



Local Skills Report and Plan
Annex A – Core Indicators and
Annex B – Additional Data

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LOCAL SKILLS REPORT ANNEX A – CORE INDICATORS

This Annex provides data and intelligence on key aspects of Oxfordshire's labour market and skills landscape. The indicators presented within Annex A have been defined by the Department for Education (DfE), to ensure consistency between the Local Skills Reports being produced by Local Enterprise Partnerships (LEPs) and Mayoral Combined Authorities (MCAs) across England.





OxLEP has drawn on local intelligence to provide commentary around these indicators. This local intelligence has been gathered from: OxLEP board members, Oxfordshire Skills Board/Skills Advisory Panel members, other OxLEP subgroups, local employers working within the Oxfordshire Skills Hub on careers initiatives, local employers surveyed as part of the Oxfordshire Employer Skills Survey, local SMEs that have engaged with the OxLEP ESF Skills for Business Programme, and the Oxfordshire Provider Network.

As per the Department for Education guidance for Local Skills Reports, additional data analysis and local intelligence is provided within (or sign-posted from) Annex B.

LOCAL LANDSCAPE

Local Landscape - Summary

In 2020, Oxfordshire was home to over 691,000 people and more than 34,500 (ONS, 2021) active companies. It has key urban centres, such as Oxford, Banbury, and Didcot, as well as significant areas of rural landscape. The area is one of the strongest and most resilient economies in the UK and underpinned by one of the highest concentrations of research assets globally alongside pioneering clusters of knowledge intensive firms. The convergence of breakthrough technologies will unlock new industries and global markets in the future. Oxfordshire's unique strengths and capabilities in these industries are of strategic importance to the UK. There is also a strong visitor economy historically anchored around Oxford, Blenheim Palace, and Bicester Village. There is a strong pipeline of major development unlocking growth in sectors such as life sciences, construction, and a real opportunity to drive a carbon neutral economy. Cornerstone and Breakthrough/Innovation and Growth businesses are set out below:

Cornerstone Businesses 	Breakthrough and Growth Sectors 
Health and Social Care, Wholesale and Retail, Manufacturing and Supply Chains and Food Services, Visitor Economy, Education, Real Estate.	Transformative Technologies, Space, Life Sciences, Education, High-performance Technology, Motorsport, and Advanced Engineering, Digital and Creative, Cryogenic, Construction and the Carbon Neutral Economy
Largest Employers 	Employment in High Value Sectors 
Education, Health and Social Care, STEM and Retail	Education (and particularly Research and Development (R&D), ICT, Professional Services, Life Sciences, Motorsport, Digital (particularly Data & Software) and Science Instrumentation.
<ul style="list-style-type: none"> • 99% of businesses are SMEs, of which 89% are micro businesses • Strong employment and higher than national average wages for resident and workplace earnings, with a tight labour market. • Graduates from Oxfordshire are more likely to earn higher salaries than graduates nationally. • Oxford is expected to show some of the highest annual growth in employment, at 3.3% • The main occupations are high skilled Professional, Associate Professional and Technical roles which the area's specialist research and development sectors need. • Oxfordshire has the highest intensity of University spin out companies in the country. 	

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COVID-19 Pandemic Impact:



Our Economic Recovery Plan (2021) suggests that the Oxfordshire economy has been more resilient than elsewhere, and is likely to return to growth sooner, as it has a lower relative dependence on those sectors that have been most impacted – notwithstanding the challenges faced by our visitor economy.

- Threefold increases in unemployment at height of COVID-19 pandemic restrictions, currently at double pre-COVID-19 pandemic levels but consistently more resilient than national.
- Unemployment impacts have been highest in Oxford City and Cherwell.
- Young people and over 50s have been impacted most by unemployment.
- Numbers of young people who are NEET (Not in Employment, Education or Training) have increased.
- Longer term impacts may not be as bad as anticipated following the end of the furlough scheme, but it remains too early to confidently account for the c12,000 on furlough when the scheme closed, with 40% from within the hardest hit broad visitor economy.
- The longer-term impact of the extended COVID-19 pandemic for hardest hit sectors remains to be seen, in particular the Retail, Hospitality and Visitor Economy sectors.
- A striking fall of 22,500 in the actual number of people in employment in 2021.
 - Employment hardest hit Wholesale and Professional, Scientific, and Technical sectors both falling by 1ppt since 2019.
 - Much needed Transport and Storage, Business Administration and Support Services have both grown by 1ppt.
- Labour shortages amplified and now acute in sectors such as Hospitality, Health and Social Care and Logistics.
- Labour shortages amplified by settlement challenges resulting from the UK leaving the EU and COVID-19 pandemic related travel restrictions. This is particularly relevant for Oxford City and Cherwell.
- Amplified deprivation in terms of financial insecurity and intensified digital divide.

Skills Challenges and Barriers



- An ageing population.
- Staffing and graduate retention challenges including housing costs and attractiveness of other regions, particularly linked to London and London Weighting wage expectations.
- Pockets of persistent labour market deprivation, mainly linked to skills, education, and training. One ward identified as in the top 10% most deprived in England and 16 in the top 20% most deprived.
- There are differences in ethnic diversity of employment in Scientific and Technical industries and Process and Elementary occupations.
- There are differences in ethnic diversity of salaries of graduates.
- There has been a sharp decline in the number of EU residents settling in the UK, amplifying an already tight labour market.
- Job growth has been focussed on knowledge-intensive, STEM and Technology Professional, Associate Professional and Technician roles as well as Managerial and Senior Leadership roles between 2004 and 2020.
- Half of occupations require degree or higher level (Level 4+) qualifications compared to a third nationally.
- In striking contrast, there has been a contraction in employment across every other SOC Major Group occupational category including Elementary occupations where there are also the greatest shortages currently.
- The highest levels of economic inactivity existed in Cherwell district.

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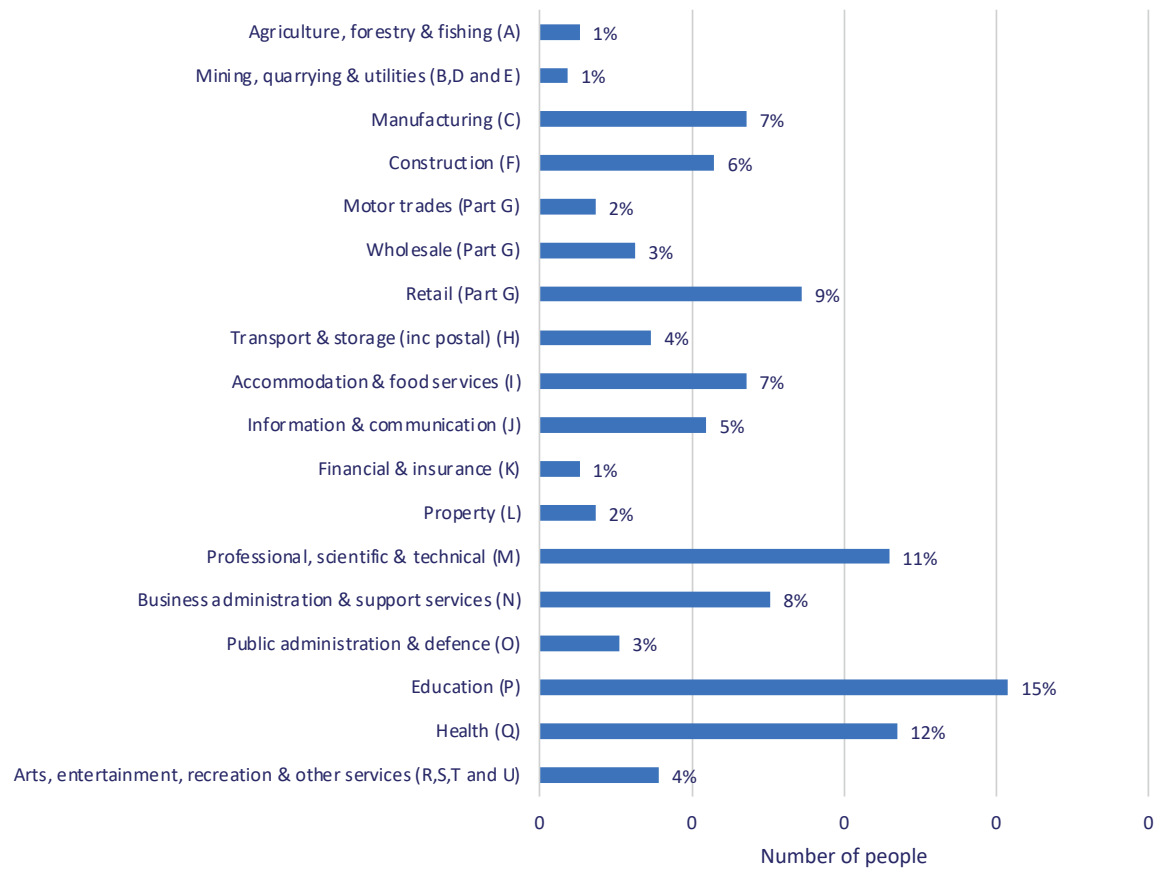
Opportunities



- A significant increase in the number of new business starts particularly in Retail, Real Estate and Head Office Activities and Support, Food and Beverage Services.
- Some sectors, such as Life Sciences have seen significant growth associated with research and vaccination development.
- Many businesses have pivoted their business models during the pandemic.
- COVID-19 pandemic has also resulted in an increased interest in working in the Adult Social Care sector.
- Upskilling/reskilling from sectors hit hardest by redundancies (such as Wholesale and Retail Trade, Accommodation, and Food Services).
- Transferable skills can enable workforce hit hardest by redundancies to transition into labour/skills shortage sectors/ occupations.

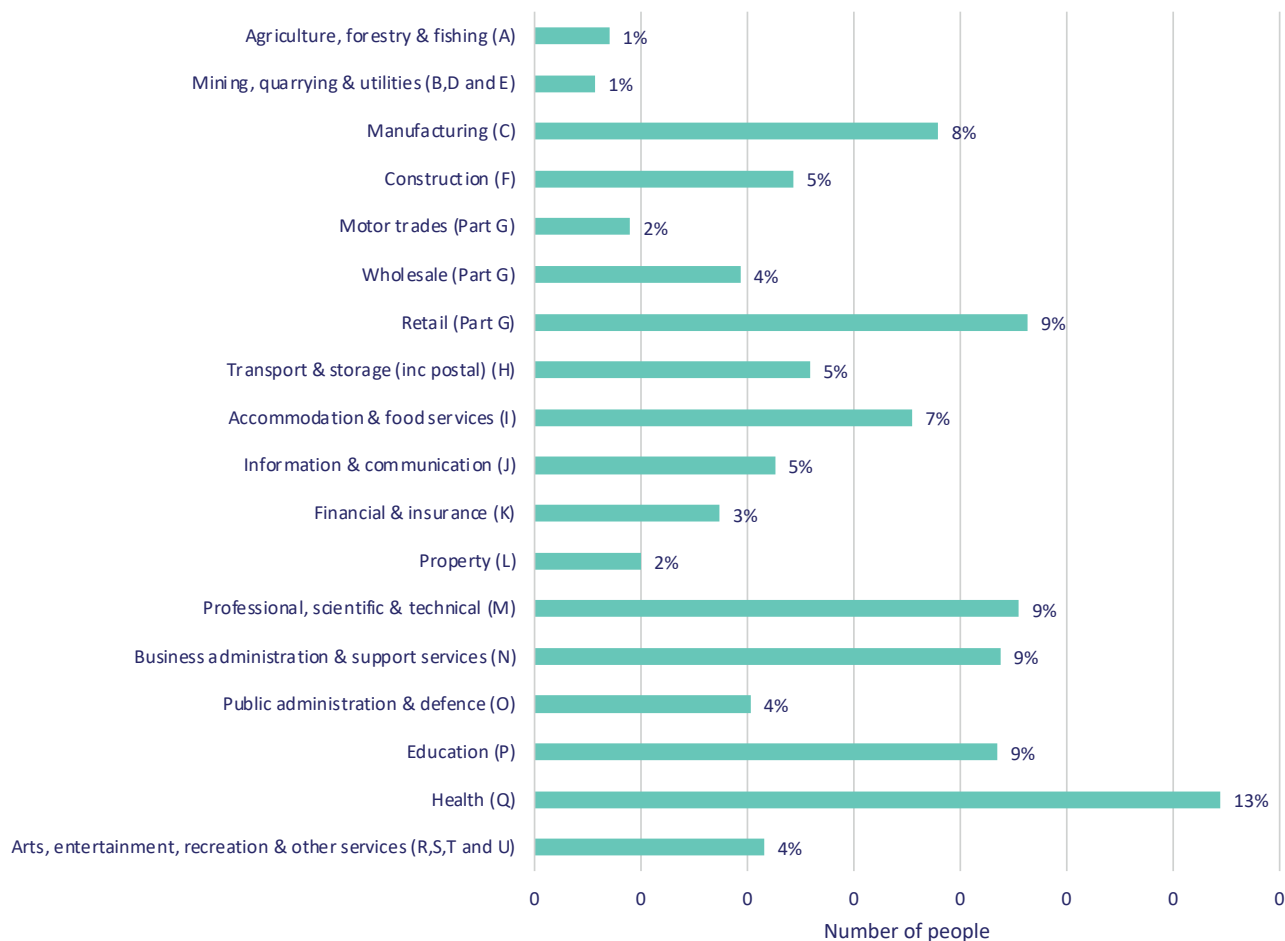
Employment by sector:

Employment by sector, 2020 - Oxfordshire



Source: Business Register and Employment Survey, 2019 (published 2020), 2020 SAP Boundaries

Employment by sector, 2020 - England



Source: Business Register and Employment Survey, 2019 (published 2020), 2020 SAP Boundaries

Employment by sector in 2020 remained largely the similar proportions as 2019 in most sectors in Oxfordshire and nationally. However, the impact of COVID-19 pandemic can be seen on the hardest hit Wholesale sector and the area's Specialist and Breakthrough sectors, Professional, Scientific, and Technical have both fallen by 1ppt. Much needed Transport and Storage, Business Administration and Support Services have both grown by 1ppt.

In contrast, national changes since 2019 have included growth in the Information and Communication and Education and Health sectors, all by 1ppt, whilst a decline by 1ppt has been seen in Arts, Entertainment, and Other Services.

Our economy is founded on a diverse mix of businesses, which we have grouped into two main categories: Cornerstone businesses and Breakthrough businesses. Cornerstone businesses provide an essential platform for economic growth, through the delivery of critical services and supply chains (for Breakthrough businesses), as well as many jobs for people across Oxfordshire. Breakthrough businesses are our innovation-focused businesses in Science and Transformative Technologies, such as Space, Quantum Computing, Digital Health and Connected and Autonomous Vehicles. The number of businesses working in Transformative Technologies is increasing by 9% every year, tapping into global markets that are forecast to deliver £181 billion to the UK economy and £1,300 billion to the global economy by 2030. These are the businesses that have the potential to stimulate rapid growth in the Oxfordshire economy, transforming Cornerstone business models through sharing innovation and technology to improve productivity, and generate additional growth for the UK, through wider uplift in Manufacturing and Supply Chain opportunities. Both types of businesses are essential for sustainable future growth in Oxfordshire.

Oxfordshire has one of the highest concentrations of innovation assets in the world with universities and science, technology and business parks which

are at the forefront of global innovation in Transformative Technologies and sectors such as Fusion Technology, Autonomous Vehicles, Quantum Computing, Cryogenics, Space, Life Sciences and Digital Health'.¹ The knowledge-intensive economic activity generated by the ecosystem attracts international talent and investment and encourages the highest intensity of university spin-outs in the UK.²

'Oxfordshire therefore has a high concentration of employment within high-value sectors. Sectors which have a higher concentration of activity in Oxfordshire compared to nationally, include Education (and particularly Higher Education), ICT, Professional Services, Life Sciences, Motorsport, Digital (particularly Data & Software) and Science Instrumentation'.³

Oxfordshire has world-leading strengths in key industries that are harnessing Transformative Technologies, have rapidly growing global markets and offer significant opportunities for growth. Oxfordshire's strengths in these industries are centred on our numerous keystone assets, including universities, research institutions, science and technology parks, as well as our strong business base. Oxfordshire's unique strengths and capabilities in these industries are of strategic importance to the UK.

'Oxfordshire is at the forefront of innovation in these industries but faces stiff competition from around the globe from other leading innovation ecosystems. If the UK is to continue to be a world-leader in science and technology innovation, it needs to invest in the Oxfordshire innovation ecosystem to support Oxfordshire's industry clusters to continue to compete internationally.

Oxfordshire's Breakthrough businesses and industry clusters deliver additional benefits for other areas across the UK – including for Cornerstone businesses both in Oxfordshire and in the rest of the country. This happens both through collaboration in the development of technologies and innovation, and through the manufacturing and supply chain

¹ OxLEP (2019)

² Scaleup Institute (2020)

³ HATCH Regeneris (2019)

opportunities that arise from the innovation in Oxfordshire and the high-value jobs that these opportunities create. Developing and investing in Oxfordshire will therefore deliver growth not just for the region but also across the UK.

Oxfordshire's Life Sciences cluster is one of the largest in Europe and is home to world-leading research and teaching and the development of ground-breaking new technologies.⁴

In January 2020, when COVID-19 pandemic was still unknown to much of the world, Oxfordshire's scientists were already working on a response. The county's well-established Life Sciences ecosystem – which includes pioneering academic and medical institutions, unique research establishments, and hundreds of biomedical companies – was able to mobilise immediately. The region is world-renowned for its work in medicine, research and diagnostics, and has a long-held expertise in vaccinology and immunology. Throughout 2020, its collaborative, innovative and pioneering approach has led the way in the fight against COVID-19 pandemic.

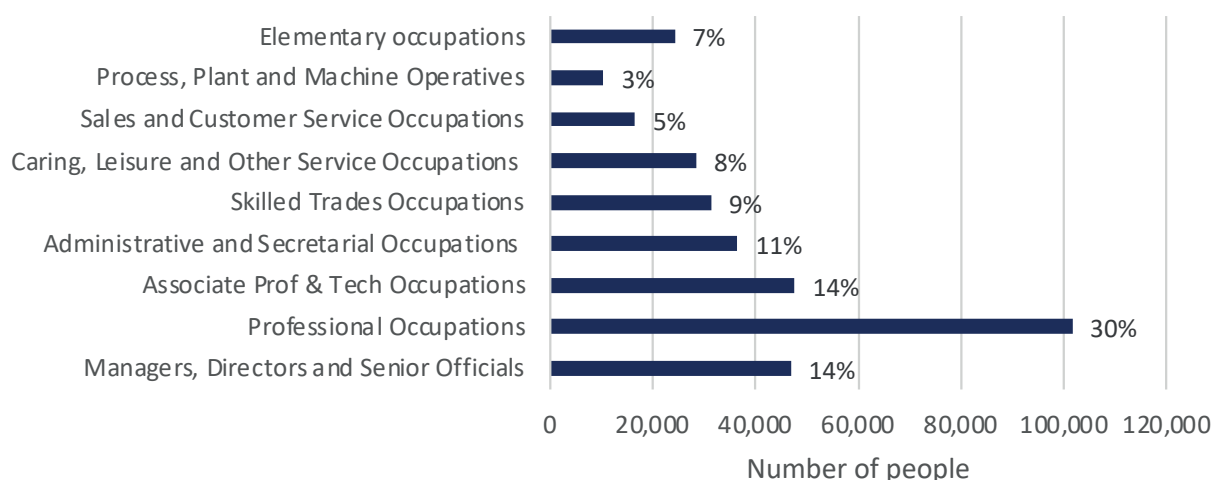
Oxfordshire's response has included:

- Virology, genomics and structural biology research
- Vaccine development and treatment research, clinical trials and manufacturing
- Diagnostics development • Data, digital services and shared information
- Medical devices⁵

The Life Sciences cluster is home to an estimated 180 companies in R&D and more than 150 companies in associated industries. The cluster's excellence is driven by exceptional scientific and research expertise, with over 10,000 employed in scientific R&D and healthcare related manufacturing. The proportion of R&D is over four times the national average. Oxfordshire has a well-establishing and growing base of innovative companies operating in digital health – an area of considerable strength that benefits from the crossovers with other local sectors of expertise such as sectors and instrumentation, satellite applications and high-performance computing.⁶

Employment by occupation:

Employment by occupation, 2020/21 Oxfordshire



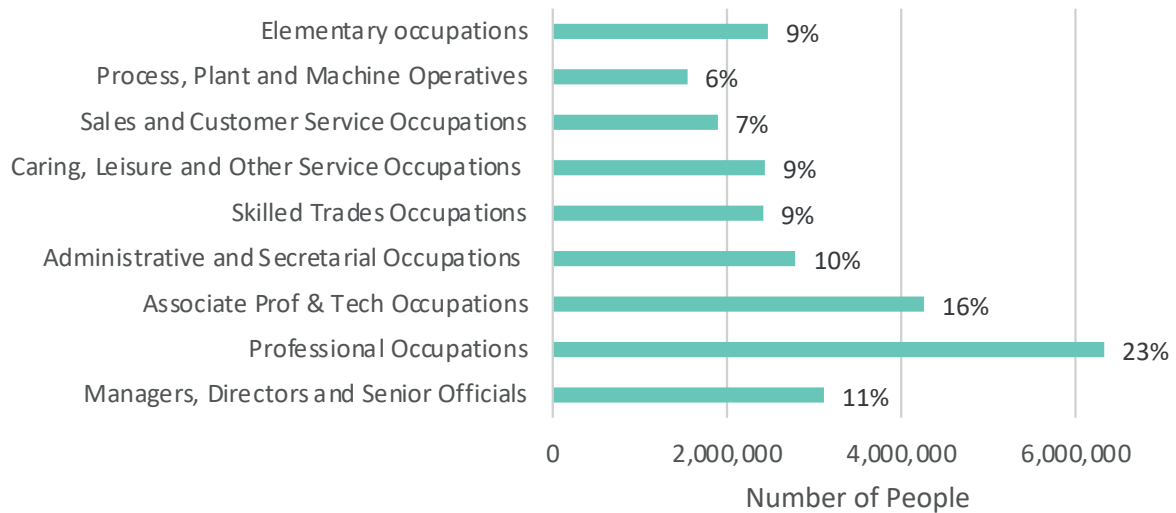
Source: Annual Population Survey, April 2020 – March 2021, 2020 SAP boundaries

⁴ <https://www.oxfordshirelep.com/business/invest-oxfordshire/sectors/life-sciences>

⁵ OxLEP (2021)

⁶ <https://www.oxfordshirelep.com/business/invest-oxfordshire/sectors/life-sciences>

Employment by occupation, 2020/21 England



Source: Annual Population Survey, April 2020 – March 2021, 2020 SAP boundaries

Broadly speaking, the dichotomy in the Oxfordshire labour market appears to be skill shortages centred on higher value-added job roles and labour shortages centred on lower value-added job roles.

The clear story is that job growth has been focussed on knowledge-intensive, STEM and Technology Professional, Associate Professional and Technician roles as well as Managerial and Senior Leadership roles between 2004 and 2020. In striking contrast, there has been a contraction in employment across every other SOC Major Group occupational category, including Major Group 5 (Skilled Trade Occupations), Major Group 7 (Sales and Customer Service Occupations) and Major Group 8 (Process Plant and Machine Operatives).

In Oxfordshire the main occupations of employment are high skilled Professional, Associate Professional and Technical roles which the area's specialist research and development sectors need. 'Professional, Scientific & Technical' represent the largest single grouping at 21.2% of VAT and PAYE

based enterprises by sector. This notably eclipses the proportion of firms in sectors with typically large levels of employment such as those in the 'Retail sector', standing at 5.5% of the total, along with that of businesses in the 'Accommodation and Food Services' sector, which is only 4.9%. As of March 2020, Major SOC Group 2 (Professional Occupations) constituted the single largest occupational category of employment in the county at 29.9%... According to the data, between December 2004 and March 2020 professional occupations had notably increased by 7.6%, more than any other SOC Major Group.⁷

There are also high levels of managers, directors and senior officials which are needed to oversee these often-high-tech organisations. These three occupation groups combined account for over half (58%) of the occupations, 8% higher than nationally, where only 50% of occupations are these high skilled roles requiring high level qualifications. However, 'there has been a surprising fall in the number of professional jobs in Oxfordshire over the last five years relative to national

figures with a 2% fall since July 2019. Occupation growth has concentrated around managerial, associate professional and sales and customer services.⁷ A further 12% of occupations are relied on to support these other occupations in the form of administration and secretarial roles.

‘The greatest shortage of workers is currently within Elementary occupations⁹, which are struggling to recruit ‘the right type of workers’ into this sector. This is worrying, considering the high proportion of overseas workers who currently work in elementary occupations across the South East, whose long-term future is uncertain. Additionally, there has been a reduction in the number of elementary occupations across Oxfordshire over the last five years. ‘There was a reduction in the percentage of job roles labelled under Major SOC Group 9 (Elementary Occupations), declining 2.3% between 2004 and 2020 from 9.2% to 6.9%.’¹⁰ The economy relies less on lower skilled jobs and occupations, whilst growth has concentrated around managerial, associate professional and sales and customer services.¹¹ There is minimal requirement for process, plant and machine operators and other elementary occupations.

Examination of data that more directly reflects employer demand for skills derived from online job advertisements, it becomes apparent that several major group occupations⁹ that have contracted in the labour market in recent years continue to be in very high demand by local employers. These include job roles in nursing, social care, and cleaning. The discrepancy with respect to these roles would appear to be that they are representative of more acute labour shortages.’¹² This is unlikely to be a skills gap but rather a labour gap in the Health and Social care sector, as job analytics have consistently held Nurses and Care Workers and Care Home Workers as the most in demand occupations consistently across the time span of the COVID-19 pandemic.

In line with national data in 2020, the number of managers, directors and senior officials has continued to grow, whilst the number of associate professional and technical occupations has also fallen by a similar proportion. No other changes were identified nationally, however Oxfordshire also showed an increase of 1% in caring, leisure and other service occupations and a 1% fall in administrative and secretarial occupations.

⁷ Oxford Artificial Intelligence Ltd (2021)

⁸ HATCH Regeneris (2019)

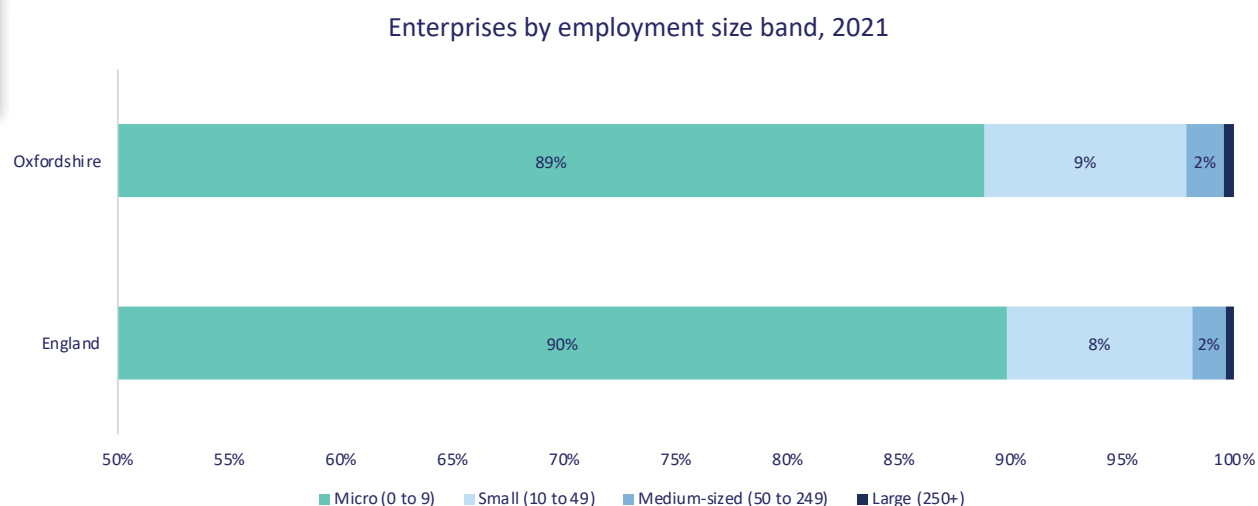
⁹ Elementary occupations consist of simple and routine tasks, which typically require the use of hand-held tools and some physical efforts. Examples include street vendors, domestic helpers and cleaners, building caretakers, window cleaners, porters and garbage collectors.

¹⁰ Oxford Artificial Intelligence Ltd (2021)

¹¹ HATCH Regeneris (2019)

¹² Oxford Artificial Intelligence Ltd (2021)

Enterprises by employment size band:



	Total	Micro (0 to 9)	Small (10 to 49)	Medium sized (50 to 249)	Large (250+)
England	2,405,965	2,161,050	199,325	36,285	9,305
Oxfordshire	32,165	28,570	2,910	530	155
England		90%	8%	2%	0.4%
Oxfordshire		89%	9%	2%	0%

Source: UK Business Counts, 2021, 2021 SAP boundaries

The distribution of Enterprise by employment size band is nearly identical to that of England, with 99% SMEs, being largely comprised of micro sized businesses (89%). Organisations classified as large (250+ employees) are only represented by only 155 businesses in Oxfordshire, like most other South East region LEP area, with minimal representation of headquarters in the area, unlike neighbouring Thames Valley Berkshire LEP which have nearly double the number of large enterprises.

‘Oxfordshire is home to thousands of great businesses and is one of the strongest engines for growth in the UK. With over 31,000 VAT registered businesses across a broad range of sectors. Oxfordshire has a well-balanced, resilient economy which has been instrumental to its track record of continued growth. However, many firms continue to

struggle to grow to scale and do not translate ideas into business growth as well as some other competitor locations.’

Oxfordshire has the highest intensity of university spin out companies in the country. The University of Oxford continues to generate more spinouts than any other university nationally.¹³

The University also accounts for (by far) the largest number of active spinout companies in 2018-19 across the entire UK higher education sector with a total of 168 UK-based University of Oxford spinout companies. The direct impact associated with the activities of the University’s spinout activities in 2018-19 was thus estimated at £1,038 million in economic output (i.e., turnover) terms, 9,240 FTE staff, and £486 million of gross value added.¹⁴

¹³ OxLEP, Local Industrial Strategy (2019)

¹⁴ London Economics (2021)

Business birth and death rates

Business birth and death rates, 2014 - 2020



Source: ONS Business Demography, 2014 - 2020 (published 2020), 2020 SAP boundaries

Over time (2016-20) births of new enterprises have fallen in Oxfordshire by 2%, at a slightly reduced rate to that in England (3%). During the same period there was no real change in the proportion of business deaths in comparison to England where the number of businesses failing fluctuates by under 1%. Therefore, the survival rate of new businesses in Oxfordshire could be seen to be higher than that seen nationally. The COVID-19 pandemic is likely to have impacted enterprise start-ups negatively, as can be seen by the sharper decline between 2019 to 2020 but hasn't had a bigger impact on death rates than other years.

During the 12 months, to November 2021 when business across the world were impacted and recovering from restrictions in place to prevent the spread of COVID-19 pandemic, Oxfordshire business birth rate and death rate were roughly balanced at 9%.

In line with the need for retail to continue to support the population during restrictions, the top 3 sectors for start-ups were in the Retail (11%), with Real Estate Activities (9%) next highest (this could be due to continuing construction in the area and relocations of employees to the area due to the need for higher levels of working from home, with Oxfordshire easily commutable from London and other major cities). Food and Beverage

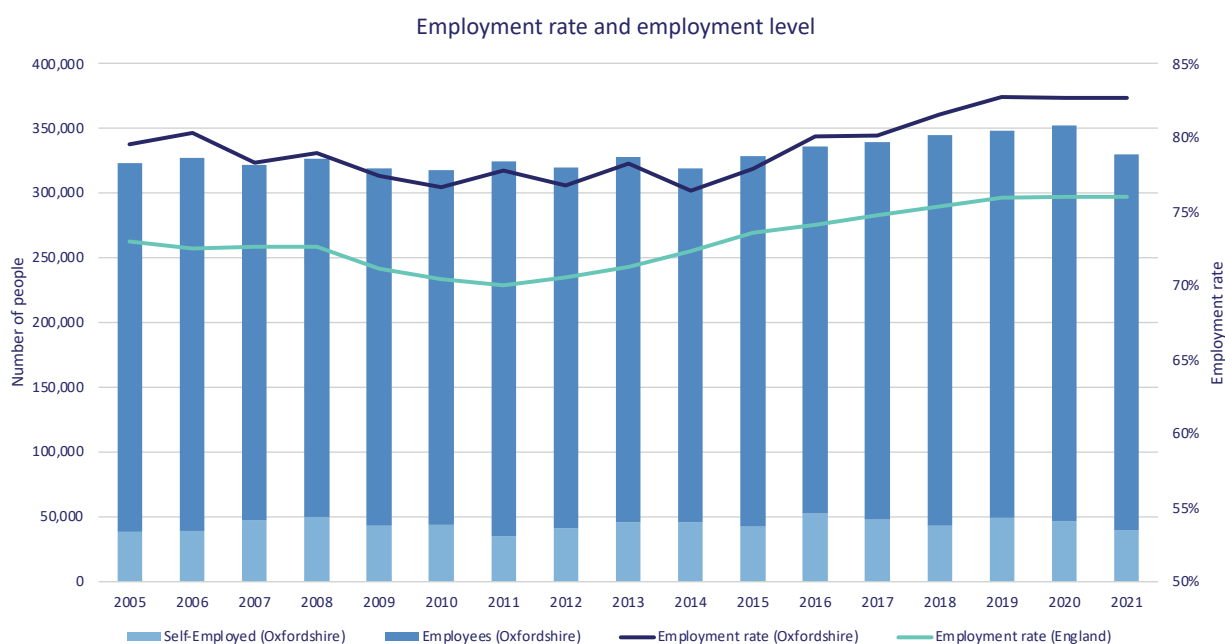
Service Activities also grew at just under 6% of start-ups, perhaps also linked to the higher requirement for take-away food and changing needs of a population under restricted access to restaurants enabling entrepreneurial ideas to develop.

However, the highest proportion of closures were seen in Activities of Head Offices (nearly 9%), perhaps linked to closed enterprises during lockdown and the ability to develop wider home working lessening the need for head office facilities and services. The second highest enterprise deaths were seen in Computer Programming, Consultancy and Related Activities (7.5%). Automation may have contributed to this¹⁵. Interestingly 6% of retail enterprises closed, despite this being the highest area of start-ups. Perhaps this is due to the inability to evolve to changing needs of the population through restrictions. There were similarly 5% closures in Office Administrative, Office Support and Other Business Support Activities. This is likely due to the evolution of many office-based business moving to on-line technology to enable most employees to work from home meaning many of the administrative/support tasks are suspended or roles evolved to enable less support for individuals. Most closures were seen in 'other' sectors where numbers for each sector were minimal.¹⁶

¹⁵ ONS (2019)

¹⁶ Oxfordshire County Council, Digital, Information and Learning, Library Support Service (2021)

Employment rate and level



Source: Annual Population Survey, 2021 SAP boundaries

Currently employing 329,600 people, with 88% (+3ppts during 2021) employees and 14% (-1ppt during 2021) self-employed, Oxfordshire has held a consistently strong employment rate over time, currently 83% (+7%) higher than the national rate and ranging between 5 and 8% higher than the trend for England over the last ten years. Particularly in more recent years, Oxfordshire has enjoyed a higher employment rate than all other South East region LEP areas which average around 3% higher than national employment rates.

Irwin Mitchell, 2021, report that 'Oxford and Cambridge are forecast to be among the cities with the highest projected GVA growth at the ends of 2022, at 3.3% each on a year-on year basis... are expected to show some of the highest annual growth in employment, at 3.3% in Oxford.'¹⁷ In an already tight labour market, employers will need to provide attractive offers to recruit to these new roles.

Although the employment rates nationally and locally remain stable, there has been a striking fall of 22,500 in the actual number of people in

employment in 2021. Nationally similar striking falls have been seen. In Oxfordshire 88% (15,400) of those falls were from employees and 13.7% were self-employed.

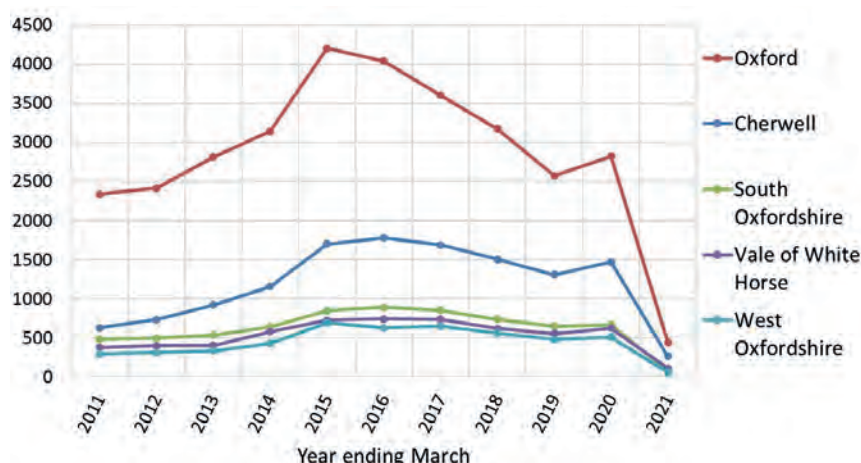
This fall in actual numbers of employees and self-employed people may be attributed to impact of Brexit, travel restrictions associated with the COVID-19 pandemic and unemployment and furloughed employments in sectors most impacted by COVID-19 pandemic associated closures.

Evidence for the growth of the EU born population in Oxfordshire comes from national insurance number registrations to EU nationals, which increased between year ending March 2011 and year ending March 2020.

This increase in registrations peaked around 2015-16 (around the time of the Brexit referendum), and then has declined. The year ending March 2021 saw a steep decline in registrations likely caused by travel restrictions associated with the COVID-19 pandemic. This is particularly relevant for Oxford City and Cherwell.

¹⁷ Irwin Mitchell (2021)

National insurance number registrations by EU nationals entering the UK, year ending March 2011-2021



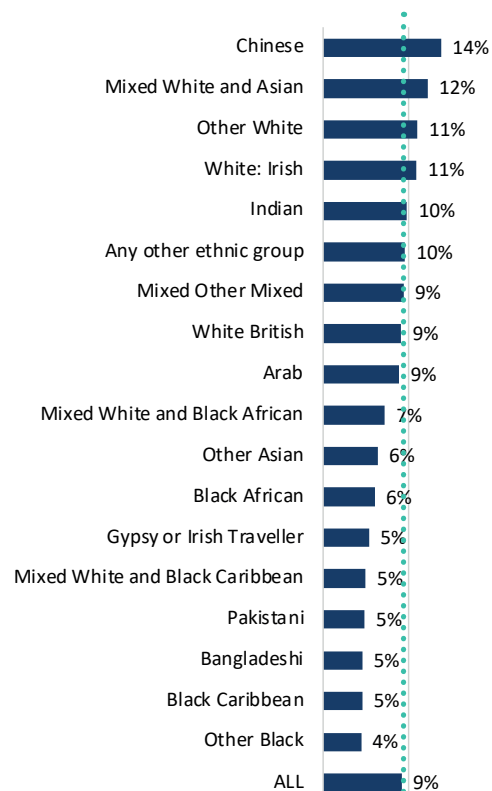
Source: National Insurance Recording & Pay As You Earn System (NPS), Stat-Xplore (2021) courtesy of OCC Modelling and Visualisation Team, Alick Bird

Industry and occupation by ethnicity (2011)

Data from the most recent published Census (2011) shows differences in industry and occupation by ethnicity. The ethnic groups most likely to be employed in Professional, Scientific, and Technical industries in Oxfordshire in 2011 were the Chinese

and Mixed White and Asian groups. The ethnic groups most likely to be employed in lower paid occupations of Process, Plant and Machine Operatives and Elementary occupations in Oxfordshire in 2011 were the Pakistani, Traveller and Bangladeshi groups. The Pakistani group was more likely to be employed in these occupations in Oxfordshire than nationally (38% vs 29%).

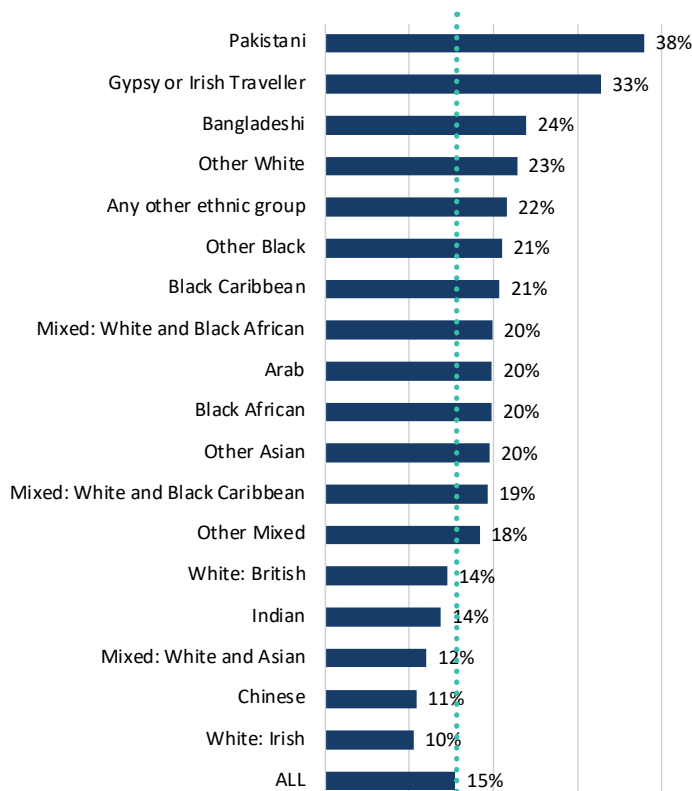
Professional, Scientific and Technical industries % of those in employment in Oxfordshire (2011)



ONS Census 2011 table
DC6211 *small counts
(9 of 168)

Oxfordshire average (9%)

Process and Elementary Occupations % of those in employment in Oxfordshire (2011)

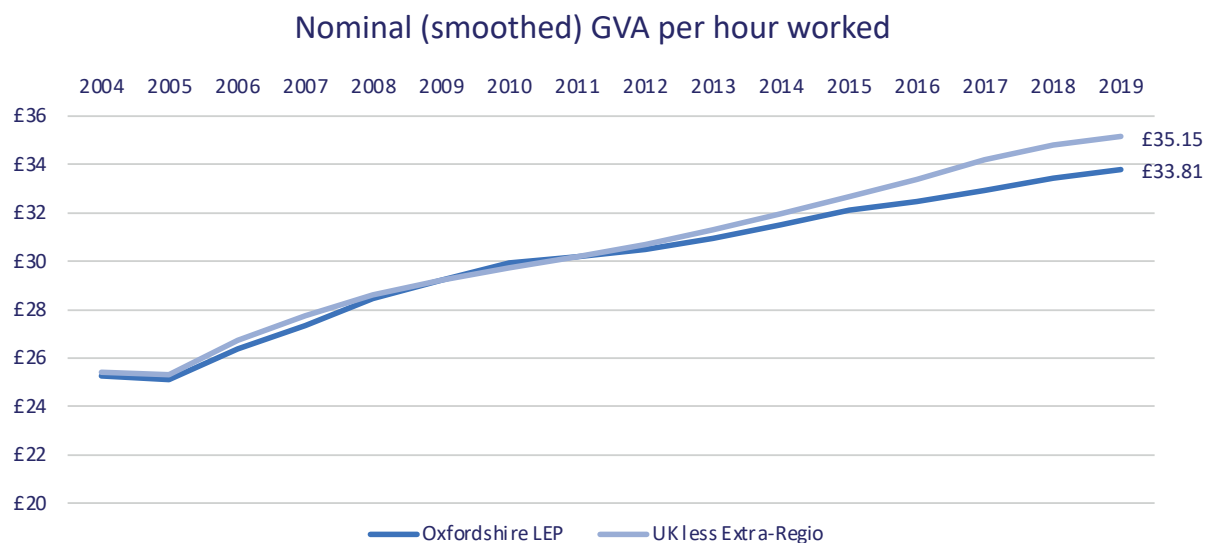


ONS Census 2011 table
DC6213 *small counts
(55 of 168)

Oxfordshire average (15%)

Source: OxLEP Skills, Skills, employment and enterprise of Oxfordshire's ethnic minority communities, Key Findings, November 2021

Nominal GVA per hour worked



Source: ONS Subregional Productivity, 2004 - 2019 (published July 2021), Enterprise regions including English LEPs

Oxfordshire has been a strongly performing economy in recent years, with strong economic growth across a range of high-value sectors. Oxfordshire's recent growth has largely been concentrated in higher-value sectors typically requiring degree-level (or higher) qualifications. Sectors with a higher concentration of activity in Oxfordshire compared to nationally, include education (and particularly Higher Education, ICT, Professional Services, Life Sciences, Motorsport, Digital (particularly Data & Software) and Science Instrumentation). Productivity in Oxfordshire has been growing strongly in recent years and has followed a similar trend to the UK until 2015, when it began to fall behind the UK and still lags behind comparator areas. There is the potential for some improvement to match levels seen in comparator areas (e.g., Thames Valley Berkshire and Enterprise M3).¹⁸

Irwin Mitchell, 2021, report that 'Oxford and Cambridge are forecast to be among the cities with the highest projected GVA growth at the ends of 2022, at 3.3% each on a year-on year basis.'¹⁹

However, despite Oxfordshire's many strengths, it has low productivity relative to

many peers. Whilst the region's productivity per hour worked is above average for England, in recent years it has fallen below the south east.²⁰ However COVID-19 pandemic may have impacted the ability for Oxfordshire to increase this in the near future.

