

ANNEX B: SUPPLEMENTARY ANALYSIS

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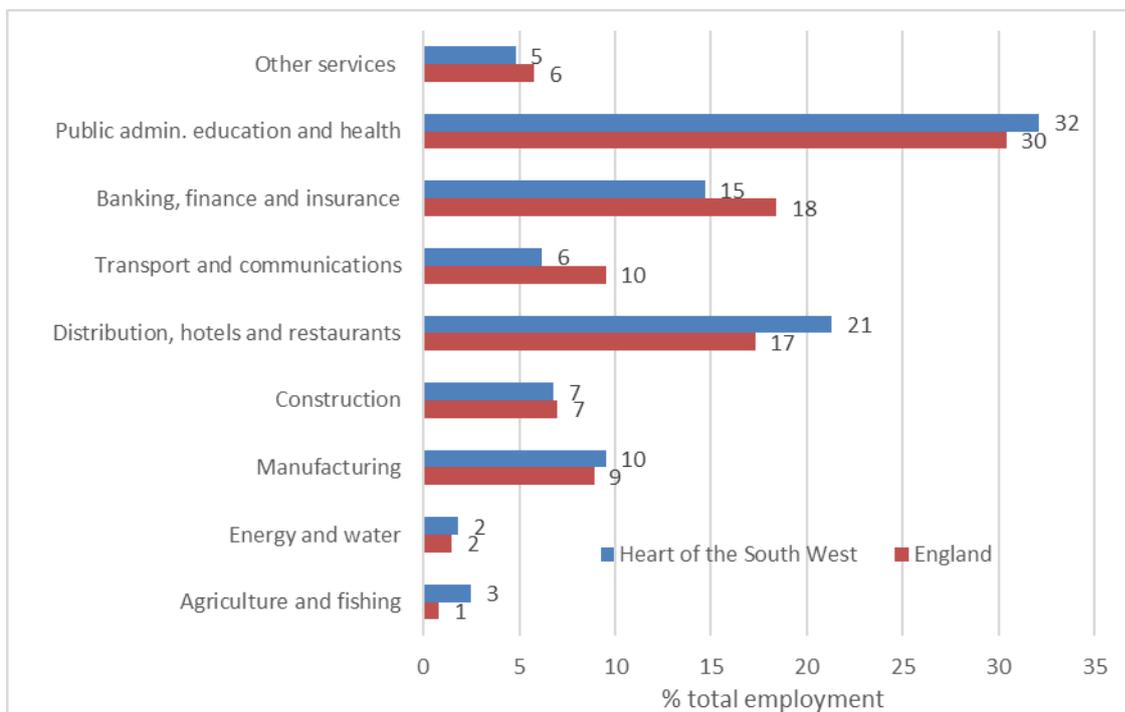
1. LOCAL LANDSCAPE

1.1. Employment by sector

Examination by industry sector reveals a distribution which broadly mirrors the England average with more than half of employment locally (53%) is in two sectors: public administration & health (32%) and distribution, hotels and restaurants (21%). This reflects, in part, the significance of the tourism industry locally and local market orientation of Heart of the South West employers¹. Compared the England average, the Heart of the South West is characterised by higher shares of employment in *distribution, hotels & restaurants* and *agriculture & fishing*; and lower shares in *transport and communications* and *banking and finance and insurance* (Figure 1)². These patterns are largely replicated across the Heart of the South West but with greater reliance on the following:

- *Energy & water* (3%) in Somerset
- *Manufacturing* (13%) in Plymouth
- *Public services* in Plymouth (38%) and Greater Exeter area (36%)

Figure 1 Distribution of employment by sector, Heart of the South West and England, July 2019 to June 2020



Source: Annual Population Survey

¹ According to the UK Employers Skills Survey 2019, 52% of Heart of the South West employers said that their customers were primarily located in their local area compared to 47% of employers nationally who replied similarly.

² Differences between the LEP and the England average for other sectors, are not statistically significant.

