** to **86%** in CWLEP, but declined from **94%** to **92%** in BCLEP. The UK average increased from **80%** to **82%**.

#### **Travel to Work**

2011 Census travel-to-work data indicate commuting patterns in the region (shown in **Figure 5** for jobs in Birmingham and Coventry respectively) that are largely within each individual LEP area. For instance, commuters to Birmingham are overwhelmingly travelling from within the GBSLEP area. Travel to work distance is more restricted in BCLEP, in part likely as a result of more limited transport infrastructure, as well as the structure of employment.

Comparison of income to house prices by the ONS shows that housing affordability has worsened most rapidly in areas where a significant number of people commute into the conurbation, notably Nuneaton & Bedworth (32.5%) and Rugby (23.4%), and Bromsgrove (29.0%). This may become a long-term constraint on attracting the necessary skills to the region.

Figure 7: Map of number of people travelling to work by 2011 Census Middle Super Output Area. Darker shading corresponds to Left: travel to Birmingham City Centre, Right: travel to Coventry City Centre



#### Occupations

Estimates by Emsi (shown in **Figure 6**) indicate the most common industries for people to be employed in in the West Midlands. The grey markers indicate the UK average for a population of the same size. This chart showcases the region's comparative advantage in motor vehicle trade and manufacturing as well as its jobs deficit in professional, technical, IT, and construction skills, all sectors identified in the Local Industrial Strategy as transformational sectors:



#### Figure 8: Emsi data on 2019 jobs by industry (bars), versus the national average (marks).

#### Key Sectors and Industrial Strategy

Several of these sectors were identified in the West Midlands Local Industrial Strategy and Strategic Economic plan as key in responding to technological change, and being major drivers of increased productivity and new employment:

Enabling Sectors
<ul> <li>Cultural economy including sport</li> </ul>
<ul> <li>Public sector including education</li> </ul>
Retail

Source: WMCA SEP, 2016, Technical Appendix - Sectors

New product and process innovations are likely to change both the composition of the regional economy in terms of sector breakdown, but also how work is performed within existing sectors. The following considerations will be important in linking the overall skills strategy to key sectors:

 A confluence of factors coming together in the construction sector that will make support for radical innovation essential, in a sector which has been historically slow to innovate. The rising cost of housing, the need for a zero-carbon model of development, and current disruptions to international trade and commuting patterns, point to the need for a new model. It will be essential to create a tight connection between the region's young people, knowledge infrastructure, and product and process innovation in the sector. Infrastructure for research and development and community-led testing, perhaps on the model of Boston's Housing Innovation Lab, could go some way towards reconciling greater density, affordability, and liveability, as well as the pairing of local distinctiveness and technical resilience identified in the West Midlands Design Charter. The Charter sets out priorities for housing in the region including character, connectivity and mobility, future-readiness, health and wellbeing, engagement and stewardship, and delivery of social value. Determining whether the skills system supports the innovation system behind these goals would be a valuable exercise.

- While manufacturing employment in the region outstrips the UK average, and is an area of comparative advantage, advances in automation and manufacturing techniques are likely to reduce employment and tilt the skills profile in favour of the higher skill levels which are currently in short supply. The need to develop and upskill existing manufacturing workers, and create alternate pathways which are compatible with their skills, will be essential in avoiding semi-skilled workers being left behind in the coming years.
- Similar analysis will be essential in understanding the changes technology is driving in the services sector. There is growing interest in and use of data science and machine learning applications to improve business processes that do not fit cleanly into current occupational categories; it is essential that policy and funding are in place to bolster work-based training in these methods. University-industry linkages will be invaluable in leveraging these fields in broader systems innovation to improve service delivery in the region as well as radical innovation, entrepreneurship and the development of new products.
- In the infrastructure sector, major projects in the region including HS2 are boosting demand and drawing on supply chains in the region; institutions such as the Advanced Transport and Infrastructure National College (NCATI) that give young people access to foundation and degreelevel qualifications and future jobs in this sector will be essential to ensure there are viable pathways to good jobs via vocational education.

#### Sixth form Attainment

Fewer pupils achieved at least two substantial Level 3 qualifications in 2018/19 than the England average (**85.9%**) in almost all local authorities in the West Midlands, with only Stoke-on-Trent beating the average at **87.8%** and Dudley far behind it at **78.1%**. It should be noted that the relatively small sample (a few thousand students per Local Authority) means that we should expect some fluctuation year to year. However, the fact that almost the whole region underperforms relative to the England average suggests that we are not yet fully equipped to close the skills gap.

Of equal concern is the gulf in attainment of high A Level grades (three A\*-A grades), with the West Midlands once again significantly behind the England average of **13%**. Only Telford and Wrekin (**13.7%**) beat this average, and the small sample size (906 pupils) means that this difference should be treated with caution. Many Local Authorities in the region are far behind this; only **2.9%** of pupils in Sandwell achieved these grades, and 4.7% in Stoke-on-Trent.

Attainment in Tech Levels and Applied General Qualifications (practical qualifications for 16 to 19year-olds) is similar across the region to the England average, with average grades in Local Authorities varying on either side of the England average (Merits+.)

#### BTECs:

BTEC stands for Business and Technology Education Council. BTECs are qualifications which combine practical learning with theory and subject-specific content, and which are aimed at a particular sector or industry.

- **BTEC Firsts** are level 1 and 2 qualifications, providing a foundation from which students can enter employment, an apprenticeship, or further study.

- **BTEC Tech Awards** are level 1 and 2 qualifications designed specifically to be taught to 14-16 year-olds alongside GCSEs.
- **BTEC Nationals** are level 3 qualifications (similar to A Level) which may lead to further technical or higher education study, or employment and related training.

#### Attainment

Data and analysis of BTEC attainment is quite limited, with grade and subject reporting (from the certifying body Pearson) available only for the UK as a whole and with school and further education provision merged together.

Data released by Pearson for students completing BTECs in the 2018/19 academic year showed the following breakdown of qualifications issued across different subjects:

BTEC FIRSTS	Total	Proportion
Total Cohort:	185,800	
Business	37,500	20.18%
Engineering	11,100	5.97%
Health and Social Care	6,900	3.71%
ICT	7,700	4.14%
Sport	28,800	15.50%

Table 8: BTEC National qualifications issued in 2018/19 academic year. UK figures.

#### Table 9: BTEC Tech Level qualifications issued in 2018/19 academic year. UK figures.

BTEC FIRSTS	Total	Proportion	
Total Cohort	50,600		
Health and Social Care	28,500	56.32%	
Performing Arts	16,400	32.41%	
<b>Creative Media Production</b>	2,800	5.53%	
Engineering	1,500	2.96%	
Enterprise	1,400	2.77%	

**Nationals:** 85,600 completions, with the most popular subjects being Business, health and social care, applied science, applied law, information technology, sport, engineering.

#### **Apprenticeship Supply Trends**

Rapid growth in the UK higher education sector over the last two decades has not been matched by a growth in apprenticeship provision. Addressing this imbalance in funding, enrolment, and esteem will be essential for ensuring that young people have a clear alternative post-18 pathway through education and into employment, and that vocational occupations have access to highly trained applicants with specialised skills learned on the job.

Apprenticeship starts across the region had tentatively increased in the last few years, before decreasing sharply between 2017/18 and 2018/19. This change followed the introduction of the Apprenticeship Levy. The fall in subsequent completions may be a result of the time taken by employers to plan roll-out of apprenticeships, or from difficulty in finding programmes they deem appropriate.

With full data for 2019/20 now available, we note the full impact of the pandemic - a **18.7%** fall in apprenticeship starts compared to last year. **GBSLEP** was hit hardest, with a fall of **24.2%**, **BCLEP** had the smallest decline at **19.5%** and **CWLEP** between at **22.2%**. This contrasts with an England average fall of **17.2%** over the same period.

Monthly fluctuations (see **Figure 9**), based on average England-wide apprenticeship starts from 2014/15 to 2018/19 indicate that in normal times we would expect higher recruitment of apprenticeships in the autumn, which will coincide with the first quarter of 2020/2021. As a result we should expect the following year's apprenticeship totals to also be impacted by the pandemic.

Period	England	3LEP	Black Country	GBS	C&W
2010/11	453,000	37,830	12,360	18,230	8,160
2011/12	515,000	41,550	13,380	19,680	9,440
2012/13	504,200	42,980	13,270	20,750	10,080
2013/14	434,600	36,050	11,180	17,700	8,060
2014/15	494,200	43,250	13,170	21,540	9,590
2015/16	503,900	42,080	13,850	20,130	9,170
2016/17	489,100	42,500	13,590	20,690	9,330
2017/18	371,200	29,270	9,430	13,760	6,830
2018/19	389,600	31,750	10,280	15,130	7,090
2019/20	322,528	25,230	8,250	11,470	5,510
Since May 2010	4,477,328	372,490	118,760	179,080	83,260

Table 10: Trend in apprenticeship numbers in the last ten years. The three LEP areas have followed the UK pattern of decline following introduction of the levy.

This month-by-month pattern also show the potential impact a slow economic recovery could have on recruitment later this year, as many firms will be focused on immediate survival and there may be a high degree of uncertainty around future earnings and staff requirements:



Figure 9: Apprentices recruited in the UK, by month. Averaged over 2014/15 to 2018 /19.

Apprenticeship demographics:

Figure 10: Map of enrolled apprentices (2019/2020 financial year), the darker the red shading the greater the number of apprenticeships, showing the north of the area to have far higher number of students



- Location: The smallest geographical areas for which new apprenticeship figures are available is for parliamentary constituencies. Mapping learning locations for 2019/20 Q1 and Q2 does not indicate a clear relationship to the general commuting patterns or population density we previously looked at.
- This is likely a result of the fact that apprenticeships are mostly and increasingly concentrated in large employers. The report Covid-19 *Impacts: Apprenticeships* by the Sutton Trust, published May 2020 suggested that the Covid-19 crisis may exacerbate this situation, with larger employers better able to retain their apprentices and continue to recruit.
- This also suggests that transport is a significant limitation on connecting learners to providers, unless more small firms participate in the future.

Apprentices in the region appear to have a slightly younger age profile than in further education in general, with **57%** aged under 25 in the West Midlands versus **51%** for further education in the metropolitan area for which data is available. The ethnic breakdown of apprenticeships closely matches the general population (from the 2011 Census), as summarised in **Table 6** for apprenticeships of all levels:

Table 11: Comparison of ethnicity of West Midlands apprenticeships (2018/2019) to their share of the population in the 2011 Census.

Ethnicity Group	% Apprentices	% WM Population
Asian/ Asian British	10.7%	14.2%
Black/African/Caribbean/Black British	4.1%	4.4%
Mixed/ Multiple Ethnic Group	3.8%	2.9%
Not App/Known	2.8%	0.0%
Other Ethnic Group	0.8%	1.2%
White	77.8%	77.5%

## There are no significant differences in ethnic breakdown across the different levels of apprenticeship.

#### Study level and course composition:

The three main levels of apprenticeship are Intermediate (level 2, or GCSE-equivalent qualification), Advanced (level 3, or A Level), and Higher (levels 4+, equivalent to a foundation degree or higher.) The distribution across apprenticeship levels in the West Midlands does not differ markedly from the UK average, suggesting that the apprenticeship system is not contributing to the region's general skills gap. However, given the region's comparative advantage in technical sectors such as automotive, manufacturing, and health, it might be hoped that the region could aim to outperform the UK average in offering higher-level apprenticeships.