Reforming further education, so it supports people to get the skills our economy needs throughout their lives, wherever they live in the country, will increase productivity, support growth industries, and give individuals opportunities to progress in their careers. Ensuring access to up-to-date and expert advice on the labour market and national skills gaps has been identified as essential by Government. OxLEP Skills Advisory Panel includes a member of the newly formed Skills and Productivity board, so can directly support the analysis of national skills to inform central government policy. This analysis addresses the most pressing gaps in our knowledge of the labour market. Building on existing evidence, it will consider which skills and training add the most value to the economy, where the skills mismatches are both now and in the future, and which courses return the best earnings for young people and adults.²¹

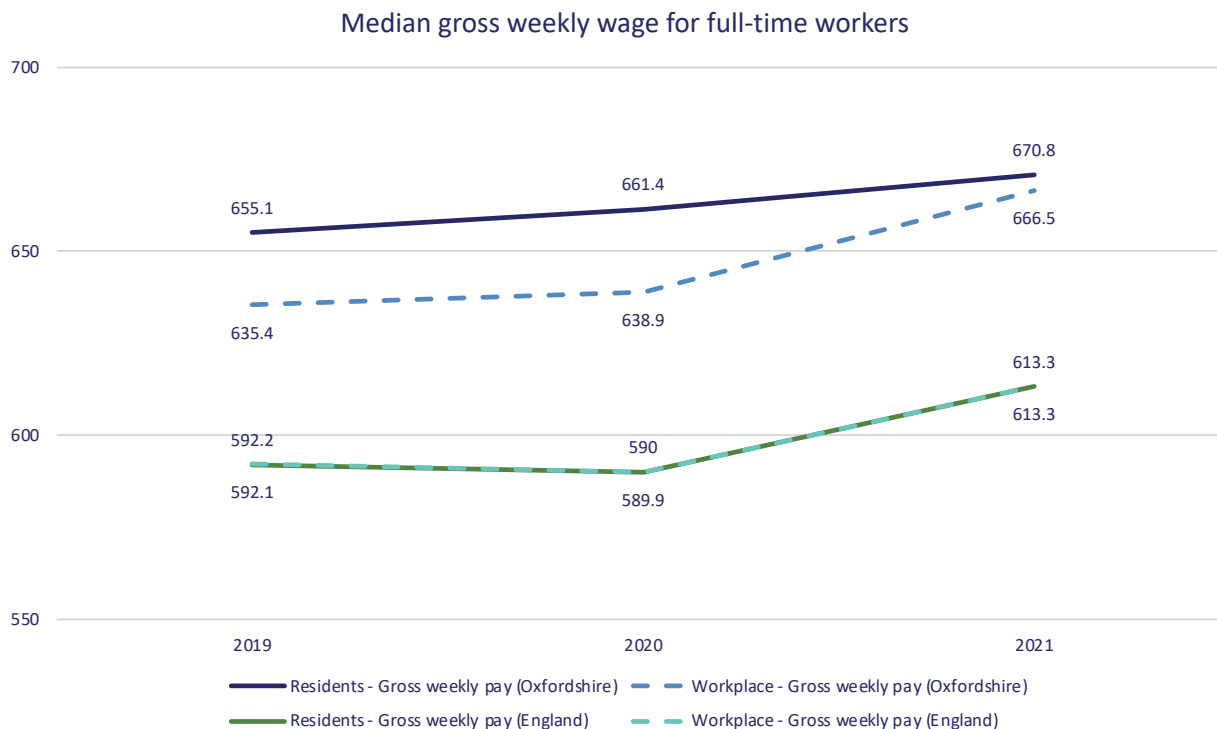
¹⁸ Hatch Regeneris (2019)

¹⁹ Irwin Mitchell (2021)

²⁰ OxLEP (2019)

²¹ DfE (2021)

Median gross weekly wage for full-time workers



Source: Annual Survey of Hours and Earnings, 2019 - 2021, 2020 LEP boundaries

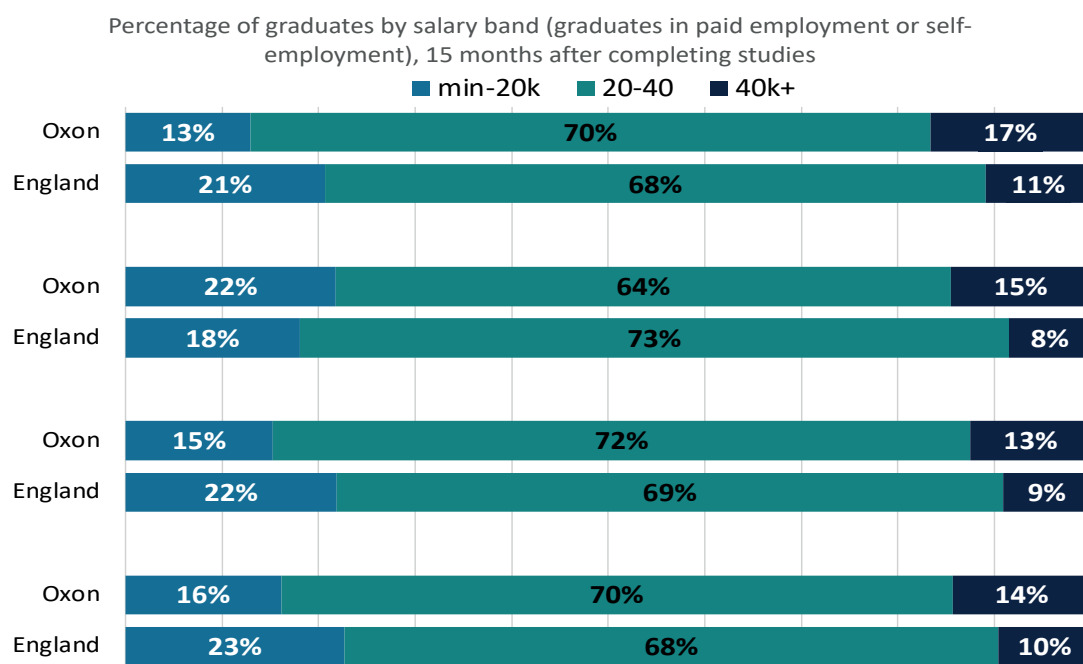
Earnings have remained strong for both residents and those commuting into Oxfordshire, as a workplace, in comparison to the rest of England. Residents' earnings are now over £57 per week higher than national earnings and workplace earnings £53 higher than national earnings. Earnings for non-resident Oxfordshire workers have risen in the last year to nearly those received by residents. Many of the roles in Oxfordshire are graduate level positions demanding higher salaries commensurate with qualifications. At the same time the labour market has been consistently tight so employees can demand higher salaries. Incomes for those living in Oxfordshire are above the national average by 9%, with the average full-time worker earning £34,800.

Oxfordshire traditionally had mixed patterns of commuting, heavily influenced by the City of Oxford in addition to Reading, Slough and London. Areas to the North and West of Oxford, typically have high levels of out-commuting to Oxford, whereas areas to the

South and East of Oxford have high levels of out-commuting to Oxford as well as Reading, Slough, and London. Nearly a quarter of people in South Oxfordshire work outside of Oxfordshire. However, it remains to be seen if we will see the high levels of out-commuting after the COVID-19 pandemic, or whether there is a hybrid of working from home with the occasional day in the office.

House prices continue to be high in Oxfordshire, with the average house now costing 10.2 times the average resident earnings. This ratio is considerably higher within Oxford ring road with house prices 17 times local earnings. The unaffordability of housing, particularly in an area with a high number of graduates, presents challenges in graduate attraction and retention from local further and higher education institutions. There are ambitions to deliver 100,000 new homes by 2031 as part of the Oxfordshire Housing and Growth Deal, agreed with government in 2017.

Salaries after graduation



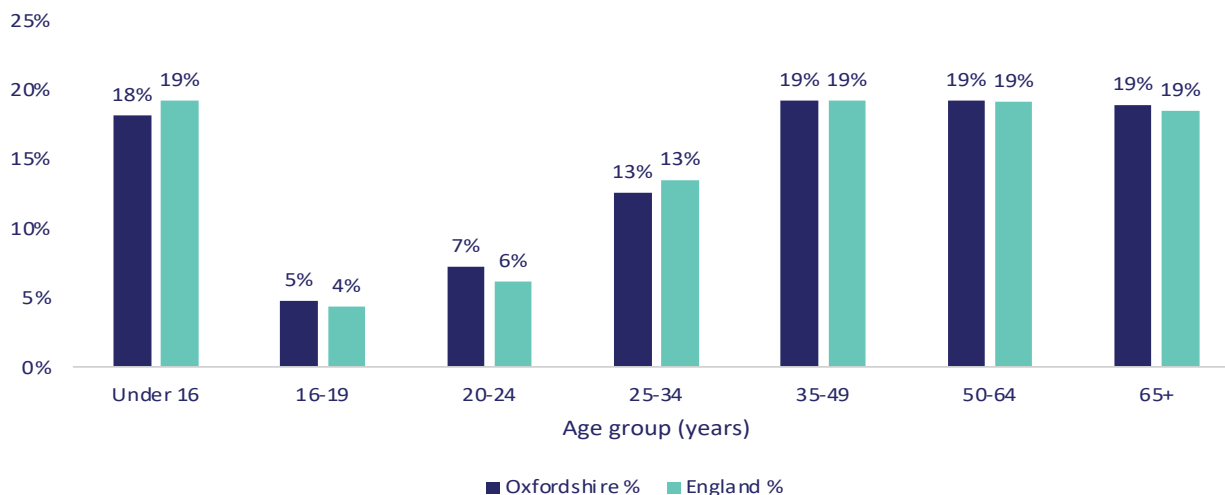
Source: OxLEP Skills, Skills, employment and enterprise of Oxfordshire's ethnic minority communities, Key Findings, November 2021, Higher Education Statistics Agency (HESA), Graduate Outcomes Survey of Students from the 2018/19 academic year, completed responses

Graduates from Oxfordshire are more likely to earn higher salaries than graduates nationally. Asian graduates are more likely earning £40k+ per year than other ethnic groups nationally. This seems to also be the case in Oxfordshire (although differences are not statistically significant). Black graduates from Oxfordshire seem more likely to be earning relatively low salaries (to £20k per year) than nationally. However, this difference is also not statistically significant.

Despite the area's recent economic success, not all sections of society have been able to benefit from the increasing success of the area. There are areas of persistent labour market deprivation, particularly relating to education, skills and training. This is most prominent in the City of Oxford, where 40% of local geographies are among the bottom 50% most deprived nationally. Annex B details for information of the wards identified.

Population by age group

Population by age group - Mid Year estimates June 2020



Source: Annual Population Survey, 2020, County

ONS forecasts suggest that under the status quo scenario, Oxfordshire's population will grow slowly over the next twenty years (from 678,000 in 2016 to 720,800 by 2036). However, this expansion is expected to be driven entirely by a rising over-65 population. The county's 15–64-year-old population is expected to fall by 0.3% per year for the next twenty years (compared to an England-wide growth rate of 0.1%, while the over-65 population will rise by two per cent per year (compared to 1.9% per year). This is compounded by lower graduate retention rates in Oxfordshire than places like London or Manchester, despite high-paying firms reporting difficulty recruiting. Mid-year 2020 estimates show that the under 16 population has fallen by 1% on last year.

Oxfordshire has an increasingly ageing population, which has accelerated over the last five years. 38% of Oxfordshire's population are in the latter years of working life (50+). 57% of Oxfordshire's population are currently over the age of 35. Only 12% are young people, at that start of their working careers, likely to have the level of qualification demanded in the area who will be the replacement workforce of the near future.

There are now 3% more people living over the age of 65 in Oxfordshire compared to ten years ago. By comparison, there has been a

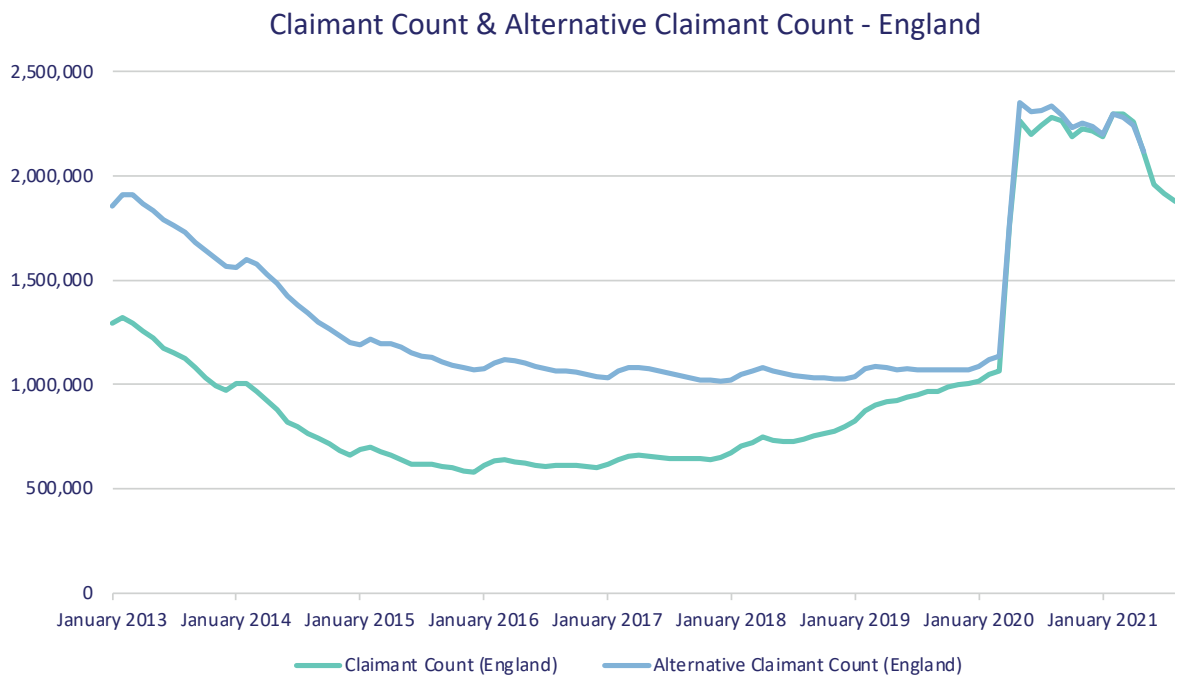
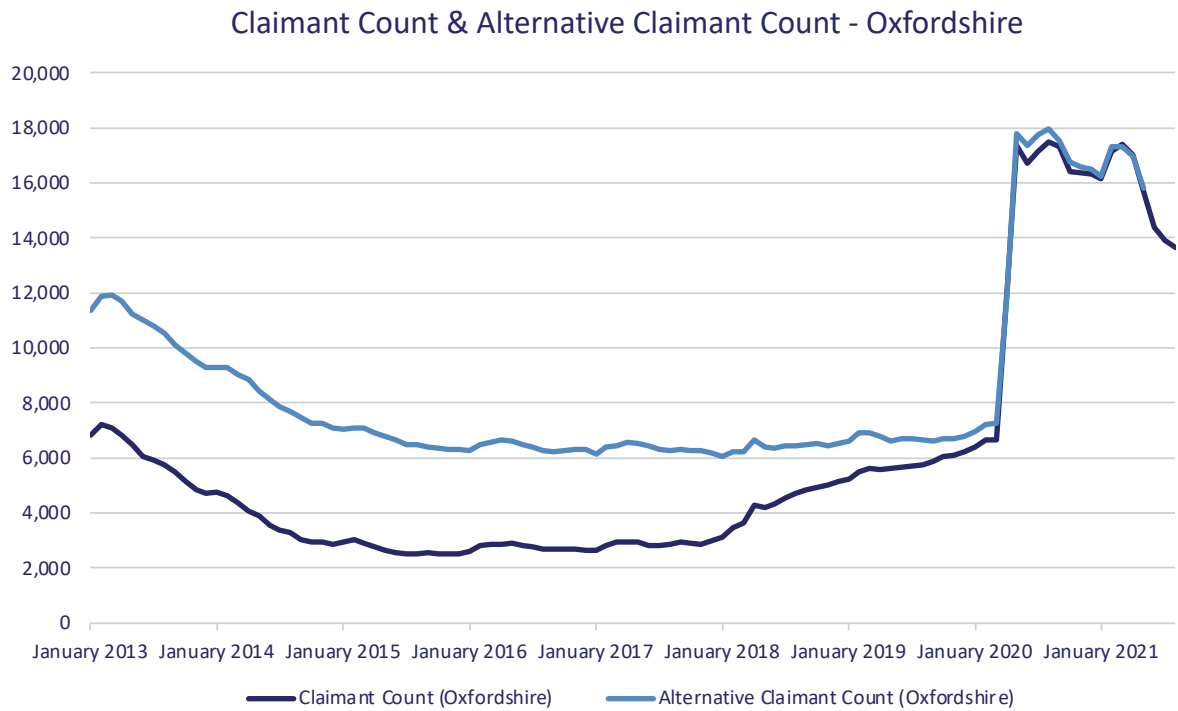
similar decrease in the number of people aged between 16-24 and 25-49 over the last ten years. This is a critical challenge facing the area, with one of the key issues likely to be the area's unaffordability for younger people.

Oxfordshire's ageing population and the population decline of those aged between 16 and 49 should be a concern, particularly if Oxfordshire is going to continue supplying the labour force demand by employers into the future. Encouraging more young people to move to and stay in Oxfordshire is important to ensuring a strong supply of labour for the future. Retention of graduates will be key to this, especially given the strong academic qualifications many of them have obtained and the connections they have made in the area. Having an attractive offer to encourage young people to stay, including affordable houses and graduate-level jobs will be key to achieving this.

Population growth in Oxfordshire over the last ten years has lagged behind the national and Oxford-Cambridge Arc, with 2019 growth 2 percentage points behind the growth experienced across the Arc over the last ten years. Of concern, is the slow growth in the overall working age population (as referenced above), which now lags considerably behind the Arc's growth rate.²²

²² Hatch Regeneris (2019)

Claimant Count and Alternative Claimant Count



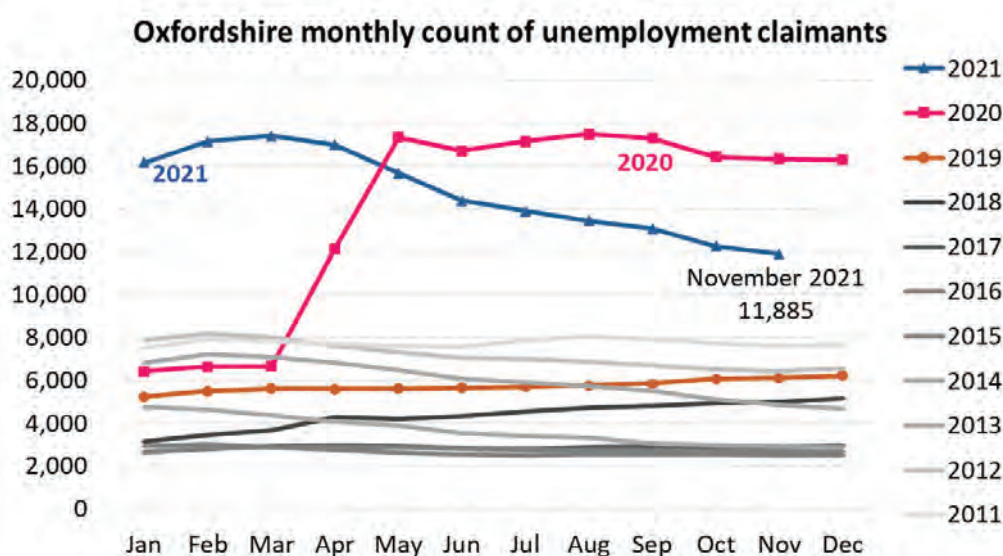
Source: ONS claimant count & DWP Stat Xplore, January 2013 – November 2021, 2020 SAP boundaries

In 2020, Oxford City had the strongest employment rate, providing employment for 25% of the Oxfordshire total employed with a much lower rate in West Oxfordshire district (16%). Cherwell and West Oxfordshire had the highest percentage of employees (11% and 13% respectively) self-employed. Self-employment was strongest in the other three districts at 18-20%.

In 2020, the highest levels of economic inactivity existed in Cherwell district at just below national proportion and just above that seen in the rest of the South East region. In Cherwell there was a high proportion of people classed as long-term sick. 5% higher than the national average and 8% higher than that seen in the rest of the South East region. There is also a slightly higher proportion of students in this area than seen nationally and regionally and although data isn't available for Oxford it is expected due to the location of the two universities, particularly the expanse of Oxford

University in Oxford City centre, that this would be higher than national and regional. The rent in Cherwell for students would be more affordable than in Oxford City hence some students may choose this area to commute to Higher Educational establishments in Oxford.

Claimant and Alternative Claimant have followed a similar trend to the pattern seen nationally over time with the most dramatic rises seen following the onset of COVID-19 pandemic. In October 2019 the rate per population in Oxfordshire was 1.4%. The area then saw more than a tripling in claimants during the COVID-19 pandemic, rising to a rate of 4.8% by November 2020. A year later, by November 2021 the rate has fallen to 3.5%, still more than double pre-COVID-19 pandemic rates. However, the rate here has remained below that seen nationally throughout the COVID-19 pandemic (the national rate November 2020 was 8.2% and the national rate in November 2021 is 6.1%).



Source: Oxfordshire Insight Unemployment Dashboard, 14 November 2021

Change in unemployment claimants Nov-20 to Nov-21

	Nov 2020		Nov 2021		Nov 2020 to Nov 2021
	count	rate*	count	rate*	ppt change
Cherwell	3,790	4.9%	2,740	3.6%	-1.37
Oxford	4,600	6.6%	3,575	5.1%	-1.47
South Oxfordshire	2,865	4.0%	1,995	2.8%	-1.22
Vale of White Horse	2,740	4.0%	1,925	2.8%	-1.18
West Oxfordshire	2,355	4.2%	1,650	2.9%	-1.25
Oxfordshire	16,345	4.8%	11,885	3.5%	-1.30
England	2,225,600	8.2%	1,650,840	6.1%	-2.12

Unemployment claimants by age group Nov-21

	16-24		25-49		50+	
	count	rate*	count	rate*	count	rate*
Cherwell	465	5.0%	1,650	3.8%	625	2.7%
Oxford	520	4.0%	2,155	5.5%	900	5.6%
South Oxfordshire	290	3.4%	1,155	3.0%	550	2.4%
Vale of White Horse	310	3.6%	1,145	2.9%	475	2.2%
West Oxfordshire	275	3.9%	965	4.3%	410	2.2%
Oxfordshire	1,860	4.0%	7,065	3.7%	2,955	2.9%
England	273,795	7.3%	974,135	6.2%	402,885	5.3%

*per the economically active population (calculated as the ONS mid-2020 population estimate - aged 16-64 for the top table - multiplied by the proportion of the population that are economically active, as recorded by the 2011 Census); ppt=percentage point

Source: Oxfordshire Insight Unemployment Dashboard, 14 September 2021

Unemployment claimant count data (released 14 December 2021 by the Department of Work and Pensions) shows that the number of people claiming unemployment-related benefits in Oxfordshire decreased between October and November 2021, from 12,275 to 11,885 (-3.5%).

In November 2021 the rate of universal credit claimants per population remains highest in Oxford (5.1%) and Cherwell (3.6%). However, the rate remained lower than national (6.1%). A third of claimants are resident in Oxford (30%) and nearly a quarter (23%) in Cherwell. West Oxfordshire has the lowest proportion of claimants (13.8%). All districts continue to show a falling trend

in the rate of unemployment claimants (as a percentage of the economically active population aged 16-64). All area counts are below the rate seen nationally.

In the last month (November 2021):

- Just over 59% of claimants are in the age group 25-49. This rate has remained stable. Oxford City has the highest proportion of claimants in this age group, but the rate has fallen by 0.4%, with West Oxfordshire following, with its rate remaining stable at 4.3%. The rate for 25-49 in Cherwell has also fallen by 0.2% this month. Other local authority rates for this age group remain as last month. National rates are 6.2% for 25-49 age group.

- Just under a quarter are age 50+, remaining at a similar proportion. Oxford City has nearly double the rate in this age group at 5.6% but this has reduced from 5.9% last month. National rates are lower at only 5.3%. Cherwell follows at less than half of the rate (2.7%), with a reduction from last month's 2.6%.
- Just under 16% of claimants are young people aged 16-24. Cherwell has the highest rate of claimants at 5.0% in this age group but lower than national rate of 7.3%, with West Oxfordshire and Oxford City following with 4%.

It is difficult to plot the full impact of the COVID-19 pandemic on unemployment. However, in line with national reporting, the longer-term impacts may not be as bad as originally envisaged. National Coronavirus Job Retention Scheme²³ data (ONS, Oct 2021) suggest that 42% of furloughed population were made redundant from the employer they were previously furloughed from. It is clear that many of the workers on furlough would have been made redundant if the CJRS scheme had not been in place, and that the CJRS has limited the impact of the COVID-19 pandemic on the labour market.

'There had been concerns that with more than a million workers still on the scheme when it came to an end last month, its withdrawal could lead to a spike in unemployment and dent the UK's stuttering economic recovery from the COVID-19 pandemic. However, with sectors such as hospitality, care and heavy goods transport complaining of major shortages of workers, research by the influential Resolution Foundation suggests that only around 136,000 workers moved from furlough to either unemployment or inactivity when the scheme was closed.'²⁴

As of 30th September 2021, the cumulative number of furloughed employments in

Oxfordshire was 125,100. There were 10,200 (-2,600 since 30th September 2021) furloughed employments in Oxfordshire, based on claims made by 14th October 2021.

Oxfordshire take-up rate of 3% (-2% since 31st July 2021). All Local Authority take-up rates were 3%.

South East region 4% take-up rate (-1% 31st July 2021)

England 4% take-up rate (-2% since 31st July 2021).

NB. As of 14th September 2021, there were 329,300 employments in Oxfordshire eligible for furlough.

This has fallen substantially since 31 July 2020, when there were 103,000 employed people in Oxfordshire supported by the COVID-19 pandemic Job Retention Scheme (JRS i.e., furlough). The take up rate of eligible employments, in the county was 29%, just under the regional and national averages (30% across the South East and 32% in England).

Age related CJRS data are available at the national level. In terms of demographics, the young and old have been hit hardest according to JRS statistics, with a higher proportion of claims being made in the 16-24 and 65+ categories than other age groups. 24% of claimants are over 50. Importantly, older citizens have been hit harder proportionally than other previous economic recessions. Demographics and welfare changes may also have an impact here. This is particularly concerning given the barriers to training and employment in existence for older people.²⁵ People aged over 50 who lose their jobs are significantly more likely to suffer long-term unemployment than other age groups.²⁶

Claimants aged 50+ continued to rise as a proportion of Oxfordshire claimants to near on one quarter of all claimants, whilst the % of 16-24 claimants fell.

²³ CJRS – Coronavirus Job Retention Scheme

²⁴ The Guardian (2021)

²⁵ SteerED (2020)

²⁶ The Guardian (2021)

- Female employments take-up rate 3% (September 2021)
- Male employments take-up rate 3% (September 2021)
- In most age groups there were more males than females, except for 50 to 59 age band where there were more females on furloughed employments than males.
- The most noticeable reduction in (July to August) was in males

Local intelligence suggests that there will be a number of older working age population who have been made redundant or could still be currently at risk of redundancy following the end of the CJRS scheme. This contingent may not ever be included in these claimant statistics and notifications of redundancies as they are often small group or individual redundancies within an organisation, not meeting the criteria for HR1 redundancy notifications. Many of these redundancies will be amongst a generation who prefer not to claim, making use of temporary agency work until a more permanent position can be found and or choosing to cover retraining and reskilling costs themselves without Government support.

The makeup of the top sectors with employments on furlough in Oxfordshire in September 2021 broadly matched that of England. The proportions were also similar, except for 'Other' (Oxfordshire 9.41%, England 4.02%). This is likely to be accounted for by the removal of the Education sector in the dataset, and the high proportion of Education sector employees in Oxfordshire, and Construction (Oxfordshire 5.59%, England 8.07%)

The sectors needing most furlough scheme support in Oxfordshire in July were:

- Wholesale and Retail 15.78%
- Accommodation and Food Services 12.75% (decreased from 22.76% May 2021)
- Other 9.41% (likely to be largely made up of Education and increasing in proportion of Oxfordshire CJRS employments each month)
- Administration and Support Services 9.8%
- Professional, Scientific, and Technical 11.08%
- Manufacturing 9.02%
- ICT, Finance, Insurance and Real Estate 7.75%
- Transportation and Storage 7.45%

Three of Oxfordshire's most dominant sectors, Manufacturing, Real Estate and Wholesale/ Retail are on par with the UK average CJRS take-up, while Health and Social Work and Education have been less hard hit.²⁷

On those sectors in which people have returned to work, the national data indicates that a large proportion of those in most industries have returned to work. However, the percentages of those returning to work in Arts/Entertainment/Recreation and Accommodation/Food Services have been well below 50 per cent. These sectors are still struggling and are those subject to the most immediate impacts of further lockdown measures. These sectors are clearly those that require the most support - both immediately and going forward as the transition to renewal develops.²⁸

Anecdotally, the Oxfordshire Association of Care Providers has reported that workers from the Visitor Economy who went into

²⁷ HMRC CJRS and PAYE Real Time Information (2020)

²⁸ BICS Survey (2020)

the Health and Social Care sector during COVID-19 pandemic, have not been retained as many have returned to their original sector.

NEET numbers are rising. Prior to COVID-19 pandemic there were 500 people on average across Oxfordshire recorded as Not in Education, Employment or Training (NEET), accounting for around 4% of young people aged 16 or 17. This number had declined in recent years and was sitting below levels experienced in neighbouring Buckinghamshire and Reading.²⁹

In July to August 2020 there was a 25% increase overall in casework open to Oxfordshire County Council EET team compared to 2019 and a 60% increase in general enquiries to EET referrals inbox and phone calls, of the enquiries approx. 40% were in relation to Year 11 leavers.

In September 2020 onward the EET Team have seen 35% increase overall in casework open to the team compared to 2019 and 40% of the cases currently open to us are Year 11 leavers from this year.

Latest NEET data from October 2020 to end November shows a 24% increase overall in casework open to our team compared to 2019 with 47% of the cases currently open are Year 11 leavers from 2020.

The EET Team report that 2020 school leavers experienced a lack formal careers guidance, ending and transition into next destinations. Some school leavers now lack confidence, lack motivation and are anxious about their future – there is increased competition for employment and Apprenticeships. Current Year 11 learning is disrupted with closures and isolations. There is a focus on core curriculum delivery, missed access to softer employability skills and extra-curricular activities and future ambiguity are impacting adversely. There are greater proportions of NEETs currently and a lack of flexible provision start dates and appropriate offers of EET learning. There is a lack of EET opportunities to match current need (Apprenticeships, employment). A rise in Elective Home Educated students from schools and higher numbers without qualifications has been seen, with increased anxiety and isolation.³⁰

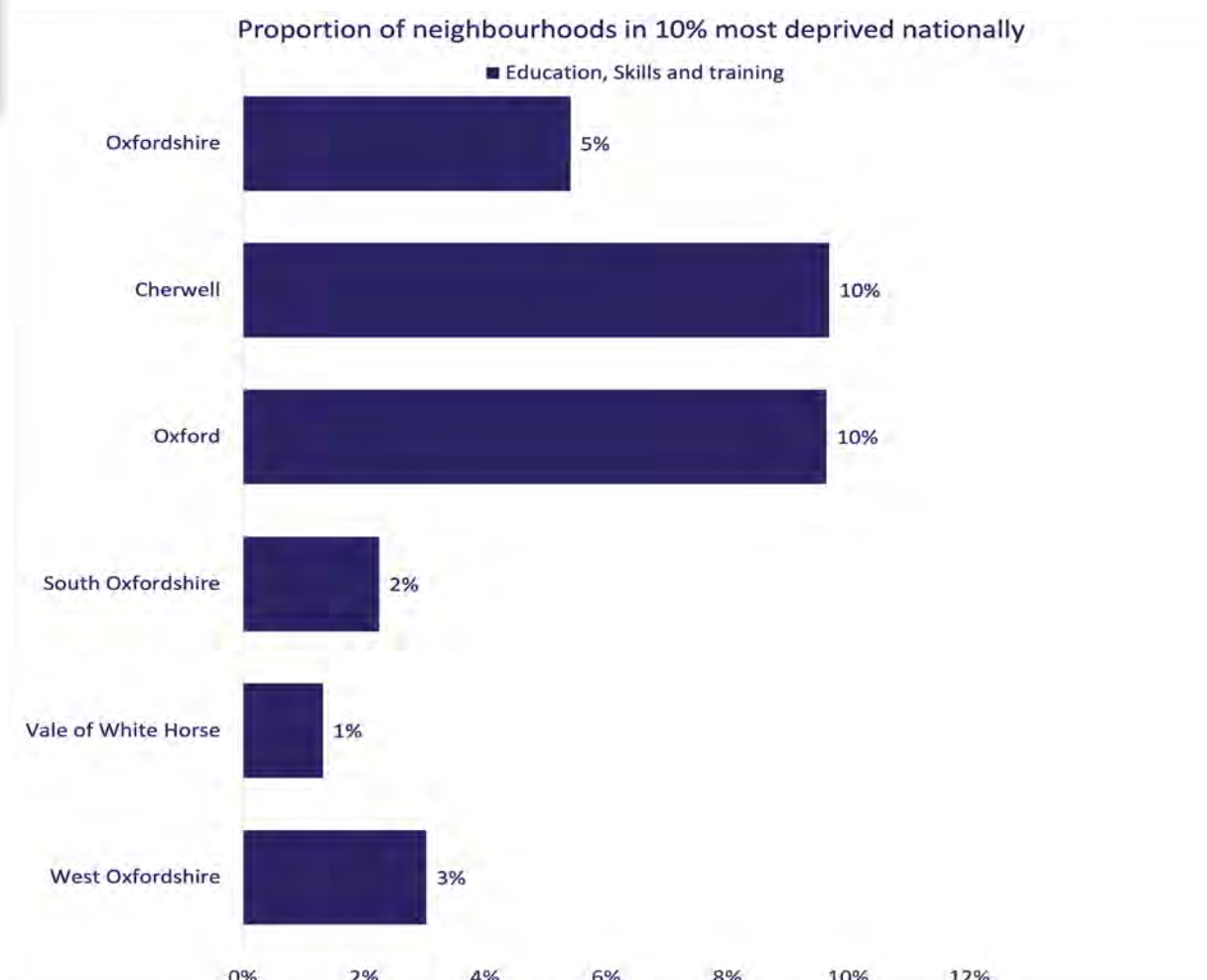
High concentrations of NEET can be found in Oxford City, Cherwell, and Witney with over 270 of those classed as not having significant barriers to becoming EET scattered across the county's rural areas.³¹

²⁹ Hatch Regeneris (2019)

³⁰ Oxfordshire County Council EET Casework Team (2020)

³¹ Oxfordshire County Council EET Casework Team (2021)

Income, Employment and Education deprivation



Source: Index of Multiple Deprivation, MHCLG, 2019, 2017 LEP boundaries

Around 27% of local geographies across Oxfordshire are among the 10% least deprived areas nationally, with 83% of local geographies among the top 50% least deprived geographies nationally. However, challenges remain, particularly in the City of Oxford where 40% of local geographies are among the bottom 50% most deprived nationally.

According to the Indices of Multiple Deprivation (IMD 2019), Oxfordshire was ranked the 10th least deprived of 151 upper-tier local authorities in England (up from 11th in 2015). Oxfordshire had 1 out of 407 Lower Super Output Areas (LSOAs) ranked within the 10% most deprived areas nationally, part of Northfield Brook ward, in south east Oxford. A further 16 areas were ranked in the 20%

most deprived areas nationally: 9 in Oxford City, 6 in Banbury and 1 in Abingdon. The City of Oxford performs particularly poorly on the Social Mobility Index for Early Years and Schools, ranking 306th and 300th respectively out of 324 local authorities nationally.

The most deprived (IMD decile 1 and 2) areas of Oxfordshire tend to be especially deprived in terms of education, skills, and training. The Ofsted rating of Oxfordshire's school is two thirds of the 36 state-funded secondary schools 'good', but only 16% of secondary school rated as 'outstanding'. Ensuring these residents can access education and training opportunities relevant to those sectors growing locally will be important to create inclusive economic growth.³²

³² Hatch Regeneris, 2019

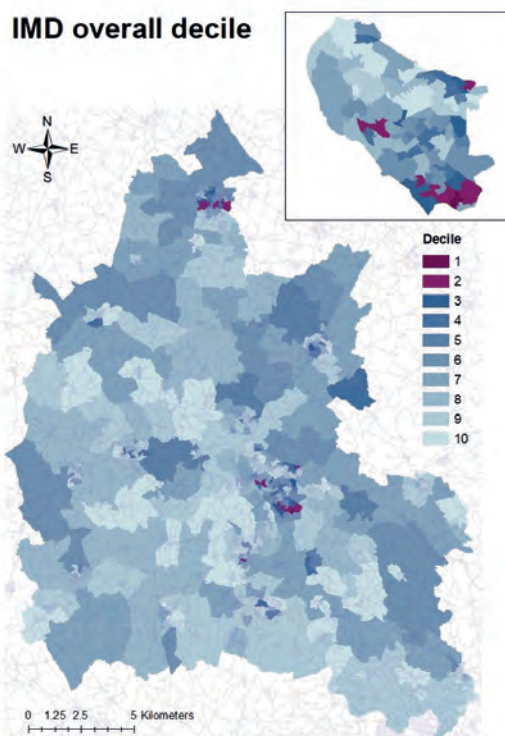
Deprivation: geographical distribution

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- A further 16 areas were ranked in the 20% most deprived areas nationally: 9 in Oxford City, 6 in Banbury and 1 in Abingdon.

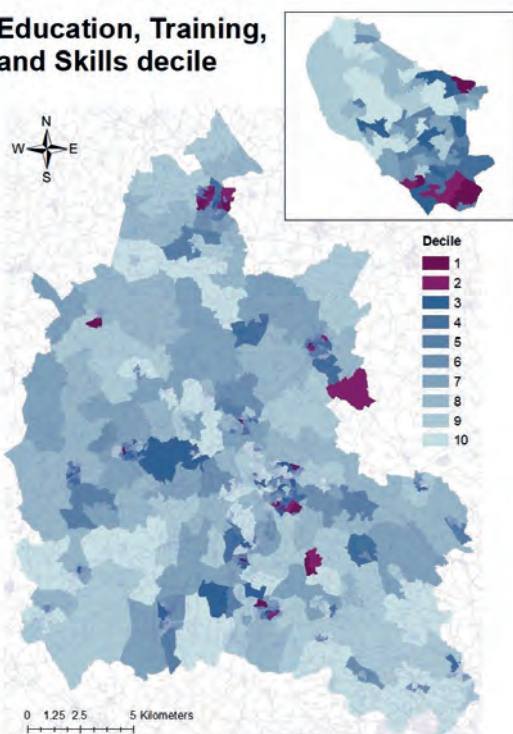
MHCLG English indices of deprivation 2019
[1] LSOA = Lower Super Output Area (Census geography)

Source: OxLEP Skills, Skills, employment and enterprise of Oxfordshire's ethnic minority communities, Key Findings, November 2021, MHCLG, English indices of deprivation 2019

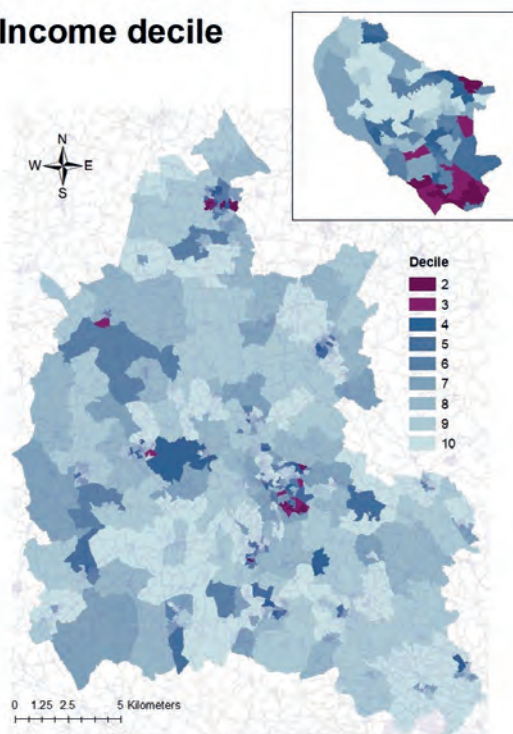
IMD overall decile



Education, Training, and Skills decile



Income decile



Deprivation: Oxfordshire's most deprived areas

The most deprived (IMD decile 1 and 2) areas of Oxfordshire tend to be especially deprived in terms of education, skills, and training.³³

	IMD	Adult Skills Sub-domain	Children and Young People Sub-domain	Education, Skills and Training	Employment	Health Deprivation and Disability	Income	IDACI	Crime	IDAOP	Outdoors Sub-domain	Wider Barriers Sub-domain	Barriers to Housing and Services	Geographical Barriers Sub-domain	Living Environment	Indoors Sub-domain
Northfield Brook 18B	1	1	1	1	2	2	2	2	2	2	4	2	4	7	8	9
Abingdon Caldecott 08C	2	1	1	1	3	4	2	2	7	3	5	6	9	9	8	8
Banbury Cross & Neithrop 03D	2	2	2	2	2	3	3	3	3	2	2	4	5	5	5	6
Banbury Cross & Neithrop 04A	2	4	2	3	2	1	2	3	2	3	3	3	6	8	2	2
Banbury Grimsbury & Hightown 04G	2	1	1	1	2	2	2	3	5	1	3	3	5	8	6	8
Banbury Ruscote 05A	2	1	1	1	3	2	3	4	3	2	3	4	7	7	6	6
Banbury Ruscote 05B	2	1	1	1	2	1	2	1	1	5	5	4	7	8	7	7
Banbury Ruscote 05F	2	1	1	1	2	2	2	2	1	2	3	3	6	7	6	7
Barton and Sandhills 05B	2	1	1	1	3	3	2	2	4	2	3	2	5	8	6	7
Blackbird Leys 17A	2	2	1	1	3	3	3	3	3	6	3	3	1	1	7	9
Blackbird Leys 17B	2	1	2	1	2	2	2	2	4	3	3	2	4	9	7	9
Blackbird Leys 18A	2	1	1	1	3	3	2	1	2	3	4	2	4	9	7	8
Carfax 08B	2	9	1	3	4	1	5	3	3	1	2	2	2	4	1	2
Littlemore 16A	2	2	3	2	3	3	2	1	2	4	3	3	4	7	6	6
Northfield Brook 17D	2	2	2	2	3	3	3	3	1	2	3	2	3	6	4	5
Northfield Brook 18C	2	2	1	1	2	2	2	2	5	2	4	2	2	4	9	10
Rose Hill and Iffley 16E	2	1	1	1	2	2	2	2	4	1	2	2	2	5	4	5

Key: Index of Multiple Deprivation 2019 deciles (1 = 10% most deprived LSOAs in England, 10 = 10% least deprived)

Source: OxLEP Skills, Skills, employment and enterprise of Oxfordshire's ethnic minority communities, Key Findings, November 2021, MHCLG, English indices of deprivation 2019

³³ MHCLG English indices of deprivation 2019 [1] LSOA = Lower Super Output Area (Census geography) / IDACI = Income deprivation affecting children index IDAOP = Income deprivation affecting older people index

Skills Supply

Skills Supply – Summary

A highly skilled workforce with over half (53%) of the working age population qualified to Level 4 or above. There are fewer people in Oxfordshire with no qualifications than nationally but:

- Level 3 qualifications and trade Apprenticeship achievements continue to fall.
- The number of unqualified people is not decreasing. One quarter of Oxfordshire's population with a Level 1 qualification or unqualified are resident in Cherwell local authority district.
- Oxford City local authority has a high proportion of student population.

Adult (19+) FE and Apprenticeships Achievements

NB. The 2020/21 data covers the period affected by COVID-19 pandemic and the associated restrictions, which will have impacted on FE provision and provider reporting behaviour via the Individualised Learner Record. Therefore, extra care should be taken in comparing between academic years and interpreting data presented.

- In common with the rest of the country, the number of Apprenticeships undertaken has declined over the last four years. However, Apprenticeship achievements have risen by 20% back to pre-COVID-19 pandemic levels (national rise only 6.5%).
- Intermediate Level Apprenticeships have fallen by 14% from pre-COVID-19 pandemic levels (2018/19) whilst Higher Apprenticeship Achievements increased by 13%.
- Achievements in funded Adult Education and Training fell by 17% in the previous year but have increased by 33% over the last 3 years. Most achievements are at Level 2.
- STEM-related achievements are under-represented, given the economic specialisms of the area.
- Some much-needed increases in 19+ and Apprenticeships:

Increases in Adult (19+) Further Education Achievements over the last 3 years

Arts, Media and Publishing	Education and Training (but mainly in support, not teaching)	Retail and Commercial Enterprise	Health and Social Care
+267%	+60%	+57%	+36%

Increases in Apprenticeship Achievements over the last 3 years

ICT Practitioners	Business, and Administration	Health, Public Services and Care	Building and Construction
+62%	+43%	+6%	+26%

- Some disappointing falls in achievements to meet high demand area specialist STEM Subjects, and other key sectors such as construction and the visitor economy to meet local economy needs:

Decreases in Adult (19+) Further education Achievements over the last 3 years

STEM Subjects			Agriculture, Horticulture and Animal care	Construction, Planning and the Built Environment	Leisure, Travel and Tourism
Science and Mathematics	Engineering and Manufacturing Technologies	ICT			
-9%	- 60%	- 48%.	- 47%	- 39%	-35%

Decreases and low Apprenticeship Achievements over the last 3 years

Leisure, Travel and Tourism	Hospitality and Catering	Retail and Commercial Enterprise
-80%	-36%	-19%

- In many of the area's cornerstone and breakthrough sector subjects there are minimal achievements limiting the pipeline of local labour available to these sectors:

Minimal Apprenticeship Achievements in 2020/21 in High Demand Sectors

Nursing, Dentistry and Subjects Allied to Medicine	Warehousing and Distribution	Arts, Media and Publishing	Education and Training
	Science and Mathematics	Law and Legal Service	Marketing and Sales

Challenges for 19+ Further Education and Apprenticeships:

- Lower-level 19+ qualifications are achieved by more females (at Level 2 or below). Level 3 or above by males.
- Traditional gender beliefs appear to influence male/female subject choices and training level with females taking up subjects in Health and Social Care, Education and Learning, Hospitality, whilst males take-up more STEM subjects such as Engineering and Manufacturing, Construction and Logistics.
- Differences in Apprenticeship subject areas by broad ethnic groups are noted at National level and Oxfordshire appears to reflect this.

HE Achievements

- HE qualifiers traditionally have aligned well with the economic specialism as can be seen by recent increases in Creative Art and Design subjects to meet needs of the area's growing creative industries sector. However, there have also been recent falls in STEM subjects, Subjects Allied to Medicine, Languages and Historical and Philosophical Studies.
- There are differences in higher education subject preferences between ethnic groups:
 - o A higher proportion of Asian students studied Computing subjects
 - o Black students were more likely to study Subjects Allied to Medicine (includes Nursing and Midwifery courses)
 - o Both White and Mixed ethnicity students were more likely to study subjects traditionally considered 'Humanities'

Learner Destinations

- Most learners move directly into sustained employment at larger proportions than nationally with 93% of Apprentices in Oxfordshire transition to sustained employment and Higher (level 4+) Apprenticeship courses led to 100% sustained employment.
- More KS4 and KS5 leavers now remain in education whilst those moving directly into employment have fallen, following the COVID-19 pandemic restrictions and disruptions to education and crucial careers guidance.
- Many of those from the University of Oxford continuing to stay in academia and full-time education.
- Graduate outcomes data shows differences between ethnic groups in choice of occupation after graduation:
 - o The Asian and Black ethnic groups were each much more likely to become health professionals in Oxfordshire than nationally.
 - o The Mixed ethnicity group was more likely to go into Teaching/Education.
 - o Unlike other groups, the Asian ethnic group included Sales in the top 5 occupations.

Other Key Barriers and Challenges

- NEET statistics in the area have risen sharply because of COVID-19 pandemic.
- Increased numbers in elective home education and mental health concerns for young people continue to impact NEET statistics.
- Youth unemployment has also increased amongst 16-24 age band.

- Local university graduate retention challenges.
- Vocational and technical qualifications may not be as valued by local employers as academic degree qualifications.
- Limited T-level rollout in restricted subject areas and capacity to support work and industrial placements is tight.
- The highest levels of service children in primary and secondary schools (3055 children across 200 schools) compared to eight other regions in the South East.
- Work readiness is a reported skills gap in the area.