These results data concur with the sectoral specialisms revealed by the Business Register and Employment Survey (Table 1)³. In particular, the significance of:

- Manufacturing which accounts for one-tenth of employment locally with specialisms in: *transport* (especially boat and ship building and aerospace); *food and farming* (dairy products, tanning and dressing of leather and animal feed); *domestic appliances*; *electric motors, generators and transformers*; *medical and dental instruments and supplies* and *general purpose machinery*.
- Land-based sectors such as *agriculture & fishing* and the *quarrying of stone, sand and clay*; and *tourism-related activities* (i.e. camping and caravan sites and holiday accommodation) which depend on a high-quality natural environment to attract visitors
- *Generation, transmission and distribution of electric power*
- Activities related to human and animal health including *medical and dental practices*, *residential care homes* and *veterinary activities*.

³ Updated with 2019 data released on 6 November 2020.

Table 1 Location Quotients for Sector specialisms, Heart of the South West LEP area and England, 2019

3 digit SIC	LQ	Employment
Building of ships and boats	11.7	9,000
Tanning and dressing of leather; manufacture of luggage, handbags, saddlery and harness; dressing and dyeing of fur	10.0	1,000
Manufacture of dairy products	5.9	3,500
Manufacture of domestic appliances	5.5	1,250
Camping grounds, recreational vehicle parks and trailer parks	4.7	4,000
Holiday and other short stay accommodation	3.9	4,500
Quarrying of stone, sand and clay	3.8	1,500
DEFRA/Scottish Executive Agricultural Data	3.6	33,000
Other manufacturing	3.2	1,750
Manufacture of prepared animal feeds	2.7	1,000
Manufacture of medical and dental instruments and supplies	2.7	2,500
Manufacture of air and spacecraft and related machinery	2.3	5,000
Manufacture of electric motors, generators, transformers and electricity distribution and control apparatus	2.1	1,250
Manufacture of pharmaceutical preparations	1.9	1,500
Retail sale of other household equipment in specialised stores	1.9	11,000
Support activities to agriculture and post-harvest crop activities	1.8	1,000
Compulsory social security activities	1.8	2,000
Retail sale of automotive fuel in specialised stores	1.8	1,750
Residential care activities for the elderly and disabled	1.6	10,000
Electric power generation, transmission and distribution	1.6	3,500
Beverage serving activities	1.6	21,000

Source: Business Register and Employment Survey (BRES)

The Heart of the South West LEP’s Devolution Prospectus identifies six “Golden Opportunities” for future employment and economic growth. While these do not correspond easily to Standard Industrial Classification best-fit analysis suggest that these sectors accounted for 24.8% of all employment in England and 28.8% of employment in the Heart of the South West LEP area in 2019. While the Heart of the South already has higher concentrations of employment in “marine” and “rural productivity” and to a lesser extent “health and care”, the other sectors tend to be more concentrated in specific locations (i.e. “nuclear” in Somerset) and therefore have lower location quotients at the LEP level. This is shown in more detail in **Table 3**.

Table 2 Location Quotient and Total Employment by Golden Opportunity, Heart of the South West LEP area and Great Britain, 2019

	Total Employment 2019	LQ
Aerospace and Advanced Engineering	26,000	1.1
Digital Sector	18,000	0.5
Health and Care	91,000	1.2

Marine	12,000	4.0
Nuclear	28,000	0.8
Rural Productivity	49,000	2.2

Source: Business Register and Employment Survey (BRES)

Table 3 Location Quotient by Golden Opportunity, Heart of the South West LEP area upper tier local authorities, 2019

	Devon	Plymouth	Somerset	Torbay
Aerospace and Advanced Engineering	0.6	2.9	1.1	0.3
Digital Sector	0.6	0.3	0.4	0.3
Health and Care	1.1	1.5	1.2	1.9
Marine	1.3	29.0	0.3	4.0
Nuclear	0.9	0.7	0.9	0.5
Rural Productivity	2.9	0.4	3.1	0.5