Level	England	GBSLEP	Black Country	C&W
Intermediate Apprenticeship	99,221	3,278	2,630	1,585
Advanced Apprenticeship	140,843	5,577	3,501	2,402
Higher Apprenticeship	82,464	3,221	2,028	1,571
Totals	322,528	12,076	81,59	5,558

#### Table 12: Apprenticeship starts by level for UK and three LEP areas, 2019/2020

#### **Apprenticeship Subject Breakdown**

Top course categories echo the largest industries in the regional economy, though it is clear that some sectors place more emphasis on apprentices than others. Administration, accounting, and finance are somewhat over-represented in apprenticeships, relative to their current share of employment in the region.

However, the larger share of manufacturing in the regional economy compared to the UK is not reflected in the apprenticeship figures. As the later section on demand will discuss, most job postings result from replacing existing workers and not from expansion of the sector, meaning that the slow decline of manufacturing employment in the region does not necessarily explain this shortfall in apprenticeship numbers. This is because there will still be a strong demand for staff and skills to replace existing workers as they retire, even if a sector is in decline in terms of total employment.

Subject	England	GBSLEP	BCLEP	CWLEP
Agriculture, Horticulture and Animal Care	5889	128	79	78
Arts, Media and Publishing	1241	45	33	38
Business, Administration and Law	94434	3802	2588	1708
Construction, Planning and the Built Environment	21920	668	470	239
Education and Training	7887	306	243	219
Engineering and Manufacturing Technologies	52002	1763	1353	1019
Health, Public Services and Care	82190	3504	2214	1251
Information and Communication Technology	18228	531	300	303
Leisure, Travel and Tourism	5142	186	101	124
Retail and Commercial Enterprise	33322	1138	776	576
Science and Mathematics	184	2	2	0
Social Sciences	89	3		3

Table 13: Apprenticeship starts (2019/2020) broken down by LEP and subject area.

As previously discussed, the region is in short supply of apprentices and has a comparatively low level of qualifications in the workforce. While the main sectors of the regional economy are making approximately equal use of the system, the low overall take-up of apprentices by employers is constraining every sector.

#### Social mobility

Recent research by the <u>Social Mobility Commission</u> found that, while disadvantaged learners benefit most from apprenticeships, they are under-represented in higher-level apprenticeships, with **48%** from the 20% most deprived areas at the lowest-level 'intermediate' apprenticeships, versus **41%** for the rest of the population. Those from more deprived areas were also more impacted by the decline in apprenticeship numbers (a fall of **36%** versus **23%** for more privileged apprentices) between 2015/16 and 2017/18.
# Further Education – Subjects and Qualifications Studied

## Level of Study

Entry-level, level 1, and level 2 qualifications still dominate the skills mix, and the number of students achieving them has not changed greatly in the three years for which data is available. There has been a decline in level 3 provision (**13.2% to 10%**) between 2016/17 and 2018/19, and an uptick in level 4 and 5 provision, however these qualification levels are growing from too low a base (hundreds for the former, dozens for the latter) to draw any firm conclusions. This qualification mix as of 2018/19 is presented in Figure 11 below.

#### Figure 11: Course completions by level, February 2019 to January 2020



# Distribution of subject types

A substantial share of the **275,372** completions in 2019/20 in the WMCA area are in courses which provide general preparation for work and life, or ICT skills for users (**129,278, 48.0%**) which are likely to have social value beyond their impact on immediate employment prospects. GCSE resits to support employment or further study also comprise a large share (**20469, 7.4%**).

The full range of courses in which there were a significant number of completions are presented in the figure below:





## Age Profile of Course Completions

The proportion of younger (16-24) to mature students (25+) is approximately even; 51% of course completions are by students below the age of 25, and 49% above. Data available comprises a mix of individual year bands and groupings, as presented below for 2018/19:





While many course titles are equally popular across age groups, some trends are apparent:

- Mature students predominated in courses in Foundations for Learning and Life (65%), Hospitality and Catering (66%), ICT for users (70%), Crafts, Creative Arts and Design (64%), Manufacturing Technologies (75%), and Warehousing and Distribution (81%).
- These courses tend to either reflect an obvious social value (English as a Second Language (ESOL) and ICT for users) or prepare students who may not have had previous employment for entry positions or to build on their existing experience in an industry (Warehousing and Distribution, Hospitality and Catering). The large proportion of mature students enrolled in creative arts and design, however, may reflect the inherent appeal and interest in these courses more than their immediate employment prospects.

Table 14: Ethnic breakdown of further education students by achievements (successful course
completions), against their share of the population in the 2011 Census.

Ethnicity	FE course achievements 2019/20 (Proportion)	West Midlands Population (2011 Census)
Asian/ Asian British	18.1%	10.8%
Black/African/Caribbean/Bla ck British	13.6%	3.3%
Mixed/ Multiple Ethnic Group	5.5%	2.4%
Not App/Known	1.6%	0%
Other Ethnic Group	2.5%	0.9%
White	58.7%	82.7%

The over-representation of BAME students (for black students four times their Census representation) in the further education system raises the concern that they will be disproportionately impacted in the aftermath of Covid-19, as they are likely to enter a poor jobs market on completing their courses of study.

#### Geographical reach of Further Education provision

Given the additional need for education and skills support stemming from the Covid-19 crisis is likely to be concentrated in young people, it is important to confirm that there is adequate further education coverage located where the new demand will arise. The two heatmaps below indicate the proportion of young people by Census area (**left**) and the total number of students being served by FE colleges by Census area (**right**). Redder colours correspond to a greater number of people.

Discrepancies between supply and demand are not problematic where there are good transport links and a high level of awareness about the services available. It also appears that FE colleges are quite evenly distributed throughout the region. There are however some areas, particularly in Dudley and Walsall, where growth in demand in the future may be felt disproportionately.

# Figure 14: Comparison of learner location and Further Education colleges, by Census Lower Super Output Area. Source: Individualised Learner Record. Left: Learner locations. Right: Provider locations.



# Higher Education – Supply and Retention

In the 2018/19 academic year, a total of **71,530** university students were educated in the wider West Midlands region, comprising **46,140** undergraduates and **25,390** postgraduates. The system is expanding rapidly in capacity, with a **15.5%** increase seen in the last five years (the number of completions in 2014/15 was **61,945**.) This is double the rate of growth of the overall UK university sector, which grew by **7.53%** over the same period.

Table	15: Breakdown of	graduate	destinations	in the	West	Midlands I	region.
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	Black Country	Coventry and Warwickshire	Greater Birmingham and Solihull	National Average
Stay for study and employment	19.8%	17.9%	24.3%	29.3%
Leave for study, return for employment	27.0%	32.9%	34.1%	30.4%
Stay for study, leave for employment	9.2%	5.7%	8.1%	6.0%
Leave for study, do not return	43.9%	43.5%	33.6%	33.1%

Graduate retention in the region is somewhat weaker than the UK average. Fewer students stay for both study and subsequent employment (**19.8%** in the Black Country, **17.9%** in Coventry and Warwickshire, and **24.3%** in GBSLEP vs **29.3%** nationwide who stay in their home region.) Given the size of the university system in the region, this gap in retention represents a significant constraint on skills supply. It will be important to understand why it is that graduates leave.

Perhaps more encouragingly, the region is similar to the UK average in the proportion of students who leave to study elsewhere but return for employment (ranging from 27-34% by LEP area vs UK average 30%.) This may at least indicate that many students originally from the region feel that the there are enough opportunities to return after study. A more detailed analysis of why young people leave the region, and why they return, is being conducted by WM-REDI and will feature in future iterations of this report.

# **Coronavirus Impacts on Skills Supply**

The pandemic and resultant economic fallout has fallen disproportionately on ethnic minorities. Where gaps in opportunity between white people and ethnic minorities had begun to narrow, this progress is now imperilled. The Interim Report from the West Midlands Regional Health Impact of Covid-19 Task and Finish Group showed that existing health inequalities have been exposed by Covid-19, disproportionately affecting ethnic minority groups.

Three recent analyses by the Joseph Rowntree Foundation highlighted this disproportionality:

- Storm ready how to keep us afloat as unemployment hits: The risk of losing a job, and difficulty in finding alternative employment, are greater for less qualified workers across all ethnic groups. A clear message emerging from the evidence is that good performance of many ethnic minority children and young people in education is not reflected in the positions that they attain in the labour market. Yet analyses show that while the second generation outperformed their white peers in education, this did not yield equal returns in terms of labour market positions. This is indicative of persisting ethnic inequality over generations.
- The effect of occupation on poverty among ethnic minority groups: Analyses based on Labour Force Survey and UK Household Panel Survey data examining wages of a number of ethnic minority groups compared with White ethnic groups across over 80 occupations has shown that over-qualification in low-paying jobs is particularly prevalent in low-paying jobs amongst Pakistani and Bangladeshi workers, who are disproportionately concentrated in low-paying jobs.
- **Projecting employment by ethnic group to 2022:** The research showed that at national level economic activity rates and employment rates for ethnic minority groups had been converging with those of the White British group. However, calculations derived by applying data on labour force participation to Working Futures employment projections by broad industrial sector showed that men and women from ethnic minorities were projected to remain disproportionately concentrated in the Trade, accommodation and transport sector, which is associated with lower than average pay. This concentration is especially marked for the Bangladeshi, Pakistani and Other ethnic groups for men and the Bangladeshi, Pakistani, Chinese and Any other Asian groups for women.

The study highlighted the importance of policy makers and practitioners not only helping the most disadvantaged ethnic minority groups to access employment, but also to promote job quality and progression in employment.

#### Impact of the Covid -19 crisis on women

Women – particularly women from a BAME group – on the frontline of Covid-19 crisis. In the West Midlands region, women constitute four in five workers in the NHS (79%) and over two in five NHS workers are from a background other than White British. Nationally and regionally the vast majority of social care staff are women. National analysis shows that women dominate in several of the occupations with the closest proximity and highest exposure to Covid-19.

The gendered distribution of care responsibilities has also had an impact on women's employment during the COVID-19 crisis. Analyses undertaken by the Institute for Fiscal Studies in May 2020 indicated that at that stage of the crisis 16% of mothers had lost their job permanently (compared with 11% of fathers) and 34% of mothers had been furloughed (compared with 30% of fathers).

Of women in the West Midlands surveyed in late June 2020 four out of five who were working had seen their job change in some way as a result of the Covid-19 crisis. 28% had seen a change in their hours worked, with two in every three of these reporting a reduction in hours worked. Furlough has disproportionately affected those in economically weaker positions, with one in three respondents from social grades D and E experiencing furlough compared to one in seven from social grades A and B.

Research on the gender division of childcare during the Covid-19 crisis published in May 2020 and referred to in the report from the Women's Budget Group indicated that mothers nationally are doing 50% (or two hours a day) more childcare than fathers. This has implications for ability to participate in adult learning and skills development. The unavailability and unaffordability of formal childcare – as some nurseries close and incomes for some households are reduced – have particular implications for mothers' employment and for the time they have available to participate in learning.

#### **Primary and Secondary Education**

The youngest pupils may be missing out on important time developing their social and broader life skills as a result of the pandemic, particularly damaging if they were not very ready in starting school to begin with. A smaller proportion of children in the West Midlands reach a good level of development by the end of reception than the English average (68% to 71.5%), with readiness coinciding with affluence (Solihull having the highest readiness at 72.7% and Sandwell the lowest at 66.4%).

At Key Stages 3 and 4, cancellation of exams will mean a dependence on predicted grades for A Level and GCSE assessment. UCAS data from the end of the 2018/19 cycle indicated that predicted grades vary widely, but tend to be significantly above actual grades on average, with the most common difference being two grades. Notably, a correct prediction of the student's attainment is not the most likely outcome, but only the fourth most likely.