Learner Destinations

Most learners move directly into sustained employment at larger proportions than nationally. Importantly, most KS4 and KS5 learners remain in education, employment and training (EET) although more people now remain in education and those moving directly into employment have fallen, following the COVID-19 pandemic restrictions and disruptions to education and crucial careers guidance. NEET statistics in the area have risen sharply because of COVID-19 pandemic and youth unemployment has also increased amongst 16-24 age band. However, 93% of Apprentices in Oxfordshire transition to sustained employment. In 2018/19 Higher (level 4+) Apprenticeship courses led to 100% sustained employment.

Notable Supply Challenges and Barriers

The value of technical qualifications may not be seen as equal to a degree by employers. Stronger employer engagement in the development of new T-Levels and Apprenticeships could help raise this view. 'Skills' was identified as the second most important issue to enabling growth in businesses associated with net carbon growth and development. While access to skilled employees scored highly, Apprenticeships was not identified once by any respondent.

Graduate retention - In the first year after graduation only 13% of graduates leaving

Oxford universities now remain in the South East region. A further 14% move immediately to London. After five years, a third remain resident in the South East and London and around half of the 2012/13-year graduates are now resident in the South or East of England. Only 18% remain in the north of the country and 11% remain in other nations of the UK outside of England. Attractive salary opportunities in other South East/London areas, the unaffordability of housing, particularly in an area with a high number of graduates, presents challenges in retaining those graduating from local further and higher education institutions.

T-Levels are being introduced initially at two of the main FE providers from 2021 with a limited subject roll-out, in line with Government policy. With an 84% employee make-up of Micro-businesses, capacity to support work and industrial placements is tight and further amplified by COVID-19 pandemic restrictions and employers reporting confusion and lack of understanding of the changes in the Skills landscape.

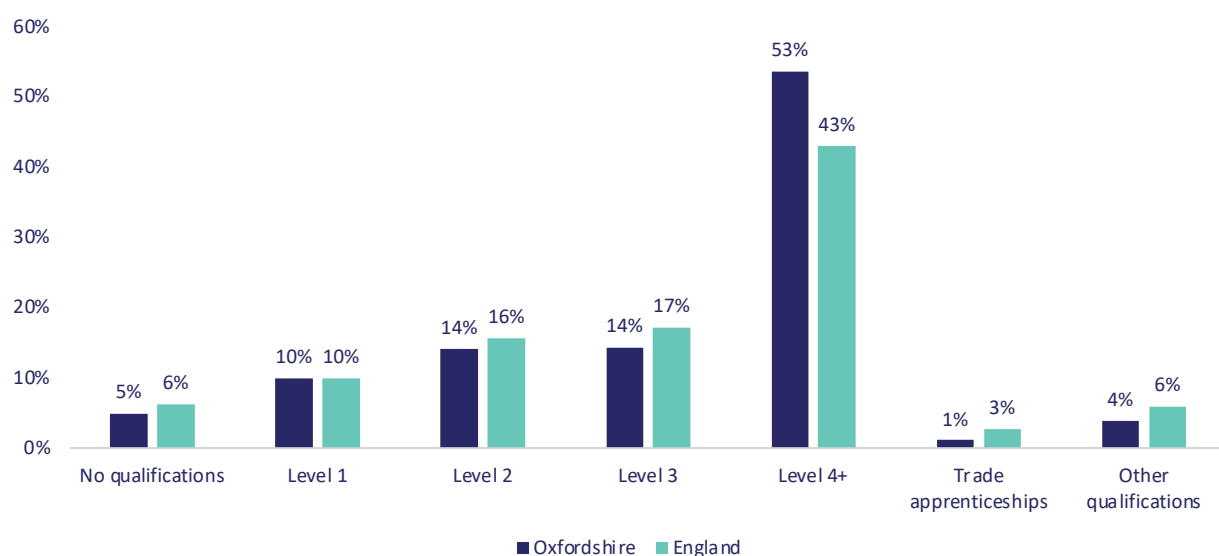
Oxfordshire has the highest levels of service children in primary and secondary schools (3055 children across 200 schools) compared to eight other regions in the South East. Many Service children are still disadvantaged in their access to and experiences through education and less likely to transition to HE.

Employer Provided Training

Over two thirds of Oxfordshire employers provided a combination of off-job and on-job training over the last 12 months and above that provided nationally but just over one third of employers provided no training at all (although this is relatively low compared to nearly 40% nationally). 80% of employers in Oxfordshire provided between 1 to 6 days training with the main allocation being 3 to 4 days. The number of days provided by employers should be improved and higher proportions of staff should receive them. The ongoing impact of COVID-19 pandemic is likely to have affected this provision given the wider economic uncertainty.

Qualification levels

Qualifications of people aged 16-64, 2020



Source: Annual Population Survey, January 2020 – December 2020, 2020 SAP boundaries

Latest qualification data in the 12 months Dec 2019 to Jan 2020 for Oxfordshire shows that there has been:

- a 2% increase in Level 1 qualifications (0% nationally) possibly highlighting intervention success, such as the Skills Support for the Unemployed programmes
- a 3% increase in Level 4+ qualifications (same as national (3%) highlighting that existing workforce are likely to be upskilling
- a 1% increase in Other qualifications (-1% fall nationally)

but

- no change in the proportion of people with no qualifications (national rate has fallen by 1%)
- no change in the proportion of people with L2 qualifications (same as national 0%)
- a -1% decrease in Level 3 qualifications (0% nationally)
- a -2% in Trade Apprenticeship qualifications (0% nationally)

Oxfordshire's recent growth has largely been concentrated in higher-value sectors typically requiring degree-level (or higher) qualifications. Oxfordshire has one of the highest skilled workforces in the country, with over half (53%) of its working age population

qualified to Level 4 or above (compared to 43% nationally). This has continued to grow over the last five years, with a seven-percentage point increase since 2013.

All districts in Oxfordshire comfortably exceeded the national average for the proportion of the population with the highest level of qualifications — NVQ4 — in 2017.

There are fewer people in Oxfordshire with no qualifications than nationally (accounting for only 5% of all residents), other qualifications (4%) or qualifications below level 4 (38%).

One third of residents with Level 3 qualifications are resident in Oxford local authority area.

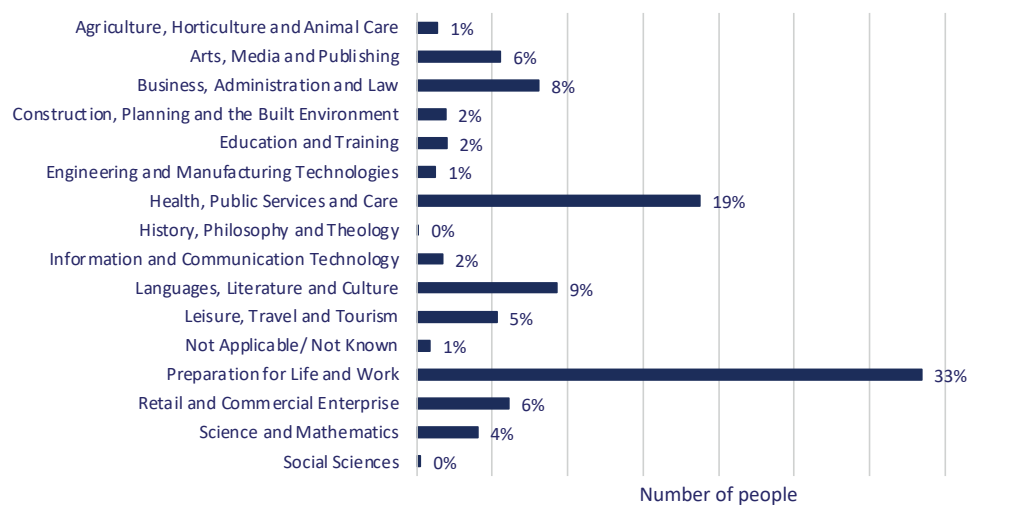
Whilst one quarter of Oxfordshire's population with Level 1 or unqualified are resident in Cherwell local authority area. The City of Oxford has one of the lowest levels of workers with no qualifications, at 3% per cent, compared with a UK average of eight per cent, yet also contains a high proportion of the workforce with low skills and qualifications.

Oxford also has highest proportion (55%) of employed full-time students. There are also 24,000 students who reside in Oxford who are economically inactive or unemployed, ³⁴whilst other areas of Oxfordshire have much lower proportions between 8% and 13%.

³⁴ NOMIS, Census (2011)

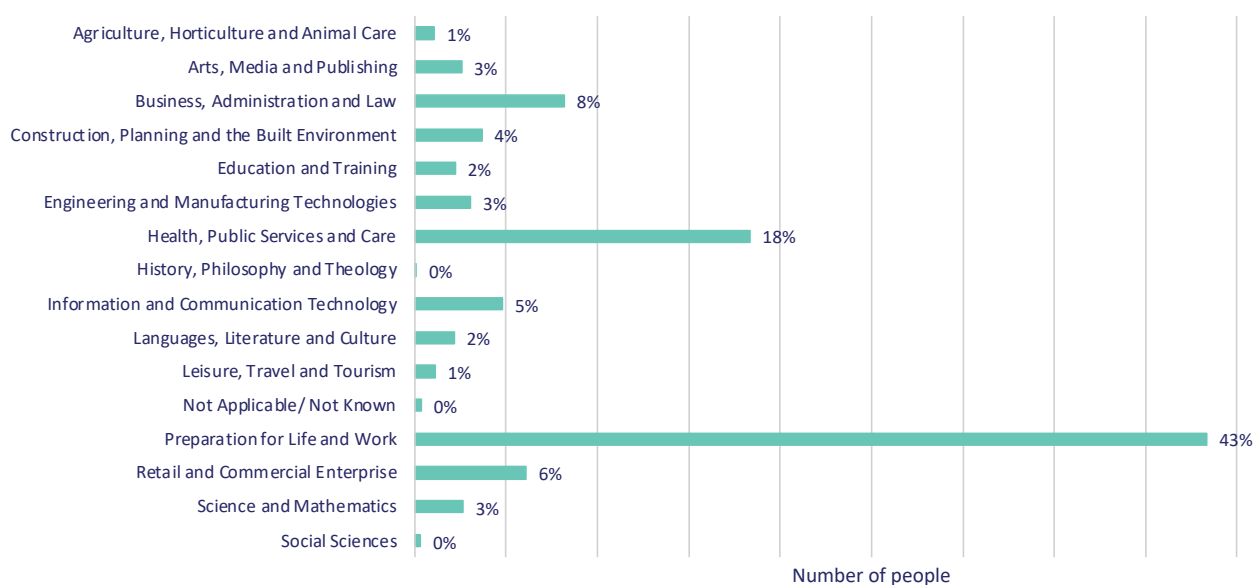
FE Education and Training Achievements

Adult education and training achievements by sector subject area, 2020/21 - Oxfordshire



Source: DfE Localism Dashboard, 2020/21 achievements

Adult education and training achievements by sector subject area, 2020/21 - England



Source: DfE Localism Dashboard, 2020/21 achievements

The 2020/21 data covers the period affected by COVID-19 pandemic and the associated restrictions, which will have impacted on FE provision and provider reporting behaviour via the Individualised Learner Record. Therefore, extra care should be taken in comparing between academic years and interpreting data presented in this release.

2020/21 achievements in funded Adult Education and Training increased by 33% on the previous year with an increase of over 2200 achievements, mainly through Preparation for Life and Work. Local initiatives to widen awareness of the local economy in Oxfordshire could be seen as being successful as the FE achievements begin to better reflect the area's skills demand from businesses.

A third of all funded FE Adult Education and Training achievements in 2020/21 were in Preparation for Life and Work.

Increases in the proportion of achievements in sector subjects which match the sector skills needed by our cornerstone and specialist sector were:

- Arts, Media and Publishing doubled to 4% of all achievements, with increases in achievements in the last 3 years of 267%.
- Business, Administration and Law increased from 5% to 8% of all achievements.
- Health, Public Services and Care increased by 2% to just over a fifth of all achievements. Over the last 3 years achievements have increased by 36%. The positive impact of COVID-19 pandemic on Health and Care careers in the NHS and Care Services will likely further increase take-up of these types of courses. However, Medicine, Dentistry and

Public Services learning aims have lower achievements.

- Retail and commercial enterprise achievements have increased by 57% over the last 3 years.

Disappointingly, for an economy which thrives on innovative specialist industries which demand science and maths skills, the proportion of achievements in these subjects fell even further by 2% to just 4% of all achievements. STEM-related achievements are under-represented, given the economic specialisms of the area. Local colleges report this as take-up or choice of subject by students, rather than under-representation of provision. In the previous 3 years, significant declines have continued in:

- Engineering and Manufacturing Technologies has fallen by -60%.
- ICT which has fallen by -48%.
- Agriculture, Horticulture and Animal Care, down -47%.
- Construction, Planning and Built Environment -39%.
- Preparation for Life and Work -38%.

Adult Achievement Analysis by Level and Gender

- More female achievements were at Level 2 or below. In contrast there were Level 3 or above achievements by males.
- 50% of all achievements were below Level 2, of which 62% were female achievements.
- 48% of achievements were at Level 2, of which 67% were female achievements.
- Only 2% were at Level 3 and there were no achievements at Level 4+.

Adult Achievement Analysis by Sector subject and Gender

There were noticeably more female achievements in:

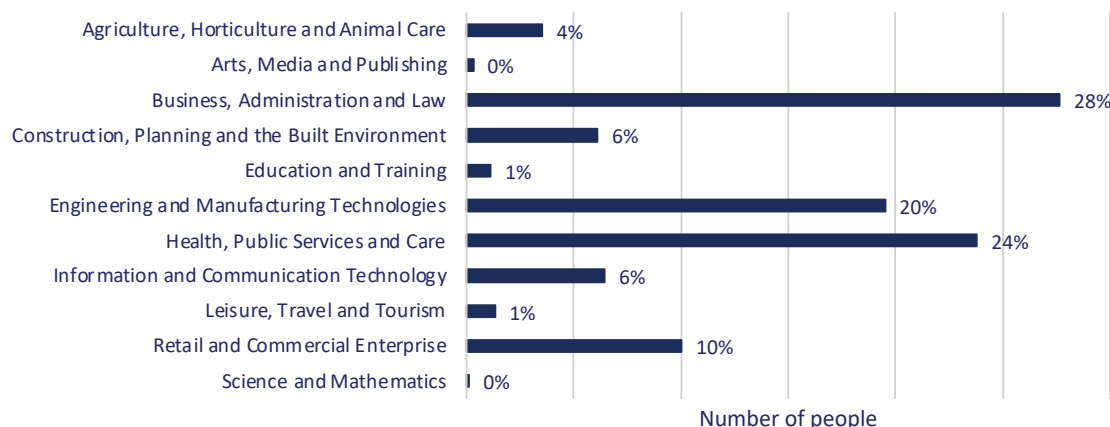
- Animal Care and Veterinary Science (83%)
- Crafts, Creative Arts and Design (85%)
- Accounting and Finance (84%) and Administration (65%)
- Education and Training – direct learning support (91%)
- Health and Care – child development and well-being (96%), Health and Social Care (87%), Nursing and Subjects / vocations Allied to Medicine (92%)
- ICT for Users (71%)
- Hospitality and Catering (69%) and Service Enterprises (78%)

There were noticeably higher male achievements in:

- Building and Construction (88%)
- Engineering and Manufacturing Technologies – Engineering (72%) and Manufacturing Tech (83%)
- Public Service (85%)
- ICT for Practitioners (81%)
- Sport, Leisure and Recreation (82%)
- Warehousing and Distribution (86%)

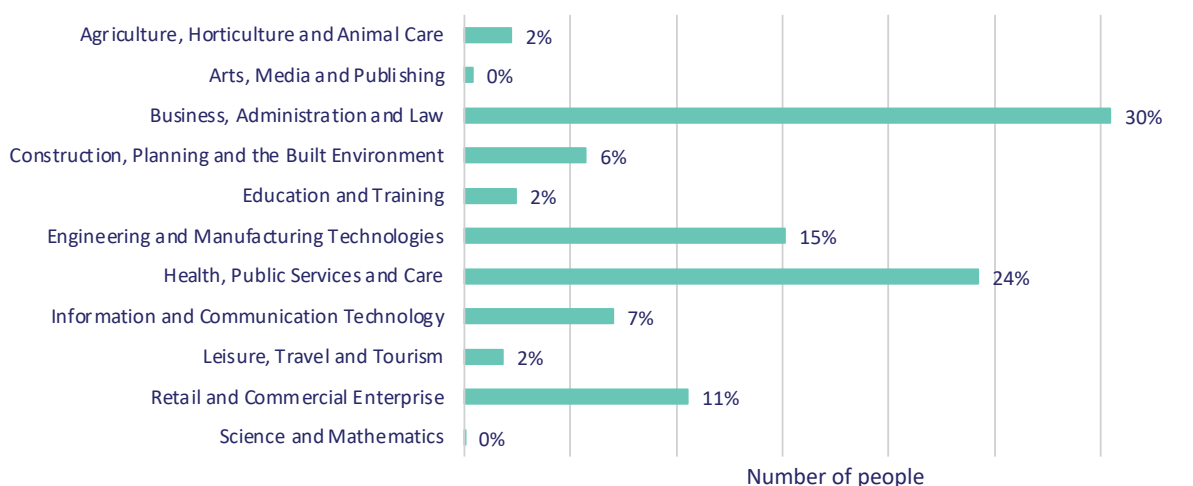
Apprenticeship Achievements

Apprenticeship achievements by sector subject area, 2020/21 - Oxfordshire



Source: Apprenticeships data, DfE (published 2021), 2020 SAP boundaries

Apprenticeship achievements by sector subject area, 2020/21 - England



Source: Apprenticeships data, DfE (published 2021), 2020 SAP boundaries

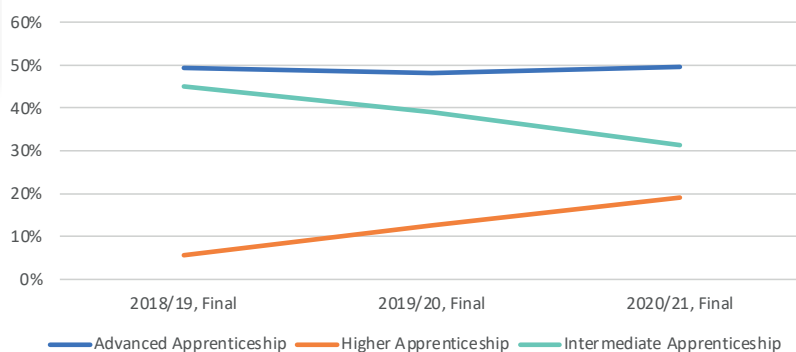
In common with the rest of the country, the number of Apprenticeships starts has declined over the last four years (see Annex B), with 22% less Apprenticeships started in 2020/21 compared to 2016/17. This must be seen in the context of poor national performance, with the introduction of the Apprenticeship Levy dampening employer demand for Apprenticeships.

After a fall in achievements in 2019/20, likely, at least partly, due to COVID-19 pandemic restrictions, the final achievements for 2020/21 have risen by 20% back to a similar level

of pre-COVID-19 pandemic achievements seen in 2018/19. This is a greater recovery rate than seen nationally where numbers of achievements have increased by only 6.5% since last year.

In 2020/21, Apprenticeship Achievements at Intermediate Level have fallen by 14% from pre-COVID-19 pandemic levels (2018/19) whilst Higher Apprenticeship Achievements increased by 13% in the same period. Higher level Apprenticeship were the only level to consistently increase throughout the COVID-19 pandemic.

Oxfordshire Apprenticeship Final Achievements by Level 2018/19 to 2020/21



Source: Apprenticeships data, DfE (published 2021), 2020 SAP boundaries

Falling Apprenticeship Starts

OxLEP led a City Deal funded 3-year Apprenticeship support programme which concluded in 2016/17 where Apprenticeship starts reached their highest numbers. The Apprenticeship Levy was introduced in 2017 and the fall in Apprenticeship starts can be noted from this point as has been seen nationally.

An increased take-up of vocational courses and Apprenticeships locally, particularly at higher levels, could do much to address technical skill shortages.³⁵

Analysis of Apprenticeship Achievements by Sector Subject:

Some of the area's economic specialisms are represented in the top Apprenticeship achievements over the last 3 years, demonstrating how these qualifications which provide more on the job training align with skills need. Oxfordshire's top Apprenticeship achievements are in:

- Business and Administration – increased the number of achievements by 43%, with most achievements in Administration and Business Management.
- Health, Public Services and Care – maintaining a steadily climbing (+6%) count of achievements with the most positive increases in Health and Social Care and Public Services.
- Engineering and Manufacturing Technology – but a falling number of achievements by -14% through the COVID-19 pandemic, across all tier 2 subject areas.

62% increases in ICT Practitioners and 26% increases in Building and Construction are welcomed as these also fit Oxfordshire's skills needs.

However, the area's broader Visitor Economy is not well represented given that the sector attracts 32 million visitors a year, generating £2.3billion into the local economy and supports 39,000 jobs locally. Over the last three years the

achievements in have decreased by -80% and Retail and Commercial Enterprise by -19%. Hospitality and Catering are down by a third, whilst Retailing and Wholesaling have increased.

There are minimal achievements in shortage skills of Nursing, Dentistry and Subjects Allied to Medicine, Warehousing and Distribution, Arts, Media and Publishing and low and falling numbers of achievements persist in Education and Training Apprenticeships (as they do in FE achievements) with most achievements in Direct Learning Support rather than Teaching and Lecturing. Science and Mathematics achievements are minimal. There are also minimal achievements in Law and Legal Service and Marketing and Sales.

Choice of Apprenticeship by Ethnic Minority Communities – National

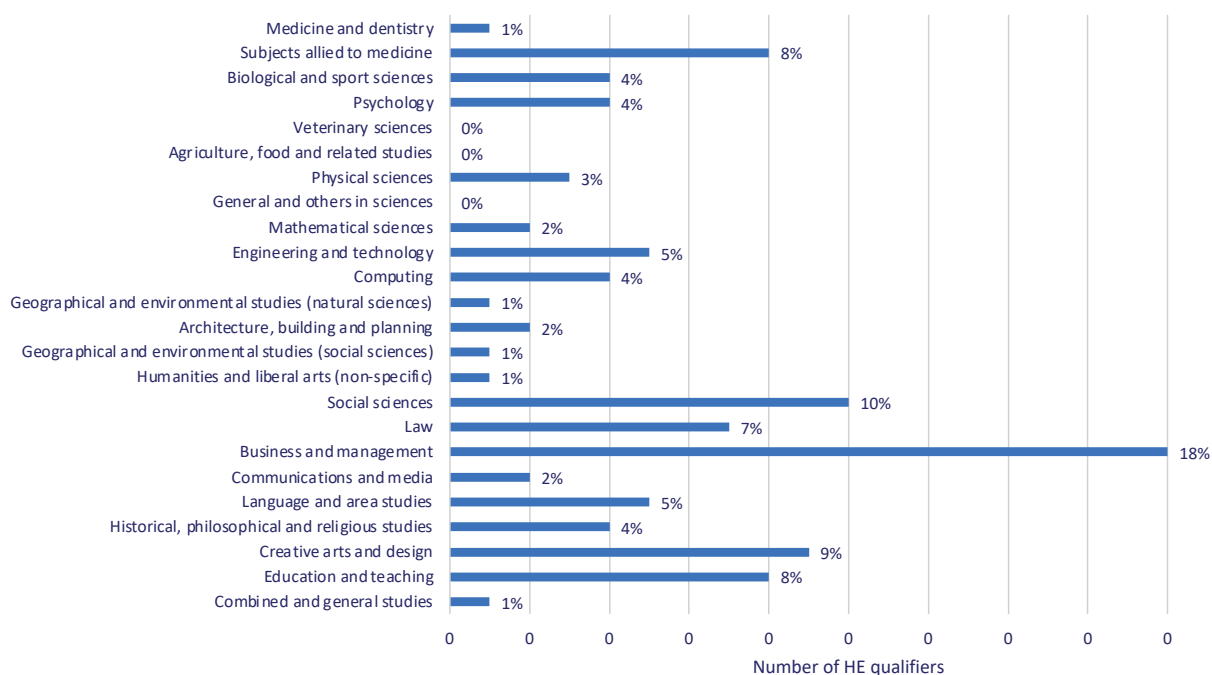
According to the DfE, just under a fifth of Apprenticeships achieved by Oxfordshire residents between August 2017 and January 2021, were by people from an ethnic minority background. White British Apprentices in England achieved across the most diverse set of sectors and were more likely to achieve Apprenticeships in Engineering and Manufacturing. Asian groups were more likely to achieve Apprenticeships in Business and Health. The Black African group was much more likely to achieve a Health Apprenticeship. Differences in Apprenticeship subject areas by broad ethnic groups in Oxfordshire largely reflect this national picture.³⁶

³⁵ Hatch Regeneris (2019)

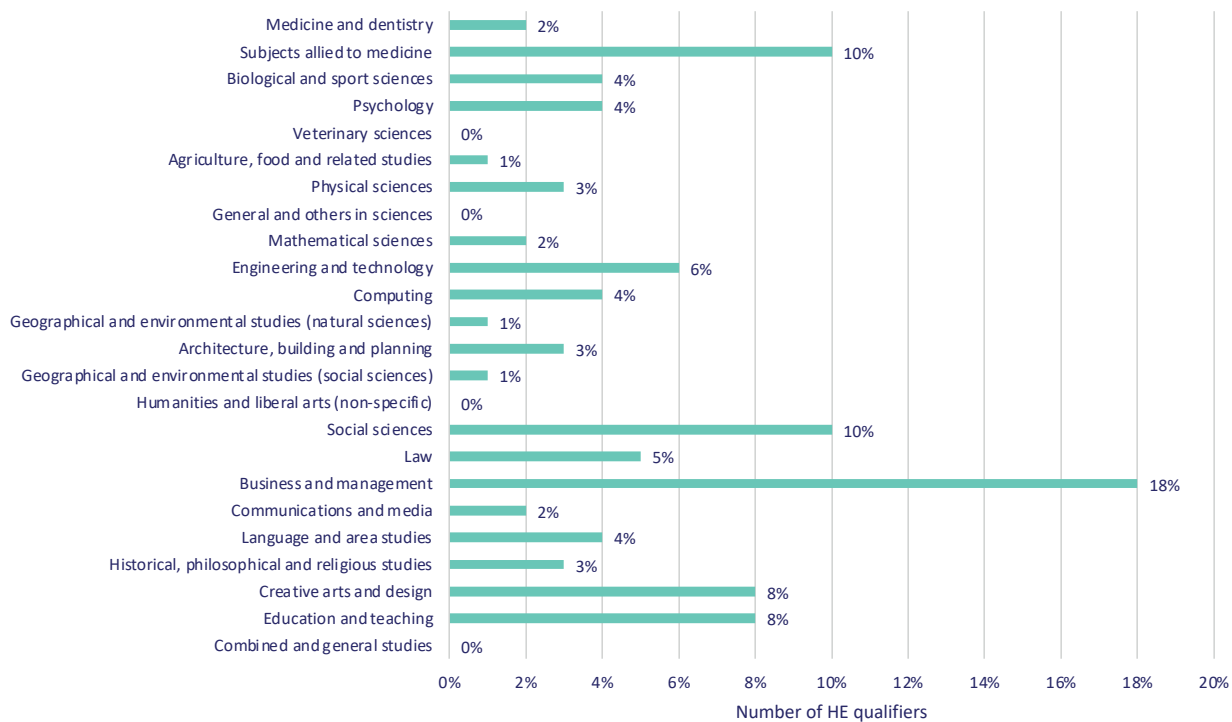
³⁶ OxLEP Skills, 2021

HE Qualifiers

HE qualifiers by sector subject area 2019/20 (Oxfordshire)



HE qualifiers by sector subject area 2019/20 (England)



Source: HESA, 2019/20 qualifiers (published 2021), 2020 SAP boundaries

HE qualifiers have previously aligned well with the economic specialism of the area. The most prominent change in qualifiers in 2019/20 was the increase in Business and Management of 5% from 2018/19, bringing this more in line with national qualifiers (18%). This fits well with the county's high levels of SMEs and start-ups. Creative Arts and Design subjects have also grown by 5%, perhaps linked to the area's increasing presence of Creative industries.

Disappointingly however, despite the prominence of Oxfordshire in Subjects Allied to Medicine, particularly highlighted throughout the COVID-19 pandemic with involvement and leadership in COVID-19 pandemic vaccination development and delivery, there has been a fall of -2% in this subject, and similarly within the Sciences; Biological Sciences has fallen by -3%; Physical Sciences by -3%; and Mathematical Sciences by -1%, despite the counties leading role in these sectors. Languages have also fallen by -4%, despite the county's global presence.

Business Support and growth alongside STEM subjects, particularly Medicine, Biological, Physical and Mathematical Science will support the development of our fast growing, internationally recognised specialisms and the research and development strength of Oxfordshire.

Historical and Philosophical Studies are historical specialist subjects for Oxford University but qualifiers in these subjects have fallen by a substantial -6% in this last year (2018/19 to 2019/20).

The picture in Oxfordshire is now a much closer reflection of national qualifiers and aligns even more closely to our area's specialist and world-renowned innovation sectors but we need to ensure falls in STEM subjects are monitored carefully to ensure we can meet employer needs.

Graduate outcomes data shows differences in higher education subject preferences between ethnic groups. A higher proportion of Asian students studied Computing subjects, Black

students were more likely to study Subjects Allied to Medicine (includes Nursing and Midwifery courses), Both White and Mixed ethnicity students from Oxfordshire were more likely to study subjects traditionally considered 'Humanities'.

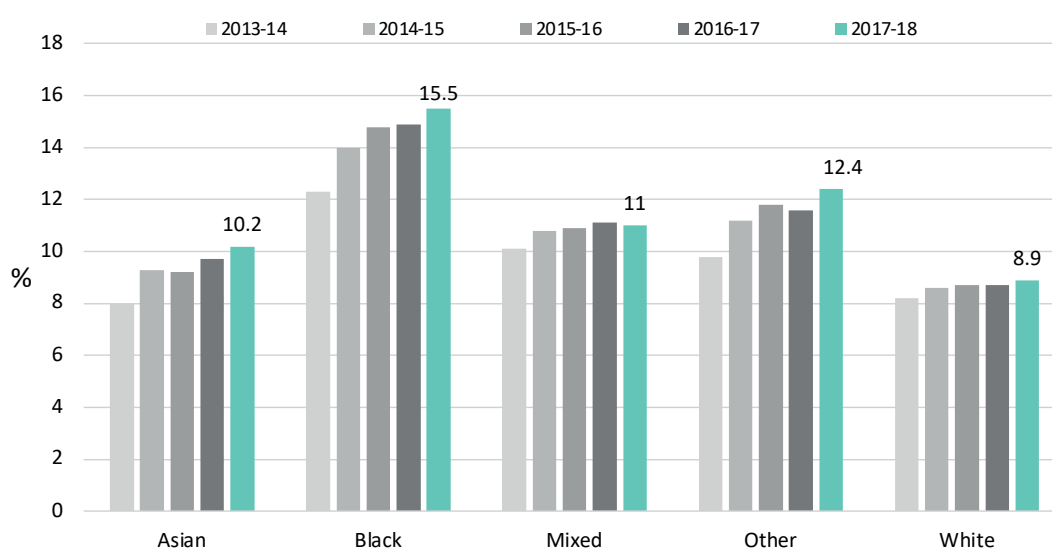
Source: OxLEP Skills, Skills, employment and enterprise of Oxfordshire's ethnic minority communities Report, November 2021

Top 5 higher education subjects

	Top 5 subjects (Oxon)	Ox%	Eng%
Asian	subjects allied to medicine	19%	14%
	business and management	13%	17%
	social sciences	10%	9%
	computing	7%	6%
	biological and sport sciences	6%	5%
Black	subjects allied to medicine	32%	21%
	business and management	17%	17%
	social sciences	14%	15%
	law	7%	5%
	biological and sport sciences	7%	4%
Mixed	social sciences	17%	11%
	subjects allied to medicine	11%	9%
	creative arts and design	11%	10%
	business and management	10%	10%
	historical, philosophical and religious studies	7%	4%
White	subjects allied to medicine	11%	12%
	social sciences	10%	9%
	business and management	9%	9%
	creative arts and design	8%	9%
	education and teaching	8%	10%

Source: Higher Education Statistics Agency (HESA), Graduate Outcomes Survey of students from the 2018/19 academic year, completed responses. If a student studies multiple subjects in their higher education course, they are counted as a proportion against each subject. Total counts of students per subject may therefore not be whole numbers, and represent full person equivalent totals.

Non-continuation rates of full-time (or apprenticeship) UK - domiciled undergraduate entrants to English higher education providers by broad ethnicity



Source: OxLEP Skills, Skills, employment and enterprise of Oxfordshire's ethnic minority communities Key Findings, November 2021 – Office for Students (2020), 'Access and continuation data by ethnicity, provider tariff group and subject group', Table 2. Data only available for broad ethnic groups. Excluding those whose ethnicity is unknown. Available at: <https://www.officeforstudents.org.uk>

National analysis shows that non-White students were more likely than White students to drop out of higher education. In 2017-18 Black students had a non-continuation rate of 15.5% compared with 8.9% for White students.

Both the local universities play a key role in the areas specialist sectors. For example, at University of Oxford over 200 academic groups are involved in energy research linked to the aspirational low carbon, green activities of the area. Creating the next generation of talent is not the preserve of the engineering or the materials sciences departments, it is distributed throughout the university and across faculties. The MSc in Energy Systems is an exemplar of this approach – a cross-disciplinary course which draws together science and social science to explore all aspects of making energy, the market, regulation and policy fit for a net zero

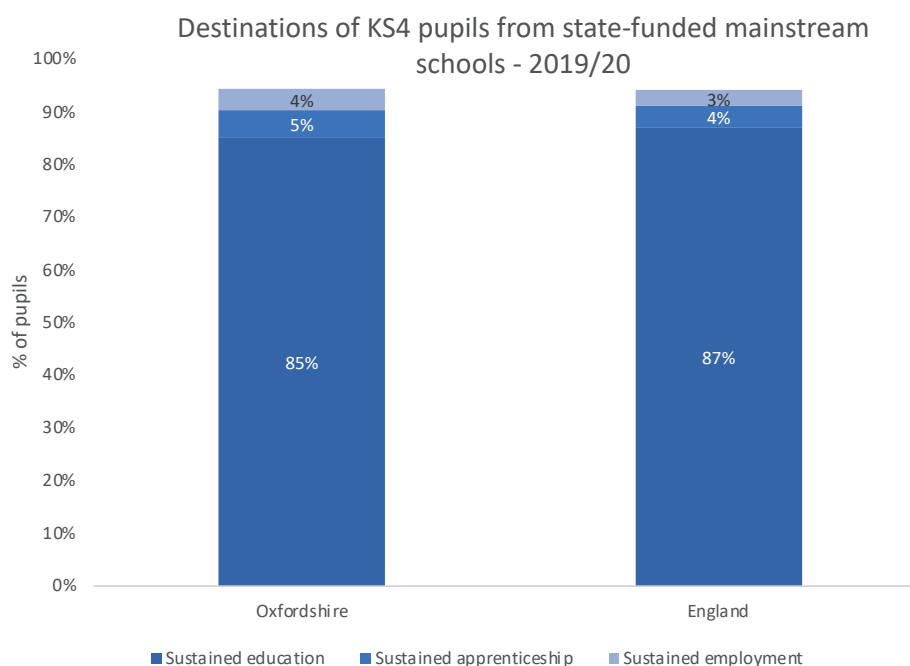
future. Oxford Brookes University has deep technical expertise in materials technology development, both for buildings and vehicles, bringing together large cross disciplinary teams comprising engineering, architecture, industry-facing scientific research, and product innovation.

When surveyed, employers involved in businesses associated with net carbon growth and development identified Skills as the second most important issue to enabling growth. While access to skilled employees scored highly, and was an issue identified through interviews conducted as part of this project, Apprenticeships was not identified once by any respondent. The value of technical qualifications and academic degree qualifications may not be seen as equal by employers. Stronger employer engagement in the development of new T-Levels and Apprenticeships could help raise this view.

³⁷ Continuation rate: the proportion of students that were continuing in higher education study, not necessarily on the same course or at the same provider or had qualified one year and 14 days after starting their course. Non-continuation rate: Any student not identified as continuing, as defined above.

³⁸ Advanced Oxford (2020)

KS4 destinations



Source: KS4 & KS5 destinations of 2017/19 leavers, DfE, (published 2019), 2020 SAP boundaries

94% of Oxfordshire's KS4 leavers remain in education, employment and training (EET) as per the national picture. The percentage of KS4 leavers who transition into further sustained education has risen by 1% (85%) whilst the percentage moving into sustained employment has fallen by 1%. 4% (down 1%) now move directly into employment, now just 1% greater than nationally.

2020 school leavers experienced a lack of formal careers guidance around the end of their school careers and whilst transitioning into their next destinations. Year 11 study was disrupted through COVID-19 pandemic restrictions and there was a focus on core curriculum delivery. Students missed access to softer employability skills development and extra-curricular activities such as employer engagement and work experience opportunities. Some school leavers now lack confidence, motivation and are anxious about their futures, particularly as competition for employment and Apprenticeships increases. COVID-19 pandemic has led to greater

numbers of NEETs (not in Education, Employment or Training) as well as a lack of flexible provision start dates and appropriate offers of EET learning.

Unemployment increases amongst 16-24 age band nationally between March and September 2020 rose by 71.2% whilst Oxfordshire saw levels rise by 103% by October 2020. In 16-19 young people unemployment rose by 120.4%. By August 2021 there were 16% of Universal Credit claimants who were in the 16-24 age band and consistently declining as COVID-19 pandemic recovery began to take shape.

During the COVID-19 pandemic, by November 2020 Oxfordshire OCC EET Team were seeing 24% increase in open casework for NEETs compared to 2019 and 47% of those open cases were Year 11 leavers from 2020. The longer young people remain NEET, the more disengaged and unmotivated they become, leading to further mental health issues, increased offending behaviour, social isolation, debt, and housing issues. Current Year 11

students need focussed careers support and tight transitions, flexibility is required and school leadership buy-in to careers support and transition as a key priority. Growth and flexibility of post 16 EET opportunities at varying levels is paramount in meeting the growing demand, such as earlier preventative options, funding to support EET, better use of Labour Market Information in careers advice and guidance.

In 2021 NEETs increased to 2.1% from 1.3% in 2019 in comparison to nationally where an estimated 10.1% of all people aged 16 to 24 years were not in education, employment or training (NEET). Early signs for this academic year indicate that NEET figures have improved in comparison to last year, however we are still awaiting destinations particularly of our year 13 cohort.

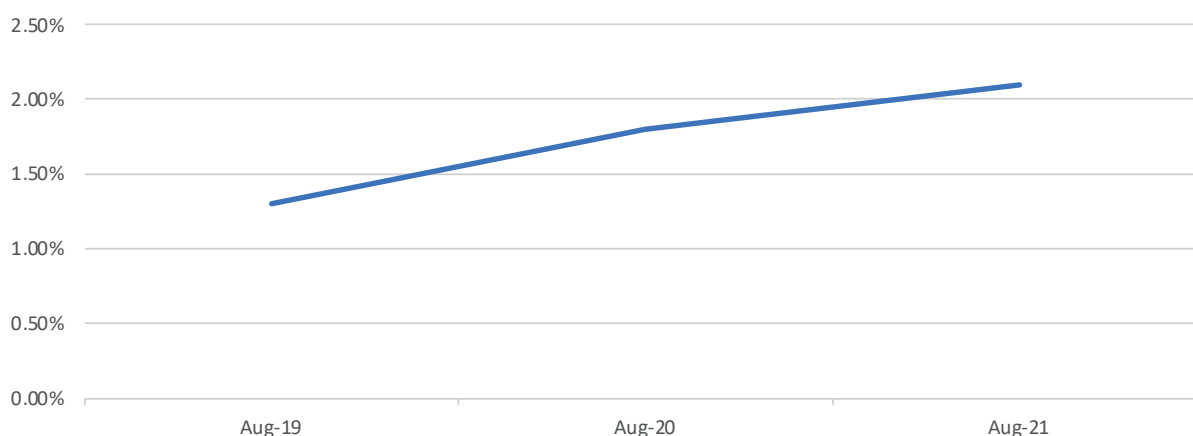
Increased numbers in elective home education continue to impact our not known figure and hardest to track. Of our year 12 not known, 80% are those who were educated at home in year 11.

We have seen an increase in NEET (Not ready for EET) with parents/carers declaring situations such as anxiety; awaiting a CAMHS assessment; their child wanting full online learning only/reduced study time due to mental health concerns.

There has been a 10% increase in casework referrals for Year 11 leavers 2020/21 compared to 2019/20 ³⁹.

Oxfordshire has the highest levels of service children in primary and secondary schools (3055 children across 200 schools) compared to eight other regions in the South East. There are substantially high average numbers of Service children per school with these school's averaging 15 Service children each. Many Service children are still disadvantaged in their access to and experiences through education because of a parent serving in the Armed Forces. According to Study Higher, service children are less likely to go on to HE.

% NEET National Curriculum Y12-13

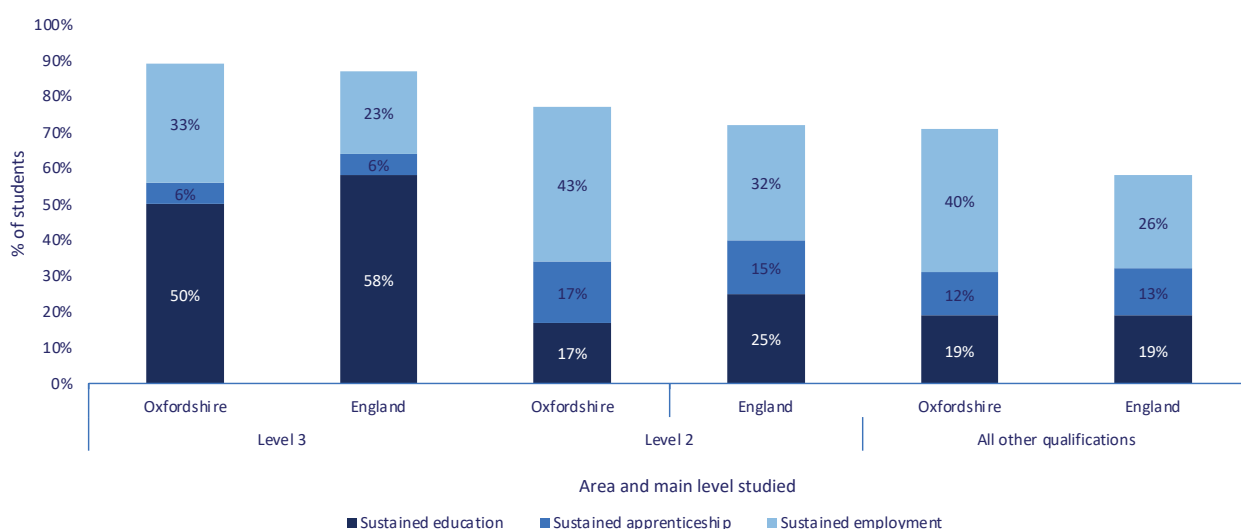


Source: Oxfordshire County Council, EET Casework Team (2020)

³⁹ Oxfordshire County Council, EET Casework Team (2020)

KS5 (16-18) destinations

Destinations after 16-18 by main level studied (state-funded mainstream schools and colleges), 2018/19



Source: 16-18 Destination Measures, DfE, 2018/19 (published 2020), 2020 SAP boundaries

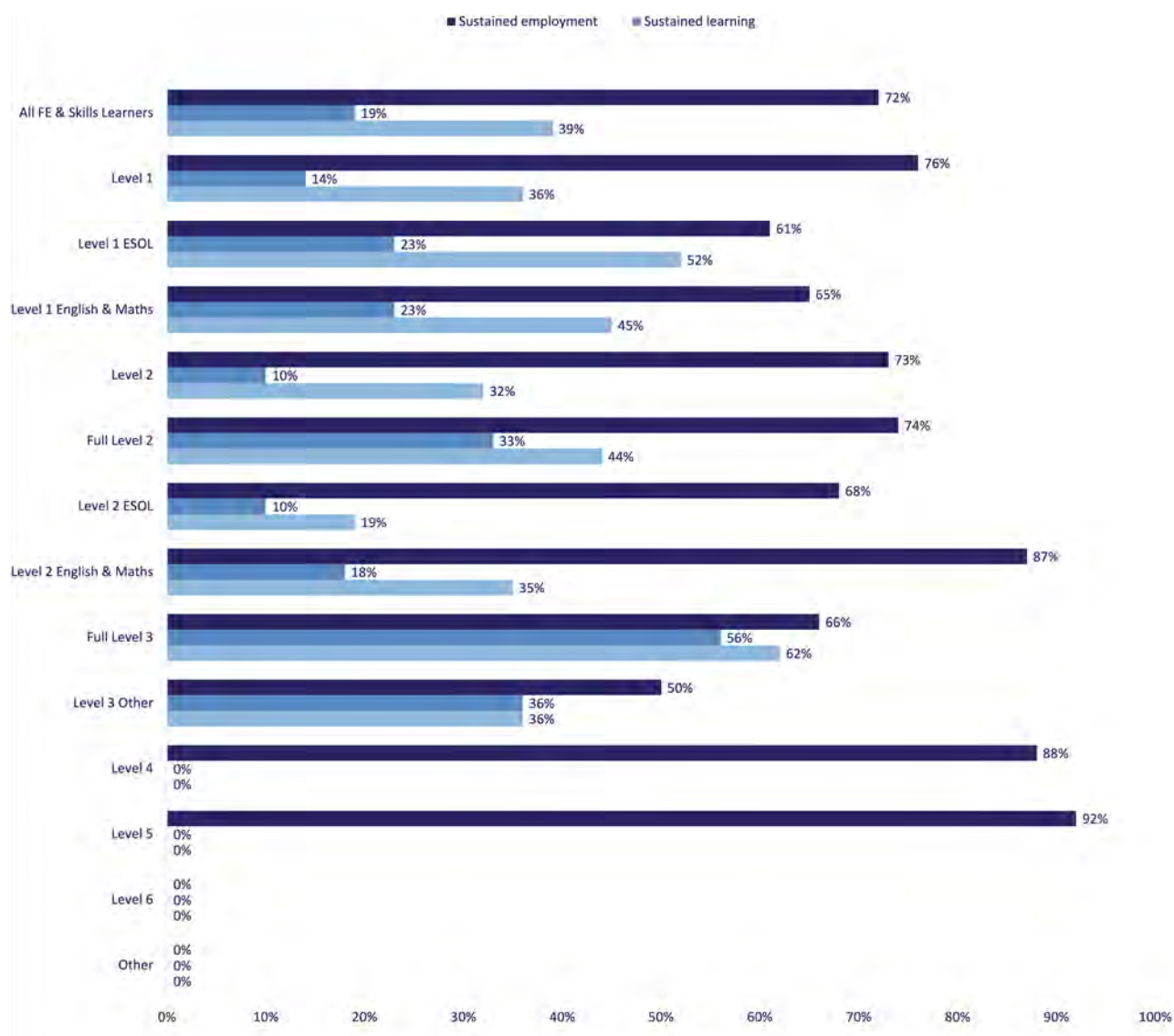
89% of KS5 students will become EET after studying at Level 3 in Oxfordshire. 2% more than nationally. The majority of these students enter further sustained education (50%). This is substantially lower than seen nationally (58%). However, the remainder don't all become NEET, as a much larger proportion go on to sustained employment (33%) than nationally (23%).