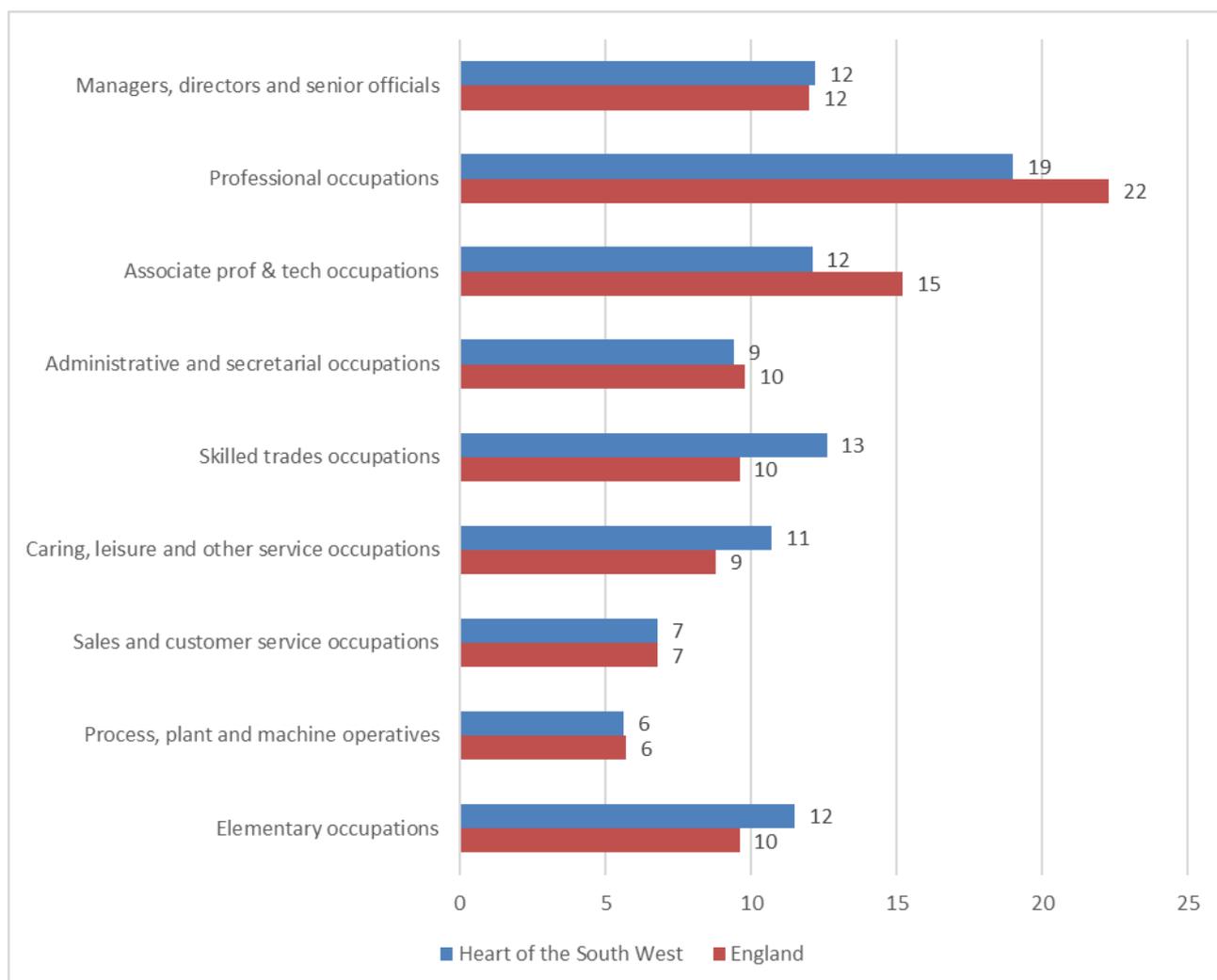
Source: Business Register and Employment Survey (BRES)

1.2. Employment by occupation

This industrial structure underpins patterns in the form of employment offered in the Heart of the South West. Employment in the Heart of the South West is distributed across occupations in a similar proportions to the national average (chart) with 'high skill' occupations - a grouping incorporating managers and senior officials and professions and associate professionals accounting for more than two-fifths of all those in employment. The remainder is broadly equally distributed between:

- Middle-skill occupations (22%) comprising administrative and secretarial and skilled trades
- Service-intensive occupations (18%) including caring and personal services and sales and customer service occupations; and
- Labour-intensive service occupation (17%) comprising plant and machine operatives and elementary occupations.