Recent UCL research into the impact of COVID-19 into pupil learning from home is stark. They found that 'children locked down at home in the UK spent an average of only **2.5 hours** each day doing schoolwork...71% of state school children received no or less than one daily online lessons.'

This has distinct implications for economic inequality which are most marked at the top and bottom of the income distribution. Private schools have a strong incentive to deploy a comprehensive online learning solution to justify their fees. On the other end, the report notes that one in five of those on free school meals had no access to a computer at home.

#### Use of predicted grades

With the pandemic making it infeasible to conduct A Level and GCSE examinations in the usual way in 2020, the difficulty in reconciling individual fairness and a balanced distribution of grades came to light.

Grade predictions made by teachers were ultimately used to gauge student attainment, a decision with some repercussions:

- Overall, A Level grades are 14% higher than last year, with the largest discrepancies at the lower end of the grade spectrum. This may mean more successful UK applicants, including via clearing, potentially filling the gap created by fewer international students being enrolled this year.
- The UK government confirmed that enrolments in medicine may be capped, which may exclude some students who achieved the necessary grades.
- Many universities with lower entry requirements may now have less students enrol as they may have made their firm university offer. As a result, these institutions could be left in a financially precarious position.
- The higher overall grade distribution means that some students may receive a passing grade and go on to university who would not have passed their exam had they been required to take it. This may mean that some students may not be ready for the rigours of university study.

## **Further Education**

Further education provision is being hit by the greater difficulty for learning providers in physically providing courses, loss of the tacit and social dimensions of learning a skill, and employers having to make difficult decisions about how many apprenticeships they are able to fund and support in the current economic environment. Survey data gathered in May from HR managers at 150 businesses by the Sutton Trust and YouGov for the *COVID-19 Impacts: Apprenticeships* report indicated that just **40%** of apprenticeships were continuing as normal across all firms, and that **43%** of firms reported that none of their apprenticeships could continue as normal. They also point out that young people from the most deprived backgrounds are concentrated in lower-level apprenticeships, disproportionately in businesses most affected by the pandemic.

The current crisis has had a huge impact on apprenticeship learning and recruitment. Learning providers have had to adjust to online-only provision, and where this is not possible apprentices are left without the off-the-job learning that makes up at least a fifth of their role. Their employers are currently likely to put other major priorities ahead of apprenticeship provision, and many apprentices will have taken on 'key worker' roles.

The survey also found that **61%** of apprentices have either been furloughed (**36%**), made redundant (**8%**), or have had their off-the-job learning suspended (**17%**). About a third (**31%**) of firms signalled that they were likely to hire fewer apprentices over the coming year, or none at all. **16%** have re-assigned apprentices to a 'key worker' role, and **60%** of firms have already ceased all new starts.

More broadly, further education is likely to face the challenge of accommodating the many young people leaving school into a labour market with less to offer them than it might in normal economic times. FE providers may face a combination of more students enrolling in FE courses and a greater demand for retraining in both the short term in response to the crisis and the long term resulting from technological change.

New funding has been made available by the ESFA this summer to support further education provision. This funding, for 18-19 year-olds, skews overwhelmingly male. In the West Midlands, Individualized Learner Records data indicate that **72.3%** of additional places funded are for men. The lopsided margin for health and social care (**94.6%** female) is the only reason the overall total is not even more male. If priority sectors for this extra funding, such as IT, manufacturing, and construction, remain the priority in the short and medium term, far more women will need to be attracted to this training to avoid the emergence of very large discrepancies in outcomes. When health and social care is stripped out, the additional places funded have been **90%** male.

#### **Higher Education**

The region's universities can expect a serious risk exposure to long-term revenues, resulting from high enrolment of international students. This exposure varies across the region (as below); Warwick University is the most exposed with 37% international students in 2018/19, while the University of Wolverhampton is comparatively insulated at only 4%.

So far, there has not been a sharp fall in enrolment of international students, as was expected during the crisis. If this does take place in the long term, loss of student numbers may affect the viability of some degree courses, a particular concern for those courses which could underpin the priority sectors identified in the Local Industrial Strategy. It would mean less money brought into the local economy, impeding the recovery of businesses in these areas. Universities may also be vulnerable to a loss of domestic students if online tuition makes the course offer less attractive.

# Figure 15: Graduating students whose final year of study was in the 2018/19 academic year, by institution. International: blue, Domestic: orange.



0 5000 10000 15000 20000 25000 30000 35000 40000

# **Demand Analysis**

#### Key issues

- Throughout the West Midlands (3LEP) area the weeks following the March 23<sup>rd</sup> 2020 lockdown saw a steep decline in total unique job postings through the pandemic period.
- Businesses have been hit hard by the pandemic, as in previous recessions often training is adversely impacted and this can be seen in the fall in apprenticeships.
- There continues to be a shift in employment in manufacturing as technology and productivity improvements enable businesses to compete but also remove employment. This is exacerbated by the pandemic, as businesses are restructuring to become leaner in difficult financial times.
- Some sectors, such as culture, creative, hospitality and retail still have significant closures with redundancies in these sectors on the rise this may mean roles traditionally available to the lower skilled are no longer there and may take some time to return.
- Some sectors are more exposed to risks in the near to medium term, this includes Advanced Manufacturing, Business, Professional and Financial Services, Retail and Cultural/Sport Economy. The first two sectors are also more exposed due to the long-term structural risks of Brexit impacts, whereas the latter sectors could rebound
- A decline in self-employment across the West Midlands, this stems from increasing riskaversion as a result of declining prospects for young people, this may blunt entrepreneurship in the region. However, this may change during the pandemic as there may be a shift to necessity entrepreneurship generated by lack of jobs in the economy
- Some sectors are growing, such as health and the region has significant assets in this area, also tech-based activities alongside the public sector remain promising.

# 2020-2027 Projections by Broad Sectors: Working Futures

The current economic disruption from COVID-19 will strike at many of the assumptions made in recent projections and analyses of the regional economy. Macroeconomic forecasts are always subject to a high degree of uncertainty in any case, but this is uncertainty is greatly amplified by the fact that we do not know when the COVID-19 restrictions will be fully eased or what our future trading relationship with the European Union will be.

Consequently, the employment projections on which our analysis is based likely will be less accurate. Projections will, however, indicate some of the long-term technological changes and challenges sectors of the economy will face, some of which may be accelerated by the present crisis. Department for Education economic analysis indicated that across the broad sectors of the UK economy we could expect the following annual employment trends through to 2027:

- **Business and other services** employment to expand by **0.6%** annually, driven by growth in financial and professional services, science and tech work, and IT. These increases are ascribed to the UK's comparative advantage in these sectors (noting however its dependence on future trading arrangements), and a rate of venture capital investment in tech start-ups which continues to outstrip other European countries.
- **Non-marketed services** to grow by **0.5%** annually, with growth concentrated in healthcare provision in response to an ageing population. Shortage of teachers and dependence on the influx of university students from China and India are cited as risks to this part of the sector.
- **Trade, accommodation, and transport** expected to grow by **0.1%** annually, with technological change having markedly different effects on different components of this sector.

- **Construction** to expand by **0.2%** annually, with a significant skills shortage and dependence on labour from the EU cited as challenges for the sector.
- **Manufacturing** employment is projected to **fall by 1%** annually, partly a continuation of past trends and partly impact to trade resulting from the altered UK-EU relationship. The 60% of UK food exports currently destined for the EU and £1.8 billion estimated cost of EU tariffs to UK motor vehicle exports are cited as determinants.

In the **West Midlands**, broadly similar sectoral changes are expected to the UK as a whole. However, some of the risks cited above, particularly in manufacturing, may yet have a disproportionate impact on the region's major employers.

Working Futures projections show a growth in white collar and highly skilled jobs. A 'polarisation' or 'hollowing out' may lead to greater employment in both low and high-skilled employment and a loss of intermediate roles such as administration/secretarial roles and skilled manual trades. Future growth is expected to be more concentrated in part-time positions versus full-time.

The main conclusion drawn on the effect of technological change was that changes to the pattern of employment within, rather than between sectors will have the decisive effect. For instance, retail workers will doubtless be affected by expansion of self-service and other technologies, and may not recover fully from the current economic disruptions. Other, less easily automated, services (such as waiting tables) are likely to be more resilient to automation in the long term. Similarly, we can expect growth in management, directors, and highly skilled professions while admin and secretarial work will be more vulnerable to automation.

# Future Projections by Local Enterprise Partnership

# **Industry Projections**

The sharpest decline in manufacturing employment (percentage of projected employment in 2027 versus 2017) is expected in the Black Country, a concern given that the sector makes up more than a tenth of its employment. The Black Country is, however, expected to see more rapid growth in construction.

Industry	BCLEP	CWLEP	GBSLEP
Primary sector and utilities	-2.4%	-2.5%	-4.7%
Manufacturing	-13.2%	-11.2%	-11.5%
Construction	1.3%	-0.5%	0.3%
Trade, accomod. and transport	-0.8%	-0.6%	-0.3%
Business and other services	2.9%	4.1%	2.4%
Non-marketed services	3.9%	1.2%	1.5%

Table 16: Forecast total change in employment by sector and Local Enterprise Partnership, 2017-2027.

#### Nature of Work

While the proportion of men and women within any individual industry is expected to essentially remain constant between 2017 and 2027, *Working Futures* projects certain broad trends coming from the change in the relative size of industries (percentages here refer to percentage of the working age population in 2017 versus 2017):

- A modest decline in self-employment across both genders and all three LEP areas, and declining twice as fast in men (0.4 to 0.5% decline as a share of the working-age population) than women (decline of 0.2%). This decline should be a concern if it stems from increasing risk-aversion as a result of declining prospects for young people, as this may blunt entrepreneurship.

- Full-time employment is expected to decline as a proportion of employment. This decline is entirely due to less men working full time, with the proportion of women working full time actually increasing slightly (around **0.5%** increase as a share of working-age population across all three LEP areas.) This is almost certainly a result of increasing employment in professional services and a decrease in manufacturing employment.
- Unsurprisingly, part-time employment is projected to increase steeply over the reference period, around **0.8%** for women and **1%** for men.

#### **Replacement Demand by Occupation**

The demand for new employees coming from the need to replace the existing workforce dwarfs the demand coming from industrial change, across all three Local Enterprise Partnership areas. The tables below set out the total demand for jobs as a proportion of the existing (2017 base year) workforce, and how change to the overall size of the industries (2017-2027) and

In the Black Country this difference is starkest, with a lower projection for employment growth in industries (1.5%) than in GBSLEP (2.0%) and Coventry and Warwickshire (2.1%) reflecting differences in the age breakdown of each population. This forecasting suggests, therefore, that for each job generated by new growth in an industry, more than 16 jobs will be generated by the need to replace workers who retire or move to other occupations:

В	la	ck	Co	un	try	/	
-				-			

Table 17: Replacement component of demand by occupation level, BCLEP, 2017-2027

Occupation	Change	Replacement	Total Demand
Managers, directors and senior officials	11.9	38.7	50.7
Professional occupations	12.1	34.6	46.7
Associate professional and technical	9.0	32.9	41.9
Administrative and secretarial	-14.9	31.8	16.9
Skilled trades occupations	-11.9	25.9	13.9
Caring, leisure and other service	13.5	40.5	54.0
Sales and customer service	-4.0	30.3	26.3
Process, plant and machine operatives	-10.6	29.6	18.9
Elementary occupations	-1.2	31.8	30.6
All occupations	1.5	33.1	34.5

#### **Coventry and Warwickshire**

Table 18: Replacement component of demand by occupation level, CWLEP. 2017-2027

Occupation	Change	Replacement	Total Demand
Managers, directors and senior officials	13.2	39.0	52.2
Professional occupations	11.8	34.0	45.8
Associate professional and technical	9.7	32.8	42.4
Administrative and secretarial	-13.9	32.0	18.1
Skilled trades occupations	-11.7	26.1	14.4
Caring, leisure and other service	12.6	40.2	52.8
Sales and customer service	-2.6	30.6	28.0
Process, plant and machine operatives	-9.1	30.0	20.9
Elementary occupations	-0.3	32.3	32.0
All occupations	2.1	33.1	35.2

## **Greater Birmingham and Solihull**

Table 10. R	enlacement com	nonent of demai	nd by occupat	ion level GP	RSI FP
Table 13. IN	epiacement com		ια μη οτταραί	ion level, GL	JULLE.