After studying at Level 2 (these qualifications are mainly Apprenticeship, national certificate and awards, NVQs – often more practical than academic in design) the majority go on to sustained employment (43%) in increasingly much larger proportions than nationally (32%) or a further sustained Apprenticeship (17%). Sustained Apprenticeship destinations have

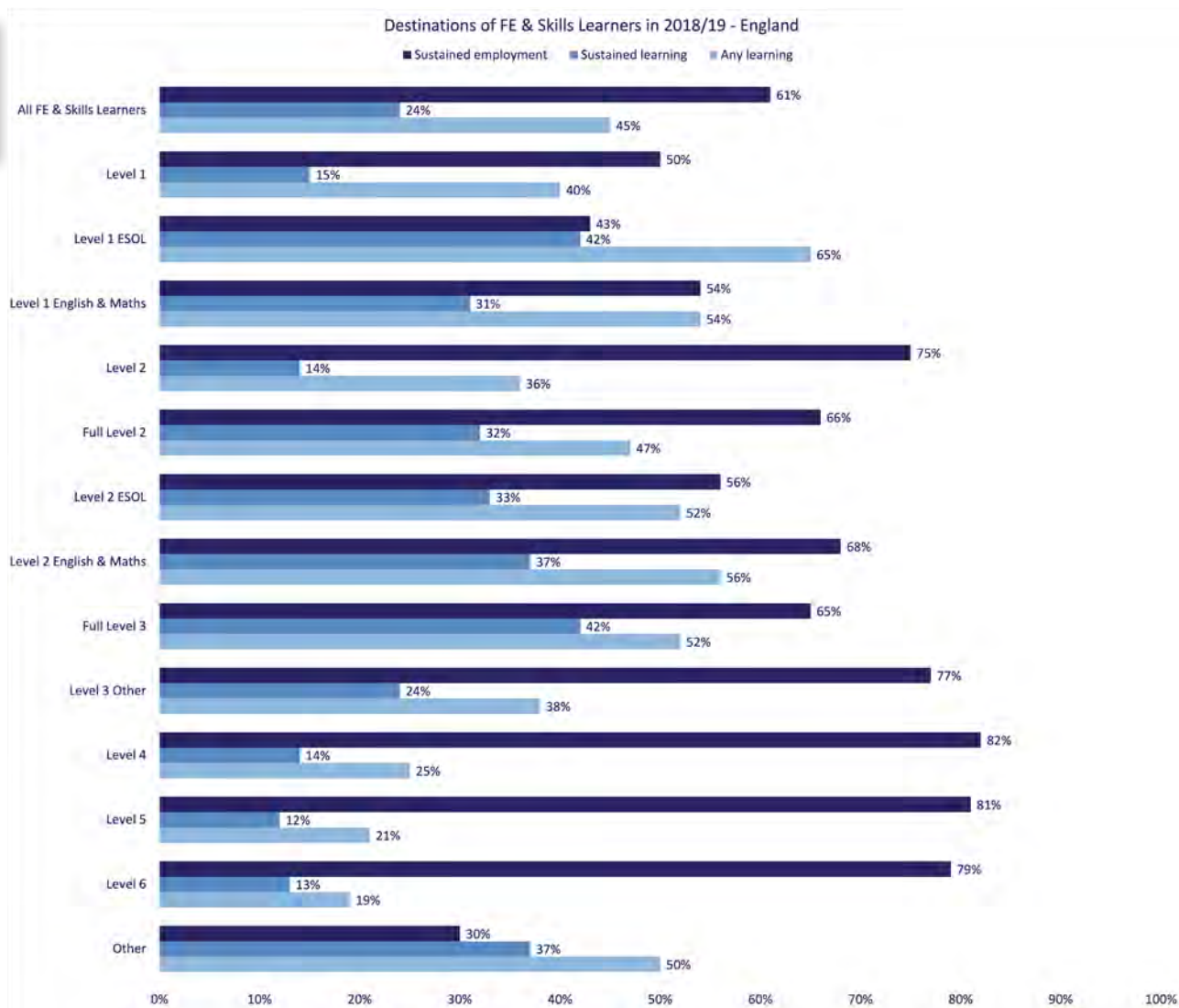
risen by 5% since last year. Corresponding with national destination data (15%) for those having studied at this level, but now only 17% (last year 25%) continued into sustained education. The impact of the COVID-19 pandemic is likely to have changed this with local knowledge from the local EET (Employment, Education and Training Team) showing more young people remaining in education after a year of impacted education because of COVID-19 pandemic restrictions.

Those who have studied all other qualifications are also more likely to move into sustained employment (40%) than in other areas of England (26%). Around a third of these students will move into either sustained education or an Apprenticeship.

FE and skills destinations



Source: FE outcome based success measures, 2018/19 destinations, DfE, (published 2020), 2018 LEP boundaries



Source: FE outcome based success measures, 2018/19 destinations, DfE, (published 2020), 2018 LEP boundaries

In Oxfordshire Adult learners are moving directly into sustained employment at much higher proportions (72%) than nationally (61%), and less continue into further sustained learning/any learning up to Level 3. In previous year's data, Traineeships achieve substantially more movement into sustained employment than other areas (no data provided for Traineeships for Oxfordshire in this dataset).

At Full Level 3 much greater transition into learning is achieved (56% sustained learning

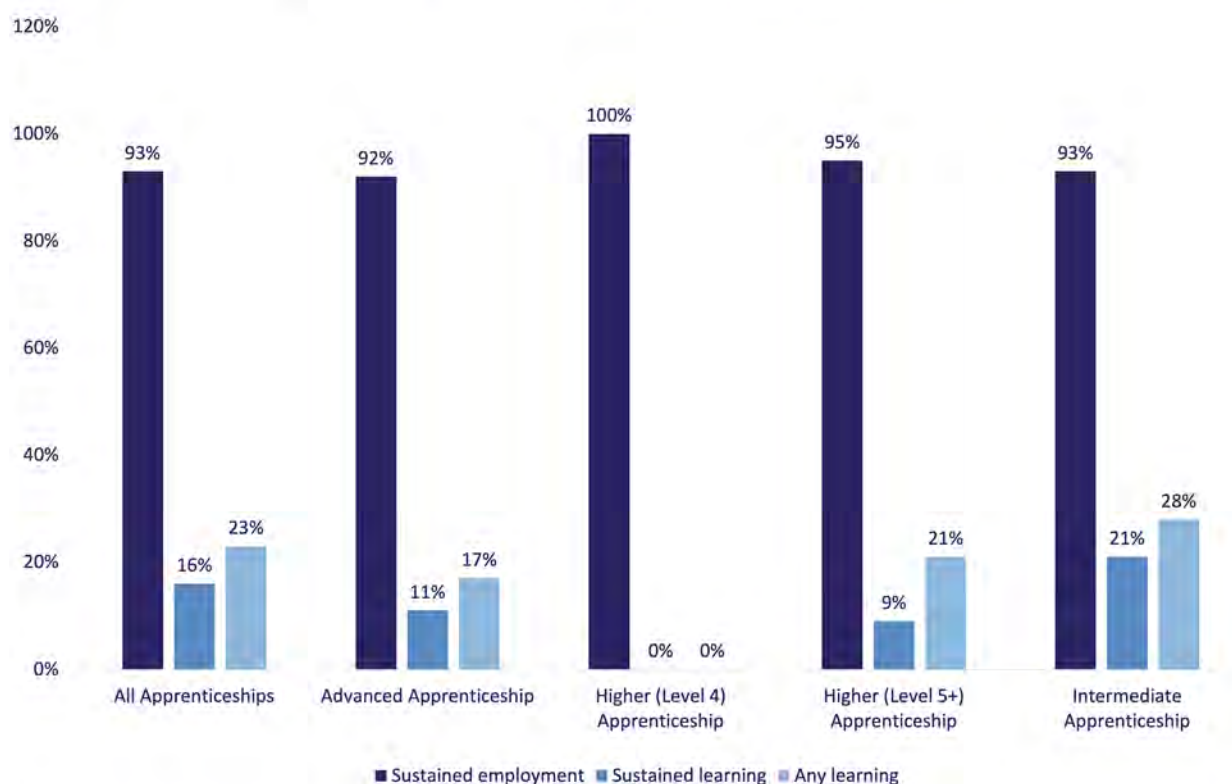
and 62% any learning) as compared to nationally (42% and 52%).

With specific qualification types such as Level 1 and 2 ESOL much higher numbers, 61% and 68% respectively, transition into sustained employment than learning compared to 43% and 56% nationally, whilst lower numbers continue into further learning.

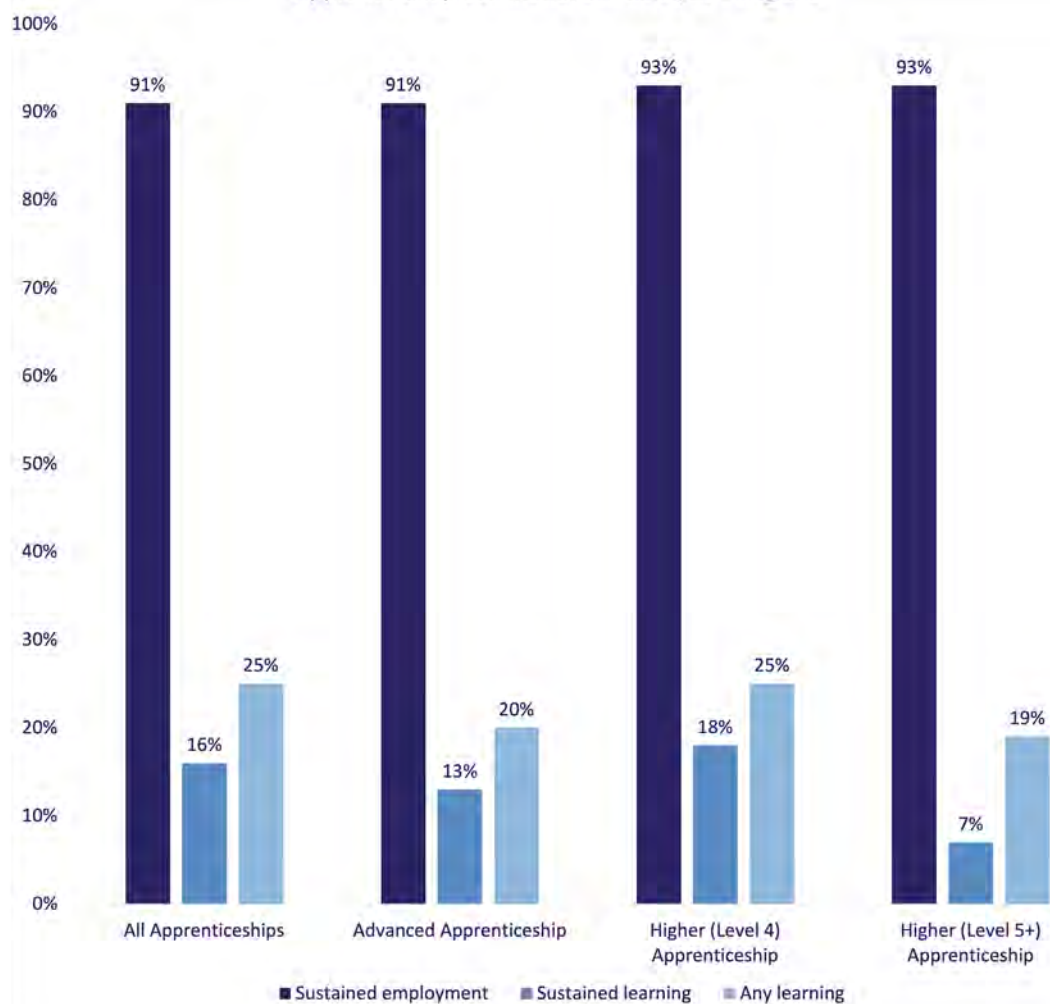
NB. No data is provided at Level 4+ and Not assigned for Oxfordshire in the dataset.

Apprenticeship destinations

Apprenticeship destinations in 2018/19 - Oxfordshire LEP



Apprenticeship destinations in 2018/19 - England



Source: FE outcome based success measures, 2018/19 destinations, DfE, (published 2020), 2018 LEP boundaries

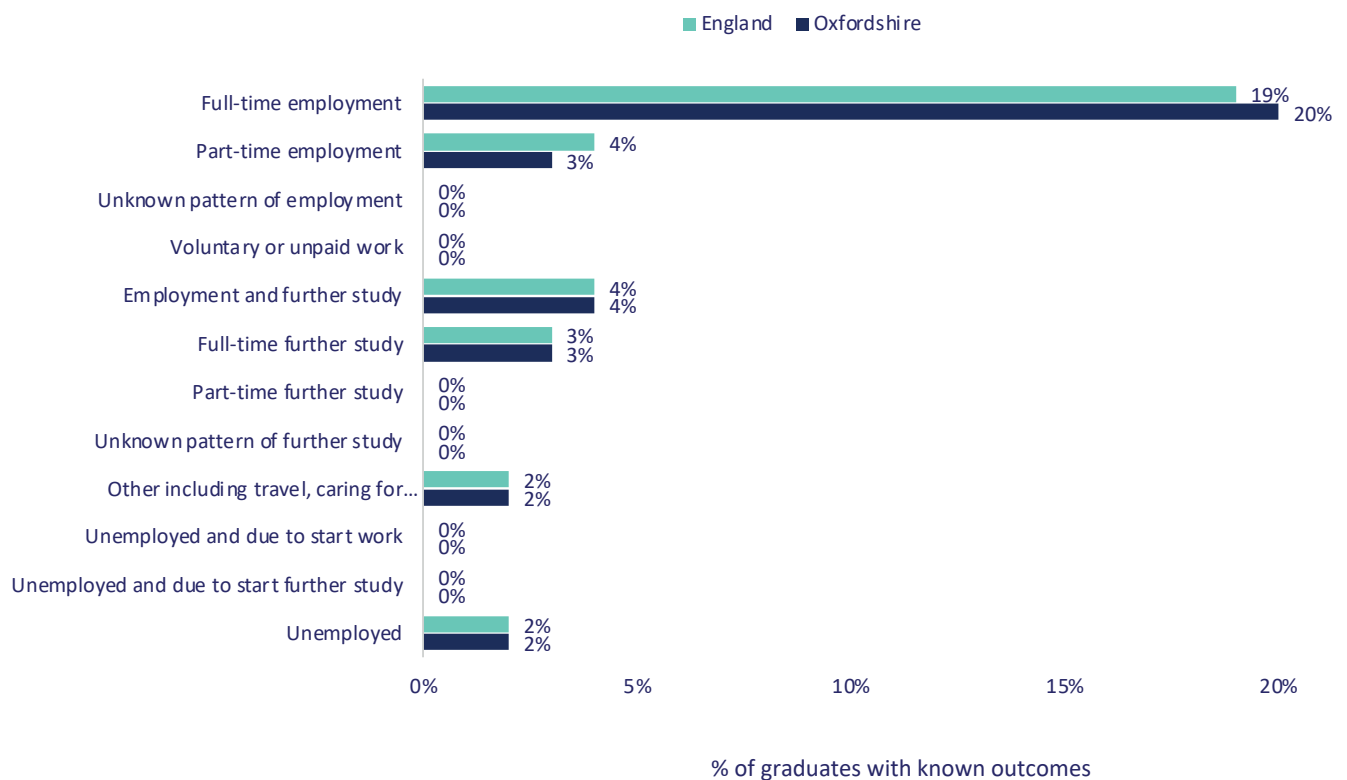
Increasingly Apprentices in Oxfordshire transition to sustained employment (93%) mirroring the national picture at all Levels of Apprenticeship. In 2018/19 Higher (level 4+) Apprenticeship courses lead to 100% sustained employment in Oxfordshire, a rise of 11% on the previous year and substantially higher than nationally.

There are slightly fewer Apprentices moving into further learning than nationally at

Advanced level. This is most likely because of the higher skill level required in many of the jobs. Specialist skills are currently a challenge for employers in Oxfordshire. Apprentices at this level in a tight labour market will not remain on the job market for long, preferring to earn whilst continuing to learn on the job rather than continue in learning. Work readiness is the only reported skills gap in the area.

HE Graduate Destinations

Graduate destinations for 2018/19 academic year



Source: HESA, 2018/19 graduates (published 2021), 2020 SAP boundaries

Graduates who have studied at Oxfordshire Universities mainly find full-time (60%) or part-time (8%) employment, are due to start work (1%) or are in voluntary or unpaid work (2%), assimilating what happens in the rest of England. Only 2% are unemployed following graduation, below the 4% seen nationally. A small group will transition into other activities

such as travel or caring for someone and concurs with other graduates across England. More graduates move into further full-time study than nationally. This is likely linked to the strong research and development capacity of the Universities and the economic specialisms of the area.

Top 5 occupations after graduation

	Top 5 occupations (Oxon)	Ox%	Eng%
Asian	Health professionals	23%	18%
	Science, research, engineering and technology professionals	17%	12%
	Business, media and public service professionals	12%	14%
	Sales occupations	9%	7%
	Business and public service associate professionals	6%	8%
Black	Health professionals	31%	20%
	Business, media and public service professionals	10%	12%
	Science, research, engineering and technology professionals	9%	8%
	Administrative occupations	8%	5%
	Health and social care associate professionals	8%	5%

	Top 5 occupations (Oxon)	Ox%	Eng%
Mixed	Teaching and other educational professionals	13%	11%
	Business and public service associate professionals	13%	10%
	Business, media and public service professionals	12%	13%
	Science, research, engineering and technology professionals	11%	11%
	Health professionals	11%	11%
White	Health professionals	13%	14%
	Science, research, engineering and technology professionals	13%	12%
	Business, media and public service professionals	13%	12%
	Teaching and other educational professionals	11%	13%
	Business and public service associate professionals	11%	9%

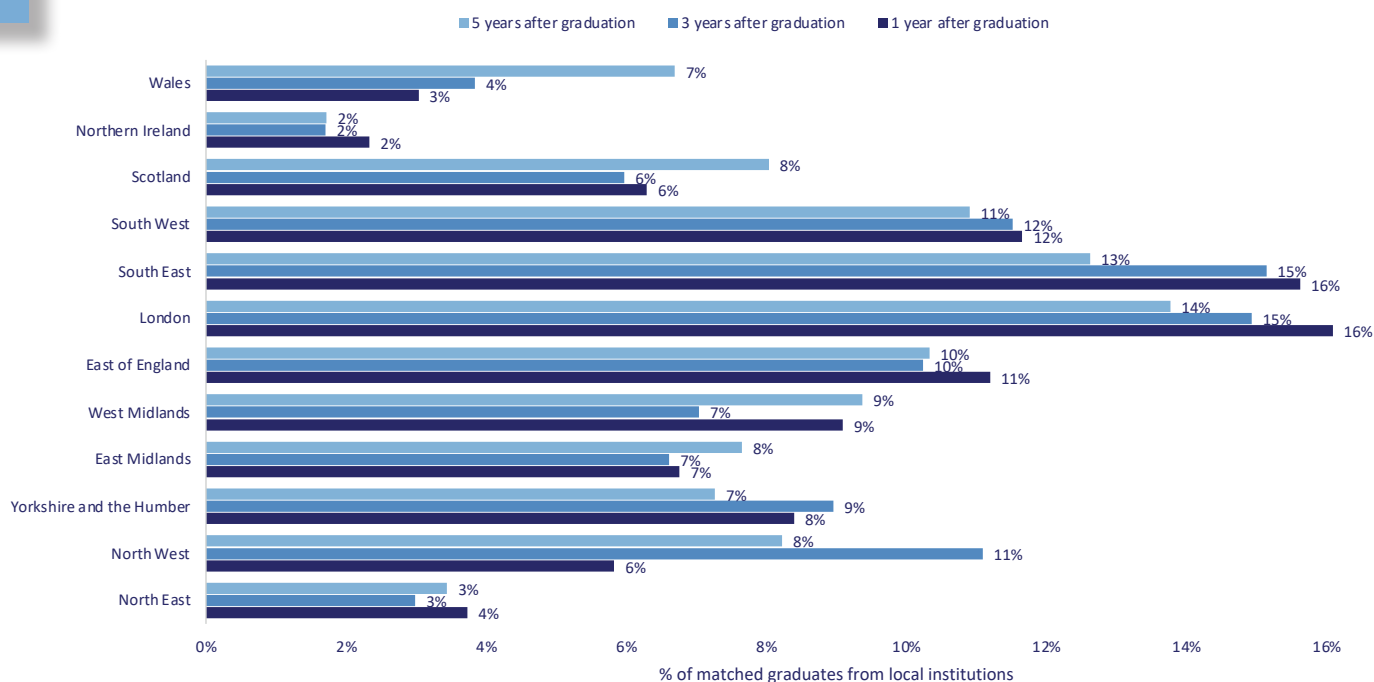
Source: Higher Education Statistics Agency (HESA), Graduate Outcomes Survey of students from the 2018/19 academic year, completed responses

Graduate outcomes data shows differences between ethnic groups in choice of occupation after graduation. The Asian and Black groups were each much more likely to become health professionals in Oxfordshire than nationally.

The Mixed group was more likely to go into Teaching/Education. Unlike other groups, the Asian group included Sales in the top 5 occupations.

Graduate retention

Current region of residence of graduates from HEIs in Oxfordshire, 2018/19
(Year of Graduation 2012/13)



Source: Graduate Outcomes in 2018/19, DfE, (published 2021), 2020 SAP boundaries

The region is home to two renowned universities, and it is recognised that graduate retention and nurturing this supply of talent is key to future growth for the wider ecosystem. Across both universities the graduate retention rate is around 23% - placing the area in the mid quartile nationally, but behind other locations across the UK and internationally. Whilst access to high value employment is a key driver in retaining talent locally, proximity to London and higher salaries and the cost of housing are key challenges impacting improved graduate retention.

Graduates from the University of Oxford undertake a range of activities, with many continuing to stay in academia and full-time education.

The five-year picture of movement for graduates from the Oxford universities revealed that out of those who left in 2011/12, 36% remained resident in the area one year after graduation with a further quarter having moved to London. Very small proportions of graduates moved to the North East region, Scotland, Northern Island and Wales. The majority of graduates could be found residing south of the West Midlands. The most popular

destinations for students included London, Oxford and the M4 corridor.⁴⁰ There was then a strong trend for movement from the South East to London after the first year after graduation and over the course of 5 years.

However, in comparison, the most recent data for graduates leaving the universities in 2012/13 reveals a changing pattern of movement with larger initial movement away from the local area and more to the northern regions. In the first year after graduation only 13% of graduates leaving Oxford universities remain in the South East region. A further 14% move immediately to London, over a third move to neighbouring regions and the final third migrate to other countries of the UK or the Northern regions of England. After three years, the same proportion of the graduates are living in the South East (15%) or London (15%) and more have moved towards the north of the country. However, after five years, 27% are resident in the South East and London. Only 18% remain in the north of the country and 11% remain in other nations of the UK outside of England.

The unaffordability of housing in Oxfordshire, particularly in an area with a high number of

⁴⁰ Hatch Regeneris (2019)

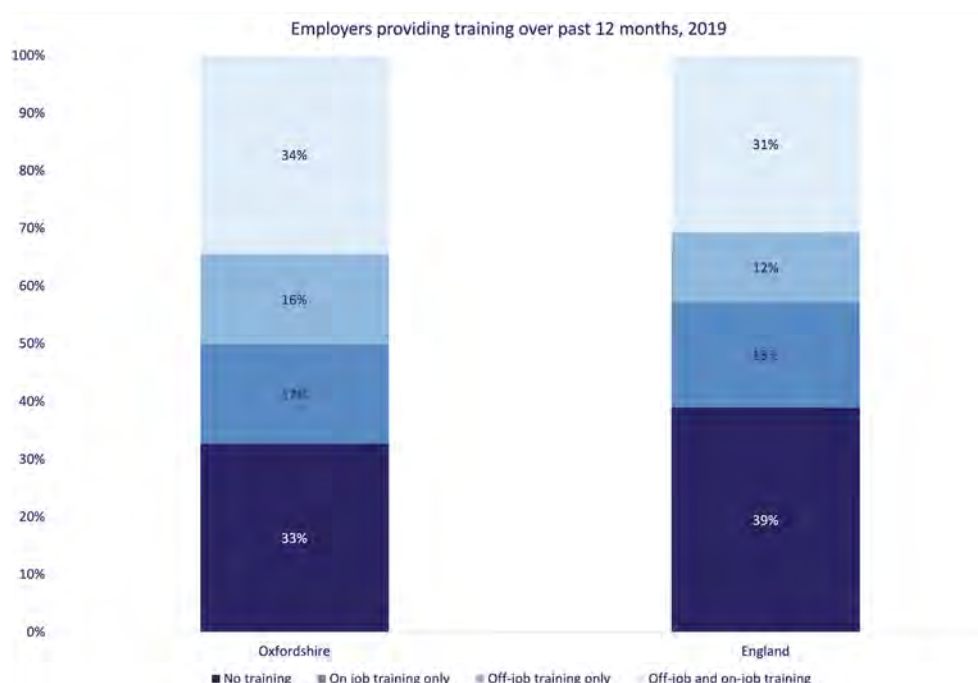
graduates, presents challenges in retaining those graduating from local further and higher education institutions. There are ambitions to deliver 100,000 new homes across Oxfordshire by 2031 as part of the Oxfordshire Housing and Growth Deal, agreed with government in 2017.

Oxfordshire's ageing population and the population decline of those aged between 16 and 49 should be a concern, particularly if Oxfordshire is going to continue supplying the labour force demanded by employers into the future. Relative to the rest of the Arc and

nationally, Oxfordshire is falling behind its competitors. Encouraging more young people to move to and stay in Oxfordshire is important to ensuring a strong supply of labour for the future.

Retaining graduates will be key to this, especially given the strong academic qualifications many of them have obtained and the connections they have made in the area. Having an attractive offer to encourage young people to stay, including affordable houses and graduate-level jobs will be key to achieving this.⁴¹

Employer provided training



Source: Employer Skills Survey, 2019 (published 2020), 2019 LEP boundaries

Over two thirds of Oxfordshire employers provided training over the last 12 months and above that provided nationally. Over a third provided a combination of off-job and on-job training. Employers in the area provide more training than other employers in England with just over one third of employers providing no training at all.

In 2017 around 80% of local employers surveyed had mainly provided up to 10 training days with most providing 3 and 4 days in 12 months. This training was rarely provided to more than 70% of staff, with most employers

providing training for between 20% and 70% of staff.⁴²

There must be continued encouragement for employers to invest in training at all levels: to promote training opportunities to employers to increase the number of workforce training days, particularly as training budgets are restricted due to ongoing economic uncertainty in the wider economy. This could include improved signposting to funding sources and relevant training courses, and support for businesses looking to unlock and share the Apprenticeship Levy locally.⁴³

⁴¹ Hatch Regeneris (2019)

⁴² ONS, Employer Skills Survey (2017)/ (Hatch Regeneris (2019) Evidence Pack slide 43)

⁴³ Hatch Regeneris (2019)

Skills Demand

Skills Demand – Summary

- There is high and growing demand for STEM and professional and technical skills to meet the needs of the areas specialist innovation sectors.
- Oxfordshire has a tight labour market - Job postings are returned above pre-COVID-19 pandemic levels and there are challenges meeting this demand despite a similar level of universal credit claimants to vacancies.
- Highest levels of current vacancies are posted as located in Oxford City or Cherwell.
- Shortages of labour for Health and Social Care, Visitor Economy, Local Logistics, Elementary occupations.
- Skills shortage in Health (specific Skilled Nurses), Programmers and Software Developers and Sales and Business Development Managers.
- A larger proportion of top posted occupations have been for low skilled or elementary positions.
- Apprenticeship vacancies have hit record highs in 2021, but many are difficult to fill, particularly in labour shortage sectors.
 - Apprenticeship vacancies at intermediate level are more popular for Personal Service sector roles such as Dental Health and Hairdressing
 - Higher level take-up is more popular in Professional and Technical roles such as IT and Digital Marketing.
- The area continues to demand management and director level professionals and candidates with a degree or higher qualifications and Level 4 qualifications.
- Employers say that they stay in Oxfordshire because they can build up a highly skilled workforce helped, but not reliant upon, proximity to Oxford's universities.
- High level and specialist skills can be more important than length of experience.

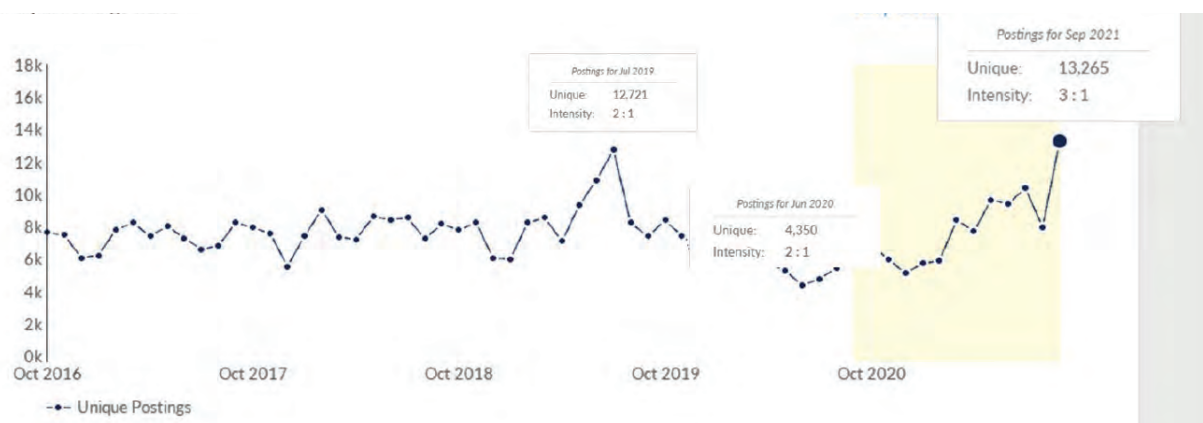
Top employers: Recruitment agencies have the highest job postings which include NHS and Oxford University followed by Value Retail Management (Bicester Village) Limited and Oxford Brookes University. Other top employers included large supermarket and hotel chains, care trusts and Oxfordshire County Council.

COVID-19 pandemic Impact and Recovery:

- Labour shortages have been amplified by settlement challenges resulting from the UK leaving the EU and the COVID-19 pandemic related travel restrictions.
- Oxfordshire's historically strong sectors (see Local Landscape Summary) have been hit less hard by turnover decreases because of COVID-19 pandemic so continued high skills demand.
- Longstanding labour shortages in Health and Social Care, Visitor Economy and Local Logistics have been amplified by COVID-19 pandemic.
- Pivoting skills demands because of COVID-19 pandemic - top skills demanded reflect those occupations most needed during COVID-19 pandemic recovery with finance auditing, accounting and warehousing high on the agenda alongside nursing. The need for employers to adjust and pivot their business models for growth or recovery linked to the COVID-19 pandemic is also reflected with business development, agile methodology, pharmaceuticals and mental health appearing frequently in posting requirements.
- A set of key enabling skills will continue to support economic recovery and continued growth and development:
 - AI and Big Data Skills
 - Business and Digital Skills
 - and Soft Skills

Online vacancies

Unique Postings Trend



Source: [Emsi-economicmodelling.co.uk](https://emsi-economicmodelling.co.uk) (2021)

Job postings reached a peak in Oxfordshire in July 2019 when, according to EMSI, there were just under 13,000 unique vacancy postings with a posting intensity of 2:1. Postings in the area generally fall in December and reach their height in July.

However, the impact of COVID-19 pandemic restrictions created a large slump in postings. They began falling in March 2020 at the start of lockdown to their lowest point in June 2020 when there 4350 unique postings. However, the number of postings has climbed again since June back to over 13,000, a similar level to those of reached in July 2019. This suggests a good deal of resilience in the area.

In the last 12 months nearly half of these vacancies are posted as Oxford location, however many jobs in Oxfordshire are sited as Oxford location as the central city for the area and as a highly attractive area to live and work.

Cherwell has the next highest level of postings with Banbury as the main location, as business growth, particularly on sites adjacent to the M40 continue. West Oxfordshire has the fewest vacancies.

According to the OxME website (Oxfordshire County Council EET Team) Apprenticeship vacancies are at record highs in Oxfordshire.⁴⁴

ESFA Advertised Apprenticeships in Oxfordshire

As at mid December 2021 there were 221 Apprenticeship adverts with 297 actual vacancies open. Data was unavailable during the main period of the COVID-19 pandemic March 2020 until August 2021.

In most Local Authority areas levels are similar to those advertised pre-COVID-19 pandemic. As at mid-June 2019 there were similarly 224 adverts for 285 actual vacancies.










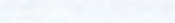



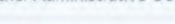






There are few or no applications for many of the vacancies, particularly in Hospitality, Food and Drink.

Most of the Apprentice vacancies at intermediate level receiving most applicants are Dental Nurses, Nursery Assistants, Hair Professionals, Butchery, Adult Care.

Most of the Apprentice vacancies at advanced, higher or degree level receiving most applicants are in Dental Nursing, IT, Digital Marketing, Business Admin/Business Analyst.

⁴⁴ Oxfordshire County Council, OxME, Live Apprenticeship Vacancy Numbers, January 2020 <https://oxme.info>

Top Posted Occupations

Occupation (SOC)	Total/Unique (Nov 2020 - Oct 2021)	Posting Intensity	Median Posting Duration
 Nurses	64,039 / 7,627	8 : 1 	39 days
 Programmers and Software Development Professionals	44,968 / 6,507	7 : 1 	37 days
 Sales Accounts and Business Development Managers	29,945 / 5,695	5 : 1 	33 days
 Care Workers and Home Carers	28,313 / 4,671	6 : 1 	37 days
 Van Drivers	21,517 / 4,120	5 : 1 	33 days
 Other Administrative Occupations n.e.c.	19,315 / 3,648	5 : 1 	28 days
 Elementary Storage Occupations	20,615 / 3,459	6 : 1 	31 days
 Chefs	18,087 / 3,217	6 : 1 	32 days
 Business and Financial Project Management Professionals	15,848 / 3,177	5 : 1 	31 days
 Cleaners and Domestics	14,692 / 2,998	5 : 1 	32 days

Source: Emsi - economicmodelling.co.uk (2021)

The top occupation postings in the last year (November 2020 to October 2021) have been for Nurses, Care Workers and Home Carers and Van Drivers as reported nationally because of COVID-19 pandemic challenges. These postings have been advertised widely (as high 8:1 posting intensity) and have a longer posting duration (up to 39 days) than the area's median duration (32/33 days). This suggests a shortage of labour and/or labour pool willingness to apply for vacancies in these occupations.

Employers looking for Programmers and Software Development Professionals, Sales Accounts and Business Development managers have similar challenges.

In the last 5 years to 2017/18 there was greatest demand in the Education, Professional, Scientific and Technical, Construction, Business Admin and Support and Health sectors and negative demand for Financial and Insurance, Public Admin and Defence and Arts and Other Services.⁴⁵

In line with national analysis (labour Insight) this year has seen changes to the top posted occupations to those need to fulfil local essential needs, such as Nurses, Care Workers and Home Carers, Van Drivers

and Elementary Storage occupations, Chefs, Cleaners and Domestics. These changes reflect the need for key workers and online shopping with local deliveries which have grown throughout the COVID-19 pandemic. A large proportion of top posted occupations this year have been for low skilled or elementary positions.

Job posting analytics demonstrate that employers mostly seek those with a degree or higher (Level 4+) qualifications. Experience between 0 and 5 years is more sought after than 6 years or more. With the local specialisms it is likely that recent training holds higher value than longer experience.⁴⁶

Employers say that they stay in Oxfordshire because they can build up a highly skilled workforce helped, but not reliant upon, proximity to Oxford's Universities. Some encourage university engineering students to take up year-long industrial placements as part of their course, as well as work in university holidays to gain experience-many of whom return to the placement company as full-time employees after finishing their degrees. Access to talent is a common issue for all companies within the region, including the large companies interviewed for this research, which voiced the need for talent and skills.

⁴⁵ Hatch Regeneris (2019)

⁴⁶ Hatch Regeneris (2019)

This issue was identified both as an enabler and a challenge across the study cohort and access to high level talent and skills was identified as a significant factor in retaining companies within the region. Access to skills draws companies to Oxfordshire and is one of the factors that will keep companies here. It would appear, based on the views of the companies within this cohort, that the need is for higher skilled talent and there was a call for greater access to engineering skills and software development skills. It is notable that the companies participating in this research have an international workforce and for some roles, the labour market is global. 2021 will

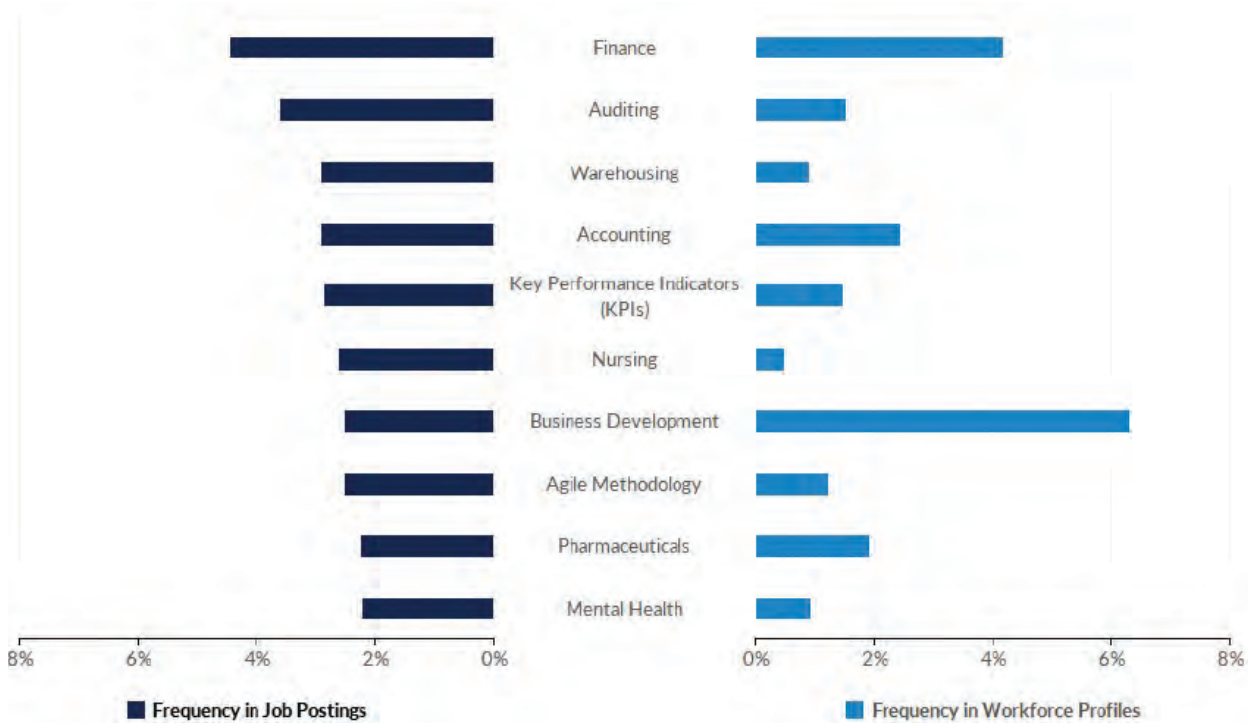
bring new systems for securing talent from outside the UK and new rules and obligations must work with companies and their need to secure skills and capability at pace.⁴⁷

Prior to COVID-19 pandemic job posting analytics highlighted that top skills clusters required were in basic customer service, General sales, Microsoft office and productivity tools, project and budget management. Top hard skills were heavily weighted in management, with communication, sales, training and recruitment also high on the agenda. Top common skills were in learning, leadership, leading and literacy.⁴⁸

The following provides insight into the supply and demand of relevant skills by comparing the frequency of skills present in job postings against skills present in today's workforce. Along with Emsi's job posting analytics, this comparison leverages Emsi's dataset of more than 100M online resumes and profiles. All resumes and profiles used in these comparisons have been updated within the last three years.

'The skills associated with workforce profiles represent workers of all education and experience levels.'

Top Hard Skills



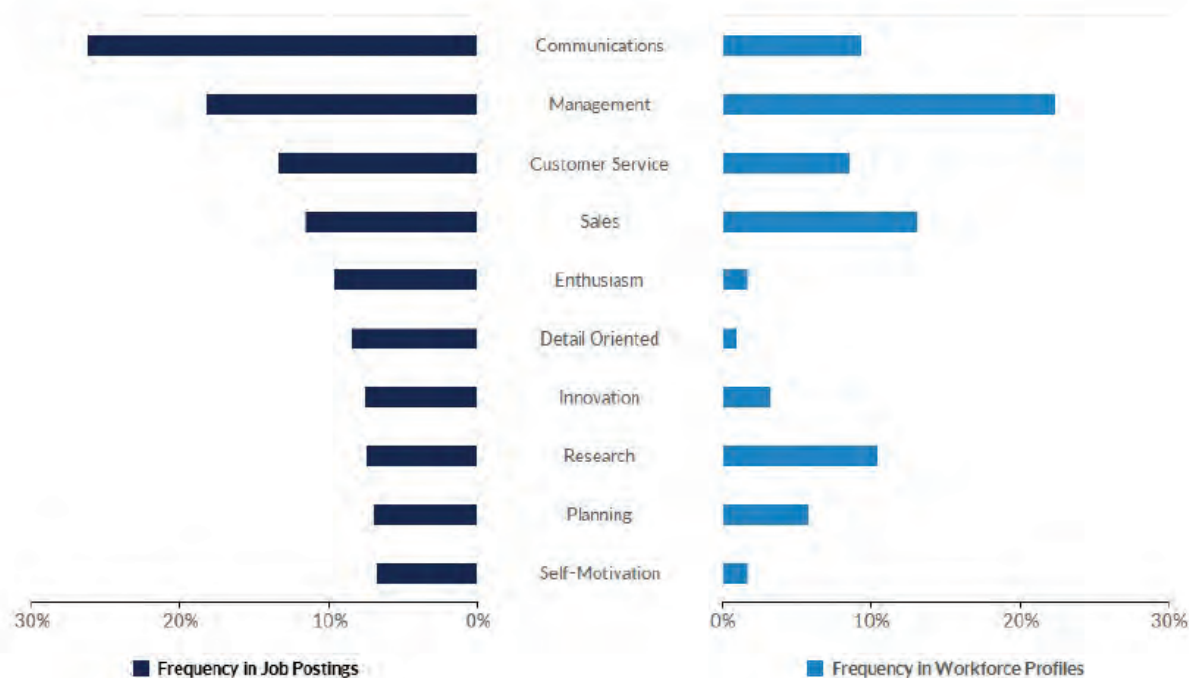
Source: Emsi - economicmodelling.co.uk (2021)

Top skills demanded now reflect those occupations most needed during COVID-19 pandemic recovery with finance auditing, accounting and warehousing high on the agenda alongside nursing. The need for employers to adjust and pivot their business models for growth or recovery linked to the COVID-19 pandemic is also reflected with business development, agile methodology, pharmaceuticals and mental health appearing frequently in posting requirements.

⁴⁷ Hatch Regeneris (2019)

⁴⁸ Hatch Regeneris (2019)

Top Common Skills



Source: Emsi - economicmodelling.co.uk (2021)

Top common skills include communication, management, customer service and sales, as well as enthusiasm, detail orientation, innovation, research and planning alongside self-motivation – all a strong reflection of the changing business landscape and evolving needs of employers as we move into economic recovery following the COVID-19 pandemic. The national picture looks similar with Labour Insight finding Communication Skills mentioned in 33% of all roles advertised, organisational skills (14%) and planning (13%).⁴⁹

OxLEP has worked with Oxford Artificial Intelligence (OxAI) to analyse job postings and create an Oxfordshire Skills Classification Code (OSCC). The occupations most demanded were programmer and software developers, nurses, including those with specific skills, managers, admin occupations, sales and customers service-related activities. The sectors with most demand are human health activities, tertiary education, research and development.

At a top level the most demanded business skills in the 12 months to April 2021 were in management, financial and account management, marketing and sales, admin and technical support. This can be further drilled down, for example, within management, employers are most interested in workplace, office, people management, project management skills and organisational development. Within financial and account management the most demanded skills are financial management and budgeting with more refined skills such as invoicing and payroll mentioned.

The OSCC also enables analysis of job postings in terms of cognitive skills with the most highly sought after being analytical skills and investigatory research mentioned substantially more than the next highest demanded scholastic, literacy, and language skills. Oxfordshire employers are searching for investigatory research skills and within that the ability to analyse data, present and disseminate.

⁴⁹ Emsi – economicmodelling.co.uk (2020)

Digital Skills are a recognised nationally as a top demanded skill and although Oxfordshire saw a drop in postings during the Summer of the COVID-19 pandemic 2020 the requirement is once again growing with the more general terminology of Computer Literacy used by employers to define their needs. The analysis shows that within the last 90 days to 4th November 2021 employers were looking mostly within computer literacy for spreadsheet skills above Microsoft Office and social media and word processing more generally. This is also born out as a national finding in Labour Insights national analysis for 2020 who also reported the top computer skills requested by employers nationally to be Excel (10% of all roles require this skill), Office (6%) and SQL (4%). Employers are also more specifically continuing demand for digital development and deployment, digital professional services, coding and programming and digital data.

Top personal qualities demanded by employers in Oxfordshire are communication with verbal and oral valued most highly above written and listening skills, organisation with planning valued most highly and attitude meaning mostly diligence and detail orientation and innovative thinking and creativity needed most.

Vacancies available following the lockdowns are for (similarly to the EMSI analysis), accountants, chefs, personal care assistants, general labourers, assistant managers, general managers, software development

engineers, supply chain analysts and HGV/ LGV drivers and retail salespersons and other health and social care roles such as registered nurses, nurse practitioners, social workers, care assistants and physiotherapists as most needed at this time of recovery. All roles which link to the key work needed during the challenges of the pandemic.⁵⁰

The employers with the most online job vacancies in Oxfordshire are NHS and Oxford University followed by Value Retail Management (Bicester Village) Limited and Oxford Brookes University. Other top employers included large supermarket and hotel chains, care trusts and Oxfordshire County Council. This bears out similarities to national analysis by Labour Insight who found the most job openings were also in NHS, large supermarket chain and online retailer.