Figure 2 Employment by occupation, Heart of the South West and England, July 2019 to June 2020



Source: Annual Population Survey via NOMIS

Within these broad groups the largest single occupations at the sub-major SOC level are: *elementary administrative and service occupations* (10%), *caring personal service occupations* (9%), *administrative occupations* (8%) and *corporate managers and directors* (7%) and *business and public service associate professionals* (6%).

The distinctive characteristics of employment in the Heart of the South West vis-à-vis the England average⁴ include particularly high shares of employment among (Table 3):

- *Other managers and proprietors*
- skilled trades occupations and in particular *skills agricultural and related trades, textiles and printing and other trades*;
- *Caring personal service occupations*

⁴ Only includes differences that are statistically significant at the 96% confidence interval.

- *Elementary occupations.*

Taken as a group, 'high-skill' occupations are under-represented in Plymouth, Somerset and Torbay with lower than average shares in some specific groups at the LEP level:

- *Corporate managers and directors*
- *Science, research, engineering and technology professionals*
- *Business, media and public service professionals and associate professionals*
- *Culture, media and sports occupations.*

Table 4 Distribution of total employment by sub-major group (SOC2010), Heart of the South West and UK, July 2019 to June 2020

Occupation	Heart of the South West		England
	Number	%	
Corporate Managers and Directors	61,100	7.2	8.7
Other Managers and Proprietors	42,400	5.0	3.3
Science, Research, Engineering and Technology Professionals	40,100	4.7	6.2
Health Professionals	34,900	4.1	4.6
Teaching and Educational Professionals	47,000	5.5	5.2
Business, Media and Public Service Professionals	39,300	4.6	6.2
Science, Engineering and Technology Associate Professionals	14,500	1.7	1.9
Health and Social Care Associate Professionals	15,400	1.8	1.6
Protective Service Occupations	6,600	0.8	1.1
Culture, Media and Sports Occupations	15,400	1.8	2.6
Business and Public Service Associate Professionals	50,500	6.0	7.9
Administrative Occupations	63,900	7.5	7.7
Secretarial and Related Occupations	16,000	1.9	2.1
Skilled Agricultural and Related Trades	17,400	2.0	1.0
Skilled Metal, Electrical and Electronic Trades	29,600	3.5	3.5
Skilled Construction and Building Trades	33,600	4.0	3.2
Textiles, Printing and Other Skilled Trades	26,000	3.1	2.0
Caring Personal Service Occupations	73,300	8.6	6.9
Leisure, Travel and Related Personal Service Occupations	17,200	2.0	1.9
Sales Occupations	45,900	5.4	4.8
Customer Service Occupations	12,000	1.4	2.0
Process, Plant and Machine Operatives	19,800	2.3	2.3
Transport and Mobile Machine Drivers and Operatives	27,600	3.3	3.4
Elementary Trades and Related Occupations	16,500	1.9	1.4
Elementary Administration and Service Occupations	80,800	9.5	8.2
ALL OCCUPATIONS	846,800	100	100.0

Source: Annual Population Survey (Workplace analysis) accessed via NOMIS

Devon's employment structure is not statistically different to that of England⁵. The occupational profile reflects the industrial structure of the local area and in particular the

- Under-representation of financial and business service employment and associate job opportunities in professional occupations.

⁵ Small sample sizes mean that most differences between the occupational profile of local authority areas in the Heart of the South West and the England average are not statistically significant even when occupations are into collapsed into larger groups.