Occupation	Change	Replacement	Total Demand
Managers, directors and senior officials	12.9	39.0	51.8
Professional occupations	11.4	34.3	45.6
Associate professional and technical	8.8	32.7	41.6
Administrative and secretarial	-14.7	31.8	17.1
Skilled trades occupations	-11.3	26.1	14.8
Caring, leisure and other service	12.5	40.2	52.7
Sales and customer service	-2.6	30.6	28.0
Process, plant and machine operatives	-8.9	30.3	21.5
Elementary occupations	0.0	32.2	32.2
All occupations	2.0	33.2	35.2

# **Sector Risks**

Recent work looking at the regional sectoral risks, focusing on furlough and Brexit exposure presents a mixed picture, with sectors which are strong in the region and have driven the recent growth as being particularly exposed.

Risk type	Size in the economy — impact risk	Furlough exposure	Decrease in turnover	Brexit risk – Midlands is High risk region – 12.2% GDP	Overall
Advanced Manufacturing & Engineering	£16.4bn (15.6%)	51.3%	6.5%	Textiles and leather: 41.5% Coke, petroleum, fuels and chemicals: 102.2% Other manufacturing: 24.1% Electric machinery and optical equipment and transport equipment: 50.5% Food beverages and tobacco: 41.5%	High Risk
Construction (Building Technologies)	£7.2bn (6.9%)	58.2%	7.7%	Construction: 4.0%	Medium Risk
Business, Professional & Financial Services	£30.1bn (28.6%)	32.6%	Real estate activities: 3.1% Professional, scientific & technical activities: 5.8% Administrative and support service activities: 17.4%	Financial intermediation: 16.5% Real estate, renting and business activity: 13.4%	High Risk
Digital & Creative	£4.9bn (4.7%)	22.4%	6.5%	Textiles and leather: 41.5%	Medium Risk
Life Sciences & Healthcare	£8.5bn (8.1%)	10.1%	3.7%	Non market services: 2.0%	Low Risk
Logistics & Transport Technologies	£5.0bn (4.8%)	31.8%	18.1%	Distribution: 8.6%	Medium Risk
Low Carbon & Environmental	£4.5bn (4.3%)	21.4%	3.6%	Agriculture: 53.4% Mining, quarrying and energy supply: 24.7%	Medium Risk
Public Sector <u>inc.</u> Education	£11.3bn (10.8%)	7.7%	11.3%	Non market services: 2.0%	Low Risk
Retail	£12.8bn (12.2%)	43.8%	5.7%	Food beverages and tobacco: 32.1%	High Risk
Cultural Economy <u>inc.</u> Sports	£4.3bn (4.1%)	76.4%	Arts, entertainment and recreation: 41.2% Accommodation and Food Service Activities: 26.6%	Hotels and restaurants: 1.7%	High Risk

#### Table 20: Sectoral Exposure and Risk

The table above highlights some sectors are more exposed to risks in the near to medium term, this includes Advanced Manufacturing, Business, Professional and Financial Services, Retail and Cultural/Sport Economy. The figure below puts these impacts into relative context:





# **Sector Composition**

In this section the existing structure of the economy is outlined, with the following key sectors:

- Advanced manufacturing and engineering (automotive, rail, and aerospace).
- Metals and Materials
- Food and Drink
- Business, Professional and Financial Services
- Construction
- Life Sciences and Healthcare Industries
- Logistics and Transport
- Low Carbon and Environmental
- Cultural Economy (sports and tourism)
- Retail
- Public Sector

Considered in terms of GVA contribution (ONS data), total jobs, number of businesses, occupations, and needed skills. Location quotients are also considered - these are a ratio of the jobs a sector provides in the West Midlands to the employment the same sector provides to the UK as a whole. A value of above 1 indicates that the industry is more concentrated in the West Midlands than it is UK-wide.

Some remarks are also made about the limitations of the Standard Industrial Classification (SIC) codes' ability to capture all the employment in a given sector. Detailed visualisations of each sector are available in the Annex.

## Advanced Manufacturing and Engineering (AME):

- **£16.4bn** of WMCA GVA can be attributed to AME, which is **15.6%** of the whole economy. This makes AME the second largest sector behind Business, Professional, and Financial Services. The 2030 GVA ambition for this sector is to reach £19.7bn.
- There are 209,400 jobs attributed to AME in the WMCA area, **11.3%** of overall employment.
- Since 2010, GVA in AME has grown 65% in the WMCA, far higher than the 24% growth for the sector in the UK overall.
- Metals & Materials is the largest Advanced Manufacturing subsector in terms of GVA, jobs and businesses.
- The primary job titles were mechanical engineers, maintenance engineers, service engineers, structural fitters, engineering mechanics, project engineers, design engineers, quality inspectors, production operators, and installation engineers.
- The main skills were mechanical engineering, field service management, electrical engineering, hydraulics, product development, Key Performance Indicators (KPIs), tooling, building services engineering, commissioning, and automation.
- The summary below highlights the importance of the automotive component of the manufacturing sector, which makes up only around 10% of the total number of AME businesses but represents more than a quarter of GVA.





## Automotive:

- This analysis is based on the SIC code 29, which does not capture the whole automotive manufacturing industry, so these figures are likely to be underestimates.
- An estimated **£4.4bn** GVA can be attributed to automotive manufacturing in WMCA.
- There are **46,500** jobs in the sub-sector locally. GBSLEP & CWLEP have the most automotive jobs of all English LEP areas.
- **390** businesses in the sub-sector locally.
- Estimated £94,444 GVA per employee.
- There are high location quotients across automotive SIC codes for the region, suggesting a significant cluster of activity compared to other parts of the UK.
- 'Engineers' feature prominently in the top 10 most requested job titles. These top ten comprise 51% of unique job postings: mechanical engineers, maintenance engineers, welders, structural fitters, setters, engineering mechanics, fabricators, project engineers, design engineers, vehicle technicians.
- Key skills include mechanical engineering, engineering drawings, machining, mechanics, tooling, electrical engineering, hydraulics, product development, KPIs, and gas welding.

#### Figure 18: Automotive key statistics



## Rail

- An estimated £34m GVA can be attributed to rail equipment manufacturing in WMCA. The 2030 ambition for this sector is £38m.
- **360** jobs in the sub-sector locally.
- 69% of WMCA rail jobs are in CWLEP (250).
- Rail is small sub-sector of transport & machinery manufacturing, making up 0.3% of GVA and jobs in this sub-sector.
- Rail manufacturing has an LQ of **1.2** in the WMCA.
- This data reflects the SIC code: 30.20 Manufacture of railway locomotives and rolling stock, which understates the extent of rail activity in the area.

#### Figure 19: Rail key statistics



#### Aerospace

- An estimated **£272m** GVA can be attributed to aerospace manufacturing in WMCA. The 2030 ambition for this sub-sector is **£367m**. There are **2,850** jobs in the sub-sector locally.
- However, this data understates the extent of aerospace activity in the WMCA, as it only reflects the SIC code: 30.30 Manufacture of air and spacecraft and related machinery.
- National aerospace trade organisation ADS estimate UK aerospace turnover of £35bn. The West Midlands is roughly 10% of the sector nationally, thus representing approx. £3.5bn turnover. This outstrips the region's share of the UK population. ADS estimate that GVA is 30% of turnover in aerospace so aerospace GVA in the WM is around £1bn.
- ADS estimate that there are **123,000** direct aerospace jobs in the UK, and double this when you include indirect jobs. This means that around **25,000** jobs in the WM are aerospace.
- Only measuring for SIC 30.30 ensures that much activity that is primarily for aerospace is not recorded. This aerospace activity is disguised as 'metal working' or 'electro-mechanical equipment'.

#### Figure 20: Aerospace key statistics



#### **Metals and Materials**

- **5.8bn GVA** can be attributed to Metals and Materials in WMCA, **5.5%** of total. With a 2030 ambition of **£6.1bn**.
- 67,250 jobs in the sub-sector locally, **3.6%** of WMCA total.
- £86,141 GVA per employee in this sub-sector, higher than the average for the region of £56,908.
- There are **1,575** businesses in this sub sector.
- Only measuring for SIC codes 22-25 ensures that much activity that is primarily for the metals & materials sector is not recorded as it falls into other categories.

#### Figure 21: Metals and materials key statistics



#### Food and Drink:

- £796m GVA attributed to food & drink manufacturing (FDM) in WMCA. The 2030 ambition for this sub-sector is £2.05bn.
- **16,350** jobs in the sub-sector locally, with an ambition to have 22,000 in 2030.
- There are 500 businesses in the sub-sector locally, making up 0.3% of total businesses in the area.
- £48,685 GVA per employee, below the regional average.
- A 2017 report by the Food & Drink Federation suggests that the West Midlands region has had the greatest long-term growth in FDM of the 12 UK regions/
- The report finds that the West Midlands share of national FDM GVA rose from **6%** in 1997 to **9%** in 2015 the largest percentage point rise of all regions.
- The skill set was dominated by restaurant operation, cooking, food safety, food preparation, KPIs, stock control, production management, operations management, auditing, and food services.

Economic contribution - GVA



#### Figure 22: Food and Drink key statistics



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#### Business, Professional, and Financial Services (BOFS)

- **£27.8bn** WMCA GVA is attributed to BPFS, which is **26.5%** of the whole economy. This makes BPFS the largest sector in the WMCA area.
- There are **354,600** jobs attributed to BPFS in the WMCA area, **19.2%** of overall employment. This ensures BPFS is the largest sector for employment also.
- **41,865** businesses attributed to BPFS in the WMCA, **28.9%** of all businesses in the area the largest of any sector.
- The sector also contributes £28.8bn in GVA to the region.
- GVA per employee of £78,364, above the average of £56,908.
- The most demanded skills were accounting, business development, auditing, KPIs, agile software development, forecasting, selling techniques, customer relationship management, chartered accounting qualification, and SQL coding.

#### Figure 23: Business, Professional, and Financial Services key statistics



### Construction

- £7.1bn GVA attributed to construction in WMCA, with 2030 ambition of £10.9bn.
- **121,000** jobs in the sector locally. In 2030, the ambition is to have 234,000 construction jobs in the WMCA area.
- The majority (69%) of jobs & GVA (89%) appear within the 'Building Construction and Engineering' SIC code category.
- Construction GVA has grown faster in the UK overall than in the WMCA over the past 8 years, but slower in the past 4 years.
- The most demanded skills include surveying, civil engineering, AutoCAD, personal protective equipment, carpentry, subcontracting, procurement, plumbing, painting, and building services engineering.





#### Life Sciences and Healthcare Industries

- £8.8bn GVA, 244,940 jobs and 6,730 businesses.
- 5th largest UK concentration of life sciences employment.
- Established clinical trials capability including cost effective access to integrated clinical and genomic data sets for a diverse patient population and trials networks for accelerated trials (IBM-PLI, 2017).
- Competitiveness for FDI in high value medical technologies R&D and manufacture drawing on regional strengths advanced manufacturing and digital (source: IBM-PLI, 2017).
- Key skills include nursing, mental health, personal care, learning disabilities, rehabilitation, surgeries, auditing, nursing care, risk analysis, and psychology.