Most employers in the area find their talent through recruitment agencies, paid-for recruitment websites and the local press. Relatively few employers advertise positions in trade and national press or physical media and job boards.⁵¹

In 2017 Employers Skills Survey, the main skills gaps by occupation were reported in elementary staff, administrative and clerical staff, managers and sales and customer service staff and the main shortage being specialist skills or knowledge needed to perform the role. Most employers felt that mis-matched (overqualified) or under-utilised staff (overqualified and over experienced) staff was minimal within their business.⁵²

⁵⁰ Oxford Artificial Intelligence (2020)

⁵¹ Labour Insight (2020)

⁵² Hatch Regeneris (2019)

Sector growth forecasts

Oxfordshire LEP	
Sectors with the highest forecast growth (2017-2027)	Sectors with the lowest forecast growth (2017-2027)
1. Caring personal services occupations	1. Secretarial and related occupations
2. Health professionals	2. Process, plant and machine operatives
3. Health and social care associate professionals	3. Skilled metal, electrical and electronic trades
4. Corporate managers and directors	4. Textiles, printing and other skilled trades
5. Customer service occupations	5. Administrative occupations

Please note these forecasts were produced prior to COVID-19: **Source:** Working Futures, 2017-2027 (published 2020), 2017 LEP boundaries

In terms of GVA our highest performing sectors concurs well with the Working Futures forecasts for growth. Top performing sectors are Real estate, Manufacturing, Education, Professional and Technical activities, Wholesale and Retail Trade; including the Repair of Motor Vehicles, IT, Human Health and Social Care, Construction, Administrative and Support Services. However, the forecasts have not born out so well in terms of employment, since the Working Futures report was produced, the number of employees in Water and Sewage (forecast as highest growth) fell by from 3000 to 2250 (0.6% of Oxfordshire's employed) in 2019 and arts and entertainment rose from 7000 to 8000 in 2018 and then fell back to 7000 (1.9% of Oxfordshire's employed).

The number of employees in IT (20,000) has remained the same however has reduced from 5.6% of the area's employed to 5.3%. Those employed in Real Estate (6000, 1.6%) has remained static across the 3 years. Administrative and Support Service Activities have in contrast risen from 24,000 to 27,000 employees (6.7% rising to 7.2%). Manufacturing which will include engineering has also remained static in terms of share of the workforce (26,000, 6.9% in 2019) but this sector has remained the second strongest in terms of GVA. Public, admin and defence has also remained stable. Despite Oxfordshire

being a rural county, agriculture remains one of the lowest sectors in terms of GVA and employment.

Broad sectoral trends do not tell the whole story around the Impacts of COVID-19 pandemic. Impacts are specific to the activities undertaken by businesses and the supply chains they operate in. For example:

- Oxfordshire's historically strong sectors have been hit less hard by turnover decreases as a result of COVID-19 pandemic.
- The area's strength in knowledge intensive industry is adding resilience to the economy in some areas, but Accommodation/Food and Arts/Entertainment suffering heavy losses⁵³.

Data on turnover impacts by sector is available only at the national level. Overall, the proportion of UK businesses reporting a decrease of more than 50 per cent in turnover in the government's Business Impacts of COVID-19 Survey (BICS) Sep/October 2020 release is 8.5 per cent. The sectors most impacted are the Arts/Entertainment and Accommodation/Food, with – at one stage – 40 per cent of businesses nationally in Arts/Entertainment reporting over a 50 per cent drop in turnover.

One of Oxfordshire's most dominant sectors is Education, which is the fifth most impacted sector nationally on this metric. However, other dominant sectors (Real Estate,

⁵³ Steer ED (2020)

Professional/Scientific/Technical Activities, and Manufacturing) have been less impacted to this large degree. This indicates that Oxfordshire has been less hard hit than most other places in the UK.

On sub-county level variations, the data on business sectors highly impacted by COVID-19 imply that West Oxfordshire has been particularly hard hit, due to its strong relative reliance on Arts/Entertainment.⁵⁴

Occupation growth forecasts

Oxfordshire LEP	
Sectors with the highest forecast growth (2017-2027)	Sectors with the lowest forecast growth (2017-2027)
1. Water and sewerage	1. Engineering
2. Arts and entertainment	2. Rest of manufacturing
3. Support services	3. Food drink and tobacco
4. Information technology	4. Public admin. and defence
5. Real estate	5. Agriculture

Source: Working Futures, 2017-2027

The Occupations forecast by Working Futures as expected to grow are generally in line with current demands seen in local job posting analytics with continuing shortage of supply for caring personal service and health and social care occupations. The area continues to demand management and director level professionals and candidates with high qualifications above Level 4 and had seen a fall in demand for less skilled trades, although the COVID-19 pandemic continues to raise demand for some of these roles. The areas strong demand for professional roles does require support from secretarial and related administration roles so requirement for these occupations has grown against the prediction of Working Futures. There is no evidence to suggest that there is growth or fall within

process, plant and machine operatives, skilled metal, electrical and electronic trades, textiles, printing and other skilled trades. These falls were likely forecast due to automation and technological developments.

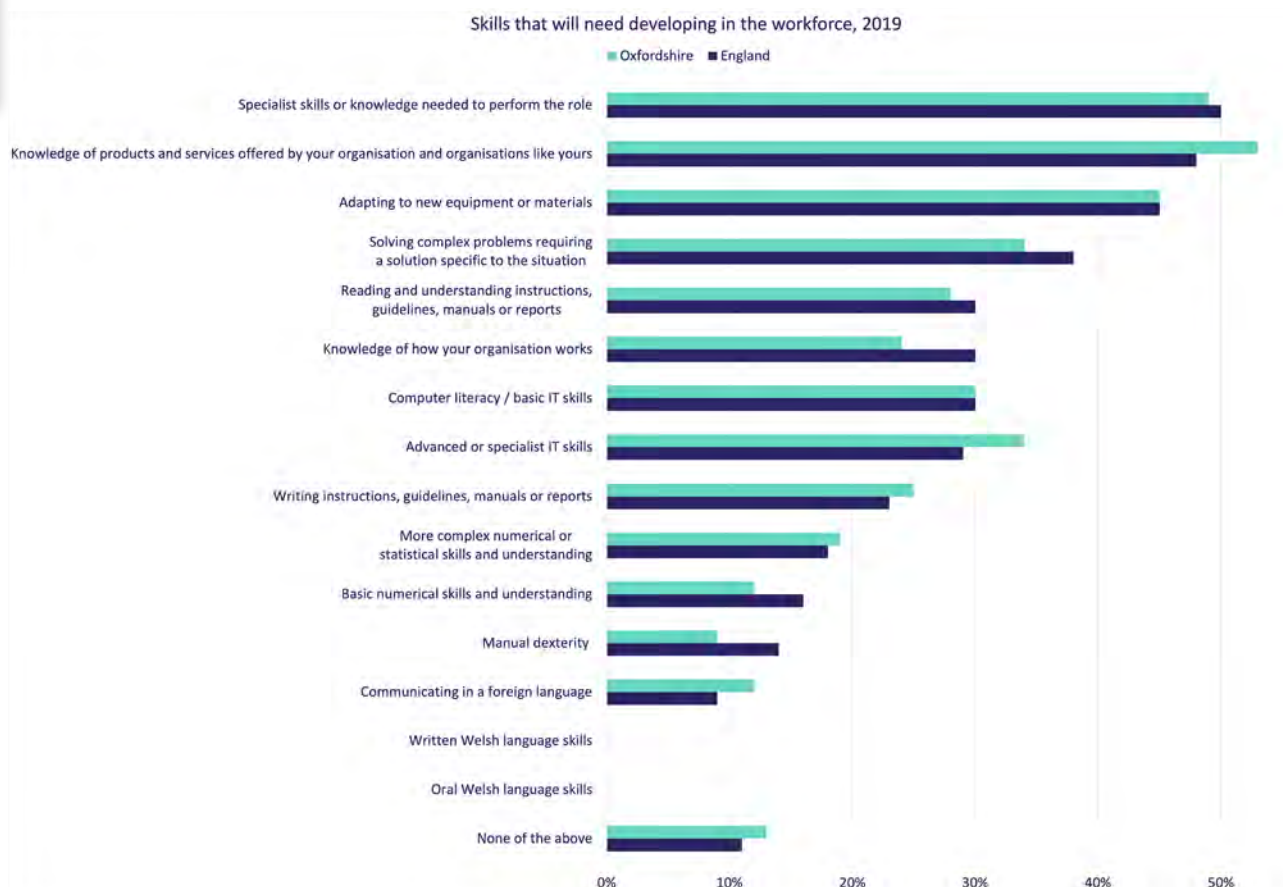
There was minimal proportion of jobs at high risk of automation across Oxfordshire, however all the outlying districts surround the City of Oxford had 55% to 61% medium risk. Oxford City roles were least at risk of automation.

Cherwell district has many jobs that require low-skilled workers and therefore has a higher risk of automation than other Oxfordshire districts and working in this district puts a person into the medium to high-risk band, compared to other areas of the country.⁵⁵

⁵⁴ Steer ED (2020)

⁵⁵ ONS (2019)

Skills that need developing



Source: Employer Skills Survey, 2019 (published 2020), 2019 LEP boundaries

The Employer Skills Survey strongly highlights the skills needs of the area's specialist sectors, in developing their workforce. Employers value specialist skills and knowledge of the services offered by their individual organisations most highly. With many of Oxfordshire's businesses linked to transformative and rapid technological change, it is no surprise that employers seek a workforce who can adapt to new equipment and materials, solve problems and understand advanced and specialist IT skills, to facilitate the area's pioneering innovation economy.


More detailed research has been carried out through local Employer Skills Focus Groups, led by OxLEP and Oxford Artificial Intelligence. The analysis is summarised in Annex B. This analysis highlighted three key 'enabling skills';

- Artificial Intelligence and Big Data
- Business and Digital Skills
- Soft Skills


Mapping Skills Supply and Demand

Mapping Skills Supply and Demand – Summary


Cornerstone Businesses/ Largest Employers

		Skills Demand	Skills Supply	Mapped Skills Gaps and Challenges
Education (particularly R&D/ specialist subjects)		Level 4+ with relevant qualifications.	Potentially strong initial pipeline of Level 4+ qualified.	Retention challenges in first 5 years of graduation. Increases in Education and Training Achievements in 19+ achievements (+60%) in last 3 years but mainly in support subjects rather than teaching.
Health and Social Care		<i>Labour shortages</i> of c700 new entrants annually. Generalist Nursing skill and lower-level care role shortages.	+36% Health, Public Services and Social Care in 19+ FE achievements in last 3 years. And +6% in Apprenticeship Achievements. COVID-19 has also resulted in an increased interest in working in the Adult Social Care sector. Transferable skills can enable workforce hit hardest by redundancies to transition into labour/skills shortage sectors/ occupations.	Achievements rising to meet demand, but labour shortages remain. Progression and training challenges within the sector. Differences in sector subjects chosen by different ethnic groups. Settlement challenges following UK exit from EU and pandemic restrictions on travel.
Broad Visitor Economy	Wholesale and retail	<i>Skills Shortages</i> Increasing start-up/ business model pivoting businesses as opportunity of pandemic. Hardest hit sectors by pandemic restrictions/sector closures.	+57% Retail and Commercial Enterprise 19+ FE achievements in last 3 years, Upskilling/reskilling from sectors hit hardest in by redundancies (such as wholesale and retail trade, accommodation and food services). Transferable skills can enable workforce hit hardest by redundancies to transition into labour/skills shortage sectors/ occupations.	Upskilling/Reskilling Need Hardest hit sectors by pandemic restrictions/sector closures/ redundancies. FE Achievements in Travel and Tourism subjects decreased by 35% in last 3 years. 36% Decreases in Hospitality and Catering and Retailing and Wholesale Apprenticeships in last 3 years. 19% decreases in retail and commercial enterprise Apprenticeships in last 3 years.
	Food Services			
	Visitor Economy			
Local Logistics, Manufacturing and Supply Chains		<i>Skills Shortages</i> Increased focus as impact of pandemic.	Transferable skills can enable workforce hit hardest by redundancies to transition into labour/skills shortage sectors/ occupations. HGV accelerated training course interventions.	Pivoting skills demands as business models pivot to meet demands of pandemic. Cost of reskilling/ upskilling. Minimal warehousing and distribution training achievements.
Elementary Occupations including Warehousing		<i>Labour shortages</i> Increased focus as impact of pandemic.		

Area Specialist Sectors (Breakthrough and High Value)


	Skills Demanded	Skills Supply	Mapped Skills Gaps and Challenges
Transformative Technologies, Space, Life Sciences, Education, High-performance Technology, Motorsport and Advanced Engineering, Digital (particularly Data & Software) and Creative, Science Instrumentation Cryogenic, Construction and the Carbon Neutral Economy, ICT, Professional Services.	<p><i>Skills Shortages</i></p> <p>Professional, Associate Professional and Technical roles which the area's specialist research and development sectors need Managers, Directors and Senior officials.</p> <p>Some sectors, such as life sciences have seen significant growth/business model pivoting associated with pandemic.</p> <p>Hit less hard by turnover decreases as a result of COVID-19; continued demand for new postings in these strong sectors.</p>	<p>Job growth between 2004 and 2020 focussed on knowledge-intensive, STEM and technology professional, associate professional and technician roles as well as managerial and senior leadership roles.</p>	<p>Minimal (19+) FE and decreasing Apprenticeship Achievement in last 3 years:</p> <ul style="list-style-type: none"> • Science and Maths (-9% (19+) FE) <p>Decreasing (19+) FE and Apprenticeship Achievement in last 3 years:</p> <ul style="list-style-type: none"> • STEM: <ul style="list-style-type: none"> • Engineering and Manufacturing Technologies -60% • ICT -48% • Construction and the Built Environment – 39% <p>The number of Apprenticeships undertaken has declined over the last four years and been amplified by the pandemic.</p> <p>Shortage of Programmers and Software Development professionals.</p>
	<p><i>Skills Shortages</i></p> <p>Half of Oxfordshire occupations require degree or higher level (Level 4+) qualifications compared to a third nationally.</p> <p>Pivoting skills demands as business models pivot to meet demands of pandemic.</p>	<p>HE qualifiers align well with the economic specialism of the area. Both the local universities play a key role in the areas specialist sectors.</p>	<p>Strong initial pipeline of Level 4+ qualified, lost due to retention challenges in first 5 years of graduation.</p> <p>The value of technical/vocational qualifications may not be seen as equal to a degree by employers.</p> <p>Emerging technologies and pivoting business models require rapidly evolving training supply which matches demand.</p>

Cross Cutting Skills Successes:

	<ul style="list-style-type: none"> • The area enjoys strong employment and higher than national average wages with a tight labour market • Over half (53%) of the working age population qualified to Level 4 or above. • Oxfordshire has a traditionally tight labour market. • Oxfordshire's historically strong sectors (see Local Landscape Summary) have been hit less hard by turnover decreases as a result of COVID-19, so there is continued demand for higher skills. • Job postings have returned to pre-pandemic levels demonstrating a resilient labour market. • Most learners, move directly into sustained employment at larger proportions than nationally with 93% of Apprentices in Oxfordshire transition to sustained employment and Higher (level 4+) Apprenticeship courses led to 100% sustained employment. • Many of those from the University of Oxford continuing to stay in academia and full-time education.
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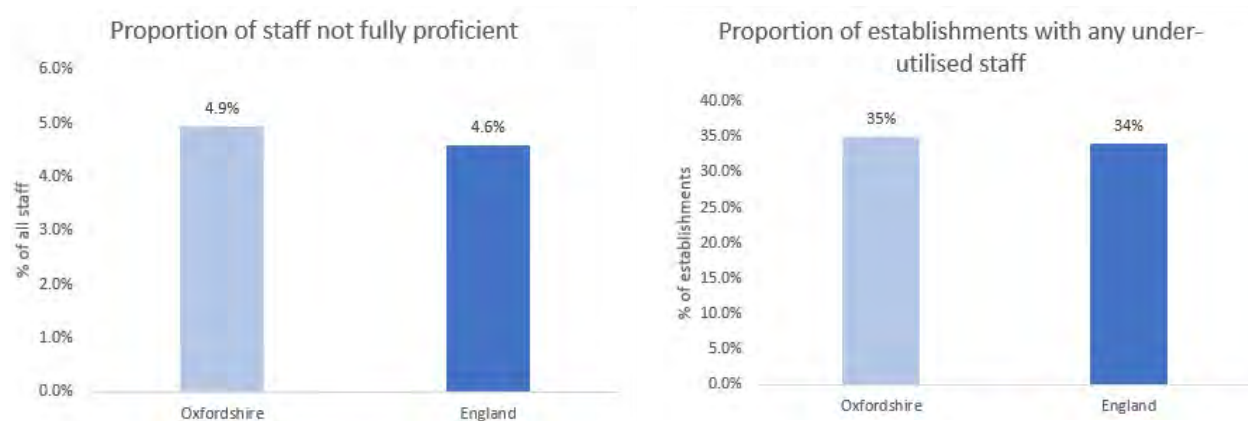
Cross-cutting Skills Barriers, Challenges and Gaps (including those resulting from COVID-19 pandemic)

The Local Landscape and Labour Pool	Impact of COVID-19
99% SME businesses including 89% micro businesses struggle to support skills initiatives.	✓
An increasingly ageing population particularly amongst white ethnic population, with a decreasing 16-24 age band.	✓
Threefold increases in unemployment but consistently more resilient than national impact.	✓
Youth unemployment rises and significant rise in NEET young people.	✓
The over 50's have also been hit harder by unemployment than in previous recession with a reliance on the furlough scheme. This brings an expectation that long-term unemployment or reclassification for those over 50s to retired or student status.	✓
High levels of economic inactivity in Cherwell local district.	✓
The impact of the end of the furlough scheme remains to be seen in terms of increased universal credit claimants and the longer-term impact for hardest hit sectors, in particular hospitality and visitor economy sectors.	✓
Amplified deprivation and intensified 'digital poverty' and financial insecurity.	✓
Pivoting skills demands as business models pivot to meet demands of pandemic.	✓
A striking fall of 22,500 in the actual number of people in employment in 2021 and EU settlement challenges due to pandemic restrictions and possibly as an impact of exiting the EU.	✓
Pockets of persistent labour market deprivation, mainly linked to skills, education and training rather than living environment.	✓
Education inequality, particularly in areas of the City of Oxford and Cherwell.	✓
Amplified deprivation in terms of financial insecurity and including an intensified digital divide.	✓
Earning disparities.	✓

Skills Needs	Impact of COVID-19
Skills dichotomy - Skills shortages are in higher value-added roles and labour shortages are in lower value-added roles.	✓
Long standing labour shortages amplified and now acute in sectors such as Hospitality Health and Social Care, Visitor Economy, Local Logistics and Elementary roles.	✓
Skills shortage in Health (specific Skilled Nurses), Programmers and Software Developers and Sales and Business Development managers.	✓
Degree or higher qualifications and Level 4 qualifications in high demand.	
The language of skills used by employers needs to map to that used by educators and providers.	
Specialist sectors skills needs evolve rapidly and course content/teachers are unable to keep up. Providers want to provide more flexible 'bite-sized' courses to meet employer and skills needs but are limited by funding restrictions.	✓
SMEs and Micro businesses are unable to provide enough learners to create a course cohort big enough for providers to deliver a course.	
 Cross Cutting Enabling Skills Needed in Oxfordshire: <ul style="list-style-type: none"> • AI and Big Data Skills • Business and Digital Skills • and Soft Skills. 	✓

Skills Supply	Impact of COVID-19
Limited T-level rollout in restricted subject area.	
Capacity of mainly SME businesses to support work and industrial placements is tight.	✓
More KS4 and KS5 leavers now remain in education whilst those moving directly into employment have fallen, following the COVID-19 pandemic restrictions and disruptions to education and crucial careers guidance.	✓
The number of Apprenticeship starts and achievements continues to decline.	✓
Level 3 qualifications and trade Apprenticeship achievements continue to fall.	
The number of unqualified people is not decreasing.	
More relevant subject take-up at age 25+ suggests employers are using the Apprenticeship Levy to upskill/reskill existing workforce.	
Traditional gender role beliefs in FE and Apprenticeship Achievements.	
HE qualifiers traditionally have aligned well with the economic specialism of the area but there are more non-science subjects taken-up than science.	
Recent falls in STEM subject qualifiers at HE level and in subjects allied to medicine, languages and historical and philosophical studies.	
Staffing and graduate retention challenges including housing costs and attractiveness of other regions, particularly linked to London and London Weighting wage expectations.	
Work readiness is a reported skills gap in the area.	✓

Proficiency of workforce



Source: Employer Skills Survey, 2019 (published 2020), 2019 LEP boundaries

When surveyed Oxfordshire employers felt that 4.9% of their staff were not fully proficient in their role. Although on the high end of the proportion, this percentage aligns well with the national proportions and that of other South East region LEP areas. Oxfordshire employers therefore felt that the vast majority of their employees are fully proficient and therefore that the local alignment of supply and demand is good. Employers in Oxfordshire have reported 'not being able to find 'the right type of person' for their role.

This may align more with the personal qualities of their employees than their qualifications and highlights the need for skills programmes within education which develop those skills that employers demand such as interpersonal, communication, positivity that local job analytics show as highly valued, alongside the more formal qualifications and curriculum.

Just under 50% of employers required specialist skills or knowledge for employees to perform their role in line with national proportions but there a marginally higher need for employees to have knowledge of the products and services offered by their organisation and sector. This may be linked to the specialisms and high value industry sectors of the area. The survey results also found that inline with the rest of England 45% of employees were required to adapt to new equipment or materials, and this could be inked to automation of tasks and improvements in technology.

Employers needed employees to solve complex problems marginally less than in

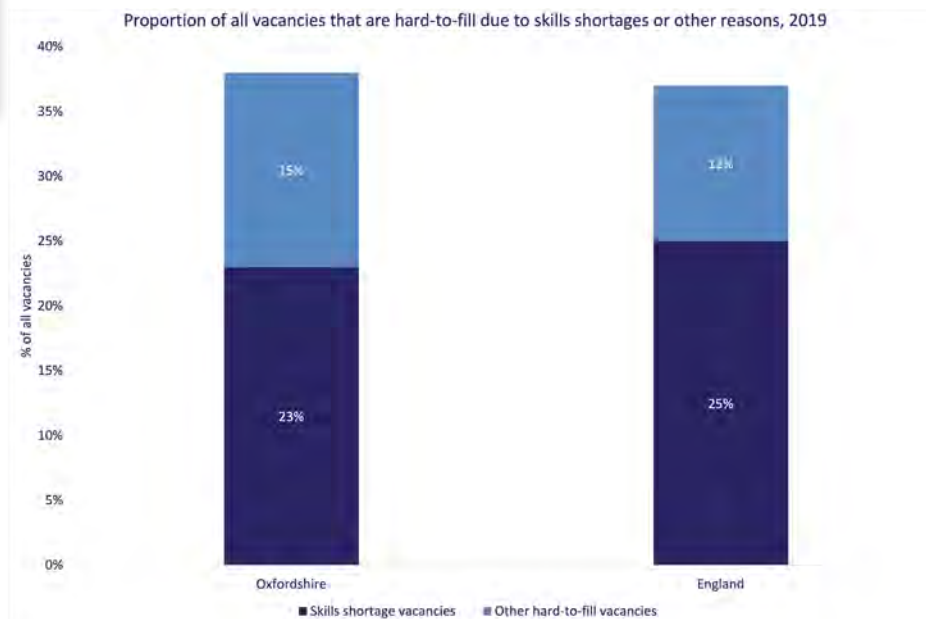
other areas of England. Surprising, given the high demand for problem solving skills found in local job posting analytics and the large percentage of occupations being at managerial level and given the areas specialism in research and development and high value specialist sectors.

Only 28% of employees are required to understand instructions, guidelines and manuals and reports and this may be due to the lack of lesser skilled occupations in the area. There is also limited requirement to have knowledge of how the organisation works. With less than a third of the workforce and lower requirement than the rest of the country. Again, surprising given that over half of those employed are required in higher qualified positions.

Basic IT skills and computer literacy are required by a third of the area's employers in line with the rest of the country. Furthermore, a higher proportion (34%) require Advanced or Specialist IT skills than the rest of the country (29%) and this is as expected given the specialisms of the area and the leading research and development activities the area is renowned for.

Basic literacy and numeracy weren't that high in demand and there was minimal (9%) demand for manual dexterity skills. This reflects the minimal and falling demand for elementary skills positions across the area. There was also minimal requirement for communication in a foreign language. Given the area's aspiration to attract foreign investment into the area this is also surprising.

Hard-to-fill and skills shortage vacancies



Source: Employer Skills Survey, 2019 (published 2020), 2019 LEP boundaries

According to the Employers Skills Survey, **just under a quarter of vacancies in Oxfordshire are due to skills shortages**, just below the

proportion seen nationally. Oxfordshire has marginally higher (3%) hard to fill vacancies due to other reasons than nationally.

LOCAL SKILLS REPORT ANNEX B – ADDITIONAL DATA

This Annex provides additional tables and charts.

Local Landscape

Other substantive and informative supplementary evidence basis, reports and research which underpin the Local Skills Report and Plan:

- Data and Analysis on Skills and the Oxfordshire Labour Market
- Hatch Regeneris, Oxfordshire LEP Skills Advisory Panel Skills and Labour Market Research, October 2019
<https://www.oxfordshirelep.com/sites/default/files/uploads/%21OxLEP%20SAP%20Final%20Report%2001-11-19%20-%20EU%20logo.pdf>
- Hatch Regeneris, Oxfordshire LEP Skills Advisory Panel Skills and Labour Market Research Evidence Pack, October 2019
<https://www.oxfordshirelep.com/sites/default/files/uploads/OxLEP%20SAP%20Evidence%20Pack%2001-11-19%20-%20EU%20logo.pdf>
- Economic Recovery Planning Data and Analysis
OxLEP, Economic Recovery Plan (2020) <https://www.oxfordshirelep.com/publications>
- OxLEP and HMG, OxLEP Delivery Plan 2020/21, March 2021
<https://www.oxfordshirelep.com/delivery-plan>

Employment by sector

Oxfordshire's strengths and assets include:

The University of Oxford is ranked No. 1 in the world for clinical, pre-clinical and health, and No. 3 in the world for life sciences. The university allocates more than 60% of total external research income into the Medicine Division and has 23 Nobel Prize winners in medicine and chemistry. It is also home to the Wellcome Trust Centre for Human Genetics and the Molecular Diagnostics centre, a world-leading genomics research capability. Oxford Brookes University has considerable research capability in several areas including biomedical imaging, instrumentation and sensors and genomic instability. Together, both universities have an annual student population of 40,000, providing a young dynamic source of new talent for the Oxfordshire life sciences cluster.

Major research institutes in Oxfordshire are at the forefront of life sciences innovation, modern medicine and digital health.

These include the Institute of Biomedical Engineering; the Alan Turing Institute for big data and algorithm research; the Big Data Institute; the Diamond Light Source; the ISIS Neutron Scattering facility at Harwell; the BioBank; the Rosalind Franklin Institute at Harwell and the Structural Genomics Consortium.

Oxford University Hospitals Trust and Clinical Trials, which operates four primary hospital sites with comprehensive teaching and research capabilities and strong industry partnerships. The Medical Sciences Division and Oxford University Hospitals NHS Foundation Trust run one of the biggest clinical trials portfolios in the UK.

Oxfordshire is also home to several major international companies in the Life Sciences industry such as Bayer, DaiichiSankyo, Janssen, UCB Pharma, Thermo-Fisher Siemens and Abbott Diabetes Care. Digital health companies include Tessella, based in Abingdon which also has an international

presence and is focussed on analytics and software services. It is also home to a number of emerging innovative companies such as Genomics and Exscientia, which is using AI to deliver new drugs.

Oxfordshire spins out significant numbers of life sciences start-ups, including a number of which have become unicorn companies with market values of over US \$1 billion. Some of the innovative companies spun out of the University include Oxford Biomedica, Brainomix, Oxford Nanopore, Immunocore and Adaptimmune. Oxfordshire is also home to innovative start-ups in digital health such as Sensyne Health. Start-ups and spinouts from the university have excellent access to finance through Oxford Sciences Innovation – which has over £600m in funding available to Oxford University start-ups. Oxford University Innovation is also the number one technology transfer organisation in the country with the highest number of spinouts.

The UK Space Gateway at Harwell Campus, Oxfordshire, is the focal point of the UK and European space industry. The cluster is globally renowned and is home to over 100 organisations employing over 2,500 people across Oxfordshire, with national and international research institutions and assets. It has strengths in 'upstream' work, sending satellites into space, and particularly strengths in 'downstream' sub-sectors, which uses technology and data from upstream work in a range of commercial applications.

The UK space sector was valued at £13.7 billion in 2016 and is estimated to have 6.5% of the global market share.³¹ The UK's strategy is to increase this share to 10%. This year the Prosperity from Space strategy also set out a vision for enhanced growth in the UK space sector over the next decade. This aims to double the value of space to wider industrial activities from £250 billion to £500 billion, generate an extra £5 billion in exports and attract £3 billion of inward investment.³² The Oxfordshire space cluster centred on Harwell will be essential to achieving this and ensuring the UK continues to compete globally against

other innovation ecosystems with strong space technology clusters.

Harwell Space Cluster: The Harwell Space Cluster is the gateway to the UK space sector and benefits from the presence of leading public space organisations, including the European Space Agency, RAL Space, Satellite Applications Catapult, Diamond Light Source and UK Space Agency. Harwell is also home to the Science & Technology Facilities Council, with over £2 billion of infrastructure for both public and private research and development. These assets make Harwell home to world-leading R&D expertise and testing facilities that enable the development of new technologies, pushing the UK to the forefront of space research.

Global companies and SMEs at Harwell: Global space companies such as Airbus Defence & Space, Lockheed Martin and Thales Alenia Space have established a presence at Harwell, with activities ranging from the design of propulsion subsystems to satellite navigation systems. These are joined by a range of SMEs from start-ups in the European Space Agency Business Incubation Centre to rapidly growing companies such as Oxford Space Systems, Deimos Space UK, Rezatec and Neptec.

Harwell Campus is forecast to grow to over 20,000 people over the next decade from 6,000 people today. This growth will require attracting new staff, existing staff to upskill and a pipeline of future talent.

Oxford: The University of Oxford has a wide range of researchers across data science-oriented departments. Likewise, Oxford Brookes University has strengths in Architecture, Built Environment, Computing and Communications Technologies.

The City: Oxford Science and Business Parks and Begbroke Science Park contain a range of IT and spinout businesses and international consultancies with interests in space-related data.

Wallingford: The NERC Centre for Ecology and Hydrology, HR Wallingford, CABI, several

environmental consultancies and sections of the Environment Agency, Met Office and British Geological Survey are situated around Wallingford.

Oxfordshire is a key location on the UK's iconic 'Motorsport Valley', a £6 billion automotive global cluster of high-performance technology, motorsport and advanced engineering companies. Oxfordshire has over 24,000 people employed in manufacturing.

Oxfordshire is home to a number of world-leading motorsport names, including Williams F1 in Grove, Haas in Banbury, and Prodrive in Cherwell. These companies have strong research and development expertise and capabilities, innovating and development new technologies, particularly in electronics, intelligent mobility and lightweight materials – innovation in this industry also supports innovation in a number of Oxfordshire's other high-technology clusters such as space, healthcare and connected and autonomous vehicles.

The ecosystem also supports a number of global supply chain companies, such as SS Tube Technology and Lentus, and the BMW MINI manufacturing plant in Cowley where 2.5 million cars have been produced since the new MINI was launched in 2001, and the new electric MINI is being manufactured. The county's engineering expertise has attracted a growing base of international Tier 1 and Tier 2 suppliers, including French owned Faurecia which has its automotive seating production plant in Banbury. The Eoma, part of the \$30 billion automotive Magna Group, also has a plant in Banbury, which produces exterior trim systems.

Oxfordshire has a number of research strengths, including in advanced engines and battery technology, where companies like Williams and Prodrive have been pushing Oxfordshire to the forefront of global competition for over a decade.

The UK government is committed to the continued success of the UK automotive industry by providing over £1.2 billion to

automotive research funds. These covers low-carbon propulsion, lightweight materials and CAVs. The automotive industry in Oxfordshire has the opportunity to deliver further benefits through developing ways to reduce automotive carbon footprint and reduce other environmental and health impacts and risks. Oxfordshire's base of Formula 1 expertise and capabilities, combined with its world class universities make it an ideal location for automotive R&D related activity, that not only leads to innovation within its own cluster but across a number of sectors such as space, defence, healthcare and life sciences.

Over 3,000 digital and creative businesses are based in Oxfordshire, with 22,000 people and generating a total of £1.4billion to the UK economy each year.

Oxfordshire has strengths in fundamental digital technologies, such as cyber security and data analytics, that enables Oxfordshire to be a leader across other industries from space to bio-tech. Oxfordshire's creative strengths range from animation and digital gaming to digital publishing and media.

Specific subsectors of considerable strength include:

Digital Gaming: Oxfordshire has a thriving digital gaming scene, with some stand out successes and a thriving start-up scene and networking environment – most notably Natural Motion which sold for \$500 million and Rebellion, which has over 300 staff across the UK. Rebellion recently opened a new £78m film studio in Didcot. Oxfordshire is also home to other successful start-ups such as and PlinkArt, a visual search engine, which has now been acquired by Google.

Cyber Security: In Oxfordshire, as well as a nationally recognised cyber security research capability, there is a well-established company base operating in this field, including Sophos, Nominet, RHEA and CQR Consulting. Sophos is a major developer and vendor of computer security software and hardware and has developed a state of the art “big data” analytics system.

Big Data and High-Performance Computing: Oxfordshire has internationally renowned big data and high-performance computing capability, particularly around space and life sciences applications. Oxford Instruments, a university spinout, develops data mining tools which can analyse huge sets of data.

Digital Publishing: Oxford University Press is a department of the University of Oxford. It is the largest university press in the world and the second oldest. Other companies include Elsevier, Taylor & Francis and Pearson Education.

Oxfordshire is home to the world-leading cluster of expertise on cryogenics. Cryogenics is the production and behaviour of materials at very low temperatures. The blend of academic, research and industrial expertise makes Oxfordshire home to the most powerful concentration of cryogenic expertise in the world. Cryogenics is a critical enabling technology with sub-sectors such as cryocoolers, instrumentation and superconducting magnets. Cryogenic technologies underpin around 17% of the UK economy, including many of our high-growth sectors, particularly space, life sciences, energy and quantum computing. Oxfordshire is responsible for the majority of the UK cryogenic sector.

The Oxfordshire cluster includes:

Rutherford Appleton Laboratory at Harwell Science and Innovation Campus, a world leader in cryogenics. The Rutherford Appleton Library was responsible for the development of the most successful closed-cycle cryocoolers ever flown in space; the ground-breaking ‘Rutherford Cable’ for use in high field magnets; and an extensive fleet of test cryostats supported by skilled technicians and full control and data logging capabilities. The campus is home to other research organisations and businesses including Cryox, the Diamond Light Source, and ISIS Neutron Source.

The cryogenics cluster is spread across the ecosystem and contains a number of leading businesses.

These include:

Oxford Instruments, which supplies and supports market leading research tools that enable quantum technologies, nanotechnology, advanced materials and nano-device development.

Oxford Cryosystems, a market-leading manufacturer of specialist scientific instrumentation best known for the Cryostream Cooler, the market-leading low temperature system used in X-ray crystallography.

Quantum Cryogenics – provides quality electronic solutions for the cryogenic and transport industry. Siemens Magnet - designs and manufactures superconducting magnets within the Magnetic Resonance (MR) business unit for use in magnetic imaging scanners (e.g., MRI).

Other companies include Innovative Cryogenic Engineering in Witney and Thames Cryogenics in Didcot, a world-leader in the manufacture and supply of cryogenic piping.

The University Technical College in Didcot is the first school globally to install a cryogenics lab thus creating future supply of skilled young people to support future growth.

Oxfordshire is globally renowned with a strong international brand and thriving visitor economy which attracts 32 million visitors a year which generates £2.3billion into the local economy and supports 39,000 jobs locally. It is one of the UK's top locations for international visitors – with the historic city of Oxford, Blenheim Palace and Bicester Village global draws. However, the COVID-19 pandemic has decimated the visitor economy with unemployment potentially reaching 10,000 – almost 25% of employment in this sector.

A vibrant visitor economy is vital as it provides a sense of social inclusion as all can enjoy the attractions, retail, bars, restaurants, parks, theatres and so on whilst the sector offers a range of employment opportunities at various levels which isn't as apparent in other sectors.

Many jobs whilst important to the sector, are indeed low salaried and require lower skills thus enabling more inclusive growth in the Oxfordshire economy.

There has been 39% positive relative change in the number of people employed in the distribution, hotels, and restaurants sector in the area over the past 5 years⁵⁶ but this has been impacted by the COVID-19 pandemic, being one of the main closed down sectors during the lockdowns, where we have seen the most redundancies in the area in accommodation and food services sectors.

The city's universities are world-renowned for delivering scientific and technological breakthroughs that fuel a steady stream of exciting new spinouts. In fact, according to figures from the Higher Education Statistics Agency (HESA), the University of Oxford is far and away the country's most successful start-up creator. Between 2015 to 2019, it created 86 new companies, more than the combined output of University College London (46) and Imperial College (36) in second and third place.

Beauhurst currently tracks the 30,000, active high-growth businesses in the UK. 637 of these (2%) are in Oxfordshire. This is double its share of the general company population and reflects the rich assets which Oxfordshire's ecosystem possesses including the University of Oxford, ranked number one in global university standings for five successive years, the world's largest nuclear fusion research facility at Culham, Europe's largest space cluster at Harwell, and the pioneering Jenner Institute and Oxford Brookes University at the heart of the world leading life sciences cluster in Headington in Oxford. Maintaining and improving access to highly skilled workforce will be key for future growth of these companies underpinned by improved graduate retention.⁵⁷

Key trends are shaping Oxfordshire's future. We know that our world is changing rapidly, with new global trends and technologies disrupting our futures. These are creating

⁵⁶ ONS (2019) Business Register and Employment Survey (BRES)

⁵⁷ Beauhurst (2020)

new challenges for society to respond to as well as opportunities for growth that the skills ecosystem should be cognisant of at all levels.

It is positive news that we are living longer, but an ageing population is already putting pressure on health, social care, and pension

systems, and ONS projections suggest that this will intensify in the forecast period. A shrinking working-age population, coupled with more pensioners, means productivity will become more important (and challenging for Oxfordshire) as a driver of growth.

Economy Outlook given impact of COVID-19

‘For the remaining cities and large towns with a strong economy, COVID-19 pandemic is likely to have only a short-term effect on their economies, given that the economic impact was felt mostly in their local services businesses and the impacts were relatively small compared to other places. These cities and towns include Bristol, Cambridge, Milton Keynes, Northampton, Norwich, Oxford, Preston and Warrington.’

Different places need different policy responses

Summary table of the challenges affecting different groups of cities and large towns

	Details of challenge	Cities and large towns
Levelling-up + Covid challenges	In need of levelling up pre-pandemic and export base further affected by Covid.	Basildon, Birmingham, Blackburn, Blackpool, Bradford, Burnley, Cardiff, Dundee, Glasgow, Huddersfield, Liverpool, Luton, Newport, Sheffield and Swansea.
Levelling-up challenge	In need of levelling up pre-pandemic but export base relatively sheltered from Covid.	Barnsley, Birkenhead, Chatham, Coventry, Derby, Doncaster, Hull, Ipswich, Leeds, Manchester, Mansfield, Middlesbrough, Newcastle, Nottingham, Peterborough, Plymouth, Stoke, Sunderland, Telford, Wakefield and Wigan.
Covid challenge	Strong economies hard hit by Covid.	Aberdeen, Bournemouth, Brighton, Crawley, Edinburgh, Leicester, London, Slough and Southend.
Strong economies	Strong economies who have only been marginally affected by Covid.	Aldershot, Bristol, Cambridge, Exeter, Gloucester, Milton Keynes, Northampton, Norwich, Oxford, Portsmouth, Preston, Reading, Southampton, Swindon, Warrington, Worthing and York.

Note: Belfast not included in this list as estimates of the share of workers able to work from home are not available.

Source: Centre for Cities, Cities Outlook 2021, January 2021 Cities-Outlook-2021.pdf (centreforcities.org)

Employment by occupation:

‘COVID-19 shows that there is an increased interest in working in the Adult Social Care sector in Oxfordshire. This change is due partly to awareness in the national media, local media, and better understanding of the working practices of the NHS and Adult Social Care sector. This awareness has potentially fuelled a desire to make a difference to the ‘lives of others.’⁵⁸

Recruitment and retention issues in Adult Social Care Skills for Care estimates that the staff turnover rate in Oxfordshire was 39.4%, which was higher than the region average of 34.7% and higher than England, at 31.9%. Not all turnover results in workers leaving the sector, almost two thirds (62%) of starters were recruited from within the adult social care sector, therefore although employers need to recruit to these posts, the sector retains their skills and experience. Adult social care has an experienced ‘core’ of workers. Workers in Oxfordshire had on average 8.1 years of experience in the sector and 66% of the workforce had been working in the sector for at least three years. Using both workforce intelligence evidence and our links with employers and stakeholders across England, we know that recruitment and retention is one of the largest issues faced by employers.⁵⁹

Labour Shortages in Health and Social Care Sector

There is a global shortage of healthcare workers. The World Health Organisation estimates there will be a healthcare workforce gap of around 14.5 million by 2030. The workforce crisis has been described as the worst problem currently facing the NHS, and the Care Quality Commission’s State of Care report for 2018/19 said it is having a direct impact on care.

As health and social care are devolved, this Insight sets out the numbers behind the workforce shortages in England and examines proposed plans to address them.

How big is the shortage of healthcare workers?

Around 1.2 million full-time equivalent (FTE) staff work in the NHS, and 1.1 million work in adult social care. Around 78% of social care jobs are in the independent sector. Providers across NHS England are reporting a shortage of over 100,000 FTE staff. Adult social care is facing even starker recruitment and retention challenges, with an estimated 122,000 FTE vacancies. This equates to a vacancy rate of around 8% for both the NHS and adult social care, compared with a vacancy rate of under 3% for jobs across the UK economy.

Analysis by the King’s Fund suggests the NHS workforce gap could reach almost 250,000 by 2030. Nursing is facing one of the greatest problems with one in eight posts vacant. The Interim NHS People Plan identified nursing shortages as “the single biggest and most urgent we need to address.” This is partly due to the integral role of nurses in delivering the NHS Long Term Plan, but also due to the absolute number of vacancies. There are significant shortages in learning disability, primary and community nursing, whilst the mental health nursing workforce dropped by 11% between 2009 and 2019.

In adult social care, around one in 10 social worker and one in 11 care worker roles are reportedly unfilled. The vacancy rate is highest in London. The demand for social care workers is expected to rise in line with the UK’s ageing population. Skills for Care have estimated a need for 650,000 to 950,000 new adult social care jobs by 2035.

The role of overseas nationals

12% of the healthcare workforce were non-British nationals in 2018, with similar numbers of EU and non-EU nationals. The proportion differs across staffing groups, with the NHS particularly reliant on overseas doctors. In 2018-19, for the first time, more non-UK graduates registered as new doctors than graduates trained in Britain. In response, the General Medical Council (GMC) stated:

⁵⁸ Oxfordshire Association of Care Providers (2021)

⁵⁹ Skills for Care (2021)

“Overseas trained doctors are vital to the NHS and the role of the international recruitment is helping the service to tackle vacancies across trusts. We know that a longer-term approach to meeting our workforce needs for the future must encourage higher numbers of locally trained staff over the next 5 to 10 years.”

In June 2019, around 65,000 EU nationals were employed in NHS Hospital and Community Health Services (HCHS). Doctors and nurses were more likely to be EU nationals than some other staff groups (see Chart 1). In the adult social care sector, there were around 121,200 EU nationals, of which 78,000 were care workers. However, as a proportion, nurses were most likely to be EU nationals.

Addressing the shortage of workers

There is variation in the ability of services to recruit and retain staff. The Care Quality Commission’s State of Care 2018/19 report states:

“Areas in and next to London face specific issues linked to higher costs of living and pay disparities caused by the London weighting.

In primary care, there are areas of the country that have struggled to attract and retain GP staff, driven by their relative rurality or attractiveness as a place to work and live.

...In adult social care, staff are affected by the lack of value given to social care by society and disproportionate levels of pay.”

The Interim NHS People Plan, published in June 2019, set out the following broad commitments to tackle the workforce gap:

- Make the NHS the best place to work
- Improve our leadership culture
- Prioritise urgent action on nursing shortages
- Develop a workforce to deliver 21st-century care
- Develop a new operating model for workforce
- Take immediate action in 2019/20 while we develop a full five-year plan

- The interim plan highlights an immediate need to improve retention, particularly in nursing. There is also a retention problem in social care, with a turnover rate of 40% for care workers in 2018/19. The GMC has warned that more doctors are choosing to cut their working hours in response to workload pressure. The number of FTE GPs has been rising more slowly than the total number of GPs, indicating that more are working part-time.

Source: UK Parliament, House of Commons Library, The health and social care workforce gap, January 2020 <https://commonslibrary.parliament.uk/the-health-and-social-care-workforce-gap/>

Adult Social Care in Oxfordshire

The workforce campaign funded by Oxfordshire County Council (OCC) Workforce Transformation in partnership with Oxfordshire Association of Care Providers (OACP) initiated during the early days of COVID-19 pandemic, shows that there is an increased interest in working in the Adult Social Care sector in Oxfordshire. This change is due partly to awareness in the national media, local media, and better understanding of the working practices of the NHS and Adult Social Care sector. This awareness has potentially fuelled a desire to make a difference to the ‘lives of others. Job losses, redundancies and early retirement have also had an impact.

OCC (Workforce Transformation) and OACP’s partnership based their work on increasing workforce capacity in Oxfordshire. This instigated a ‘Matching people (registered OACP job seekers) to Posts (registered care provider vacancies) Scheme’.

The Scheme assists take up of Adult Social Care jobs in Oxfordshire. Whilst funding for the COVID-19 pandemic workforce initiative has been depleted, OCC (Workforce Transformation) and OACP continue to work together on Workforce Transformation.

OACP continues to receive job seeker sign ups to its workforce register and holds a cohort of interested job seekers ready to be matched to care provider vacancies. However,

part of this cohort group is unable to take up certain employment offers in particular care settings in Adult Social Care e.g., Domiciliary Care unless they are local to them. As many job seekers cannot afford to learn to drive and have no suitable transport (e.g., working in Domiciliary Care requires use of a car as staff have much to carry) these Domiciliary Care vacancies remain 'off limits' to some job seekers.

The "Matching People to Posts Scheme" (FREE service) has also revealed that the people involved in the matching process, the job seekers, like to be supported in finding a job and welcome an introduction to a potential employer. Likewise, the care provider (potential employer) likes the 'warm lead' hand over of a job candidate. The matching process frees them up to do what they do best – provide care. Whilst some of the big group care providers have recruitment departments and staff most work outside of the county with no knowledge of the Oxfordshire recruitment marketplace. The medium to small care providers often relies on paying a third party for their recruitment needs. Most care providers pay for expensive recruitment advertising – which impacts on their time and financial resources.