- Over-representation of the production sector locally, creating demand for skilled trades

Since working practices and hours of work differ across occupations, the LEPs occupational and industrial structure also influences the nature of employment opportunities available locally. Key characteristics include high incidence locally of:

- Part time working (29%, compared to England average of 24.5%) particularly among women and in East Devon and Exeter, and Devon overall⁶.
- Self-employment especially in rural areas⁷ with almost a fifth (19%) of those in employment in the Heart of the South West working for themselves rather than as an employee (compared to 15% across England).

The rate of temporary working is low (5%) and is only statistically higher than the England average in Exeter. These characteristics are significant in terms of access to training since part-time employees, the self-employed and managers, are less likely than other workers to participate in job-related training.

⁶ Part time working is lower than the national average in Sedgemoor (21%).

⁷ Self-employment is particularly high in rural Devon but is only statistically higher than the England average in Torridge (40%) and West Devon (31%).

1.3. Enterprise by size

In common with England as a whole, vast majority of enterprises are micro businesses employing less than 10 people. Medium and large companies account for a slightly smaller share of all enterprises than the UK average, partly reflecting the higher distribution of self-employment in the LEP area. As noted in the SAP guidance, the positioning of head offices also plays a role here, and these traditionally higher wage roles are more likely to be concentrated around (especially high GVA) urban centres in contrast to the highly rural nature of the LEP.

The LEP area contains more of the lowest turnover firms: almost one-in-five had less than £50,000 in 2019. There were fewer than 100 firms across the area turning over more than £50m. The combination of small size and low turnover puts many companies in the Heart of the South West in a relatively vulnerable position: this is likely to be an area of concern with regards to the impact of the pandemic and Brexit as well as any other economic fluctuations.

The Heart of the South West has one of the lowest proportions of foreign-owned businesses of all the LEP areas at only 0.3%, with only Cumbria and Cornwall & the Isles of Scilly having smaller percentages. It is likely that the LEP area has a higher than average proportion of family owned firms, as the South West has the highest proportion of family-owned firms of all of England's regions (90%).

Differences in legal status are more pronounced: although there are only marginally fewer private sector enterprises (less than half a percentage point of difference), there are significantly fewer companies and more sole proprietors and partnerships. More enterprises are classified under local authorities.

One in six enterprises in the Heart of the South West is in agriculture, forestry & fishing: and while more than one-on five are in business & financial services¹, this compares to one-third nationally. There are also slightly more in production (excluding agriculture).

The Heart of the South West's firms were considered to be among the least likely to be "innovation active" according to the most recent data available at the LEP level for the UK Innovation Survey: this data is not currently available at the LEP level for the most recent 2016-2018 survey. The MIT REAP innovation report notes that only Leicester and Leicestershire had a lower level of 'innovation active' firms. In sectoral terms, accommodation and food service companies were the least likely to have innovated: this is an area closely tied to the local reliance on tourism.

In 2018 the Heart of the South West's businesses exported £3,698m in goods to international markets - this represented 10.1% of the demand for its total output (10.1% of GVA), which is significantly lower than the regional and national averages of 15.4%, and 17.8% respectively. However, in the Heart of the South West higher than average percentages of businesses exported to EU and non-EU markets, suggesting a low individual value per export.

1.4. Births and deaths of enterprises over time

There were more than 2,000 additional enterprises in 2018 than three years earlier. However, growth overall has been lower than England average – the strongest growth locally was in Taunton Deane, Teignbridge, Exeter, and East Devon. Only Plymouth has birth rate that equal to the national average. The areas with highest birth and death rates also have the highest rates of business growth. The business birth rate for the LEP was lower than the England average and following the national trend, was lower in 2018 than three years earlier. The birth rate was higher than death rate.

Survival rates have been generally high at the 5 years mark across most districts of the LEP except for Plymouth and to a lesser extent Taunton Deane. Many districts have around half of enterprises survive at least 5 years compared to 42.5% nationally. Survival rates been falling over time, however: this equates to a drop of 3 percentage points across Devon, 5 in Plymouth, 2 in Torbay, and 3 in Somerset.