#### Life Sciences & Healthcare Businesses Composition

#### **Logistics and Transport**

- **£5.0bn** GVA attributed to logistics & transport in WMCA, with a 2030 ambition of **£7.1bn**. **109,335** jobs in the sector locally.
- In 2030, the ambition is that **125,000** jobs will exist in logistics & transport.
- Estimated GVA per worker of £46,116.
- 10,445 businesses attributed to logistics & transport in WMCA.
- Key skills include warehousing, forklift truck operation, trunking and digital communication, mechanics, collections, KPIs, palletizing, personal protective equipment, vehicle maintenance, and manual handling.

#### Figure 26: Logistics and Transport key statistics



#### Low Carbon and Environment

The core Low Carbon & Environmental Tech sector contributes **£3.6bn** in GVA to the WMCA economy.

- There are 22,750 jobs in this sector in WMCA.
- This sector contributes £3.6bn in GVA across the WMCA.
- There are 740 businesses in the WMCA that operate directly in this sector.
- GVA per employee of £156,764 the highest of any WMCA sector.
- Key skills include understanding the planning process, AutoCAD, building information modelling, ecology, risk analysis, business development, auditing, environmental resource management, landscaping, and environmental consulting.

Identifying the exact amount of activity outside our narrow sector definition is difficult, but it is likely that additional activity takes the number of jobs associated with Low Carbon & Environmental Tech to above **50,000** in the WMCA area.

Employment figures in the Annex give examples of additional sub-sectors; not all of the jobs in these sub-sectors will be directly related to Energy & Environment, particularly engineering activities, but they indicate the extent of overlap.

#### Figure 27: Low Carbon and environment key statistics



## **Cultural Economy**

- **£4.3bn** GVA attributed to the cultural economy in the WMCA, with a 2030 ambition of **£6.1bn**.
- **135,000** jobs in the sector locally. In 2030, the ambition is that **213,000** jobs will exist in tourism, an increase of **50,000**.
- The Arts, Entertainment and Recreation sub- sector dominates in terms of GVA and jobs, making up around three-quarters of GVA in the WMCA.
- This data reflects the initial tourism (cultural economy including sports) WMCA sector definition.



#### Figure 28: Cultural Economy key statistics

- Estimated £5.8bn GVA attributed to the creative industries sector in the WMCA. The 2030 ambition for this sector is £38m. 53% of jobs are in CWLEP. 10,925 businesses across the WMCA in this sector.

#### Super Strengths

Games Production 10% of UK games industry, significant major games companies in region, strong connections into digital manufacturing

## **Next Generation Content Creation**

**Creation** amplified by our **Young, Digital and Diverse** population and BBC3 moving its youth programming to the region

#### **Creative Collaboration**

Identified strengths in creative and cross-sectoral collaborations are driving growth across all sectors

## Design

Substantial **advertising and marketing sector** with strengths including **web**, **product and fashion design**, **PR** and **data analysis** 

#### Designer-Makers

Largest Jewellery, high-value 'designer maker' and crafts cluster in UK, including hand crafting within automotive production

#### Retail

- £12.9bn GVA attributed to the retail sector in the WMCA. \_
- 310,200 jobs in the sector locally, 16.8% of the total \_
- 24,600 enterprises attribute to the retail sector in the WMCA, 17% of total.
- £36,887 GVA per employee in the WMCA region.
- Key skills included telemarketing, cleaning, selling techniques, merchandising, KPIs, warehousing, customer experience, stock control, business-to-business sales, and sales bookings.

#### Figure 29: Retail key statistics





Current: £12.9bn



#### **Public Sector (Including Education)**

- £11.3bn GVA attributed to the public sector in the WMCA.
- **242,000** jobs in the sector locally. This makes up **13.1%** of all businesses in the WMCA, a higher percentage than at national level (**12.9%**).
- **2,745** businesses in the sector locally. This makes up **1.9%** of all businesses in the WMCA, compared to **2.0%** across England.
- GVA per employee of £46,800, lower than the average across all sectors in the WMCA of £56,900.
- 2.0% of GDP from the non-market services sector in the West Midlands is exposed to Brexit.

This data reflects the initial tourism (cultural economy including sports) WMCA sector definition.

#### Figure 30: Public Sector key statistics



# 2020-2027 Projections by Qualification:

The trend for this region is more sobering in the comparison in **Table 23**. The West Midlands is projected to have both the second lowest increase in employees qualified to Postgraduate level by 2027 at **0.8%** annually, and the slowest decrease in those without any qualifications at all at **2.9%** annually, less than half the UK average (**6.0%**).

UK Nation or region of	Annual averag	Annual average rate of change, 2017-2027 (%)						
England	Postgraduate	First						
	degree	degree	RQF 3 & 4	RQF1&2	None			
London	2.7	2.5	0.2	-4.7	-9.2			
South East	3.1	2.8	-0.7	-2.7	-7.2			
East of England	3.2	3.4	0.3	-2.3	-6.2			
South West	3.5	2.5	0.3	-2.9	-8.1			
West Midlands	0.8	3.1	0.5	-1.9	-2.9			
East Midlands	2.9	2.2	0.6	-1.5	-7.3			
Yorkshire and the	0.7	26	0.7	-1.8	-3.8			
Humber	0.7	2.0	0.7	-1.0	-5.0			
North West	4.0	2.5	0.3	-2.6	-6.2			
North East	1.3	3.0	0.9	-2.1	-6.1			
England	2.7	2.7	0.2	-2.6	-6.2			
Wales	3.4	2.3	0.4	-1.9	-5.9			
Scotland	3.9	3.1	-1.3	-2.9	-4.9			
Northern Ireland	2.3	2.0	0.1	-0.4	-4.9			
United Kingdom	2.8	2.7	0.1	-2.5	-6.0			

Table 21: Annual rate of change by qualification level and region.

#### 2020-2017 Projections by Industry:

Given the conclusion in the Working Futures report that the 'replacement demand' needed to fill the employment gaps left in industries by an ageing workforce comprise the vast majority of new job postings, it is not surprising that the sectors of the West Midlands economy posting the most jobs are for the most part already the largest.

Service sector job positions predominate in growth with catering (1,327), waiting and bar staff (1,030 and 738), care work (811), and book-keeping and payroll (676) the fastest-growing sectors. The fact that front-line service jobs underpin so much current and future economic output is concerning given the current pandemic, and will be considered further below.

# Skills demanded by employers

The 2019 Employer Skills Survey (ESS) gathers information on skills needs and training from employers via telephone survey. It asks questions about which skills are in short supply in job applicants for different roles, as well as any training the firm is delivering.

#### Summary

• Lack of the necessary skills is the single greatest obstacle to recruitment in BCLEP and CWLEP, while in GBSLEP it is second after poor terms and conditions on offer. Far more

vacancies in GBSLEP have been affected by Brexit uncertainty, unsociable hours, and lack of career progression opportunities than the other LEP areas or the England average.

- In both CWLEP and GBSLEP, recruitment is made more difficult by a lack of advanced IT, statistics, and data science skills. In advanced IT in particular, both LEP areas considerably outstrip the England average of 20% in terms of the proportion of skills-shortage vacancies that are difficult to fill for this reason (25% in CWLEP, 22% in GBSLEP.)
- BCLEP still has a very high demand for manual and machinery operating skills, driven by the need to replace its ageing workforce. This will continue to create vacancies even while the sector is shrinking.
- A large proportion of skills-shortage vacancies prove difficult to fill due to the lack of necessary social skills, such as teamwork and presentation skills. While the West Midlands does not differ greatly from the England average in this area, in both areas social skills of one form or another are a constraint on recruitment for around half of positions.
- There is a fairly low level of awareness amongst West Midlands employers of the apprenticeship system and how it can support them. Only 41% of employers in the Black Country, 37% in CWLEP, and 40% in GBSLEP were aware of the introduction of the apprenticeship levy. Of these, 58%, 60%, and 60% were aware that this levy applies to employers with an annual wage bill of more than £3million. Fewer still were aware of the premium available for recruiting apprentices from deprived areas, with 21% in the Black Country and 22% in CWLEP and GBSLEP being aware of this. Small businesses between 10 and 49 employees are more common in the West Midlands, and may be missing out through financial pressure and the administrative time it takes to arrange apprenticeships.

#### **Reasons for Vacancies**

The contribution that skills shortages make to vacancies is similar in the West Midlands to the England average. Shortage of the necessary qualifications is likewise considered neither better nor worse. However, there are some marked differences in other questions about how the labour market affects recruitment. GBSLEP has far more of a problem with shift work and unsociable hours deterring applicants (likely stemming from the city centre's strength in retail, restaurants, and leisure.) The concentration of professional services may also have contributed to the much higher concern about Brexit impacts (due to greater inter-connectedness) and career progression.



# Skill Shortage Vacancies by Type

Skilled trades occupations are frequently in short supply in the Black Country, with lack of skills cited for **35%** of firms as constricting their ability to hire, versus **24%** in England. This likely reflects significant replacement demand for existing workers in these lines of work rather than growth in total employment. BCLEP also lacks sufficient skilled workers in care, leisure and other services (**24%**) compared to the England average (**14%**). In this case the sector is both large and growing. Lack of the necessary skills is also strongly affecting professional-level recruitment in GBSLEP (**20%** of vacancies affected). These figures are presented below against the England average, with each percentage figure representing the proportion of firms which had skills shortage vacancies of the given type.



# IT Skills

The chart below displays the proportion of skills-shortage vacancies which are made difficult to recruit due to a lack of specific IT skills. Basic IT skills such as Microsoft office are still cited as a major constraint in the Black Country (**39%** of posts), less so in CWLEP (**20%**) and similar to the England average in GBSLEP (**30%** in GBSLEP versus **33%** in England). GBSLEP has a notable shortage of data analysis and data science skills, likely reflecting its concentration of professional services firms. The density of game development firms in Learnington Spa in CWLEP appears to have been picked up in the sample, with a far greater shortage of skills in online transactions, data science, and social media/marketing in CWLEP than the other two LEPS or England average.



# **Practical Skills**

The survey also assessed the proportion of skills-shortage vacancies for which key technical and practical skills were making them difficult to fill. Comparison of LEP areas based on general practical skills is revealing:

	Total	BCLE P	CWLE P	GBSLE P
Reading and understanding instructions, guidelines, manuals or reports	30%	23%	27%	40%
Basic numerical skills and understanding	23%	23%	19%	30%
More complex numerical or statistical skills and understanding	23%	20%	22%	36%
Adapting to new equipment or materials	21%	32%	15%	17%
Computer literacy / basic IT skills	20%	14%	17%	29%
Manual dexterity - for example, to mend, repair, assemble, construct or adjust things	18%	35%	18%	11%
Advanced or specialist IT skills	17%	11%	25%	22%
Communicating in a foreign language	17%	6%	12%	9%
None of the above	8%	4%	5%	12%

Don't know	9%	9%	9%	8%
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The greater prevalence of professional services and concentration of research activity in the GBSLEP is readily apparent in the much greater demand (relative to supply in the labour market) for mathematics and IT skills. That **36%** of skills-shortage vacancies in GBSLEP are affected by difficulty in obtaining complex numerical or statistical skills is very striking. This is much higher than the England average (**23%**) and implies that this shortage is a major impediment to growth and recruitment. High demand for advanced/specialist IT skills are also constraining recruitment, particularly in CWLEP.