Source: Oxfordshire Association of Care Providers, February 2021
Oxfordshire Association of Care Providers - Promoting and supporting adult social care in Oxfordshire (oacp.org.uk)

A summary of the adult social care sector and workforce in Oxfordshire 2019/20

In Oxfordshire there were an estimated 17,000 jobs in adult social care, split between local authorities (5%), independent sector providers (86%) and jobs working for direct payment recipients (9%). As at March 2020, Oxfordshire contained 255 CQC-regulated services; of these, 130 were residential and 125 were non-residential services.

Recruitment and retention

Skills for Care estimates that the staff turnover rate in Oxfordshire was 39.4%, which was

higher than the region average of 34.7% and higher than England, at 31.9%. Not all turnover results in workers leaving the sector, almost two thirds (62%) of starters were recruited from within the adult social care sector, therefore although employers need to recruit to these posts, the sector retains their skills and experience.

Adult social care has an experienced 'core' of workers. Workers in Oxfordshire had on average 8.1 years of experience in the sector and 66% of the workforce had been working in the sector for at least three years. Using both workforce intelligence evidence and our links with employers and stakeholders across England, we know that recruitment and retention is one of the largest issues faced by employers.

Employment information

We estimate Oxfordshire had 15,500 adult social care jobs employed in the local authority and independent sectors. These included 1,200 managerial roles, 950 regulated professionals, 11,000 direct care (including 9,400 care workers), and 2,400 other-non-care proving roles. Oxfordshire lost approximately 67,000 days to sickness in 2019/20. Less than a quarter (22%) of the workforce in Oxfordshire were on zero-hours contracts. Over half (59%) of the workforce usually worked full-time hours and 41% were part-time.

Workforce demographics

The majority (82%) of the workforce in Oxfordshire were female, and the average age was 44 years old. Workers aged 24 and under made up 9% of the workforce and workers aged over 55 represented 26%. Given this age profile approximately 4,100 people will be reaching retirement age in the next 10 years.

An estimated 69% of the workforce in Oxfordshire identified as British, 15% identified as of an EU nationality and 17% a non-EU nationality, therefore there was a higher reliance on non-EU than EU workers.

Table 1.Average pay rate of selected job roles by area

	England	Region	Area
Full-time equivalent annual pay			
Social Worker†	£36,400	£36,300	£34,000
Registered nurse	£31,800	£33,300	£34,900
Hourly pay			
National Living Wage	£8.21	£8.21	£8.21
Senior care worker	£9.54	£9.81	£10.52
Care worker	£8.80	£9.00	£9.28
Support and outreach	£8.97	£9.03	£9.43

†Local authority social workers only.

Please note that pay varies by sector, with local authority pay generally being higher than independent sector pay.

Source: Skills for Care, A summary of the adult social care sector and workforce in Oxfordshire 2019/20, January 2021 Skills for Care - Home

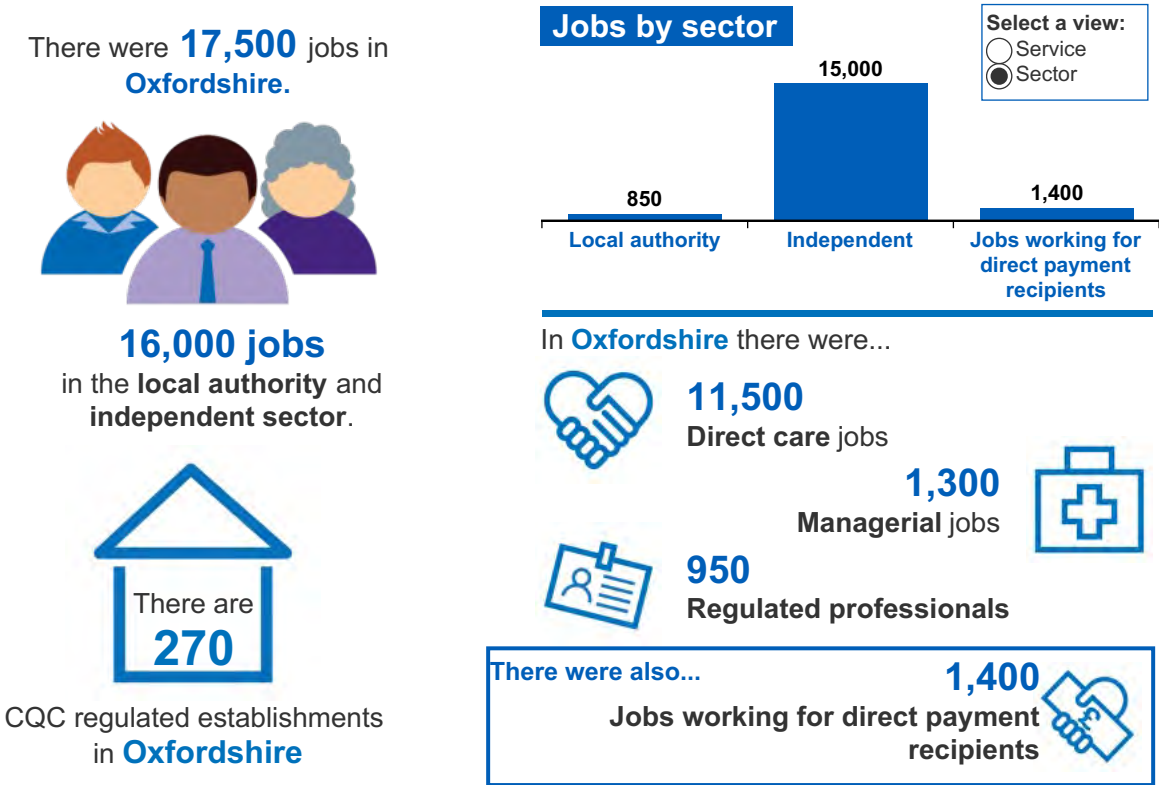
Qualifications, training and skills

Skills for Care estimates show that 35% of the direct care providing workforce in Oxfordshire hold a relevant adult social care qualification (44% in South East and 50% in England). Raw data from the ASC-WDS showed, of those workers without a relevant adult social care qualification recorded, 43% had five or more years of experience in the adult social care sector, 62% had engaged with the Care Certificate and 81% had completed training.

Summary of the adult social care workforce

Download PowerPoint

This summary of the adult social care workforce in Oxfordshire includes jobs in local authority and independent sectors as well jobs for direct payment recipients. Please note that the other pages refer to jobs in the local authority and independent sector only.



Employment overview

[Download PowerPoint](#)

Use the drop-down menus to change the sector and/or job role.

Select a sector:
All sectors

Select a service group:
All services

Select a job role:
All job roles

Number of jobs:
16,000



Zero-hours contracts

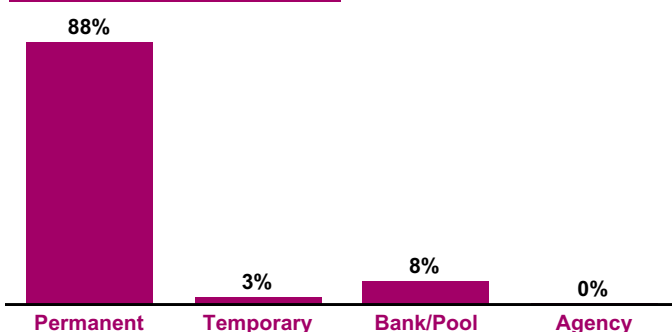
23%
of workers were employed on
zero-hours contracts
(or 3,600 jobs)



In comparison...

CQC non-residential services across England had an average of **47%** of all workers employed on zero-hours contracts (**280,000 jobs**).

Employment status



Whole time equivalent jobs

The **WTE jobs** ratio in
Oxfordshire
is
0.73

Recruitment and retention

[Download PowerPoint](#)

Use the drop-down menus to change the sector and/or job role.

Select a sector:
All sectors

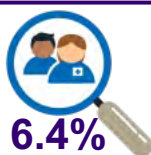
Select a service group:
All services

Select a job role:
All job roles

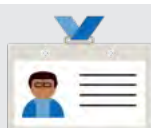
Number of jobs:
16,000



The **turnover rate** in 2020/21 was
33.3%
(or 4,800 leavers).



6.4%
vacancy rate
(1,000 jobs)
in 2020/21.



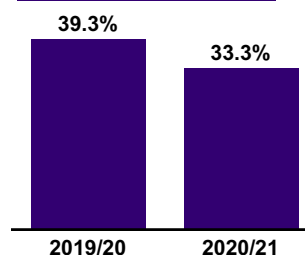
60%
of leavers
remained within the sector.

Sickness



The **average number of sickness days** taken in 2020/21

Turnover trend

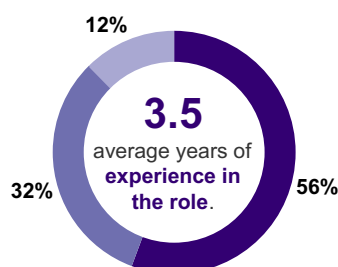


Select a view:
☒ Turnover
☐ Vacancy

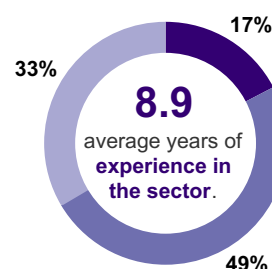
Vacancy and turnover trends have **increased** at a **national** and regional level since **March 2021**

[COVID-19 dashboards](#)

Experience in role



Experience in sector



Key:
■ Less than 3 years
■ 3 to 9 years
■ 10 years or more

Demographics

[Download PowerPoint](#)

Use the drop-down menus to change the sector and/or job role.

Select a sector:
All sectors

Select a service group:
All services

Select a job role:
All job roles

Number of jobs:
16,000

Gender

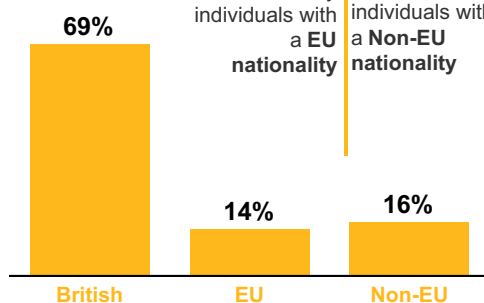


83%
of the workforce
were **female**.

17%
of the workforce
were **male**.



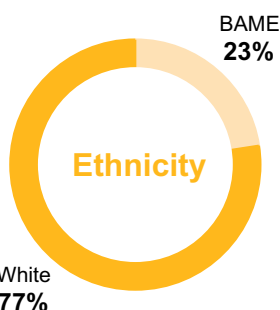
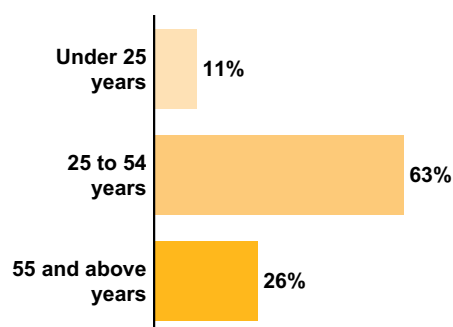
Nationality



Age



44 years
average age of a worker



Pay

[Download PowerPoint](#)

Use the drop-down menus to change the job role

Please see sector
breakdowns below.

Select a service group:
All services

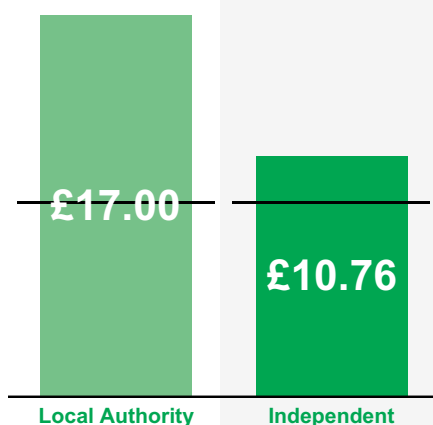
Select a job role:
All job roles

Number of jobs:
Independent: **15,000**
Local Authority: **900**

Local authority sector

The average hourly rate for
All job roles jobs
in the **local authority sector**
in **September 2020** was
£17.00

On average, pay in the local
authority was
£8.28 higher
than the National Living
Wage (£8.72).



Independent sector

The average hourly rate for
All job roles jobs
in the **independent sector**
in **March 2021** was
£10.76

On average, pay in the
independent sector was
£2.04 higher
than the National Living
Wage (£8.72).

Qualifications and training

[Download PowerPoint](#)

Use the drop-down menus to change the sector and/or job role.

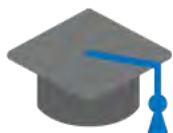
Select a sector:
All sectors

Select a service group:
All services

Select a job role:
All job roles (excluding regulated pr..

Number of jobs:
16,000

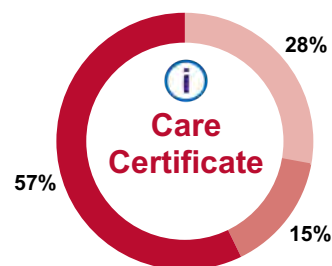
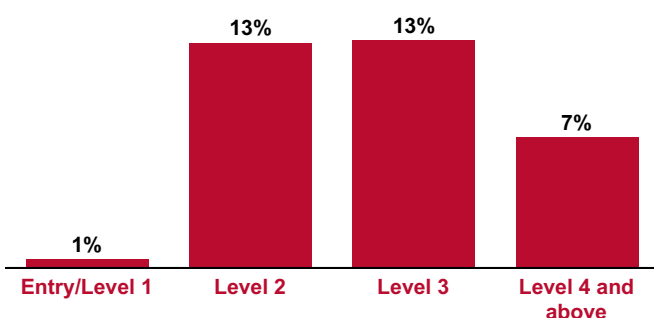
Social care qualifications held



33%
held a **qualification relevant to social care** (excluding regulated professionals)

In comparison...

45% of individuals across England held a **qualification relevant to social care**.



Key:

- Complete
- In progress / partially completed
- Not started

43%
of individuals had **achieved or were working towards the Care Certificate**



In comparison...

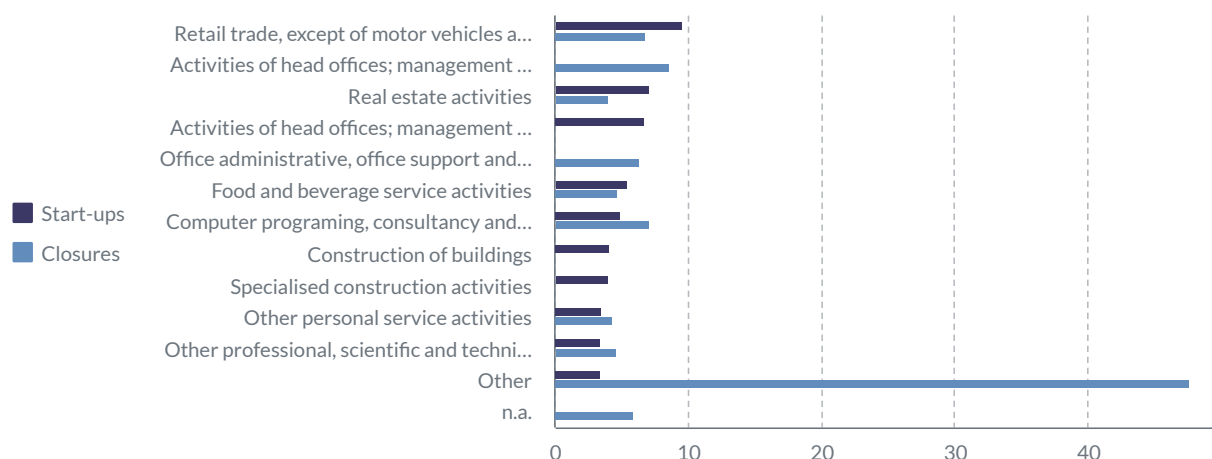
in England **46%** of the total adult social care workforce had **achieved or were working towards the Care Certificate**.

Source: Skills for Care, A summary of the adult social care sector and workforce in Oxfordshire 2019/20, January 2021 Skills for Care - Home

Business birth and death rates

Oxfordshire Business Start-up and Closures

Oxfordshire Business Churn (Start-ups/Closures) in last 12 to December 2020
(Number of companies by Activity (Prim. UK SIC 2007) months by sector)



Source: Oxfordshire County Library Digital Information and Enquiry Service, Bureau Van Dijk FAME, December 2020

Employment rate and level

	England	South East Region	Oxfordshire LEP
Employment	26,032,400	4,316,000	327,600
%	74.7%	77.4%	78.1%
Employees	34,839,700	5,578,800	419,700
%	64.9%	66.6%	68.5%
Self-employed	3,353,400	589,200	40,000
%	9.6%	10.6%	9.5%

Source: Annual Population Survey, July 2019 - June 2020, 2020 SAP boundaries

	Great Britain	South East (%)	Cherwell (%)
Student	28.9	30.6	45.2
Looking After Family/Home	19.8	19.2	14.1
Temporary Sick	2.0	1.6	!
Long-term sick	22.9	18.8	17.4
Discouraged	0.8	0.7	!
Retired	13.4	16.3	12.2
Other	12.3	12.8	9.6

Source: Annual Population Survey, July 2019 - June 2020, 2020 SAP boundaries

Sample size too small for reliable estimate (see definitions)

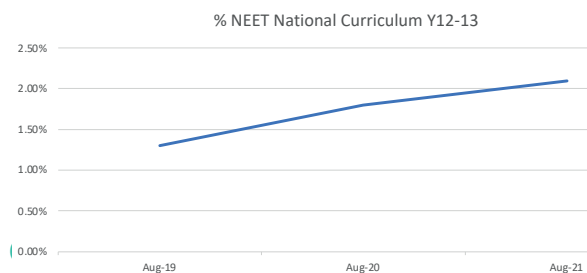
! Estimate is not available since sample size is disclosive (see definitions)

Notes: numbers are for those aged 16-64.

% is a proportion of those economically inactive

Claimant Count and Alternative Claimant Count

Information from Oxfordshire County



Early signs for this academic year indicate that NEET figures have improved in comparison to last year, however we are still chasing up destinations particularly of our year 13 cohort.

Increased numbers in elective home education continue to impact our not known figure and hardest to track. Of our year 12 not known, 80% are those who were educated at home in year 11.

We have seen an increase in NEET Not Ready for EET with parents/carers declaring situations such as anxiety; awaiting a CAMHS assessment; their child wanting full online learning only/reduced study time due to mental health concerns.

Slight increase in casework referrals for Year 11 leavers 2020/21 compared to 2019/20 of approx. 10%.

Current Picture

- 2020 school leavers experienced a lack formal careers guidance, ending and transition into next destinations.
- Some school leavers now lack confidence, lack motivation and are anxious about their future – there is increased competition for employment and apprenticeships.
- Current Yr 11's disrupted – closures, isolations. Focus on core curriculum delivery, missed access to softer employability skills and extra curricular activities and future ambiguity impacting adversely.
- Greater NEETs currently and lack of flexible provision start dates and appropriate offers of EET learning.

- Lack of EET opportunities to match current need (apprenticeships, employment).
- Rise in Elective Home Educated students from schools and higher numbers without qualifications, increased anxiety and isolation.

Unemployment Increase – (UC Claims)

- Unemployment 16-24
- Nationally:
 - March 2020 = 365,798
 - Sept 2020 = 626,229
 - 71.2% increase
- Oxfordshire 16-24
 - March 2020 = 1,910
 - Oct 2020 = 3,881
 - 103% increase
- Oxfordshire 16-19
 - March 2020 = 520
 - Oct 2020 = 1168
 - 120.4% increase

Covid Impact on EET Casework Team and NEET

- **July to August 2020**
 - 25% increase overall in casework open to our team compared to 2019
 - 60% increase in general enquiries to EET referrals inbox and phone calls, of the enquiries approx. 40% were in relation to Year 11 leavers
- **September 2020 onward**
 - 35% increase overall in casework open to our team compared to 2019
 - 40% of the cases currently open to us are Year 11 leavers from this year
- **October 2020 to end November**
 - 24% increase overall in casework open to our team compared to 2019
 - 47% of the cases currently open to us are Year 11 leavers from 2020
- **190 CURRENT OPEN CASES**
 - NEET 16-18yrs
 - November 2019 = 193
 - November 2020 = 302

Considerations

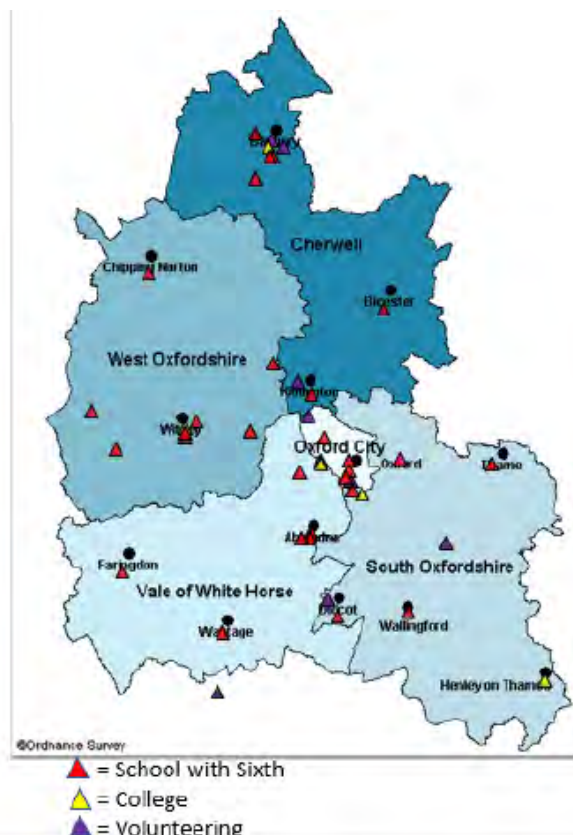
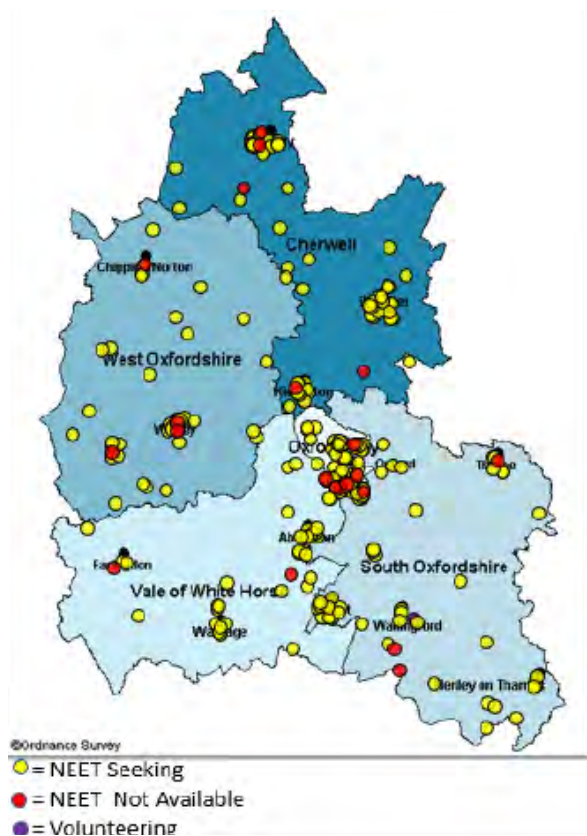
The longer young people remain NEET, the more disengaged and unmotivated they become – This leads to further mental wellbeing issues, increased offending behaviour, social isolation, debt, housing issues as well as many other areas of need for Oxfordshire's individuals and our services. The more pro active we can be and the stronger the offer available to them, the more positive long term impact for all.

- Current Year 11 students (and earlier) need focused careers support and tight transitions, flexibility is required and leadership buy in.

How do we get school leadership teams on board with seeing careers support and transition as a priority area to resource?

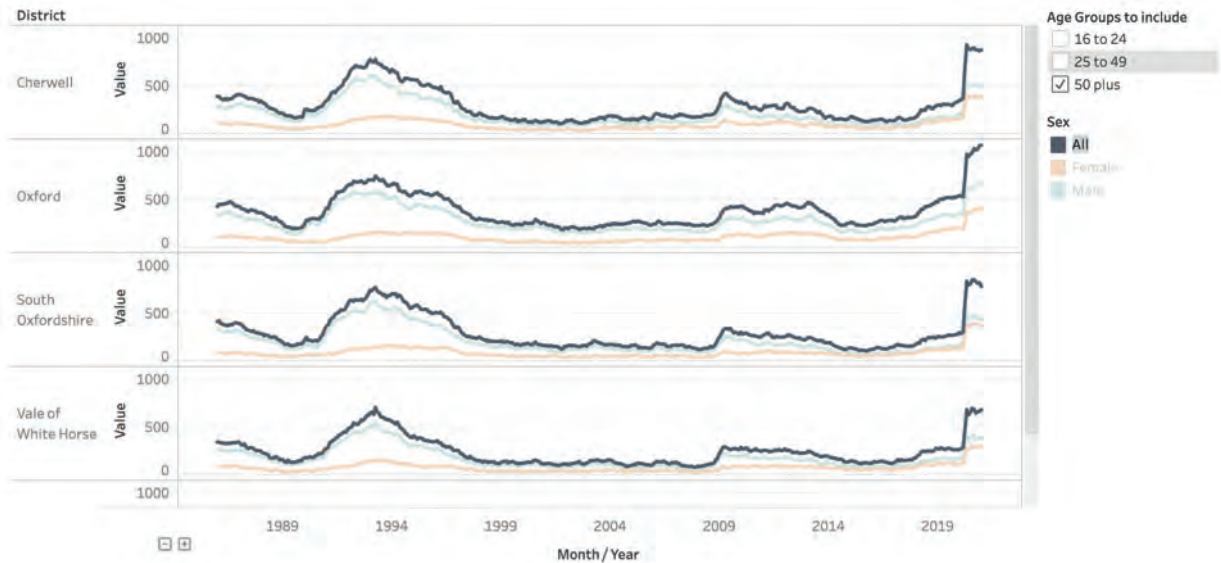
- Growth and flexibility of post 16 EET opportunities across Oxfordshire at varying levels is paramount in meeting the growing demand. How do we ensure there is enough growth of EET opportunities across Oxfordshire to meet the demand and how do we ensure the most vulnerable and marginalised groups have access to appropriate opportunities?(Preventative options earlier? Funding? Use of LMI?)

Source: Oxfordshire County Council, EET Casework Team, EET Challenges, 2020, December 2020

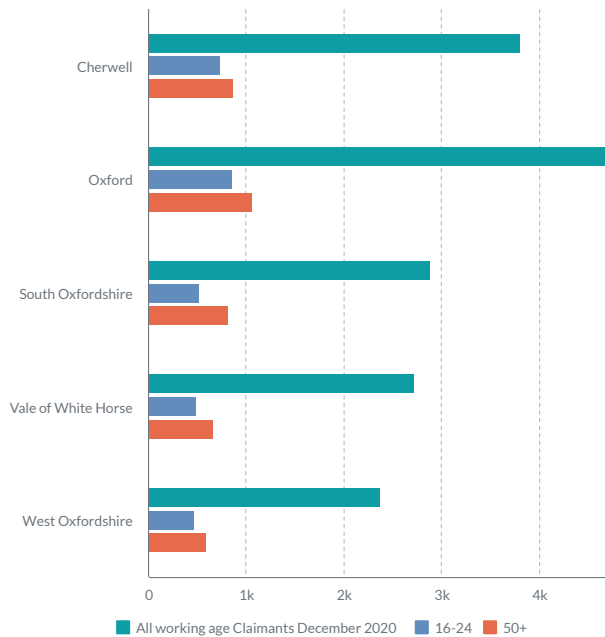


Source: Oxfordshire County Council, EET Casework Team, Oxfordshire NEET & EET Provision, 2020, December 2020

Trends in Unemployment Claims in Oxfordshire Age Bands



Oxfordshire Local Authority Claimants December 2020



A visible trend is unemployment becoming more common among older workers relative to previous downturns. Demographics and welfare changes may also have an impact here. 24% of claimants are over 50. 18.5% of claimants are in 16-24 age group.

Source: OCC, Oxfordshire Insight. Author: Margaret Melling, John Courouble and Alick Bird

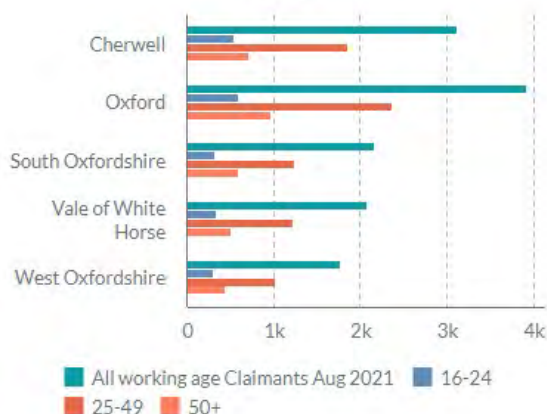
Unemployment claimants by age group Sep-21

	16-24		25-49		50+	
	count	rate*	count	rate*	count	rate*
Cherwell	545	5.9%	1,865	4.2%	710	3.0%
Oxford	590	4.5%	2,375	6.1%	965	6.0%
South Oxfordshire	320	3.7%	1,240	3.2%	605	2.6%
Vale of White Horse	335	3.9%	1,235	3.1%	515	2.4%
West Oxfordshire	310	4.4%	1,030	4.6%	435	2.4%
Oxfordshire	2,100	4.5%	7,750	4.0%	3,235	3.2%
England	311,130	8.3%	1,043,540	6.6%	431,280	5.7%

Just under 60% of claimants are in the age group 25-49. Just under a quarter are age 50+, with 16% young people aged 16-24.

There was a fall in claimants across all age groups in August 2021 with around -0.1 to -0.2ppt falls in most areas, in most age groups. The smallest fall across the county was in the 50+ age group **(-0.1 ppt change)**.

Oxfordshire Local Authority Sept 2021



However, South Oxfordshire saw a -0.5 ppt fall in 16-24 age group and a 0.4 ppt fall in 50+ and West Oxfordshire saw a -0.3ppt fall in 16-24 and 25-49 age group.

Age band	% of Oxfordshire Claimants (June 2021)	% of Oxfordshire Claimants (June 2021)	% of Oxfordshire Claimants (July 2021)	% of Oxfordshire Claimants (Aug 2021)	% of Oxfordshire Claimants (Sept 2021)
50+	23.88% (-0.19% since April 2021)	24.14% (+0.26% since May 21) ↑	24.48% (+0.34%) since June 21) ↑	24.65% (+0.17%) since July 21) ↑	24.73% (+0.08%) since August 2021) ↑
25 - 49	58.03% (+0.53% since April 2021)	58.72% (+0.69% since May 21) ↑	59.03% (+0.31% since June 21) ↑	59.16% (+0.13% since July 21) ↑	59.25% (+0.09%) since August 2021) ↑
16-24	18.11% (-0.29% since April 2021)	17.17% (-0.94% since June 21) ↓	16.48% (-0.69%) since June 21) ↓	16.19% (-0.29%) since June 21) ↓	16.05% (-0.14%) since August 2021) ↓

50+ claimants have continued to rise as a proportion of Oxfordshire claimants to near on one quarter of all claimants, whilst the % of 16-24 and 25-49 aged group claimants continues to fall.

Think, Economic and Financial Analysis report on the Bank of England's latest report, *'For the first time in the pandemic, it's now more likely that those aged 55 or over will be on the furlough scheme than those 24 or younger. That suggests any rise in redundancies in the autumn risks affecting older workers more heavily. But when it*

comes to the official data, many may classify themselves as retired – even if this wasn't necessarily out of choice.

So where might the unemployment rate land later this year? If we make a loose assumption that half of those 'fully furloughed' in June lose their job when the support ceases, and a similar proportion to last year reclassify as economically inactive (e.g. retired/study etc), then that would roughly put the jobless rate around 5.5%.' The Bank of England's jobs dilemma in four charts | Article | ING Think (Accessed online 17th August 2021)

Unemployment in Oxfordshire by age band and district – 5-year trend

District	Age	Sex	April 2017	April 2018	April 2019	April 2020	April 2021
Cherwell	16 to 24	All	125	140	195	430	800
		Female	40	60	85	165	330
		Male	85	80	110	265	475
	25 to 49	All	290	460	645	1730	2320
		Female	105	195	285	715	935
		Male	185	265	360	1015	1380
	50 plus	All	160	240	300	680	880
		Female	65	100	130	295	385
		Male	95	135	165	390	495
Oxford	16 to 24	All	175	220	280	485	875
		Female	65	80	105	185	320
		Male	115	140	175	300	555
	25 to 49	All	615	835	1100	2030	2985
		Female	240	330	420	805	1170
		Male	375	505	680	1225	1815
	50 plus	All	305	390	495	705	1150
		Female	100	125	170	240	455
		Male	205	265	325	465	695
South Oxfordshire	16 to 24	All	45	90	130	350	510
		Female	15	40	55	145	215
		Male	30	50	75	205	290
	25 to 49	All	220	375	515	1305	1615
		Female	85	170	240	590	730
		Male	135	205	275	715	885
	50 plus	All	160	210	245	585	800
		Female	65	100	115	250	365
		Male	90	105	130	330	435
Vale of White Horse	16 to 24	All	75	120	165	305	485
		Female	20	50	65	125	195
		Male	55	65	100	185	295
	25 to 49	All	250	415	525	1170	1585
		Female	85	160	230	485	670
		Male	165	255	295	685	915
	50 plus	All	135	230	265	455	705
		Female	50	95	105	185	310
		Male	80	135	160	270	395
West Oxfordshire	16 to 24	All	75	95	145	310	480
		Female	35	40	60	115	200
		Male	40	55	85	195	280
	25 to 49	All	210	310	375	1125	1345
		Female	80	140	175	510	620
		Male	130	170	200	615	725
	50 plus	All	115	180	215	490	590
		Female	50	90	105	225	275
		Male	65	90	110	260	315

Source: OCC, OCC, Insight Unemployment Dashboard, Accessed online: 26 January 2021 https://public.tableau.com/views/OxfordshireUnemploymentDashboard/MainStory?embed=y&:display_count=no&:showVizHome=no%20

Youth Unemployment in Oxfordshire (December 2020)

Area	Age 16 to 24		Aged 25 to 29		Aged 30 to 34	
	Count	Rate	Count	Rate	Count	Rate
Oxfordshire	3,050	3.7%	2,235	4.9%	2,160	5.1%
Cherwell	725	5.6%	515	6.2%	505	4.9%
Oxford	855	2.4%	640	3.9%	660	7.9%
South Oxfordshire	515	4.3%	360	5.1%	345	4.3%
Vale of White Horse	490	4.1%	380	5.1%	370	4.2%
West Oxfordshire	465	5.0%	340	5.7%	280	4.2%

Source: Claimant count by sex and age (Nomis, January 2020) and 2019 mid-year population estimates (ONS, June 2020)

In general, the youth unemployment rate sat at around 4% for Oxfordshire in December 2020, but there's quite a bit of variation when looking at finer age groups/ individual Districts. The figures in the table above show % of the population claiming unemployment benefit. For the 16-24 age group, Oxford City district might therefore show a lower claimant % than other Districts due to its high student population.

The Kickstart Scheme

Over 19,000 job placements for unemployed young people have so far been created under the government's £2 billion Kickstart Scheme - with tens of thousands more expected in the months ahead.

The landmark scheme, which gives 16-24 year-olds a future of opportunity and hope by creating high-quality, government-subsidised jobs across Great Britain, began last week.

The Scheme has also received 4,359 applications from employers across Great Britain, with a wide range of jobs available, including in tech, construction, communications, fitness, and media. New applications from employers are being accepted each week. <https://www.gov.uk/government/news/more-than-19000-jobs-created-by-kickstart-scheme-so-far>

Older workers

As a result of COVID-19 pandemic there is, correctly, a focus on young people, who are at risk. However, evidence shows that older workers are being just as affected as young, and there is a persuasive argument that they should be treated with parity as they are susceptible, particularly because of age discrimination and caring responsibilities. As such, COVID-19 pandemic risks reversing the positive employment trends we've seen over recent years and intensifying the barriers to employment for 50+ which are likely to result in long term unemployment. In addition, historical evidence of older workers in recessions indicates a prevalence of becoming inactive in the labour market. The latest 50+ Labour market stats are attached to this bulletin.

Source: FULLER.WORKINGLIVES@DWP.GOV.UK (December 2020)

Over-50s who lose their jobs

are much more likely to stay unemployed, study finds. Older people more than twice as likely to be unemployed for two years or longer if they lose job.

People aged over 50 who lose their jobs are significantly more likely to suffer long-term unemployment than other age groups, analysis has revealed.

Older workers who lose their jobs are more than twice as likely as other age groups to be unemployed for at least two years.

There are 407,000 unemployed over-50s in the UK, making up one in four (24%) of all unemployed people, according to new unemployment data from the Office for National Statistics commissioned by Rest Less, the digital community for the over-50s.

One-third of unemployed people over 50 have been out of work for at least a year while one in five have been out of work for at least two years. This compares with 20% and 8% of those aged under 50 respectively.

“With the state pension age having risen to 66, we are particularly worried that this drift from short to long-term unemployment ultimately risks a lost generation of unemployed over-50s forced into an early retirement they neither want nor can afford,” said Stuart Lewis, founder of Rest Less.

“Too often, highly skilled workers in their 50s and 60s suffer from age discrimination in the recruitment process, often being told they are ‘overqualified’ – a concept that simply doesn’t make sense,” he said.

Before the COVID-19 pandemic hit, 80% of employment growth in the UK came from workers over the age of 50. But experts said the COVID-19 pandemic is exacerbating inequalities that have always existed in the jobs market: pre-pandemic, the over-50s were more likely to face redundancy, have less access to in-work training and to be long-term unemployed.

“Even industries that haven’t been forced to shut down during the pandemic but have still been impacted, are cutting jobs and in many cases, it’s older workers who are losing their jobs first,” said Lewis.

HMRC data showed that while the proportion of under-25s on furlough had fallen at the end of October, the proportion of over-55s on furlough had increased – an indication, said Lewis, that businesses might be bringing back their younger workers first.

Emily Andrews, senior evidence manager at the Centre for Ageing Better, said over-50s faced different struggles getting back into work from younger workers, including age bias in the recruitment process and the prevalence of ageist views: a 2019 survey showed 37% of employees believed there was age discrimination in their workplace.

These issues, she said, meant older workers were much more likely to remain unemployed in the long term and could fall out of the workforce for good.

“Government back-to-work programmes haven’t worked for this age group – just one in five people age 50+ gained a job outcome from the Work Programme, compared to one in three 25-49s, and 40% of 18-24s,” she said.

“In terms of why over-50s are being hit so hard by the pandemic, we understand it’s more because they are less likely to get back into work than because they are in jobs that are particularly at risk,” she added.

Health is also an issue: in June/July, the IFS found that workers aged 54 and over with a disability or limiting health condition were 34 percentage points more likely to be worried about job security than those without.

Source: The Guardian, Unemployment, Over-50s who lose jobs much more likely to stay unemployed, study finds, 18 January 2021 Accessed online: 28 January 2021 Over-50s who lose jobs much more likely to stay unemployed, study finds | Unemployment | The Guardian

Income, Employment and Education deprivation

Housing and Air Quality

The City of Oxford is also in the top quartile for deprivation related to Housing and Air Quality – this includes measures of

affordability, overcrowding, housing quality, and homelessness. City of Oxford has one of the lowest levels of workers with no qualifications, at 3.2 per cent, compared with a UK average of eight per cent, yet a significant proportion of the workforce have low skills and qualifications.⁶⁰

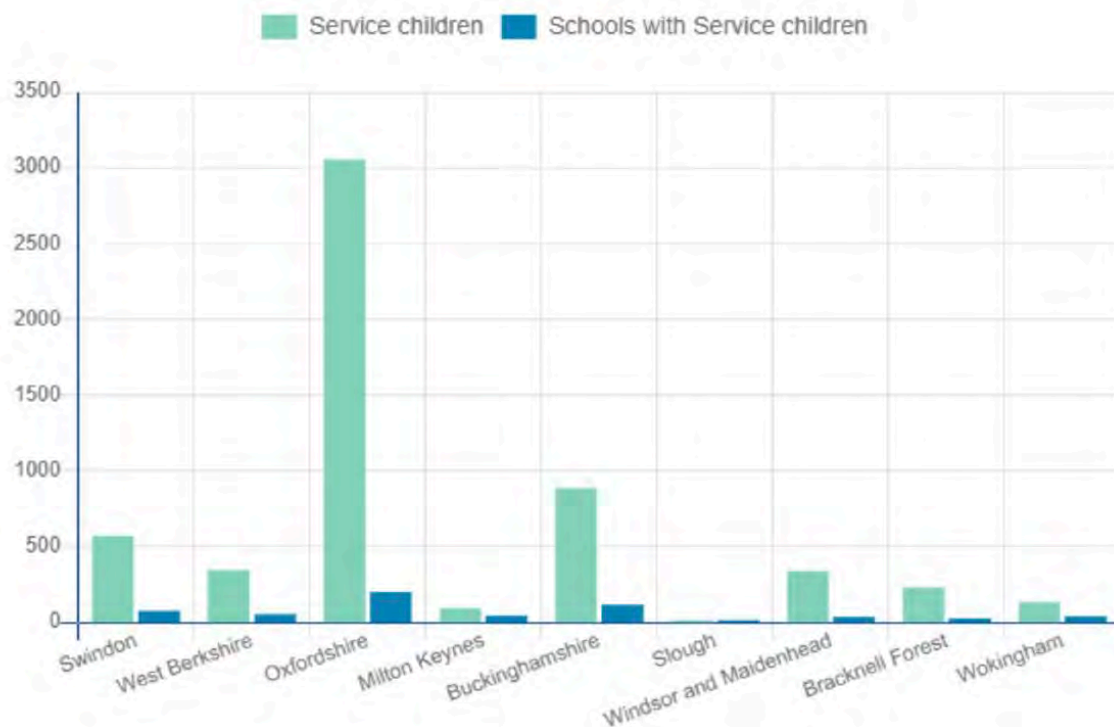
Spacial Analysis

Town name	Job Density	Population Growth 2009-2019	Employment Growth 2009-2019	Employment growth flag	Income deprivation percentile
Banbury	0.71	3.7%	15.60%	Above Average Growth	42
Bicester	0.57	1.7%	40.20%	Above 2 x E&W average growth	88
Kidlington	0.62	2.2%	10.00%	Below E&W average growth	86
Oxford	0.79	5.6%	14.70%	Above Average Growth	59
Benson	0.23	4.9%	-7.10%	Declining Employment	100
Didcot	0.55	11.4%	32.10%	Above 2 x E&W average growth	80
Thame	0.77	3.4%	3.00%	Below E&W average growth	96
Wallingford	0.55	6.3%	-8.80%	Declining Employment	71
Abingdon	0.44	4.8%	1.50%	Below E&W average growth	84
Faringdon	0.30	19.8%	5.00%	Below E&W average growth	62
Wantage	0.27	9.2%	-1.90%	Declining Employment	88
Carterton	0.16	5.8%	15.70%	Above Average Growth	92
Chipping Norton	0.42	10.4%	19.50%	Above Average Growth	66
Witney	0.49	7.6%	11.00%	Below E&W average growth	78

Source: ONS, Understanding Towns in England and Wales: Special Analysis, October 2020

⁶⁰ HATCH Regeneris 2019

Service Children in Oxfordshire



Source: Service Children's Progression Alliance, Regional Comparison Report, January 2021

Food Insecurity

A profile of proxy food insecurity indicators in the South East.

There has been a substantial increase in levels of financial insecurity across all local authorities in the South East, because of COVID-19 pandemic, as evidenced by numbers of claimants of universal credit. The least deprived local authorities (like Oxfordshire) saw the greatest proportional increase in claimants - with rates tripling in many areas. However, overall rates remain highest in the local authorities that had highest rates pre-COVID-19 pandemic. In general, the least deprived areas now have rates that are the same as, or higher, than the most deprived areas had pre-COVID-19 pandemic. In general, pre-COVID-19 pandemic, the South East region appears to have had lower rates of child poverty, when compared to England. However, there are pockets of child poverty in all areas as shown by IDACI 2019.

Source: South East Local Knowledge and Intelligence Service, A profile of proxy food insecurity indicators in the South East, 18 January 2021

Digital Exclusion

Local Intelligence confirms that COVID-19 pandemic has intensified the area's digital divide with challenges around access to digital equipment suitable for online learning for the areas most deprived young people, families, job seekers and skills development. National initiatives are seeking to support some of these young people with provision of equipment but there remains a digital divide within families and with redundancies for older people, 50+, there will be greater need for support for these learners in retraining and reskilling utilising online learning as it evolves due to COVID-19 pandemic restrictions. Affordability of internet connectivity may also be a challenge for this with financial challenges. With **additional connectivity issues in rural areas of the county this will compound deprivation challenges**. There have also been **longstanding travel challenges** for these people with travelling out of their local areas for support. **Food poverty** has risen in the South East region, with **claimant counts tripling**. Local charity

SOFEA has seen dramatic increases in their food larder clients, surprisingly in areas not previously noted as in deprivation (see Annex B). Many of these clients are linked to **financial insecurity** and will need support with reskilling, upskilling and digital skills development to find future employment.

Evidence cited in this report shows that a significant proportion of the UK population is digitally excluded (see section 5) either through not having Internet access or because of low levels of digital literacy. As government moves services to self-serve channels, significant numbers who are unable to move online, or are not computer-literate, may be dissuaded from using government services, or be unable to use them effectively.

Digital exclusion is about more than not having access to a computer. It is not enough that citizens are able to access government services online – a sufficient level of digital literacy is required to be able to recognise when information is needed and to have the ability to locate, evaluate and make effective use of the online systems.

Digital exclusion will persist although it cannot be certain to what degree. From evidence and research cited in this report, a ‘hard core’ group may continue to be excluded at least for some time – those who cannot (or will find it excessively difficult to) overcome the barriers to exclusion and those who are simply not motivated to transact with government departments using digital channels. A key issue is whether those who are digitally included under retirement age will continue to be included beyond retirement.

Motivational factors continue to be a significant barrier to digital inclusion and to use of e-government services. There is a significant challenge to government departments to shift demand to self-serve channels. Evidence cited in this report shows

that that many people fail to see the perceived need to use the Internet and to move to using government services online – this attitude is particularly prevalent among older people (see Appendix 2). Where people do have access to the Internet, there is much evidence that use of government services is low and that many prefer to continue to use traditional in-person channels to communicate with government departments.

The drive for digitisation of government services could reinforce the social exclusion of a sizeable segment of the population. This could lead to wider impacts in the medium and long term. Various studies have established that there is a strong correlation between digital and social exclusion although the extent of causation is less clear. If digital exclusion persists then it is likely social exclusion may be compounded.