According to data drawn from the ESRC's UK Local Growth Dashboard, fewer than average start-ups in the Heart of the South West scaled up from under £500,000 turnover to over £1 million as well as from £1 to 2 million to over £3 million between 2015 and 2018. An additional survey from Ash Futures & South West Growth Service of 483 businesses in the area found that 34% of respondents had achieved growth rates of over 20% in the last 3 years, although this is likely to have been skewed higher than the actual figure due to self-selection impact among the respondents. The vast majority of respondents, nonetheless, intended to grow their businesses, although this was prior to both the UK's exit from the European Union and the current pandemic.

1.5. Employment level and rates

According to the survey, the number of Heart of the South West residents in employment reached 848,100 during July 2019 to June 2020. At 78.6% the employment rate is close to 'full employment' and is higher than the England average (76.5%) for the same period, suggesting that the area is successful in generating employment opportunities for its residents. Rates, do however, vary across the patch and are lower for some population groups than others. Key differences include:

- Lower rates in Torbay (73.1%) and Plymouth (74.2%) than in Devon (80.3%)⁸.
- Females (70.9%) in the Heart of the South West have higher employment rates than males (50.8%) at ages 16 to 24 but lower employment rates in all other groups.
- The employment rate locally for those with a disability (56.4%) is significantly lower than those that do not have a disability (84.3%).

⁸ Only the results for Devon are statistically different to the England average (76%). The Employment rate in Somerset is not statistically different to the England average or other districts within the LEP area.

- Lower than average employment rates among the youngest⁹ and oldest¹⁰ age groups with the propensity to be in employment peaking between 25 to 49 years (88.7%).

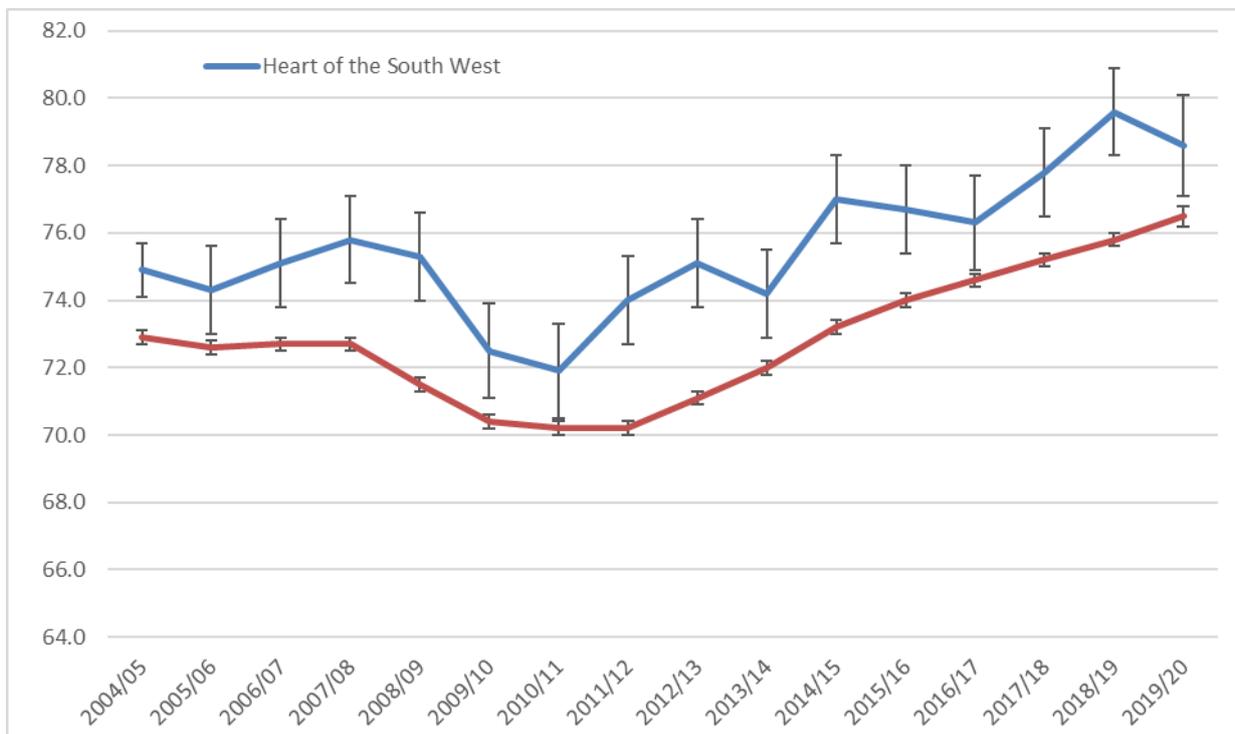
While we know that belonging to an ethnic minority group is associated with lower employment rates (67.6%) than the “white” population (78.2%) nationally, the difference between the two groups is not statistically significant locally.