Equally pronounced is the demand in BCLEP for manual dexterity and equipment skills, likely to be 'replacement demand' for new staff to replace an ageing workforce in the manufacturing sector, rather than the creation of new jobs. The lower demand for numerical and IT skills in BCLEP is likely due to weaker growth in sectors such as professional services, rather than a greater availability of these skills in the workforce.

# **Social Skills**

The summary below presents the proportion of skills-shortage vacancies which are difficult to recruit for owing to lack of particular social skills in applicants:

	Total	BCLE P	CWLE P	GBSLE P
Ability to manage own time and prioritise own tasks	60%	68%	55%	64%
Team working	50%	60%	44%	58%
Managing their own feelings, or handling the feelings of others	49%	48%	42%	34%
Customer handling skills	45%	37%	48%	59%
Managing or motivating other staff	41%	32%	41%	35%
Persuading or influencing others	39%	47%	41%	33%
Instructing, teaching or training people	30%	21%	29%	27%
Sales skills	29%	18%	31%	25%
Setting objectives for others and planning human, financial and other resources	26%	18%	19%	17%
Making speeches or presentations	19%	12%	26%	18%

Shortfalls in social skills are not greatly different in the three LEP areas versus the England; it is notable how high a proportion of skills-shortage vacancies are difficult to fill due to lack of team working, polish, and general social skills. In light of the shortage of IT and mathematical skills identified above, it is likely that supporting training courses that inculcate high-level technical skills combined with strong team working and presentation skills would be a winning combination in the current job market.

# **Apprenticeships and Traineeships**

A significant impediment to the delivery of higher number of apprenticeships in the region is a lack of employer awareness of how the apprenticeship system works. As of the survey date in 2019, only **41%** of employers in the Black Country, **37%** in CWLEP, and **40%** in GBSLEP were aware of the introduction of the apprenticeship levy. Of these, **58%**, **60%**, and **60%** were aware that this levy applies to employers with an annual wage bill of more than £3million.

While none of the figures depart markedly from the England averages, they do indicate a lack of awareness amongst employers of the financial setup of apprenticeships which would allow them to make decisions about whether it would benefit them to take an apprentice on. For instance, only **27%** of employers in the Black Country and CWLEP and **30%** in GBSLEP were aware of the **5%** co-investment payment employers provide to support apprenticeship costs. Fewer still were aware of the

premium available for recruiting apprentices from deprived areas, with **21%** in the Black Country and **22%** in CWLEP and GBSLEP being aware of this.

You would not expect all employers to be aware of the details of the apprenticeship system, particularly if the recruitment of apprenticeships is not directly applicable to their business - for instance if they are a very small firm. Financial constraints and the administrative overhead of organising an apprenticeship are also major contributors to lower take up, particularly in the current circumstances. However, the West Midlands has a significant share of small firms relative to the England average which might benefit from greater access to apprenticeships. The table below shows the distribution of different sizes of firm as a proportion of the total number of firms in a given area:

Employees	England	BCLEP	CWLEP	GBSLEP
2-4	55%	49%	53%	52%
5-9	21%	19%	16%	18%
10-24	15%	20%	20%	19%
25-49	5%	7%	6%	6%
50-99	3%	3%	3%	3%
100-249	1%	2%	1%	2%
250 or more	1%	*%	1%	1%

#### Notes on Methodology

Unlike all other regions, in the West Midlands the ESS did not conform to a strict quota of business sizes and sectors. This will have affected the accuracy of the work. However, many metrics for the West Midlands match closely to the England average, implying that this bias is not uniform. In some instances, the data for a given category for a given LEP is missing due to insufficient sample size. Significant overlap between categories and responses mean percentages will not sum to 100% for each LEP area. For instance, a vacancy may exist for more than one reason.

# Impact of COVID-19 on skills demand

The current pandemic and its mitigation efforts are having a sweeping impact on both current and future economic activity in the region, with every level of the skills system likely to be affected for an as-yet unknown period of time. The economic scenarios for the UK that have been postulated vary from a V-shaped recession with rapid recovery, a U-shaped recession with a protracted recovery, and even an L-shaped scenario in which the economy is permanently scarred.

## Jobs postings

Emsi analysis of unique job postings (sourced from online jobsites, general and industry-specific) throughout the West Midlands (3LEP) area in the six months to September 2020 saw a steep decline in total unique job postings through the pandemic period. Considered at the Local Authority level, Birmingham generated by far the most jobs, **124,205**, with Coventry second at **29,953**. This discrepancy remains when controlling for population size, with the 2011 Census putting Birmingham's population at **1.086 million** and Coventry's at **325,949**. No other local authorities are close, with Warwick producing more jobs (**15,472**) than Wolverhampton (**14,848**).

Figure 31: Trend in job postings over the last four years. Note the steep decline from March as the lockdown restrictions were imposed, though the second lockdown Data collated by Emsi.



A decline in job postings may be caused as much by a drop in staff retention as by a drop in growth. While we can speculate that key sectors such as digital and construction may have been more resilient than others to the lockdown and mitigation measures (due to greater ability to continue working), a drop in economic output is likely to significantly impact employment growth across the board.

This decline is corroborated by the job postings figures from the skills data firm Adzuna's database, which collates job postings on multiple job boards and employer websites. Data made publicly available via ONS for the UK and for the English regions showed a comparable trend over the last year:

Figure 32: Each chart contrasts the trajectory in job postings, with the black lines corresponding to the UK average across all industries, compared to:

<u>Top left</u>: Manufacturing (Grey), Construction (Red), Transport & Logistics (Blue).

Top right: Professional Services (Grey), Creative Industries (Red), IT and Computing (Blue).

Bottom left: Education (Green), Retail (Blue), Health & Care (Red).

Bottom right: Comparison by region. London (Grey), North West (Red), West Midlands (Blue).

All trends are shown as a proportion of the UK 2019 year average across all industries.


The average England job postings rate was halved in July 2020 versus the 2019 average. Retail, unsurprisingly, was worst hit of all sectors, with recruitment still around one third of the 2019 average, up from 25% during the lockdown period. These findings are consistent with the similar decline in the Emsi job postings figures over the same period, and the rising claimant count figures, with the West Midlands being hit less heavily than the England average. As seen in the regional comparison chart (blue background) the West Midlands has seen a shallower decline and faster recovery than the North West and the UK average.

#### Renewed urgency for lifelong learning

A June 2020 report by City-REDI and the Industrial Strategy Council, *Rising to the UK's Skills Challenges*, presents evidence on some of the skills challenges facing the UK and how they might be addressed. It emphasises the importance of promoting lifelong learning in terms of both addressing both short-term labour market challenges and longer-term changes in skills needs associated with digitisation. Even before Covid-19 pandemic, the world of work was changing rapidly because of technological developments (including automation, digitisation and AI).

Evidence suggests that the UK will face severe under-skilling issues within the next decade. The Industrial Strategy Council and McKinsey predict that by 2030 5 million workers be acutely underskilled in basic digital skills, with as much as two-thirds of the workforce experiencing some degree of under-skilling. Given that around **80%** of the workforce in 2030 is already in employment, reskilling across the generational spectrum, must be a priority. Yet employee participation in all types of training in the UK has fallen since the Global Financial Crisis, particularly for low-skilled employees. Evidence from employee surveys indicates that only around **50%** of employees are currently accessing the training required for their current role. In the Chartered Institute of Personnel and Development (CIPD) annual Working Lives Survey, only **54%** of workers agreed or strongly agreed that they received the training and information they need to do their job well.

Current participation in learning is limited by financial costs, funding rules, course availability, work and home commitments, low motivation, and poor self-esteem. Information campaigns, employer and union learning representatives, and managers can all be useful ways of communicating the benefits and necessity of lifelong learning to employees. Local skills providers need to focus on signposting more clearly what different forms of adult funding support can be used for and developing greater guidance on eligibility, can help local skill providers to adapt to local skill needs.

The immediate impact of Covid-19 is combining with long-term occupational trends to create an unprecedented situation affecting workers of all ages in which unemployment could hit record highs. Skills policy intervention is needed to mitigate this and help individuals fill roles where new opportunities exist.

#### The digital skills imperative

The Covid-19 crisis has brought digital skills centre-stage. It has highlighted how people who do not have the skills to engage effectively with the digital world are at risk of exclusion, socially and economically. Digital engagement is about: (1) access to computers, smartphones and an internet connection; (2) digital skills to use such devices; and (3) how people deploy those skills in a positive and effective way.

As the number of non-users of the internet has declined over time concerns over access have diminished. Yet as access to digital devices has becomes ever more integrated into everyday living, people are at risk of exclusion if they do not possess at least basic digital skills:

- managing information using a website to search for information)
- communicating such as sending a message via email)
- transacting online for instance buying services from a website

• problem solving – for example, verifying sources of information online or solving a problem with a device or digital service using online help

• creating content – such as completing an online application form.

These skills are not only concerned with technical aspects of using devices but also about filtering, using and generating information. The Covid-19 crisis has demonstrated how basic digital skills provide a gateway to e-learning, careers information, job matching and applying for jobs.

Beyond this threshold level of basic digital skills, Artificial Intelligence (AI) and data are transforming business models across many sectors and are also new industries in their own right. This underlines skills development needs in occupations where digital skills are used creatively, to foster innovation and raise productivity and to solve problems. But it is not just digital skills in isolation that are important; they are also an integral component of a broader skills mix. This emphasises the current and future imperative of ongoing investment in digital skills

#### **Further Education**

The pandemic is likely to influence both demand and supply in the FE sector, further complicating the chicken-and-egg challenge of meeting the skills needs of the present as well as the long-term goals of industrial policy.

Depending on the extent and duration of the resulting recession, and the nature of withdrawal from the job retention scheme, there is likely to be a significant increase in young people of NEET status. Research by the Institute for Fiscal Studies found that under-25s are approximately 2.5 times more likely to have been working in a sector closed by the COVID-19 lockdown measures. The 2008 recession, for reference, saw an increase of 3.5% in NEETS across the UK, from 13.4% to a peak of 16.9%. Integrated support for young people will clearly be essential to prevent many experiencing long-term unemployment and the consequent loss of skills and potential future earnings.

#### Scarring effect of unemployment

Youth unemployment has a long-term impact on jobs, wages and well-being. The 'scarring' costs of not addressing unemployment amongst young people merits the costs of a short-term response to the crisis.

Over time structural changes in the labour market have reduced employment opportunities for disadvantaged young people, thereby making their transitions to work more difficult. The proportion of young people combining learning and earning has declined over the last two decades. Yet the emphasis placed by employers on work experience results in the 'Catch-22' situation for young people: they find it difficult to get a job without experience and without a job they find it difficult to get experience.

While it is not new for young people to bear the brunt of economic downturns, what is different about the Covid-19 crisis was the shutdown of sectors such as hospitality and non-food retailing which play an important role in facilitating labour market entry and gaining work experience for young people. Analysis in April 2020 showed that employees aged under 25 years were about two and a half times as likely to work in a sector that was shut down as other employees, while the closure of schools and other educational establishments impacted on learning, with associated concerns about the accentuation of existing socioeconomic inequalities.

A 'human capital' approach to addressing worklessness amongst young people seek to increase skills and qualifications in order to reduce the disadvantages that individuals face before assisting them to find work. The policy emphasis on skills development in traineeships and apprenticeships, as well as funding to create more places on Level 2 and 3 courses, with particular emphasis on high demand sectors like engineering, construction and social care, is also in keeping with a human capital approach, aligned with addressing local demand requirements.