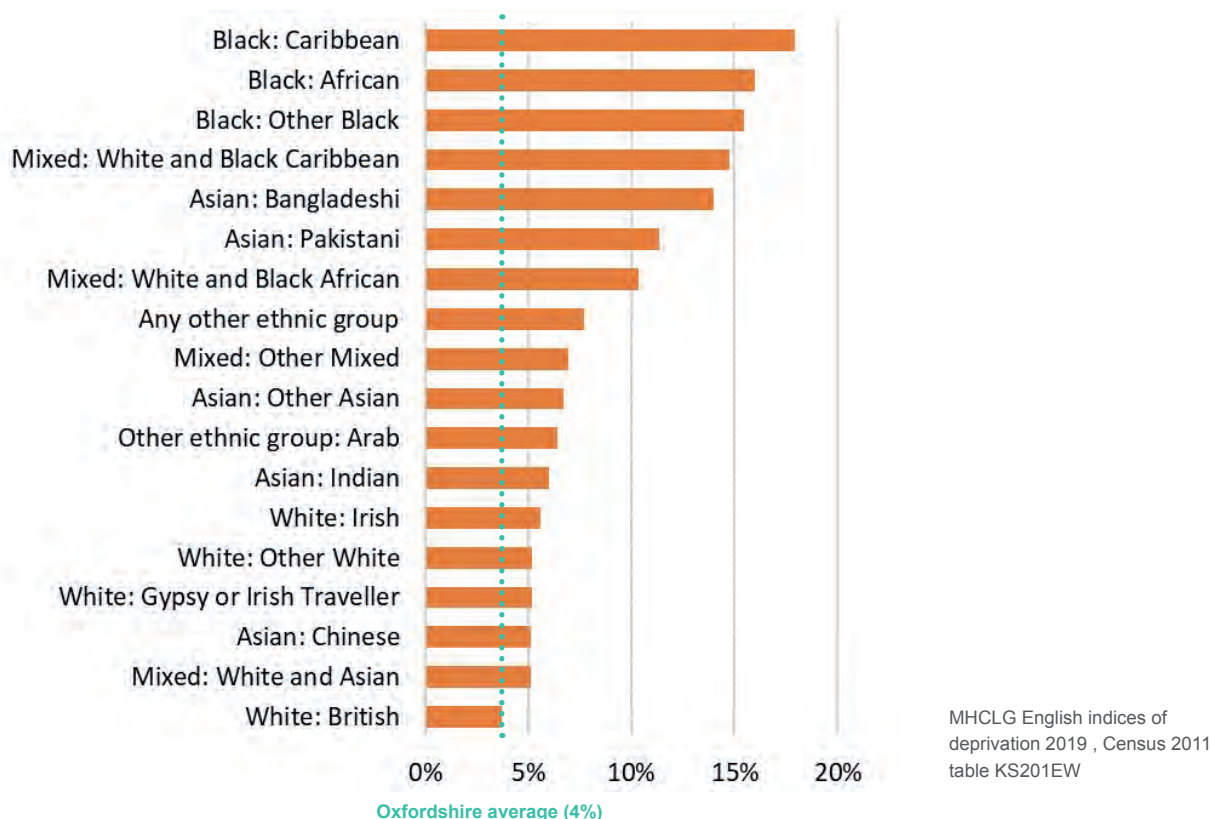
There is significant risk that wider government policy to continue to shift demand to e-channels will disengage the digitally excluded and compound exclusion. The digitally excluded are likely to be disproportionately heavy users of government services (see section 5). Our research shows that the right balance may not have been struck between driving services to digital channels and assistance into digital. Policy thinking has not always addressed the issues of exclusion and digital literacy relevant to excluded groups.

There is an ongoing need for the provision of high-quality public services to meet the needs of all citizens – this is of particular importance for those people with greater social needs. Continuing to tackle the digital divide is an essential element of government strategy to ensure public services are delivered effectively, but it is not the only element.

Source: Digital Exclusion, Low Incomes Tax Reform Group of The Chartered Institute of Taxation, April 2012 https://www.litrg.org.uk/sites/default/files/digital_exclusion_-_litrg_report.pdf

Ethnicity and Deprivation

Proportion of ethnic group resident in most deprived (IMD decile 1 or 2) LSOAs, Oxfordshire

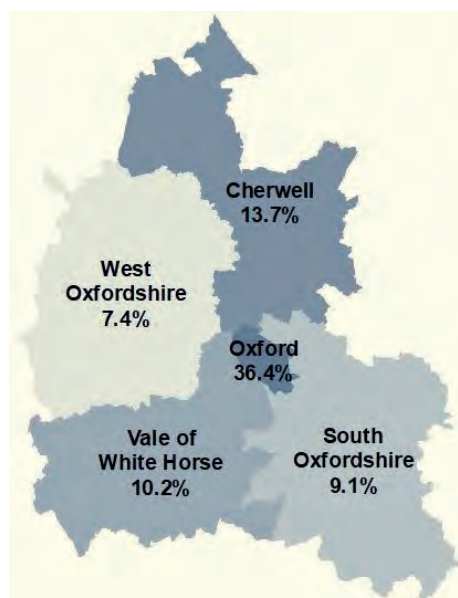


Source: OxLEP Skills, Skills, employment and enterprise of Oxfordshire's ethnic minority communities, Key Findings, November 2021

There were around 107,000 residents of an ethnic minority background in Oxfordshire in 2011, of which the largest group was Other White (40,300), followed by Indian (8,100) and Pakistani (7,800).

The majority (57%) of Oxfordshire's ethnic minority residents in 2011 were based in the two largest urban areas of Oxford City and Banbury.

Ethnic minority residents 2011: proportion by District



Source: OxLEP Skills, Skills, employment and enterprise of Oxfordshire's ethnic minority communities, Key Findings, November 2021

Skills Supply

Education and Training Provision for Oxfordshire residents:

Higher Education (HE)	University of Oxford and Oxford Brookes University.
Further Education (FE)	91 schools/colleges including 38 State funded Academies, 2 Maintained schools/colleges, 18 Special schools, 6 Colleges including Abingdon and Witney College, 16-19 Abingdon, Activate Learning, Didcot Sixth Form College, The Henley College, Ruskin College. There are also a broad range of other smaller funded and independent sector specific providers including 20+ locally based providers who deliver learning to Oxfordshire residents.
Secondary Schools	108 Secondary schools including 44 state funded Academies, 2 Maintained schools, 22 Special schools and 40 Independent /privately funded schools. There are high ratios of Independent to state funded school provision (40:44). 46% of students achieve Grade 5 or above in English and maths GCSEs, above national 43% state funded schools, 40% all schools.
Primary Schools	Primary Schools 316 Primary schools including 121 state funded Primary Academies, 139 maintained schools, 24 Special schools in addition to 32 Independent Primary schools. 65% of pupils meet expected standards.

Oxfordshire Skills Capital Projects

Centre for Applied Super Connectivity -

A new centre of innovation to train people with necessary skills in superconductivity which can be transferable to other relevant industries. The Centre will coordinate the interaction between key industry players, Oxford University, cryogenics companies, and end users on the Harwell campus and at the Culham Centre for Fusion Research Campus.

Oxford Centre for Innovation and

Technology - The development of a specialist technology training centre in Blackbird Leys, Oxford, to address skills shortages across engineering, electrical, design, and emerging technologies. This high-specification facility supports training in a wide range of technological industries, including construction, engineering, IT, computing, and motor vehicle. These facilities enhance student experience, equipping them with the

knowledge and skills needed to go far in a range of exciting and fast-paced technological industries. The reputation of the campus as a centre for STEM is growing, which has resulted in the successful awarding of IoT status in partnership with Milton Keynes College and Cranfield University. The project has attracted capital to refurbish an additional building on the site allowing the growth of STEM provision into L4 and Higher Apprenticeship provision in digital.

Technology Livestock Centre - A major new skills centre which provides a 'highly-technical' environment, supporting courses and research relating to livestock husbandry – reflecting the requirements of many of Oxfordshire's rural businesses. The centre has been built to combine theory teaching spaces and a livestock area, capable of supporting the latest agricultural technology.

STEM.

Advanced Skills Centre - A high-tech higher education hub dedicated to STEM training and provides a quiet space for all higher education students to work. The centre will address skills shortages by supplying skilled technicians at Harwell and elsewhere in Oxfordshire; and deploying the unique expertise and facilities available at and around Harwell as a learning resource for the rest of the UK, Europe, and the world.

Advanced Digital & Science Centre - This project refurbished five key areas to promote STEAM (Science, Technology, Engineering, Arts and Maths) progression. This is set to have a major impact across several key sectors, including digital skills, engineering, and applied life sciences.

Construction.

Construction Skills Academy - Abingdon & Witney College's new academy will give young people and adults opportunities to develop the skills needed to secure employment in Oxfordshire. Oxfordshire's innovation in low-carbon technologies is world-leading and the curriculum will reflect this with plumbing for renewable technology, electrical installation, carpentry, and joinery.

Visitor Economy

Hospitality Training Centre - The £3m new facilities include state-of-the-art training kitchens, featuring industry-standard equipment. Project focuses on increasing

the volume of skilled employees to respond to long standing skills and labour shortages across the hospitality sector. The curriculum is being co-designed with the support of industry experts including Heston Blumenthal's The Fat Duck Group.

Health and Social care

Care Skills Training Centre - The Care Skills Training Centres at the City of Oxford College gives a unique insight into careers in the health and social care sector. The centre provides acute clinical and residential care facilities for simulated teaching and learning, offers a range of facilities and equipment (including state-of-the-art hospital wards, fully equipped home care rooms, emergency care centres, and fully immersive, 3-Dimensional, virtual reality, learning spaces).

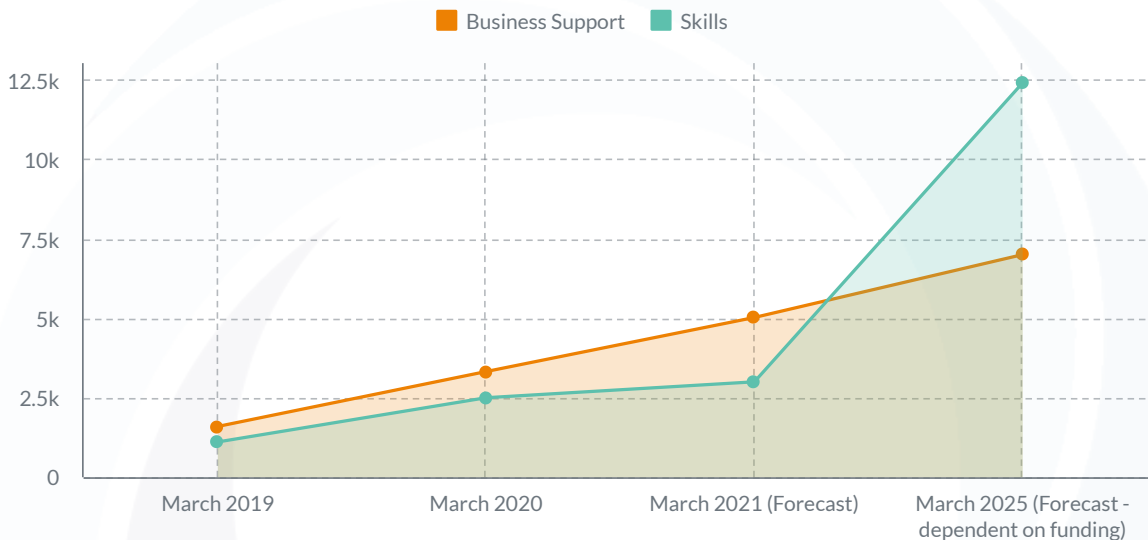
Green Construction Skills Centre - The Green Construction Skills Centre will meet the considerable shortage of green construction skills across Oxfordshire by offering a variety of training programmes including school engagement activities, full time courses for 16 – 18-year-olds (including T Levels), higher level programmes, Apprenticeships, adult skills training programmes and short upskilling courses targeted at those already working in construction. Courses will be designed with employers, and sector bodies such as the CITB, those with specialisms and interest in green issues and will focus on areas such as low or zero carbon technologies for both new build and retrofit construction projects.

Strategic Objectives - Outputs

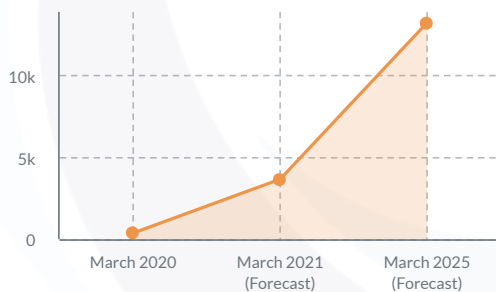


Business Support & Skills

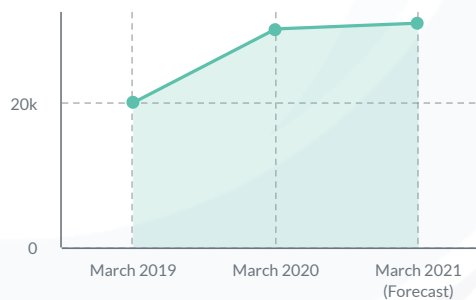
Businesses Supported (Cumulative)



Direct Jobs Created (Cumulative)



Students Supported (Cumulative)



Outcomes by March 2025

11,000+ Housing
Supported/Accelerated



to boost growth in the
county

2,500+ New Learners



in courses leading to full
qualification

£993m+ in Leverage



additional investment as a
result of the LGF funding

26,000+ Indirect Jobs
Supported



in supporting sectors such
as supply chain

Skills Team



COVID-19

Before the pandemic, Oxfordshire had one of the **most highly skilled populations** in the UK. We are yet to understand the impact it will have on businesses and employees coming off furlough.

It is expected that the biggest unemployment challenge will be on young people aged **18-24** years of age, and we are already seeing **250% leap** of Universal Credit claimants in that age range across the Bucks, Berks and Oxfordshire region.

To respond to this, the Government has created **10 Skills Recovery programmes** focusing on support the 16-24 age group.

We are identifying ways we can inform and engage businesses about these initiatives. In order to do this, we are working in collaboration with various agencies including DWP, National Careers Service, DfE, ESFA, Activate, Oxford City Council and Aspire.

Businesses Supported in Offering Work Experience Placements



2021 dip due to the impact of COVID-19 - only risk assessing "High Risk" placements. Impact and commitment from schools/employers may mean <100% recovery

Outcomes Achieved to March 2020

30,000+ Students Supported



53 Schools Supported



29 SMEs helped to take on their 1st apprentice



2,500 Business Supported



12 SMEs Supported through ESF programmes



European Union
European
Social Fund

Qualification levels

Oxfordshire District Qualification Levels

Qualifications	Cherwell	Oxford	South Oxfordshire	Vale of White Horse	West Oxfordshire
All categories: Highest level of qualification	113,422	126,725	108,232	97,867	85,312
No qualifications	22,331	17,287	17,827	16,328	15,054
Highest level of qualification: Level 1 qualifications	17,202	10,519	13,133	11,559	11,324
Highest level of qualification: Level 2 qualifications	17,949	11,341	16,120	14,307	13,461
Highest level of qualification: Apprenticeship	4,671	2,338	4,116	3,968	3,352
Highest level of qualification: Level 3 qualifications	13,210	22,581	12,936	11,281	10,513
Highest level of qualification: Level 4 qualifications and above	31,830	53,977	39,727	36,420	28,076
Highest level of qualification: Other qualifications	6,229	8,682	4,373	4,004	3,532
Schoolchildren and full-time students: Age 16 to 17	3,084	2,879	2,885	2,856	2,220
Schoolchildren and full-time students: Age 18 and over	3,027	29,952	2,531	2,744	1,820
Full-time students: Age 18 to 74: Economically active: In employment	1,387	5,841	1,125	1,206	888
Full-time students: Age 18 to 74: Economically active: Unemployed	161	1,115	118	148	92
Full-time students: Age 18 to 74: Economically inactive	1,465	22,968	1,272	1,368	831

Source: ONS, Annual population Survey, December 2020

Traineeships

'Traineeships are an education and training programme that provide young people aged 16-24 with an intensive period of work experience and work preparation training, as well as offering them support in improving their English and maths, to give them the best opportunity of entering an Apprenticeship or employment.'

Overall, Trainees had positive outcomes in the 12 months after starting their Traineeship, with 29% beginning an Apprenticeship and 57% starting further learning within this time frame. There is a more marked divide between 16-18 and 19-23-year-old trainees, with the younger group less likely to begin employment¹ within 12 months of starting a Traineeship – 19% compared with 53%. The combined picture shows that around 75% of Trainees have started in any positive destination within 12 months of starting the Traineeship.'

Source: National Institute of Economic and Social Research, Institute for Employment Studies and University of Westminster, Estimating the impact of Traineeships Final Report, June 2019. Estimating the impact of Traineeships: final report (publishing.service.gov.uk)

Apprenticeship Achievements

Further Analysis of DfE Localisms dashboard Apprenticeship Achievements for 2020/21

Analysis by Gender:

Female Apprenticeship Achievements:

There is noticeable higher representation of females within:

- Health, Public Services and Care (82%)

The previously seen higher rates of females in Business and Law (67%) has now reduced to 55%.

Male Apprenticeship Achievements:

Male achievements are noticeably higher in:

- Construction and Built Environment (97%)
- ICT – increasing to 89% from 83% last year
- Engineering and Manufacturing, although reduced to 78% from (89 %) last year.

Therefore, there are notable under-representation in female achievements:

- Construction and Built Environment
- ICT
- Leisure, Travel and Tourism

Notable under-representation in male achievements:

- Health, Public Services and Care

Analysis of Apprenticeship Achievements by Age band:

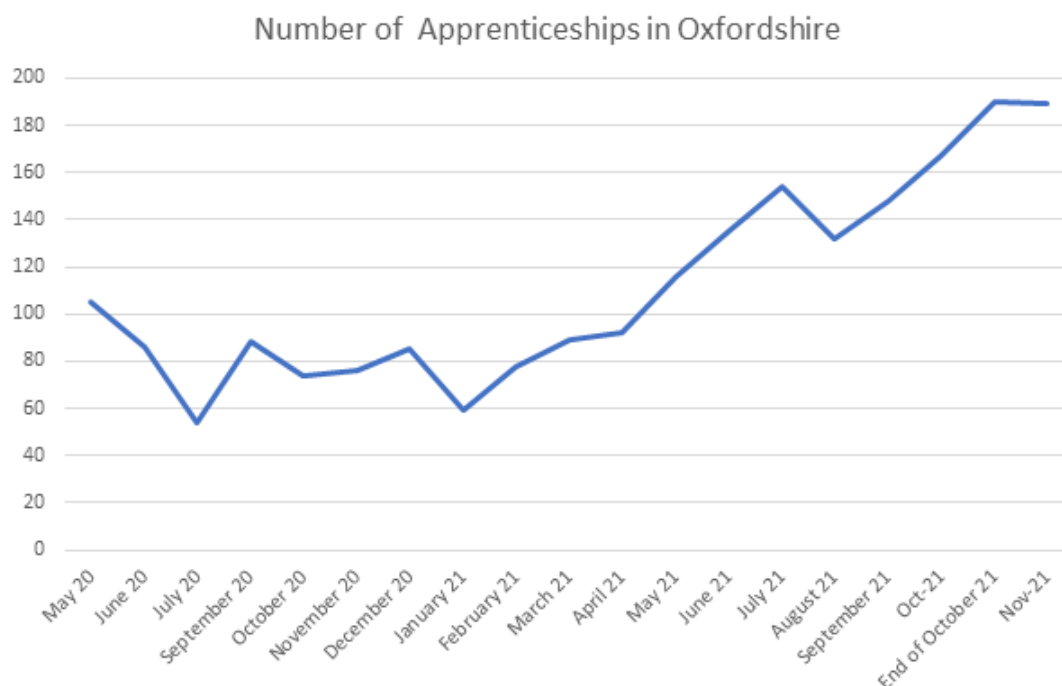
Source: DfE localisms Dashboard, 2020/21

- 40% of Apprenticeship Achievements were achieved by learners in the 19-24 age band
- 32% were achieved by learners aged 16-18, increasing from 16% last year
- 27% of learners were over 25
- Only 38% of Apprenticeship Achievers aged 16-18 were female and 41% aged 19 to 24 in contrast to 56% in achievers aged 24+.

These achievements in the 25+ cohort likely demonstrate the commitment by employers



Source: Oxfordshire County Council, OXME, Live Apprenticeship Vacancy Numbers, January 2020 <https://oxme.info>



Source: Oxfordshire County Council, OXME, Live Apprenticeship Vacancy Numbers, January 2020 <https://oxme.info>

to upskill and reskill staff, taking advantage of upskilling the current workforce through the levy through advanced and higher-level Apprenticeships. This could be because many of the organisations within these sectors are the larger levy payers in the area.

Live Apprenticeship Vacancy Analysis

The data above is taken from OXME. An internet scraper finds all Apprenticeships in our area from the [Apprenticeship.gov](https://apprenticeship.gov) site and uploads them to OXME. We then also add the odd ones that we find that are not on that site.

Prior to lockdown OXME consistently saw figures of around 110/120 Apprenticeship vacancies on our site, this was not the case during the height of the COVID-19 pandemic. There has however now been substantive recovery, as Apprenticeship vacancies in Oxfordshire hit record highs.

Source: Oxfordshire County Council, OXME, Live Apprenticeship Vacancy Numbers, January 2020 <https://oxme.info>

Advanced Oxford Analysis Employer Survey

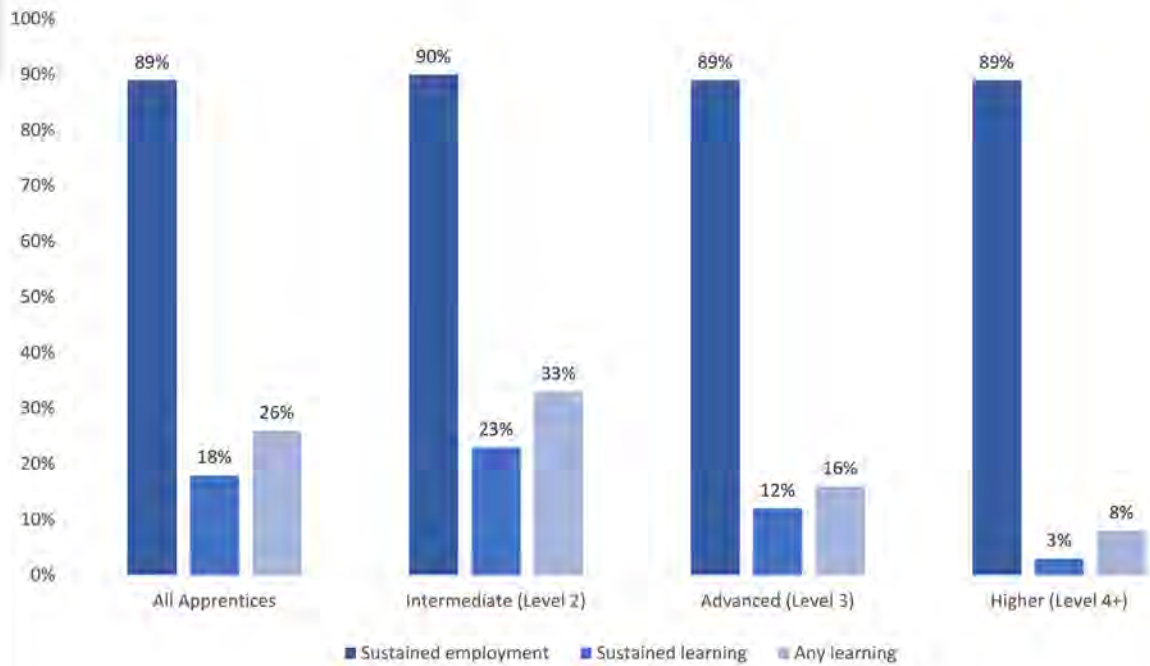
Apprenticeships was not identified once by any respondent interviewed as part of an

Advanced Oxford project involving employers associated with 'net carbon growth and development'. However, the project identified 'Skills' as the second most important issue to enabling growth and access to skilled employees scored highly.

Advanced Oxford is unable to offer any further analysis to determine why Apprenticeships failed to score at all. Given the growth potential within this cohort, it will be important to understand whether Apprenticeships can play a role for companies like those questioned. Advanced Oxford recommend that 'it would be particularly worthwhile to explore the issue of higher-level Apprenticeships at degree level and whether these could be encouraged as a means of injecting more engineering skills into the local economy. There would appear to be an opportunity for universities and further education (FE) within the region to be actively engaged in this issue, with the potential for greater partnership between FE and higher education providers, working with industry to increase provision of graduates with hardware and software engineering skills, not only into this sector, but into all the high-tech industries within the county.'⁶¹

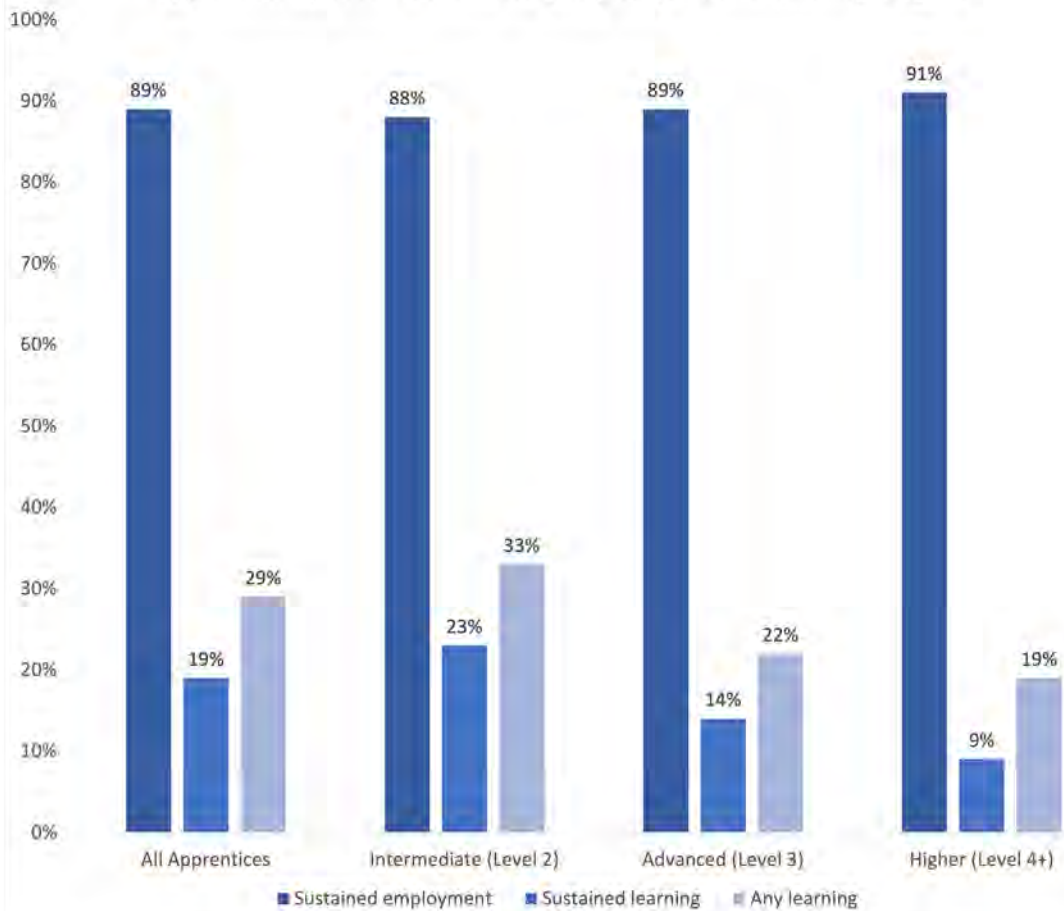
⁶¹ Advanced Oxford (2020)

Apprenticeship destinations in 2017/18 (2016/17 achievements) - Oxfordshire LEP



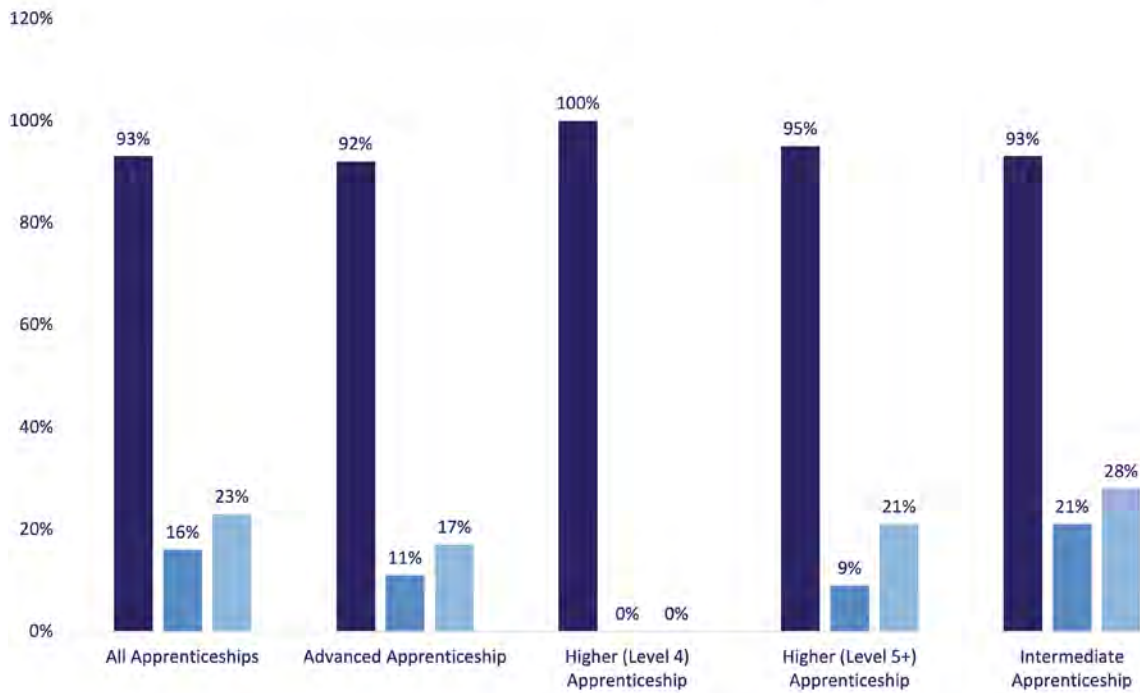
Source: FE outcome based success measures, 2016/17 achievements, DfE, (published 2019), 2018 LEP/MCA boundaries

Apprenticeship destinations in 2017/18 (2016/17 achievements) - England



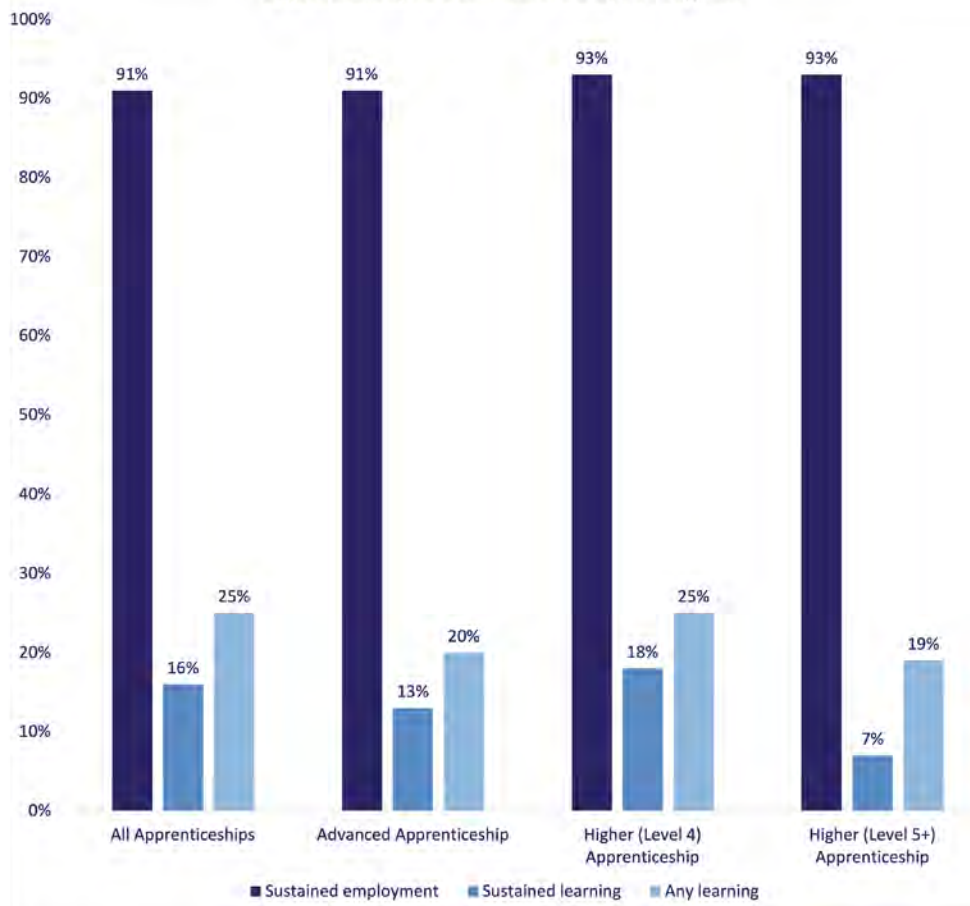
Source: FE outcome based success measures, 2016/17 achievements, DfE, (published 2019), 2018 LEP/MCA boundaries

Apprenticeship destinations in 2018/19 - Oxfordshire LEP



Source: FE outcome based success measures, 2018/19 destinations, DfE, (published 2020), 2018 LEP boundaries

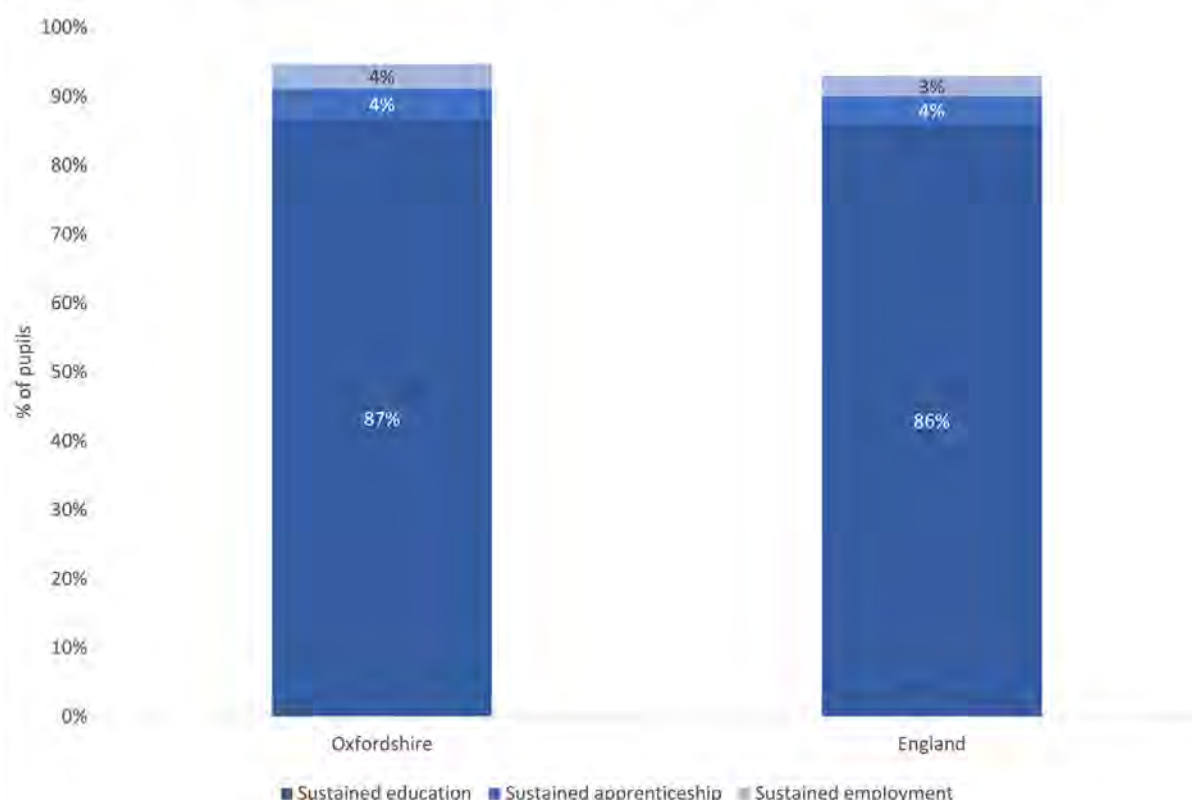
Apprenticeship destinations in 2018/19 - England



Source: FE outcome based success measures, 2018/19 destinations, DfE, (published 2020), 2018 LEP boundaries

KS4 destinations

Destinations of KS4 pupils from state-funded mainstream schools - 2017/18



Source: KS4 & KS5 destinations of 2017/19 leavers, DfE, (published 2019), 2020 SAP boundaries

KS5 destinations

Fears over the impact of coronavirus are fuelling a longer-term trend towards studying nearer home. This could be an opportunity for Oxfordshire, as the area's employers struggle to fill their skills needs and retention of graduates remains a challenge.

More students choose local universities as COVID-19 pandemic rages

Nearly a quarter of school pupils applying for university places want to be closer to home. More final-year pupils than ever before are applying to local universities so that they can study closer to home, amid concerns that the impact of the COVID-19 pandemic may extend into the next academic year.

Year 13 pupils across the country are currently finishing their applications ahead of the 15 January deadline, after which universities are

no longer required to consider applications equally.

A UCAS survey of more than 20,000 pupils planning to go to university suggested that nearly a quarter (23%) want to study closer to home, accelerating a longer-term trend.

"Young people in our focus groups have said they don't want to be far from their support networks. That's been thrown into sharp relief by pictures in the media of students struggling in halls," said Sarah Barr Miller, head of insight at the Universities and Colleges Admissions Service (UCAS).

"Traditionally, we had a boarding school system of higher education. You absolutely did not consider your local university. But we see a lot now want to stay local."

Marimar Antypa, a student at St Charles Catholic Sixth Form College in west London, said she had applied only to local universities to save money and stay close to family. "I see

the purpose of university as getting a job. If you're just going there to have fun, how is that beneficial for your future?"

Rob Trimble, deputy vice-chancellor of the University of Cumbria, said he had already seen a 10.5% increase in inquiries this year, with substantial rises in applications for vocational courses such as nursing, medical sciences, teaching and business.

For some low- and mid-ranking universities, local students enable them to stay afloat. Ray Powell, an admissions tutor at the University of Greenwich in south London, said that in recent years more selective universities had been "poach[ing] our higher-performing students" to fuel expansion, following the removal of the student numbers cap. "But increasingly, because of accommodation costs and all the rest of it, a good, local university is an attractive option."

A survey of 1,200 year 12 and 13 pupils by Access HE, a London social mobility charity, indicated that 30% thought the COVID-19 pandemic had made it more likely they would go to university. Nearly half (42%) of pupils on free school meals planned to study locally, compared with a third (30%) of their better-off peers.

This has been the experience at East Norfolk Sixth Form College in Gorleston-on-Sea, near Great Yarmouth, which has a high proportion of pupils from some of the UK's most deprived postcodes. "We've seen a further increase in students wanting to go to good quality local universities," said principal Catherine Richards. One pupil, Aref Shafiei, has opted for medicine at the University of East Anglia, his nearest institution, as his top choice after he was inspired by the NHS's work during the pandemic. He has already taken part in one of its outreach programmes. "I'm a bit

biased because of my relationship with the university," he said. "And I get homesick."

Graeme Atherton, head of Access HE, warned that focusing on local universities could limit young people's choices. "It's encouraging that more young people from across income groups want to go on to university, but every young person deserves the opportunity to progress to the university that best suits their abilities."

Competition for university places is expected to be particularly fierce as experts predict more pupils will apply than ever before. Barr Miller said UCAS was expecting a 5% jump in applications this year, despite a dip in the number of British 18-year-olds. This would follow on from a 12% increase in applications submitted before the early deadline of 15 October for medicine, dentistry, and veterinary sciences, as well as for places at Oxford and Cambridge.

She added that a projected decline in applications from EU students, who will pay higher fees after Brexit, might free spaces: "Savvy teachers will be recommending their students apply to the big-name universities because there's a chance they'll get in."

Some universities, including Birmingham and Sussex, have pledged to consider applications from students with lower grades because of disruption to their education during the COVID-19 pandemic.

Mark Corver, an admissions expert, and founder of dataHE said that although the January deadline didn't always follow October trends, he expected applications from 18-year-olds to rise. "This is because they generally do, employment alternatives are less attractive and predicted grades and any AS results will be higher than normal," he said.

Source: The Guardian, Students, More students choose local universities as COVID-19 pandemic rages, 2 January 2021

More students choose local universities as COVID-19 pandemic rages | Students | The Guardian

HE Graduate Destinations

The highest paid Oxford Brookes University and Business School alumni and graduates are legal department professionals at £66,000 annually. The lowest paid are Research and Development, Pharmaceuticals and Biotech professionals at £20,000. The best paying degree is PhD, with alumni earning an average salary of £157,000. Graduates who earn the lowest salaries are those with a Masters in Management degree, earning a salary of £36,000 annually.⁶²

The highest paid Oxford University & Said Business School alumni & graduates are Financial Services professionals at £104,000 annually. The lowest paid Oxford University & Said Business School alumni & graduates are Engineering professionals at £39,000. University of Oxford & Said Business School's best paying degree is Masters in Management, with their alumni earning substantially higher with an average salary of £135,000.

The latest figures from the Department for Education show that the course with the highest graduate salary is business and management from Oxford University. Those who graduated from this course after the 2010/11 academic year earned an average £74,100 five years after graduation compared to the national median earnings of £27,700. Oxford dominates the top three this year with Computing (£67,900 compared to national median of £29,200) and Law (£67,200 compared to median £26,300) coming second and third respectively.^{63,64} Graduates from Oxford University & Said Business School who earn the lowest salaries are those with another degree, earning a salary of £46,000 annually.⁶⁵

Graduate retention

HOUSING Median house prices in Oxfordshire are 50% higher than the English average. Median house prices across England have risen quickly in nominal terms since the turn of the millennium, from an average of £75,000 in the year ending March 2000 to more than £234,000 by end-2017. This period can be thought of in three phases. The first, lasting from 2000 until early 2007, saw rapid growth fuelled by a strong national economy, high levels of real wage growth and housing demand stoked by a growing population. Between early 2008 and late 2010 prices were flat, as the market absorbed the effects of the global financial crisis. Household savings rates went up as consumer confidence fell and there was less appetite for taking on new debt. In the period since then, prices have gradually begun to rise again, with the rate quickening slightly since 2014. Median prices in Oxfordshire were above the English average in 2000 and although local prices have followed the same trend, the divergence has continued. After a dip during the global financial crisis (when the median price fell by 10% from previous peak to trough), prices were essentially flat from the end of 2010 until the beginning of 2014, at which point they began to grow again, and at a faster rate than the English average. Consequently, the median house price in Oxfordshire ended 2017 almost 50% higher than the median price in England. At the local authority level, the direction of prices in four of the five authorities have largely moved in lockstep since 2000, although there remain some important differences between them. Oxford recorded the highest median price, at £400,000, and Cherwell the lowest, at £301,000. All four districts saw

⁶² [Emolument.com](#) (2020)

⁶³ The Telegraph (2020)

⁶⁴ [Gov.UK](#) (2020)

⁶⁵ [Emolument.com](#) (2020)

more concentrated growth in prices from early 2014; again, this is consistent with the generally improvement in the county economy witnessed from that year. The fifth district, which has followed the same trend but at a slower pace, is West Oxfordshire. Given the persistence of the trend, the reasons for it are likely to be structural: the major urban centres of London, Swindon and Reading are less accessible from West Oxfordshire than the other four districts. House prices are, on their own, not particularly indicative of the attractiveness or health of a regional economy. Of more value is housing affordability, most commonly measured by comparing the ratio of the median house price to median earnings. Oxfordshire has been shown to be a region with both above-average wages and above-average house prices. However, it is house prices that have showed the greater divergence from the national average and which make Oxfordshire score poorly on measures of housing affordability relative to local wages. On the next page, Figure 3.13 shows that three of the five districts – South Oxfordshire, Oxford and West Oxfordshire have a higher price to earnings ratio than the average for the South East. Of these, affordability in South Oxfordshire has worsened significantly since mid-2014. This is owing to two factors: the failure of the median wage in South Oxfordshire to grow in recent years and the surge in house prices in that authority over the same period. The median house price rose from £293,000 in 2014 to £377,500. Consequently, the price to earnings ratio in the region approached 13 in 2017, compared with an average for the South East of a little over 10.

Source: ONS, 'House price statistics for small areas in England and Wales', 2018, retrieved from: <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/bulletins/housepricestatisticsforsmallareas/previous>

Human capital is integral to the innovation ecosystem, as the people that generate and commercialise knowledge and innovation, attract business and investment. Critical to talent proposition is an ability to train, attract and retain world-class talent, developing skills aligned to business need, and encouraging entrepreneurial aspiration. Talent proposition also includes those outside the innovation ecosystem that provide essential support to it. Areas with world leading education institutes, such as the Research Triangle, perform well in this area if they can successfully retain talent. The talent proposition in Oxfordshire is bolstered by its two universities, who release highly skilled graduates into the Oxfordshire talent pool. Oxfordshire needs to do more work to retain this talent and attract and retain more international talent. Oxfordshire could also look to improve the way it nurtures and develops the skills of its domestic labour pool, for both high-tech jobs but also for the jobs that support the innovation industries.⁶⁶

⁶⁶ OxLEP (2018)

Housing Affordability

Poor housing affordability can prove a deterrent to young professionals hoping to live and work in Oxfordshire. Given the county's unhelpful demographic profile, retention of

young workers should be considered a priority. Without these workers, the region's ability to fill positions in high technology and innovative business sectors would be hampered, weakening Oxfordshire's competitiveness.