The employment rate for 16 to 19 year olds locally (48.2%) is high by national standards (35.6%). This could reflect lower levels of participation in full time education since students are classified as economically inactive if they did not do any part time work in the week before taking part in the survey. It could also however, reflect, higher levels of part-time working locally among students.

Annual Population Survey is also available on a workplace base, providing an illustration of the forms of work provided by establishments in the Heart of the South West.

The Heart of the South West has excellent track record in generating employment opportunities for local people. The employment rate has comfortably exceeded the national average in each of the last 16 years and at 78.6%, is currently close to the level traditionally associated with ‘full employment’. The rate has followed an upward trajectory since 2010/11 but year-on-year changes can be difficult to call since the differences are usually well within the confidence intervals associated with the point estimates¹¹. It is impossible to determine, therefore, whether, or to what extent, the decline in the employment rate between 2018/19 and 2019/20 captures early effects of Covid-19 or is simply variance associated with the relatively modest local sample. The latest estimate relates to the 12 month period ending June 2020 includes three months of data that is likely to be affected by the early lockdown but the lack of impact in the national data suggests for this period that this decline observed locally is likely to be mainly associated with sample variance.

Figure 3 Employment rate, Heart of the South West and England, annual estimates for July - June period 2004/15 to 2019/20

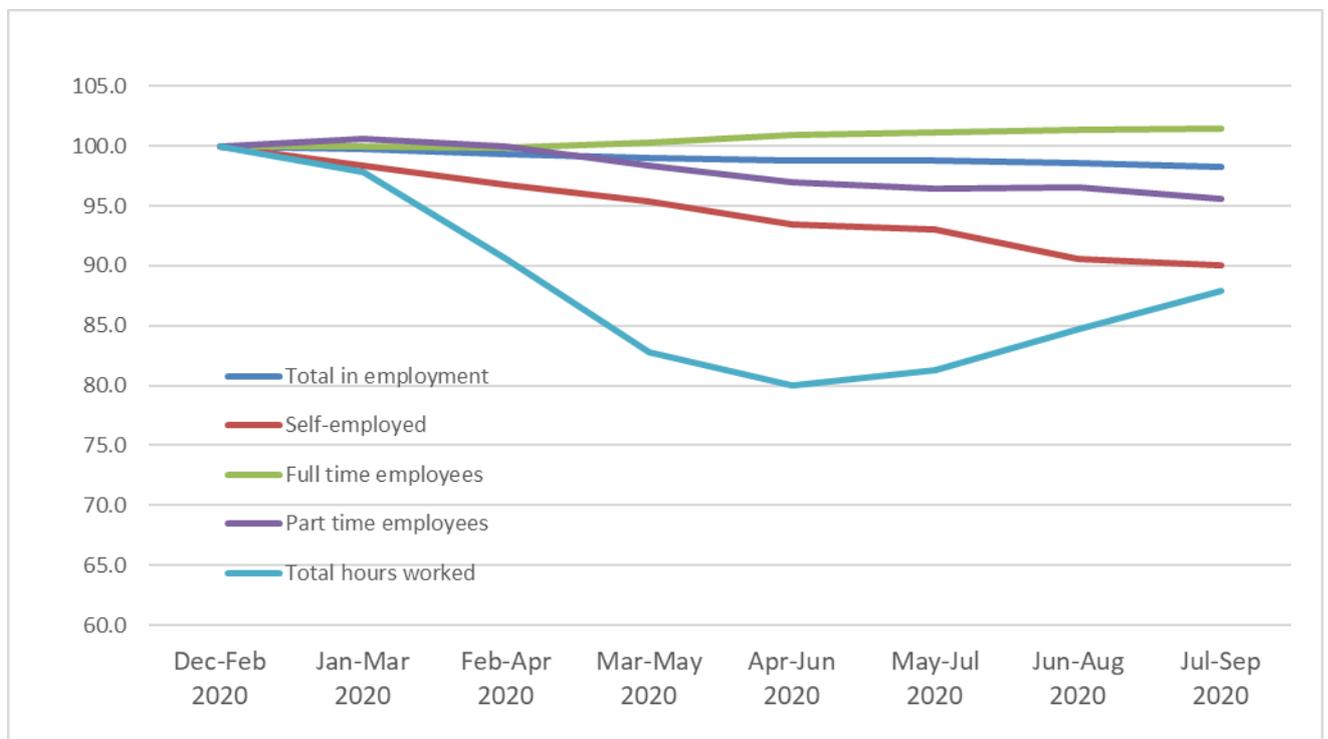


Source: Annual Population Survey

The lack of timely and reliable data at the local level means that we must look to national trends for clues to how the pandemic is affecting employment conditions locally. Quarterly data from the Labour Force Survey, for example, suggests that employment across the UK has fallen consistently each quarter since December 2019 to February 2020. The latest survey, relating to July to September 2020 puts the employment rate of the UK at 75.3%, a full percentage point lower than that recorded during January to March 2020. The same survey suggests that almost ½ million fewer people are currently in work than at the start of the pandemic (Table x). Given that the Heart of the South West employment tends to mirror those of the wider UK, it would also seem highly likely that the level and rate of employment locally is also currently lower, than the latest Annual Population Survey suggests.