**The Resolution Foundation's** analysis of the risk of 'scarring' of young people as a result of the recession showed that:

- The 'demographic dip' of a lower 16-18-year-old population in the UK may mean that the HE and FE systems are better able to accommodate those who extend their education during the crisis. However, this will not necessarily be the case in the West Midlands where the population is younger.
- From 2015/16 to 2018/19, the age of apprenticeships has trended upwards. It should be a concern that apprenticeship provision may become dominated by people of higher socioeconomic backgrounds, already in professional roles, using apprenticeships to gain higher leadership and management training, and not younger people of deprived socio-economic background looking for employment.
- Historically, young people with low skills (GCSE and below, equivalent to NVQ2 in our analysis) are far more likely to be unemployed following the end of their education.
- Analysis of historical Labour Force Survey data indicated that university students who graduated in 2009 experienced a higher unemployment rate than graduates of 2003 and 2013. This difference was most apparent in the first two years but persisted for four years. Similarly, they were more likely to be working part-time involuntarily, a difference that persisted for the entire six-year survey period.

- As their report acknowledges, these effects will be contingent on the speed of the recovery, with the scenario of a quick rebound on economic output likely to have more muted effects. However, they point to the countervailing problem that the current crisis is likely to hit young people harder, owing to their being more likely to work in the sectors hit hardest.

#### Covid-19 and older workers

The number of older workers has increased over the medium-term: At national level, people aged 50 years and over accounted for three-quarters of the increase in employment between 2004 and 2019. This was a function of both population ageing (i.e. compositional change) and an increase in employment rates in the older age groups (i.e. behavioural change).

After young workers, older workers have been disproportionately furloughed: Coronavirus Job Retention Scheme data at national level for the period to 31st July 2020 shows that employments furloughed as a percentage of eligible employments was lowest at 27% for individuals aged between 41 and 55 years and increased from the age of 55 years to over 30% for those aged 60 years and over.

Issues facing older workers in the Covid-19 recession:

• A report by the Learning and Work Institute for the Centre for Ageing Better highlights that older workers becoming 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 years.

• Older workers are less likely to return to work following redundancy than younger workers.

• Older people are less likely than young people to participate in training. This means that older people may face particular challenges of upskilling if they need to change sectors/ take on new job roles.

• In aggregate, older workers (especially those from lower socio-economic groups where the use of the internet is lowest) are less digitally aware and confident than younger workers, so making it more difficult for them to transition to remote working and deal with the job search and interview process online.

• Older people perceive ageism/ employer stereotypes as a major barrier to employment. The greater health risk of Covid-19 for older people may further exacerbate negative stereotypes.

• The rise in the state pension ages place financial pressures on some older people. The Covid-19 crisis means that such challenges are difficult to address through longer working lives, with possible implications for pensioner poverty.

# **Supply and Demand Comparison**

#### Key issues

- There is an undersupply of NVQ2 and NVQ4 and an oversupply of NVQ3 and NVQ1, within the West Midlands, creating an imbalance in the demand and supply of the workforce.
- There may be a significant mismatch in the next few years as supply in high volume employment sectors outstrips demand created by the pandemic impacts
- Brexit impacts may create a reduction in demand in some areas such as manufacturing and increase in others such as professional services as demand for processing skills increase
- There is a national undersupply or people proficient in digital skills at all levels, with significant growth in the higher end skills and a lack of supply chain through all stages to fulfil these roles
- The public sector, teaching, care and health remain resilient sectors in terms of job availability and advertisements and demand may outstrip supply with the impact of the pandemic and the aging population demands
- The region's heaving manufacturing base relies on a supply of high skilled apprenticeships but short term economic impacts and longer term impacts of exiting the EU are having an impact on business ability to fund and support trainees
- Increased demand for construction projects (through programmes such as building back better) will further constrain the labour market in areas such as construction and the associated professions
- The supply and demand mismatches ultimately increase the workload of those around them, which can create a fall in productivity

## **By Qualification Level**

Research published in the journal *Regional Studies* this year by City-REDI at Birmingham Business School (titled *Ensuring skills are available in the right locations: are we there yet? A regional analysis of qualification* gaps) compared supply and demand of qualifications across the West Midlands 3-LEP area. This involved using a regression model to forecast occupations for the different local authority areas, before tying each occupation to the relevant NVQ level. This allows us to draw some conclusions about general skills availability in the region:

#### NVQ1

Transport and labour market mobility were highlighted as challenges at this qualification level, with considerable oversupply in some areas (**9100** candidates in the Black Country) and undersupply in others (**11,000** in the Coventry and Warwickshire LEP). Overall, the West Midlands 3-LEP area is already over-supplied at the NVQ1 skills level.

#### NVQ2

This qualification level is in short supply in all three LEP area, the greatest shortage being in the GBSLEP (63,100, concentrated in Birmingham at 44,200), followed by Coventry and Warwickshire (41,200) and the Black Country (34,300). This is likely causing a significant constraint on productivity as firms struggle to find the needed skills within their commuting area.

#### NVQ3

There is an over-supply at NVQ3-level, but an under-supply at NVQ4, in both the Black Country and GBSLEP, indicating potential value in up-skilling these candidates to NVQ4. In Coventry and Warwickshire there is an under-supply at both NVQ3 and NVQ4, likely resulting from the presence of the auto industry which often require skills at these levels.

This raises the concern on the supply-side that elevating a candidate's skills from NVQ2 to NVQ3 will not automatically improve their employment prospects, unless this training is a stepping-stone to further development. It also suggests the potential value of degree apprenticeships in providing the higher-level technical skills currently in demand.

#### NVQ4

The region is distinctly short of candidates at this level, with a gap of **63,400** in the GBS LEP, **16,970** in Black Country LEP, and **11,270** in the Coventry and Warwickshire LEP.

Recalling the Working Futures projections, the wider West Midlands region is expected to see stronger growth in NVQ levels 3 and 4 through 2027 (at **0.5%** annually) than the UK average (**0.1%**). However, this is partly a function of the fact that other regions of the UK are achieving strong growth in graduate and postgraduate education at the expense of these lower skill levels.

This leads us to the conclusion that supply-side policy should focus on: **1**. Upskilling across the high end of the spectrum (NVQ4 all the way to NVQ7/8 (advanced vocational and postgraduate study) to meet the higher skill requirements of modern professional services, green technology, and biosciences. **2**. On the opposite end of the spectrum, accelerate the reduction of 'no qualifications' and elevation of young people to at least NVQ2 level. The aforementioned forecast of 'no qualifications' falling by an anaemic **2.9%** annually, the lowest in the country, would undermine the region's competitiveness and should not be allowed to happen.

### By Subject

#### Job postings

A comparison is made below between the volume of job postings in the region, aggregated by Emsi, and the number of apprentices and further education students trained in related subjects. Given the differences between data sources, the geographical area and time period covered are cited in the headings for context.

#### Top Posted Occupations, West Midlands 3LEP area, December-May 2020

By occupation, the most postings in this period were in Nursing (**13,316**) primary and nursery teaching and supporting staff (**10,195**), sales accounts and business development management (**9,127**), care work (**8,071**), book-keepers and payroll (**6,801**), programming and software development (**6,734**), and van drivers (**6,501**).

#### Apprenticeship starts, West Midlands 3LEP area, August-Jan 2020

**15,100** people enrolled in apprenticeships in Q2-3 2019/20. Given the clear need, it is positive that health and social care is the single largest category for apprenticeship provision, with **2,150** people starting apprenticeships in this area in the last six months. **2,090** were trained in business management in the same period; while this goes some way towards meeting demand it also raises the question of whether these highly skilled apprenticeships are reaching those from deprived areas. The previously cited Social Mobility Commission work suggests that currently they are not.

Given the high demand for payroll staff, it is encouraging that many apprenticeships are being trained in administration (1,640) and accounting and finance (1,070). These positions are a potentially valuable ladder into higher-paying roles for young people in vocational education. However, the contrast in levels is marked, with the most administration apprenticeships at intermediate level (790) while accounting

and finance were concentrated in the higher level (680). This may be because the latter category is dominated by employers funding apprenticeships for their existing staff.

#### Further Education course completions, West Midlands metropolitan area, August-Jan 2020

There were a total of **36,717** completions of FE courses in Q2-3 2019/20. If English as a Second Language and generic employability skills are removed and we consider only training for specific roles, this total is down to **16,561**, comparable with apprenticeship starts.

Completion of FE courses in health and social care (**2,382**) is comparable to apprenticeship starts in this field, and likely not adequate for the number of related jobs being posted. This may reflect low pay in the care sector making it more difficult to draw applicants into this career pathway.

There appears to be a distinct lack of training in business skills, with courses in 'administration' (1,722) mostly in soft skills such as communication and customer service, and with few being trained in business management (577) and accounting and finance (230). Some of this positions will be occupied by graduates, but further education could also support some positions. Combined with the concerns already raised about higher apprenticeships in the service sector used to train up existing staff, and their becoming more concentrated in larger firms, it appears that there are few vocational pathways for non-graduates into the professional services sector.

#### Higher education, West Midlands 3LEP area, 2018/19 academic year

Looking at the most recent academic year (2018/19), the most common subject areas studied were business and administrative studies (15,845) followed by subjects allied to medicine (8,395), as summarised in Table 21:

# Table 22: Higher education course completions in the West Midlands, by subject area. This includes undergraduate and postgraduate students in the 2018/19 academic years.

HE provider	Total	
Subject area total	71,530	
(D) Business and administrative studies	15,845	
(2) Subjects allied to medicine	8,395	
(B) Social studies	7,315	
(I) Education	7,155	
(3) Biological sciences	6,065	
(9) Engineering and technology	5,735	
(H) Creative arts and design	4,200	
(8) Computer science	2,745	
(C) Law	2,485	
(F) Languages	2,095	
(6) Physical sciences	1,875	
(G) Historical and philosophical studies	1,675	
(7) Mathematical sciences	1,245	
(E) Mass communications and documentation	1,210	
(1) Medicine and dentistry	1,180	
(5) Agriculture and related subjects	1,125	
(A) Architecture, building and planning	975	
(4) Veterinary science	125	
(J) Combined	80	

The large number of graduates in business indicates that there may be a sufficient new supply of this general skillset, provided that these students graduate with the specific competencies they will need for the roles available. However, the most common 'hard skills' cited in recent job postings in the region include auditing (11,959 postings), business development (9,480), accounting (9,427), key performance indicators (8,369), selling techniques (6,322), forecasting (5,166) and risk analysis (4,628). The high demand for forecasting and risk analysis skills in particular hint at the large number of positions which emerging data science products and techniques may disrupt in the coming decade.

Healthcare is clearly an area of significant skills shortage; only some of the total number of graduates in healthcare subjects will have studied nursing, which is clearly in great demand, many of whom will subsequently go on to leave the region and take positions elsewhere.

IT is also an area of shortfall. In addition to the **6,734** postings for software developers in the last six months, there were **2,385** postings for web developers and web designers. The higher education system produced only **2,745** computer science graduates in the last academic year. Even assuming a high proportion of graduates in other STEM fields enter this space would not bring supply close to demand. It is likely that a significant share of applicants to these posts are self-taught as a result, or trained up by employers from non-specialist roles.

### **Comparison of Further Education to Projected Employment Growth:**

Further Education course completions can be compared to the total job postings in the same subject area for each Local Authority to provide a sense of under and over-supply of skills. These comparisons (set out in detail in the Annex) show several commonalities across each Local Authority:





West Midlands

Marketing and sales, administration, care work, HGV licenses, accounting, and hospitality are the main areas in which demand is expected to outstrip supply. Considering these in more detail:

**Marketing and Sales, and Retail Operations:** Further Education courses do not target this area, with negligible annual completions versus **3,400** annual openings. The largest single category of employment is sales and retail assistants, an occupation which most applicants are likely to learn on the job. However, the second two employment categories (sales accounts and business development managers, retail managers and directors) also comprise a significant share.