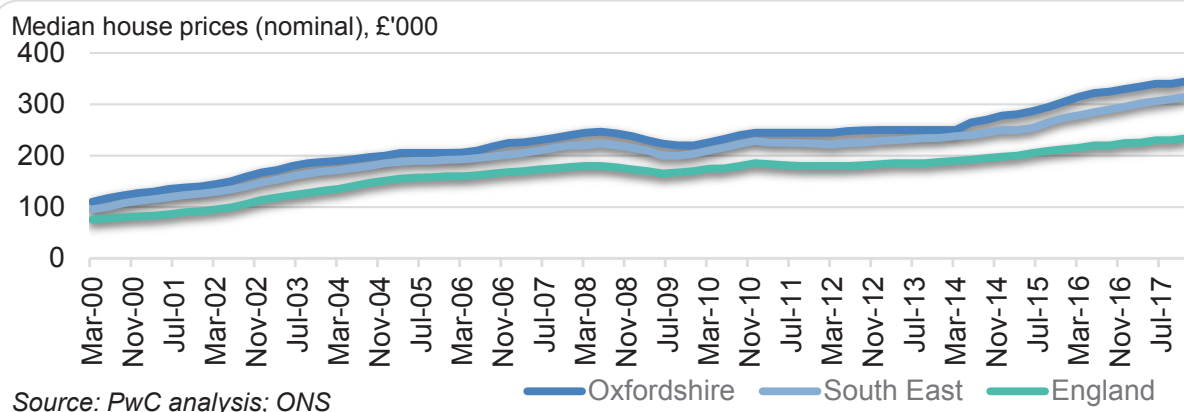


Figure 3-11 Housing prices, 2000-17

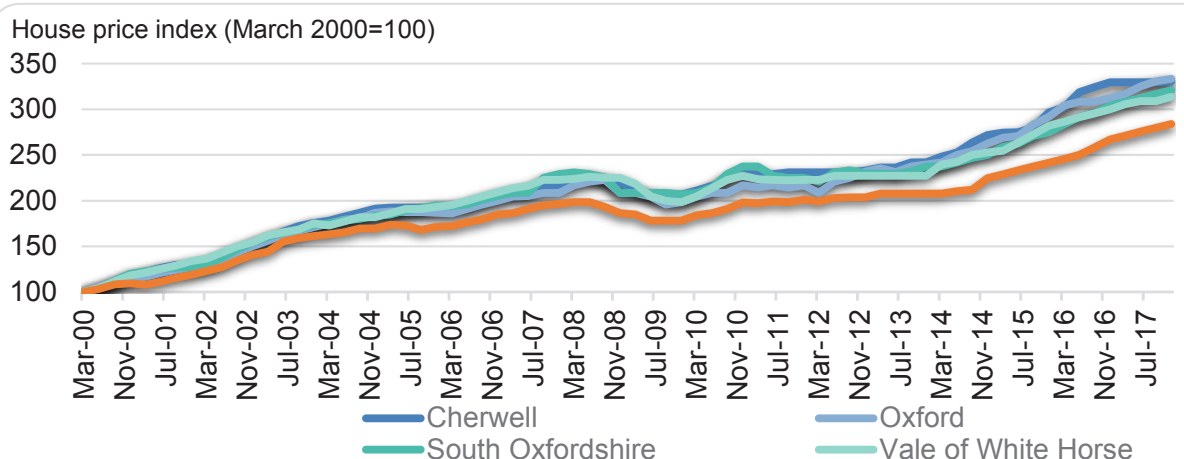


Figure 3-13 House price growth, 2000-17

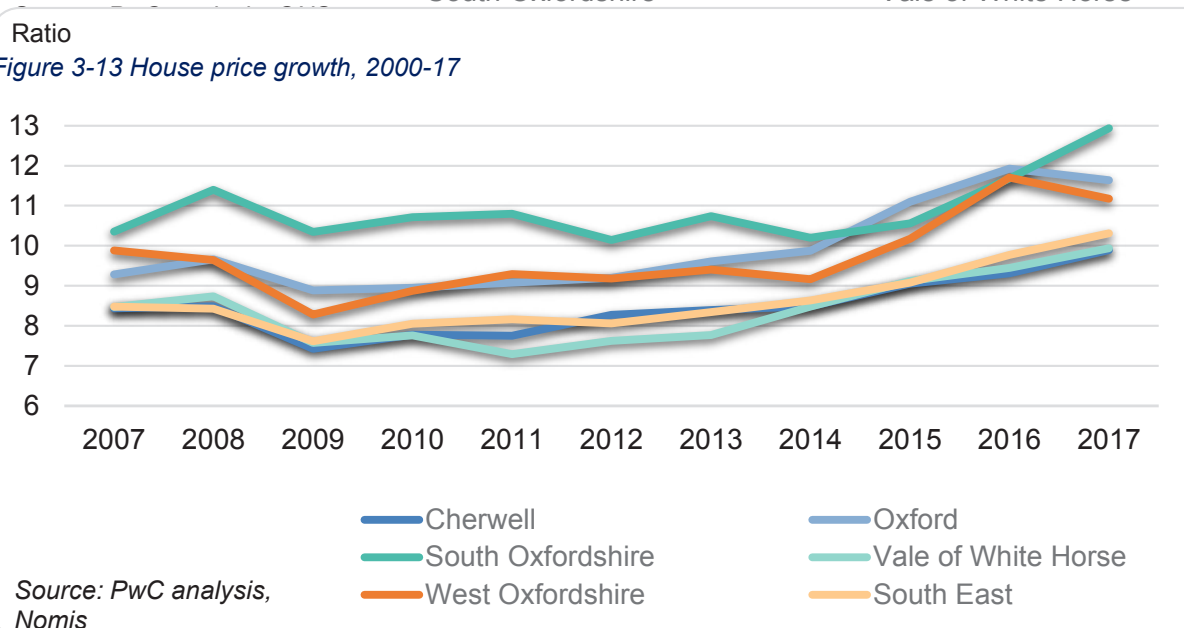


Figure 3-12 Median house price to earnings ratio, 2007-17

Source: OxLEP, Oxfordshire: a trailblazer for the UK economy, 2018 Economic Review: Baseline, December 2018 https://www.oxfordshirelep.com/sites/default/files/uploads/12_21%20Oxfordshire%20Baseline%20Economic%20Review%20v6%20%28no%20watermark%29_0.pdf

Employer provided training

Activate Learning - Skill Support for the Workforce and Unemployed in Oxfordshire

Skills Support for the Unemployed (SSU) is an ESF funded programme that helps unemployed people to retrain and gain skills up to a level 2 qualification to support with future employment.

In Oxfordshire, we receive referrals onto the courses from JCP's, local support programmes such as Aspire, and from the employability projects, WHP, JETS and RBRL. Participants can access a wide range of courses on the programme with no limit to how many they can participate in. An example of some of our courses:

- Employability
- Essential digital skills
- Customer Service (all settings)
- Health and Social Care
- Mental Health and Wellbeing
- Resilience and Grit
- CSCS
- Security and CCTV
- Warehousing and Distribution
- Business Admin

Numbers on the project are as follows:

Starts	419
Average no of courses per person	2
Progression to Education	3
Progression to Employment	38

The COVID-19 pandemic, as you would expect, has had various impacts on the project. All courses have had to be moved to remote delivery, for some participants this has been a benefit and has enabled them to join courses and not have the worries of childcare and travel. For others we have seen that both digital resources and capability have been barriers to joining the courses. For those participants unable to access remote courses, workbooks have been posted out to enable them to complete at home in their own time, with follow up support over the phone from tutors.

During the third lockdown, we are continuing to see engagement from participants, which is encouraging although numbers are down from September – October. With the expected increase in unemployed people in April at the end of the furlough scheme, the project is gearing up to ensure our courses are reflective of the local employment opportunities and to support participants with transferring their skill set from one sector to another.

Skill Support for the Unemployed

Support for the unemployed (SSU) in Oxfordshire is an ESFA project to train and upskill unemployed people to help them gain employment. The Oxfordshire Job Centres are the main source of referral on this programme, work coaches are able to signpost their participants to courses they feel will be relevant and suitable to assist the participant in finding employment. Courses are varied and range from entry level to level 2:

- Employability
- Customer Service
- Digital literacy
- Employability for the construction industry
- Security
- Mental health awareness
- Health and social care

The response during the national COVID lockdown dropped off, as understandably the pressure for the unemployed to find work during this time was relaxed. Many of our courses are now available remotely which is suiting those learners with access to technology, however many are still reliant on face-to-face delivery.

The project to date has worked with 396 participants, who have accessed £114k of educational funding. Participants have had success with progression into both further education and employment.

Skill Support for the Workforce

Skill support for the workforce (SSW) in Oxfordshire is an ESFA project to train and upskill employed workers to provide them with the opportunity to progress either into further education or gain promotion in the workplace.

Priority areas for the project were

- Health and Social Care
- Science and Engineering
- Digital and Creative Industries
- Construction and Built Industries
- Hospitality and Catering
- Distribution

The project has had success in several of these sectors, working with the NHS, care providers, creative industries, education, and distribution. To date the project has worked with 407 participants who have accessed £111k of educational funding.

Project participants have been successful with progressing within their current work setting and into further education.

The response during the COVID-19 pandemic lockdown from employers was good with many of them taking the opportunity to train their staff whilst they were on furlough or unable to complete their normal job role. Course offers are now blended with some remote and face to face offer, however many of the courses have converted to full online provision, which is proving really popular with employers.

Example of local employers and courses:

- Award for Personal Licence Holders course delivered to 5 staff at Museum of Oxford (Feb 2020), which has enabled them to increase their sales and offer to customers within the cafe and gift shop.
- Supervising First Aid for Mental Health course delivered to staff at RAF Benson (Sept and Nov 2020) which has enabled them to operate as Mental Health First Aiders and offer a valuable service to colleagues in the RAF.
- ILM Certificate delivered to 2 floor managers at Worcester Leisure (started Nov 2020) which will enable them to develop in their management careers. One of them also did the licence holders qualification.
- Forest School at Hobby Horse and other local schools and nurseries - level 1 has been completed and they will be moving up to level 2 (some started level 2 Nov 2020), enabling them to operate as Forest School assistant leaders.

Source: Activate learning, ESF Skills Support for the Unemployed (SSU) Programme and ESF Skills Support for the Workforce (SSW) Programme update, 27th January 2021

Skills Demand

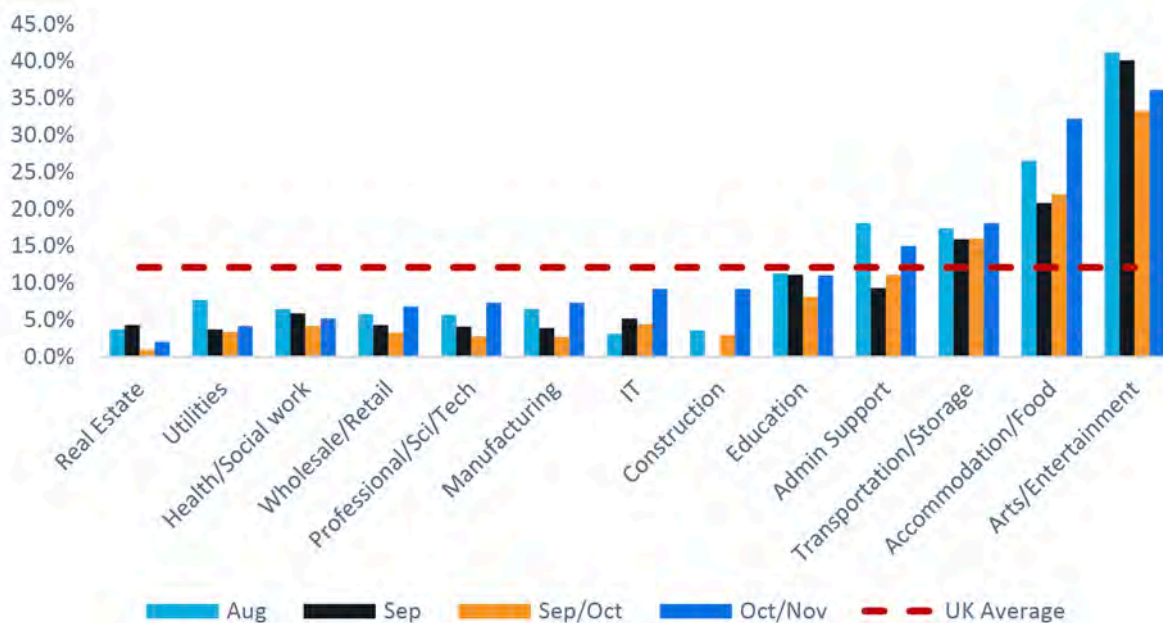
Sector growth forecasts

Table 0 1: Strengths of broad sectors in the five Local Authorities in Oxfordshire relative to the UK in GVA. 1 = UK average. Light Green = relative strong sector, dark green = relative very strong sector.

Sector	Oxford-shire percentage of GVA	Oxford-shire LQ	Cherwell LQ	Oxford	South Oxford-shire LQ	Vale of White Horse LQ	West Oxford-shire LQ
Real Estate Activities	16	1.17	1.33	0.80	1.26	1.21	1.51
Manufacturing	13	1.33	1.68	1.03	1.73	0.68	1.79
Education	11	1.87	0.77	4.10	0.98	1.17	1.22
Professional, Scientific & Technical Activities	10	1.24	0.70	1.01	1.84	1.95	0.63
Wholesale & Retail Trade; Repair of Motor Vehicles	9	0.89	1.26	0.47	1.13	0.90	0.76
Information & Communication	7	1.04	1.01	1.11	0.56	1.78	0.48
Human Health & Social Work Activities	7	0.98	0.77	1.92	0.40	0.63	0.68
Construction	5	0.88	0.84	0.72	0.76	1.22	1.00
Administrative & Support Service Activities	4	0.69	0.49	0.50	1.29	0.56	0.74
Public Administration & Defence	4	0.92	1.60	0.98	0.48	0.68	0.59
Transportation & Storage	3	0.61	0.63	0.38	0.69	0.63	0.99
Accommodation & Food Service Activities	3	1.05	0.91	1.12	1.18	0.64	1.68
Agriculture, Forestry & Fishing; Mining & Quarrying	2	0.62	0.65	0.23	0.45	1.33	0.57
Arts, Entertainment & Recreation	2	1.18	1.40	0.61	0.97	0.77	3.19
Other Service Activities	2	1.18	1.62	0.64	0.86	1.40	1.80
Financial & Insurance Activities	1	0.08	0.04	0.09	0.15	0.06	0.04

Source: ONS, 2018 (table from STEER Ed ERP)

Figure 0-1: Percentage of businesses with >50% decrease in turnover by sector

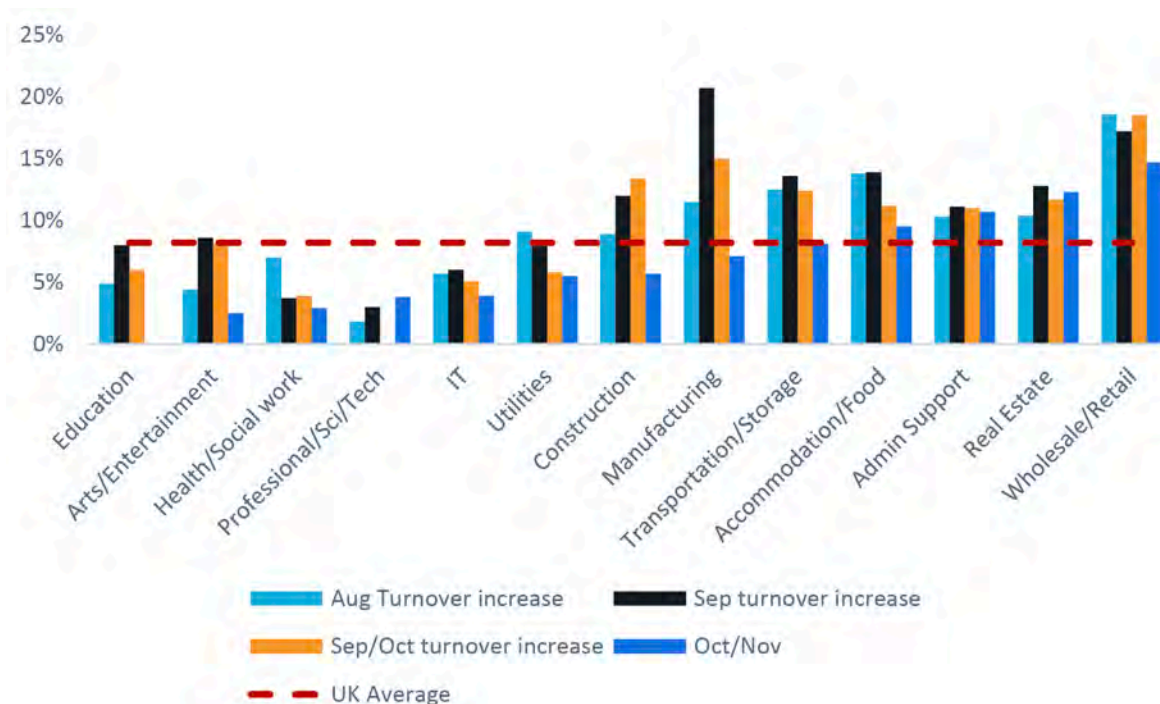


Source: BICS Survey, October 2020

Manufacturing, Wholesale/Retail, Real Estate, Professional, scientific & technical activities, and Education sectors all represent a high proportion of GVA for Oxfordshire (c. 60 per cent of all GVA). Two of these sectors, Real Estate and Wholesale/Retail have had the highest number of businesses reporting increases in turnover (Figure 0-2).

With this, and Manufacturing performing around average, Oxfordshire will have fared better than the average UK county, due to its underlying strengths in these sectors. However, there is cause for concern that Education is the sector with the lowest percentage of businesses reporting any increase in turnover.

Figure 0-2: Percentage of businesses with an increase in turnover by sector



Source: BICS Survey, October 2020

Not fully captured by these data are the variation within sectors. For instance, a low percentage of Professional/Scientific/Technical sector businesses have reported increases in turnover since COVID-19 pandemic restrictions were put in place. However, consultations –reported fully later in this report- indicated that some businesses in the Life Sciences sector in Oxfordshire have reported significant increases in turnover and demand. This has been reported across Oxfordshire and is a strong indicator that the economy of Oxfordshire is performing better than most of the UK, due to its underlying strengths in Life Sciences, which are of crucial importance presently and going forward.

Source: STEER ED, ERP, 2020

Skills that Need Developing

Employer Skills Survey Focus Group Findings

OxLEP commissioned a set of Employer Skills Survey focus groups to ascertain in more depth the specific skills need of the area. 'Based on a combination of data analytics and focus group feedback ...the overarching skills challenge can be framed around the need for the county to **prioritise three particular sets of cross-cutting 'enabling skills'**. These **enabling skills** have the capacity to facilitate productivity gains across three spheres of economic activity central to the county's future prosperity and delivery of quality public services. In light of this research, pressing skill investment would appear to be best targeted at developing each of these areas, including:

AI and Big Data Skills – Skill investment in this area is focussed on enabling Oxfordshire's innovation economy. Machine Learning and data science competencies enabling technological innovation both with respect to advanced engineering and medical/life sciences R&D as well as the upgrading and operating of existing advanced

manufacturing facilities to Industry 4.0 operations. Such skills enable not only the aspirations of Oxfordshire's Local Industrial Strategy but also technological solutions crucial to the expansion of the transition to a green economy.

Business and Digital Skills – Skill investment in this area is sector agnostic and focussed on enabling increased productivity across business operations, which form the backbone of the Oxfordshire economy. These include digital skills, ranging from computer literacy to software engineering to coding, and business skills with a focus on management and finance skills.

'Employers demand digital skills across occupations, industries, and locations. The challenge for policy makers is to develop a skills policy which takes this diverse and pressing demand into account.'

Baseline digital skills will get you a job, specific digital skills will power a career

Baseline digital skills are the ticket to entry, but it takes more than that to take full advantage of the digital economy. Specific digital skills define career fields, and propel workers into roles that pay more, offer advancement, and are less vulnerable to being automated. Programming skills are the most in demand cluster of digital skills whereas digital marketing and customer relationship management software tools are the fastest growing, changing the way that business hire for and execute these important functions.

Digital skills are driving changes in the job market

Many of the specific digital skills in this report redefine the skill requirements in the job market, even in well-established fields like marketing. For example, database and analytics skills are now required for marketing analyst positions. Possession of in-demand digital skills will help job seekers adapt as the job market changes.

Specific digital skills have spread far beyond the realm of IT

In fact, 68% of postings requesting these skills are outside of IT roles. The fastest growing specific digital skills are in the data analysis cluster and digital markets clusters. In each case, the roles calling for these skills are not traditional IT roles, but instead are becoming increasingly digitised as available data and tools increase in volume and sophistication.

Digital skills build resilience for workers in a turbulent, technology-driven labour market

Developing digital skills offers job seekers a salary differential in the short run. More importantly, perhaps, specific digital skills also reduce the risk that their roles will be made obsolete by automation in the future and give workers transferrable skills which allow them to progress to higher-paying careers or transition to new roles.’⁶⁷

Soft Skills – Skill investment in this area is focussed on job roles in the healthcare and social care sector, which are vital to Oxfordshire’s aging demographics. In addition to the routine medical and carer training required, there is acute employer demand for such soft skills and their accompanying jobholder characteristics for nurses, carers, and social care managers. These include qualities such as empathy, honesty, trustworthiness, and organisational skills, including the ability to self-manage. Matched with this are pressing concerns over labour shortages for both nurses and carers, especially following the end of the Brexit transition period and possibly the experience of COVID-19 pandemic. This raises the prospect that the valuation of such job roles, particularly non-medical caring positions, may need to become less driven by low wages and more driven by multi-skilled personnel capable of realising increasing levels of labour productivity.’⁶⁸

Consideration should be given to differences in skill demand but also to the nature of that demand across different geographical areas within Oxfordshire. There is clearly higher and unmet demand within the City of Oxford in comparison to other areas of the county and ‘Tentative evidence appears to suggest that Oxford City’s business ecosystem has some labour market characteristics more akin to that of global technology hubs in the sense of very high, and even unfulfilled, employer labour and skill demand for STEM roles;⁶⁹ Talent retention is highlighted as the suggested possible approach to addressing this with success leading to greater international talent attraction ‘beyond the attraction of academic talent. Talent retention may have been supported through intensified local participation in COVID-19 pandemic vaccine development and manufacture.

‘There has been significant demand by Oxfordshire employers for key cross-cutting skills that can enhance both employee capability and productivity. The transferability of soft skills, business skills and digital skills across considerable swathes of economic activity irrespective of sector and touching upon a wide range of occupations has the potential to be an impactful approach to the design of local skills policy. Its successful development into a deliverable strategy necessarily the matching of better articulated employer demand to responsive educational and training provision. It is within this space, acting as a bridge between the two, that OxLEP would be well placed to join up the broadest sources of employer support for a skills agenda to the widest possible range of career and up-skilling opportunities.’

Locally run focus groups were attended by employers from Bicester area and the wider Cherwell district council area, the Harwell Campus location, and a consortium of Oxfordshire Heath and Social Care organisations. One of these groups was held

⁶⁷ Burning Glass and DCMS (2019)

⁶⁸ Oxford Artificial intelligence Ltd (2021)

⁶⁹ Oxford Artificial intelligence Ltd (2021)

before the COVID-19 pandemic began, two as the COVID-19 pandemic evolved, and finally followed up by a Sector Agnostic group in December 2020 to capture any change in demand through the COVID-19 pandemic. The geographic focus group, attended well by employers, highlighted skills priorities to be around:

Soft skills:

- Environmental awareness with the main challenges around green awareness and lack of green investment contributing to poorer health and mental health. The solution suggested was around raising awareness at Primary School teacher level to engage young people from an early stage.
- Self-motivation and enthusiasm with the main challenge raised around the huge disconnect between the value-creating skills and the human skills. Employers felt that the main barrier to a solution would be the cost of training courses.

Cognitive Skills and Digital Skills:

- Communication skills were demanded including core literacy in English (specifically the ability to speak, read and write coherently).
- Proficiency in other languages, such as Chinese and Arabic (likely linked to internationally renowned Bicester Shopping Village and the Visitor Economy).
- Employers felt that devolution of skills training might enable their needs to be better reflected in Skills provision and that young people should be educated as to the application and importance of other languages as they are valued equally alongside spoken and written literacy.
- Educational Skills such as research and analytical capability were sought along with critical thinking.

Domain specific skills:

- Shortages identified in mechanical, automotive engineering, mechanical and creative design – challenges were around development of transferable skills, bias, recognising neurodiversity and the skills of the 50+ age group. It was felt that more community engagement and breadth of careers advice could provide a solution to these shortages.

Business Skills:

- Management and communication and project management were highlighted skills needs alongside those that can help drive business such as sales, profitability strategies, project management and communication.

Advanced technology Skills:

- Job specific requirements

Other Skills challenges were:

- Support needed to spend the Apprenticeship levy effectively including how to source training.
- linked to adaptability to change linked to cultural barriers.
- Staff retention – employers recognised the need to provide extra benefits such as home working/flexible working and working together to improve attractiveness of 'place'.
- Retention of professionals beyond their training period.

Source: Oxford Artificial Intelligence Ltd, Oxfordshire Labour Market and Employer Skills Survey Focus Group Mapping, February 2021

Space challenges

The UK Space Agency Space Sector Skills Survey 2020 identifies a number of skills challenges faced by the sector:

- Recent growth in the industry has placed stress on skills supply –growth in the number of people with the required skills has not kept pace with growth in demand.
- The industry has very high expectations of recruits exemplified not only by the breadth and blends of skills expected but also by the industry's frequent expectations of skills, particularly technical ones, being supported by qualifications at post-graduate level and/or by experience in the industry.
- The industry suffers from an internal, inward-focused approach to recruitment, with preferences for 'network' recruitment of experienced and known recruits – extending to staff poaching on occasion. This preference for experienced people already in the industry decreases industry's total training effort and reduces the skilled labour pool.
- Whilst the industry recruits easily across cultures, ethnicities, and nationalities, the number of women employed in the industry is under-representative of the working age female population. Female recruitment suffers from the historically lower proportions of girls and young women studying STEM subjects in schools and universities and, perhaps, from an image of the industry as a home for male 'nerdy' or 'boffin' types of people.
- Brexit has made it more difficult to recruit from Europe and has encouraged some European staff to return to their original countries.
- Whilst the industry offers good and competitive pay to its highly-qualified entrants, it may also struggle to increase pay at a point several years beyond recruitment –with consequent loss of high skills (particularly in software) to other sectors.

Source: Toby Warren, Warren-Gate, Economic Growth Update, March 2021 and UK Space Agency/BMG, Space Sector Skills Survey 2020: Research Report Space Sector Skills Survey 2020: Research Report - [GOV.UK \(www.gov.uk\)](https://gov.uk)

The importance of high level STEM skills in Oxfordshire

Conclusion

Headlines

- High level STEM skills are of key importance to the performance of the UK economy in terms of jobs, productivity, innovation and competitiveness.
- Engineering professionals and IT professionals appear to be particular priorities in terms of labour market need.
- There appear to be gaps in the coverage of higher apprenticeship standards and frameworks in some in areas of need.
- Apprenticeships need to support coherent career pathways but also provide sufficient coverage of the range of jobs roles within each occupational area.

Our analysis confirms that high level STEM skills are of key importance to the performance of the UK economy in terms of productivity and competitiveness. They also contribute a significant amount of employment: around 2.8m UK jobs based on our fairly tight definition of STEM occupations. High level STEM skills are also demonstrably important to the future development of many of the priority sectors identified in the Government's industrial strategy.

An analysis of trends in the economy and labour market, based on the UK Commission's Future of Work study, indicates that high level STEM skill requirements are being transformed by fundamental global trends relating to business, technology, society and the environment.

On balance it seems that there is no overall undersupply of qualified individuals to meet the demand for high level STEM workers. However, there are acute shortages in specific occupational areas. Investment by employers in the development of their existing staff STEM staff appears to be low relative to comparable occupational areas and may not be sufficient to meet business need.

Focusing down on priorities within high level STEM, engineering professionals and IT professionals represent strong priorities in terms of labour market need, based on our modelling work. Scientist occupations and Science, engineering and production technicians typically rank lower in terms of need, based on our approach.

Production managers in manufacturing could also be seen as a priority occupation, due to the scale of its employment and its economic significance, although evidence of market failure is less strong.

High level STEM jobs are increasingly positioned outside Manufacturing, in the Professional services sector and Information and communication sectors. It seems likely that the changing context in which STEM workers operate impacts on skills requirements. This may have implications for the way in which employers are organised in terms of their standards development role.

High level STEM employment mirrors the wider jobs picture in its concentration in London and the South East, with projections suggesting that this picture is unlikely to change in the medium term.

Our initial analysis of the emerging body of higher level apprenticeship standards, together with existing Higher Apprenticeship frameworks, suggests that at the current time there are gaps in coverage relative to occupations with labour market need. Some occupations appear to have no coverage (e.g. some scientific occupations) whilst others have coverage but the available standards appear to be relatively niche rather than covering the full scope of the occupation. Consideration will need to be given to these areas as the standards development programme progresses.

The primary focus of existing higher apprenticeship frameworks is on skills and knowledge at level 4. Our assessment of need suggests that there will need to be a continued shift in focus towards higher levels, within standards development, in order to provide effective progression routes to the professional occupations that we have identified as labour market priorities.

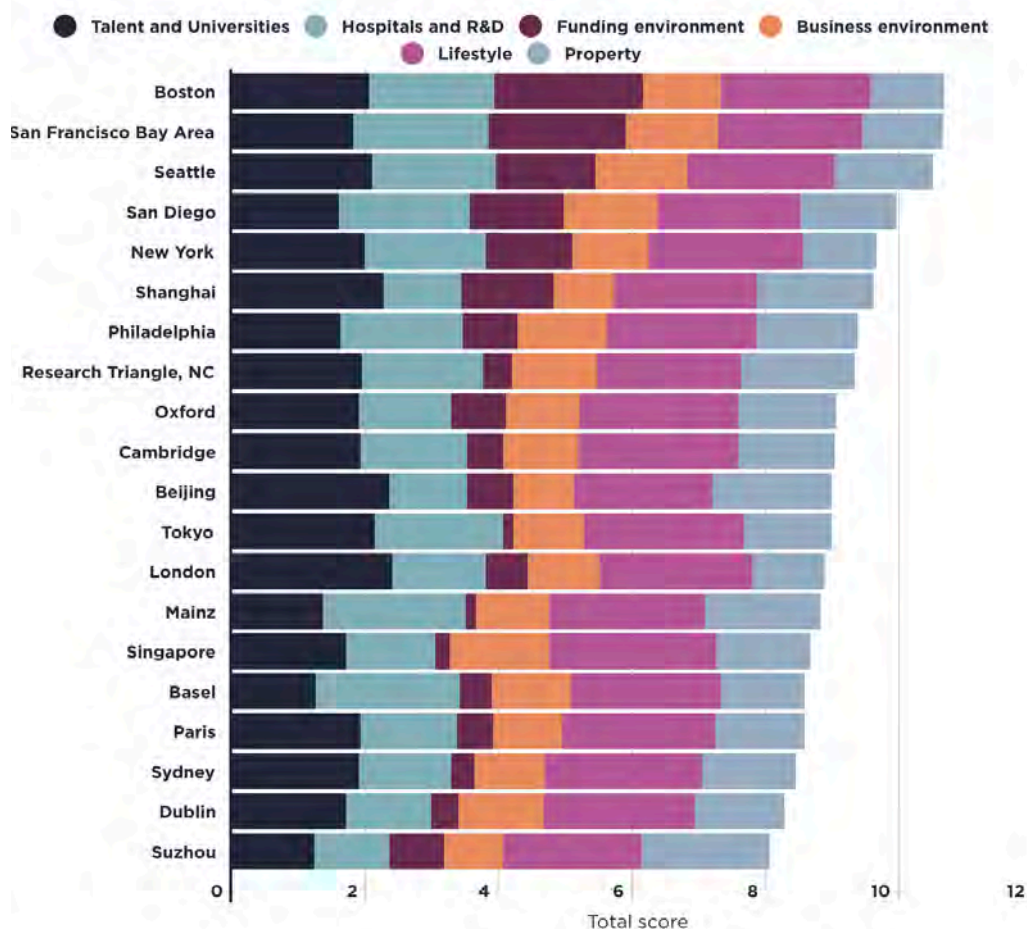
Recommendations

Based on these conclusions we make the following recommendations:

- Our analysis reinforces the importance of developing coherent career pathways within STEM occupations. In order to address priority needs, employers should actively consider the extent to which higher apprenticeships, including degree apprenticeships, can provide a relevant development route into professional level roles requiring STEM knowledge and skills at degree level. Employers should also consider the suitability of this route for progression into production manager roles.
- Working with employers, Government should consider how better general coverage of high level STEM occupations can be achieved through the standards development process. A rational approach is required that ensures that the broader requirements of an occupation are covered at the same time as more niche and sector-specific needs. Some standards, although notionally focused on niche areas, may have wider applicability across the occupation with limited modifications.
- The issue of diversity within high level STEM roles is not part of the scope of this review. However, its limited consideration of the evidence around gender balance supports the view that employers need to make major efforts to widen the talent pool available to them by making these occupations more attractive to women.

Source: Reviewing the requirement for high level STEM skills, UKCES, UK Commission for Employment and Skills, July 2015 High level STEM skills requirements in the UK labour market - [GOV.UK \(www.gov.uk\)](https://www.gov.uk)

Savills Science Cities, top 20



Source: Savills Research | Note: Talent and Universities, Hospitals and R&D, Funding environment, and Lifestyle received higher weightings than Business environment and Property categories

Source: Savills Research, Top 20 Science Cities (2021) Savills UK | Top 20 Science Cities

References/Bibliography:

- Activate learning, ESF Skills Support for the Unemployed (SSU) Programme and ESF Skills Support for the Workforce (SSW) update, 27th January 2021 – Internal document
- Advanced Oxford, Powering up for the Green Recovery, December 2020 <https://www.advancedoxford.com/green-recovery/>
- Annual Population Survey, October 2019 - September 2020, 2020 SAP boundaries
- Beauhurst, Innovation Ecosystem - The Opportunity for Growth and Recovery (2020) <https://www.beauhurst.com/research/oxfordshire-innovation/>
- Burning Glass and DCMS, June 2019, No Longer Optional: Employer Demand for Digital Skills No Longer Optional: Employer Demand for Digital Skills (publishing.service.gov.uk)
- Business Register and Employment Survey, 2019 (published 2020), 2020 SAP Boundaries Business Register and Employment Survey : open access - Nomis - Official Labour Market Statistics (nomisweb.co.uk)
- Centre for Cities, Cities Outlook 2021, January 2021 Cities-Outlook-2021.pdf centreforcities.org
- DfE, Employer Skills Survey, 2019 (published 2020), 2019 LEP boundaries Employer Skills Survey, 2019 (published 2020), 2019 LEP boundaries
- DfE, FE outcome based success measures, 2016/17 achievements (published 2019), 2018 LEP/MCA boundaries FE outcome based success measures, 2016/17 achievements, DfE, (published 2019), 2018 LEP/MCA boundaries
- DfE, Graduate Outcomes in 2017/18 (published 2020), 2020 SAP boundaries Graduate Outcomes in 2017/18, DfE, (published 2020), 2020 SAP boundaries
- DfE, KS4 & KS5 destinations of 2017/2018 leavers (published 2019), 2020 SAP boundaries KS4 & KS5 destinations of 2017/2018 leavers, DfE, (published 2019), 2020 SAP boundaries
- DfE, Localism Dashboard, 2020/21 achievements
- DfE, Skills for Jobs: lifelong Learning for Opportunity and Growth, January 2021 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/953510/skills-for-jobs-lifelong-learning-for-opportunity-and-growth.pdf
- DfE, Working Futures, 2017-2027 (published 2020), 2017 LEP boundaries Working Futures, 2017-2027 (published 2020), 2017 LEP boundaries
- DWP Stat Xplore, 2020 SAP boundaries Stat Xplore - Log in (dwp.gov.uk)
- Emolument.com, Salary Reports, Universities Accessed online: December 2020 <https://www.emolument.com/salary-reports/universities/oxford-brookes-university-and-business-school/14030?currencyCode=GBP>
- EMSI, 2020 Emsi – economicmodelling.co.uk
- Experience Oxfordshire, Press Release, pre-COVID-19 pandemic Tourism Figures Show Challenge Ahead for Oxfordshire's Visitor Economy, Accessed online: February 2021 Pre COVID-19 pandemic Tourism Figures show Challenge Ahead for Oxfordshire's Visitor Economy – Experience Oxfordshire
- GOV.UK (2020), Assisted Areas Maps 2014 to 2020 <https://www.gov.uk/government/consultations/assisted-areas-map-2014-to-2020-stage-2>
- GOV.UK, Explore education statistics, Graduate outcomes LEP provider level data, Accessed online: December 2020 <https://explore-education-statistics.service.gov.uk/data-tables/graduate-outcomes-leo-provider-level-data>
- GOV.UK, Oxfordshire housing and growth deal: outline agreement, November 2017 Oxfordshire housing deal - GOV.UK (www.gov.uk)
- Hatch Regeneris, Oxfordshire LEP Skills Advisory Panel Skills and Labour Market Research, October 2019 <https://www.oxfordshirelep.com/sites/default/files/uploads/%21OxLEP%20SAP%20Final%20Report%2001-11-19%20-%20EU%20logo.pdf>
- Hatch Regeneris, Oxfordshire LEP Skills Advisory Panel Skills and Labour Market Research Evidence Pack, October 2019 <https://www.oxfordshirelep.com/sites/>

<default/files/uploads/OxLEP%20SAP%20Evidence%20Pack%20001-11-19%20-%20EU%20logo.pdf>

- HESA, 2017/18 graduates (published 2020), 2020 SAP boundaries HESA, 2017/18 graduates (published 2020), 2020 SAP boundaries
- HESA, 2018/2019 qualifiers (published 2020), 2020 SAP boundaries HESA, 2018/2019 qualifiers (published 2020), 2020 SAP boundaries or <https://www.hesa.ac.uk/data-and-analysis/students/table-17>
- HMRC, COVID Job Retention Scheme statistics 2020: <https://www.gov.uk/government/collections/hmrc-pandemic-19-statistics>
- HMRC, Coronavirus Job Retention Scheme statistics: 29 July 2021: <https://www.gov.uk/government/statistics/coronavirus-job-retention-scheme-statistics-29-july-2021/coronavirus-job-retention-scheme-statistics-29-july-2021>
- HM Treasury, More than 19,000 jobs created by Kickstart Scheme so far, November 2017 More than 19,000 jobs created by Kickstart Scheme so far - [GOV.UK \(www.gov.uk\)](https://www.gov.uk)
- House of Commons Library, The health and social care workforce gap, January 2020, <https://commonslibrary.parliament.uk/the-health-and-social-care-workforce-gap/>
- Irwin Mitchell, Overcoming Disruption in 2022, UK Powerhouse Autumn/Winter 2021, November 2021 <https://irwinmitchell.turtl.co/story/uk-powerhouse-overcoming-disruption-in-2022/page/1>
- LABOUR INSIGHT, 2020 UK Labour Market Summary report, January 2021 activeinformatics.com/labourinsight/ 2020 UK Labour Market Summary report
- LEP Network (2020), Location Map <https://www.lepnetwork.net/about-leps/location-map>
- LITRG, Digital Exclusion, Low Incomes Tax Reform Group of The Chartered Institute of Taxation, April 2012 https://www.litr.org.uk/sites/default/files/digital_exclusion_-_litr_report.pdf
- London Economics, The economic impact of the University of Oxford, August 2021 Economic impact of the University of Oxford 2021.pdf
- MHCLG, Index of Multiple Deprivation, September 2019, 2017 LEP boundaries Index of Multiple Deprivation, MHCLG, 2019, 2017 LEP boundaries
- MHCLG, The Oxford-Cambridge Arc Government ambition and joint declaration between Government and local partners, March 2019, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/799993/OxCam_Arc_Ambition.pdf
- National Institute of Economic and Social Research, Institute for Employment Studies and University of Westminster, Estimating the impact of Traineeships Final Report, June 2019, Estimating the impact of Traineeships: final report ([publishing.service.gov.uk](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/799993/OxCam_Arc_Ambition.pdf))
- Nomis, Census, 2011 <https://www.nomisweb.co.uk/census/2011>
- Nomis, Claimant count by sex and age January 2020
- ONS, Annual Population Survey, July 2019 - June 2020, 2020 SAP boundaries <https://www.nomisweb.co.uk/datasets/apsnew>
- ONS, Annual Survey of Hours and Earnings, 2014 - 2019, 2019 LEP boundaries Annual Survey of Hours and Earnings, 2014 - 2019, 2019 LEP boundaries
- ONS Business Demography, 2014 - 2019 (published 2020), 2020 SAP boundaries
- ONS, Business Impacts of COVID-19 pandemic (BICS) Survey, 22 October 2020 – <https://cy.ons.gov.uk/economy/economicoutputandproductivity/output/datasets/businessimpactofCOVID-19> pandemic surveybicsresults
- ONS, Business Register and Employment Survey (BRES) 2019
- ONS, Claimant count January 2013 – August 2020, 2020 SAP boundaries Claimant count by sex and age - Nomis - Official Labour Market Statistics ([nomisweb.co.uk](https://www.nomisweb.co.uk))
- ONS, 'House price statistics for small areas in England and Wales', 2018, <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/bulletins/housepricestatisticsforsmallareas/previous>

- ONS, 2019 mid-year population estimates, June 2020
- ONS, Labour Markets in the Regions of the UK, January 2021 Labour market in the regions of the UK - Office for National Statistics
- ONS, Subregional Productivity, 2004 - 2018 (published 2020), 2018 LEP/MCA boundaries All data related to Subregional productivity in the UK: February 2020 - Office for National Statistics (ons.gov.uk)
- ONS, UK Business Counts, 2020, 2020 SAP boundaries UK Business Counts, 2021, 2020 SAP boundaries
- ONS, Understanding Towns in England and Wales: Spatial Analysis, October 2020 <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/articles/understandingtownsinenglandandwales/spatialanalysis/2020-12-07>
- ONS, Which occupations are at highest risk of being automated?, 24 March 2019 Accessed online 29 January 2020 <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/articles/whichoccupationsareathighestriskofbeingautomated/2019-03-25>
- Oxford Artificial intelligence Ltd, Oxfordshire Employer Skills Survey Final Report, February 2021 – Awaiting publication
- Oxford Artificial Intelligence Ltd, Oxfordshire Labour Market and Employer Skills Survey Focus Group Mapping, February 2021 Awaiting publication
- Oxford Artificial Intelligence, Oxfordshire Labour Market and Skills Monitor, January 2020 <https://oxlep-sap.ox-ai.com/>
- Oxfordshire Association of Care Providers, February 2021 Oxfordshire Association of Care Providers - Promoting and supporting adult social care in Oxfordshire (oacp.org.uk)
- Oxford Brookes University, Our Students Accessed online: February 2021 <https://www.brookes.ac.uk/about-brookes/at-a-glance/our-students/>
- Oxfordshire County Council, EET Casework Team, EET Challenges 2020, December 2020 – Internal document
- Oxfordshire County Council, EET Casework Team, Oxfordshire NEET & EET Provision, January 2021 – Internal document
- Oxfordshire County Council, Digital, Information and Learning, Library Support Service, Extracts from Bureau van Dijk (2021), FAME dataset
- Oxfordshire County Council, Oxfordshire Insight, Unemployment claimants to December 2020, Accessed online: December 2020 to December 2021 Unemployment claimants to October 2020 | Oxfordshire Insight
- Oxfordshire County Council, OXME, Live Apprenticeship Vacancy Numbers, January 2020 <https://oxme.info>
- Oxfordshire County Council, Oxfordshire Insight, Unemployment Dashboard, JSNA Bitesize on unemployment to June 2020, 16 June 2020 Unemployment dashboard | Oxfordshire Insight
- Oxfordshire County Library Digital Information and Enquiry Service, Bureau Van Dijk FAME, December 2020
- Oxfordshire Growth Board, About Us, 2020 <https://www.oxfordshiregrowthboard.org/>
- OxLEP, Life Sciences, 2021 <https://www.oxfordshirelep.com/business/invest-oxfordshire/sectors/life-sciences>
- OxLEP, Oxfordshire Economic Recovery Plan, 2021 <https://www.oxfordshirelep.com/publications>
- OxLEP OxAI, Oxfordshire Labour Market and Skills Monitor 2020 <https://oxlep-sap.ox-ai.com/categories/Oxfordshire%20Economic%20Stakeholders/Skills%20and%20Qualities%20Demanded>
- OxLEP, Oxfordshire: a trailblazer for the UK economy, 2018 Economic Review: Baseline, December 2018 https://www.oxfordshirelep.com/sites/default/files/uploads/12_21%20Oxfordshire%20Baseline%20Economic%20Review%20v6%20%28no%20watermark%29_0.pdf

- OxLEP, A trailblazer for the UK economy, 2018, Future State Assessment, December 2018 <https://www.oxfordshirelep.com/sites/default/files/uploads/Oxfordshire%20Future%20State%20Assessment.pdf>
- OxLEP, Oxfordshire Local Industrial Strategy, July 2019 <https://www.oxfordshirelep.com/lis> or https://www.oxfordshirelep.com/sites/default/files/uploads/Oxfordshire-SINGLE-PAGE_1.pdf
- OxLEP, Oxfordshire Skills Strategy, Building a 21st century skills ecosystem, 2016 <https://www.oxfordshirelep.com/sites/default/files/uploads/OxLEP%20Skills%20Strategy.pdf>
- OxLEP, The Investment Plan, Oxfordshire's Local Industrial Strategy, August 2020 <https://www.oxfordshirelep.com/sites/default/files/uploads/The%20Oxfordshire%20Investment%20Plan%20-%20August%202020.pdf>
- OxLEP Skills, Skills, employment and enterprise of Oxfordshire's ethnic minority communities Report, November 2021
- OxLEP Skills, Skills, employment and enterprise of Oxfordshire's ethnic minority communities Report, key Findings, November 2021
- Savills Research, Top 20 Science Cities (2021) Savills UK | Top 20 Science Cities
- Scale-Up institute, Annual Review 2020 <https://www.scaleupinstitute.org.uk/scaleup-review-2020/>
- Service Children's Progression Alliance, Regional Comparison Report, January 2021
- Skills for Care, A summary of the adult social care sector and workforce in Oxfordshire 2019/20, January 2021 Skills for Care - Home
- South East Local Knowledge and Intelligence Service, A profile of proxy food insecurity indicators in the South East, 18 January 2021
- The Guardian, End of the furlough scheme had smaller than feared impact on unemployment, 14 November 2021 <https://www.theguardian.com/uk-news/2021/nov/14/end-of-furlough-scheme-had-smaller-than-feared-impact-on-unemployment>
- The Guardian, Students, More students choose local universities as COVID-19 pandemic rages, 2 January 2021 More students choose local universities as COVID-19 pandemic rages | Students | The Guardian
- The Guardian, Unemployment, Over-50s who lose jobs much more likely to stay unemployed, study finds, 18 January 2021 Accessed online: 28 January 2021 Over-50s who lose jobs much more likely to stay unemployed, study finds | Unemployment | The Guardian
- The Telegraph, Britain's highest paying degrees, according to UK graduate salaries, August 2020 <https://www.telegraph.co.uk/education-and-careers/0/highest-paid-degrees-uk-top-graduate-salary/>
- Think [ING.com](https://www.think.ing.com), The Bank of England's jobs dilemma in four charts, Article (Accessed online 17th August 2021) <https://think.ing.com/downloads/pdf/article/the-bank-of-englands-jobs-dilemma-in-four-charts>
- Times Highers Education, World University Rankings, Accessed online: February 2021 University of Oxford | World University Rankings | THE ([timeshighereducation.com](https://www.timeshighereducation.com))
- Toby Warren, Warren-Gate, Economic Growth Update, March 2021 and UK Space Agency/ BMG, Space Sector Skills Survey 2020: Research Report Space Sector Skills Survey 2020: Research Report - [GOV.UK](https://www.gov.uk) (www.gov.uk)
- UKCES, UK Commission for Employment and Skills, Reviewing the requirement for high level STEM skills, July 2015 High level STEM skills requirements in the UK labour market - [GOV.UK](https://www.gov.uk) (www.gov.uk)
- UK Parliament, House of Commons Library, The health and social care workforce gap, January 2020 <https://commonslibrary.parliament.uk/the-health-and-social-care-workforce-gap/>
- University of Oxford, Facts and Figures – Full Version, Accessed online: February 2021 <https://www.ox.ac.uk/about/facts-and-figures/full-version-facts-and-figures>
- University of Oxford, Student Numbers, Accessed online: February 2021 <https://www.ox.ac.uk/about/facts-and-figures/student-numbers>