**Management** comprises **3,336** annual openings, with (as above) retail and wholesale managers, as well as chartered and certified accountants, and production managers and directors in manufacturing.

Administration overlaps considerably with other categories here (particularly Vocations Allied to Medicine given the prominence of the sector, and Hospitality and Catering), but also includes book-keepers, payroll managers, and wages clerks. Projected openings are set to exceed Further Education completions by 4,633 jobs annually.

The **Care** sector is projected to require a large number of additional nurses per year (for example, **623** in Birmingham alone), as well as care workers and home carers, nursing auxiliaries, and assistants. Further education, which might support the latter two occupations, currently does not train sufficiently in the care sector as a whole, leaving a large discrepancy.

**Teaching** is also an area of significant (**3,103**) shortfall, with a place for FE in training support staff as well as nursery teachers.

**Housing:** in this area of significant shortfall (**2,159**), property and estate managers, estate agents, and estimators, valuers, and assessors all have significant openings and are areas which Further Education could target.

In interpreting these figures, we should note that:

- This scenario assumes that Further Education course completions remain constant from the latest data (August 2019 January 2020) through 2027. In other words, a 'no change' scenario.
- Employment demand for each sector is derived from Working Futures, with the same limitations.
- Courses not directly tied to a job role, such as GCSE retakes and ESOL, clearly generate other types of value which this analysis ignores.
- Some of this shortfall may already be effectively met either by informal training by employers or self-teaching.
- Conversely, some employees may still be taken on without optimal skills or qualifications for the role, if employers have no choice but to fill the role. As noted below, this still has consequences for productivity and competitiveness.

#### Impact on Employers

As seen earlier, Employer Skills Survey 2019 indicated that employers in the region feel that the lack of necessary skills is constraining their competitiveness, increasing their costs, and slowing technological change and innovation in products and processes:

	BC LEP	CW LEP	GBS LEP
Lose business or orders to competitors	46%	34%	58%
Delay developing new products or services	44%	55%	36%
Have difficulties meeting quality standards	30%	34%	30%
Experience increased operating costs	60%	22%	56%
Have difficulties introducing new working practices	34%	34%	34%
Increase workload for other staff	92%	95%	78%
Outsource work	35%	16%	27%
Withdraw from offering certain products or services altogether	25%	31%	27%
Have difficulties meeting customer services objectives	64%	59%	47%
Have difficulties introducing technological change	36%	29%	34%
None	2%	3%	3%

The skills gaps identified locally are primarily the result of employees still being new to the role and training not yet complete. An issue which affect the Black Country more than the other 2 LEPS include non-work related problems e.g. health or personal problems (**11%**). An issue which affects CWLEP more than the other 2 LEPs is staff being new to the role (**70%**), an issue which affects GBSLEP more than the other 2 is that staff have not received the appropriate training (**33%**).



#### Figure 34: Specific skills issues identified for staff members by firms, by LEP area.

Compared to the UK average, the West Midlands has less of a problem with staff being overqualified for their current role, possibly a reflection of its lower overall skills base:

# Figure 35: Over-qualified staff as a proportion of total staff by LEP area, Employer and Skills Survey. All three LEP areas had less over-qualified staff than the UK average (9%).



More establishments in the Black Country (50%) and CWLEP (51%) had no staff that were overqualified for their role compared to the England average (50%), whilst 49% of GBSLEP establishments has no staff over-qualified. 5% of establishments in BC LEP and CW LEP, and 6% in GBSLEP had 100% of staff classed as over-qualified compared to 9% across England.

## Conclusions

#### Key issues

- There has been a decline in study time amongst school students, with this especially affecting students at state schools, who have only be receiving 2.5 hours learning a day in spring 2020.
- Disparities in the demand and supply for certain NVQ level jobs with there being an oversupply of NVQ1/3 and undersupply of NVQ2/4.
- Apprenticeship recruitment and numbers have fallen during the pandemic which has left few choices for young people especially, who wish to pursue vocational FE.
- Whilst apprenticeship numbers were increasing before the pandemic, a large proportion of these were accounted for by large companies offering further training to pre-existing employees, not new starter opportunities, so shutting out young people who are trying to access training and work.
- The West Midlands is behind the UK average in terms of qualification levels, with a larger share of working-age people without any formal qualifications. The Department for Education's long-term forecasts project that the West Midlands will also be the slowest region to reduce 'no qualifications' status, and, while the long-term trends have been positive, we saw an increase of 0.3% in 'no qualifications' last year.
- Covid-19 and resulting economic turmoil have caused a very sharp increase in claimant count compared to August last year, with **89.0%** more claimants in July of this year than in July 2019. This is, however, significantly less than the UK average increase of **119.9%** over the same period.
- While the NEET rate in the region last year, prior to the crisis, was lower than the UK average (5.3% to 5.5%), there has been an increase in the conurbation in how many pupils people leave Key Stage 5 and become NEET. This increased from 7.9% in 2018 to 14.1% for those completing school in 2019. KS5 pupils whose end destination was unknown also climbed from 4.0% to 7.0%.
- Going into the Covid-19 crisis, apprenticeships were recovering from a fall following introduction of the Levy in 2017/18. Research from the Sutton Trust in May showed that apprenticeships have been badly hit by the crisis, with 60% of employers having ceased all new starts.
- Conversely, Further Education course provision had changed little in recent years in terms of number of qualifications and level and subject breakdown. However, we should expect many more people to enrol in FE as a result of the crisis putting people out of work, meaning the system will need to adapt to serve more people.
- In terms of equalities, the gender pay gap is narrower and improving faster than the UK average. However, the gap is still significant, with women earning only 86% as much as men in the Coventry and Warwickshire LEP and Greater Birmingham and Solihull LEP, and 92% as much in the Black Country LEP. Men and women are equally likely to pursue further education or an apprenticeship. Further Education disproportionately serves Black and Asian people, while apprenticeships very evenly represent the working-age population.

#### In short, the education and skills system in the West Midlands faces the following challenges:

#### School System

Damage to young people's prospects due to:

- Much less study time through the first national lockdown (**2.5 hours per day** according to the UCL research).
- Loss of social interaction and early development for the youngest pupils.

#### **Further Education**

- The current sharp increase in unemployment, particularly in young people, will likely increase the demand on FE as young people seek additional support and their entry to the workforce is delayed.
- Provision of further education is still concentrated in lower-level qualifications, from entry-level to NVQ3. The existing shortage of NVQ4 qualifications across the region (24.7% in the Black Country, 35.4% in GBSLEP, 40.2% nationally) will only be exacerbated by the long-term trends, such as automation, shifting work to a higher skills level. Over-supply of NVQ3 in the Black Country and GBSLEP indicates the need to move more people at this skills level up to higher level and create vocational pathways to skilled professions.
- It will also be essential to reduce the proportion of people in the region with no qualifications, and to do so faster than the **2.9%** annual reduction that the *Working Futures* report projects, slower than any other region.

#### Apprenticeships

- The crisis has caused a steep fall in recruitment of apprentices, exacerbating the decline already seen since the introduction of the apprenticeship levy.
- The Sutton Trust research cited earlier indicates that a growing proportion of apprenticeships are going to people already employed in sectors such as professional services, typically from less deprived backgrounds, to obtain leadership and management qualifications. When overall apprenticeship enrolment is falling, this risks shutting out young people who are trying to access training and work.
- Apprenticeships are also increasingly concentrated in larger employers. This has the effect of reducing the range of apprenticeships on offer, and is also a transport and access problem, as opportunities are becoming less evenly distributed across the region.
- More positively, apprenticeship provision currently does a good job of reaching people of different ethnic backgrounds, with apprenticeships at each level closely matching the general population. This puts the system in a good position for creating bridges to opportunity, provided we can boost overall recruitment and bring apprentices up to higher skill levels.

#### **Higher Education**

- Universities expected a serious hit to revenue from the loss of recruitment of international students. The COVID-19 pandemic has also highlighted the level of risk to universities of relying on international students to fund their expansion, meaning that their numbers may not recover in future.
- The use of teachers' predicted A Level grades caused significant grade inflation in 2020. This is likely to cause problems for universities with lower entry requirements who will miss out on student tuition. It may also mean that some students will attend university who in a normal year would not have passed their exams, meaning some may be unprepared for the rigours of university study.
- It will be a challenge in the current environment to ensure that Higher Education remains a compelling offer to young people, particularly those from deprived backgrounds albeit there is a relative lack of competing opportunities. Increasing reliance on online tuition in future will make it more difficult for universities to justify their course fees.
- While the Working Futures report projects good progress in the growth of the graduate population in the region (3.1% growth annually, the second-highest in England after the East of

England) it also predicts the slowest growth in postgraduates anywhere in the country (0.7% annually). Where new, highly skilled professions emerge in the future, such as the application of technology and automation to professional services, we will need to create a compelling offer to attract the most highly skilled to the region.

To address these challenges, it will be essential for Schools, Further Education, Higher Education, local government, employers, and the third sector to work together and build educational pathways into the jobs of the future.

The following steps would go some way to alleviating the impact of the current crisis and addressing the challenges of the future:

- The Government's new cash incentives to employers to support apprenticeships (£2000 for under-25s and £1500 for over-25s) should remain in place until the economy has made progress towards recovery, to provide time for greater economic confidence to take hold. This should help prop up apprenticeship numbers as well as increase the probability that apprentices go on to secure long-term positions.
- Given the Sutton Trust's findings that 61% of apprenticeships have been disrupted in some way by the current crisis, a rapid response will be needed where apprenticeship providers are going under.
- Ensure that the university system is fully utilised as an anchor for young people, skills, and innovation in our key sectors of comparative advantage.
- Better understand short and long-term retraining needs, linking current skills in the workforce to those needed for future occupations. This will mean mapping the specific soft and hard skills employers in emerging sectors demand and identifying pathways for the existing workforce to up-skill, to ensure a just transition from industries where employment is expected to decline.
- Ensure that young people educated to a graduate or postgraduate level in the region are equipped with the broad skillset needed for either incremental and systems innovation (as in the public transport, logistics, and energy sectors) and radical innovation and product development across personal transport, construction and professional services.

The evidence also suggests how engagement with stakeholders may help in translating evidence into action, to address questions such as:

- How can we provide integrated support for digital and complex analytical skills that across many sectors may displace current business models and ways of doing things?
- How can we best retain graduates, and particularly postgraduates, which the region produces in large numbers and yet is short of in the labour market?
- COVID-19 has heavily impacted the delivery of apprenticeships by all but the largest providers. How can we support small employers in retaining and taking on additional apprentices?
- Which specific job roles are at greatest risk of becoming redundant, and how might the skills needed for these roles be applicable to the jobs of the future?
- Consequently, what pathways for retraining should we forge to connect workers aged 25+ to compatible occupations?

## Glossary

**Apprenticeship Levy** – A system introduced in 2017/18, which requires large employers to pay tax into a pool earmarked for funding apprenticeships.

**Claimant** – The Claimant Count is a measure of the number of people claiming unemployment related benefits. It includes people claiming Jobseeker's Allowance, as well as people listed as 'Searching for work' in other benefit categories, such as people claiming Housing Benefit, Child Tax Credits, or the partner of a claimant.

**NVQ Level** – National Vocational Qualification levels. NVQs were superseded in 2015 by the Regulated Qualification Framework (RQF), however NVQ levels are often used to compare academic and vocational qualifications on a common scale. For example, NVQ Level 2 is equivalent to GCSE, while 3 is equivalent to A Level and NVQ Level 4 is equivalent to a first degree.

**Replacement Demand –** Requirement for new workers in a sector to fill the gap left by retiring employees. Far more jobs are created by replacement demand than by the creation of new jobs.

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