Examining national data in more detail reveals what types of employment, and what population groups are being disproportionately affected by the downturn in labour market conditions. The positive news is that as the economy has opened up, the demand for labour has recovered somewhat, although total hours worked remains lower than pre-pandemic levels (Table x and Figure x).

Figure 4 Quarterly employment trends (December 2019 to February 2020 = 100), United Kingdom, December to February to J



Source:

<https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/datasets/summaryoflabourmarketstatistics>

Less positively, it is clear that this increase in activity has yet to arrest the decline in total employment even though furloughed employees are still counted within the statistics. Furthermore, self-employed and part-time employees, appear to be facing a far more challenging set of labour market conditions than full time employees reflecting the disproportionate effect of the pandemic across some sectors and occupations. The number of full-time employees currently exceeds pre-pandemic levels after falling in early months of the pandemic. Self-employed and part-time employees, however, have not shared in this recovery: there are currently 566,000 fewer self-employed people and 307,000 fewer part-time employees than before the pandemic. The number of people with second jobs is also lower but rising. These findings have important implications for the Heart of the South West which has a greater reliance on self-employment and part time working than the national average.

Table 5 **Headline estimates of employment demand for the UK, various dates**

	Latest		Change on baseline		
	Level (millions)	Latest Period	Baseline Period	Level	%
Employment, 16+	32,507	Jul to Sep	Dec to Feb	- 566,000	-1.7
With second jobs	1,081	Jul to Sep	Dec to Feb	-134,000	-11.0
Employees, 16+	27,847	Jul to Sep	Dec to Feb	-9,000	0.0
Full time	21,165	Jul to Sep	Dec to Feb	298,000	1.4
Part time	6,681	Jul to Sep	Dec to Feb	-307,000	-4.4
Self-employment, 16+	4,526	Jul to Sep	Dec to Feb	-502,000	-10.1
Workforce jobs¹²	35,412	June	Dec	-384,000	-1.1
Employee jobs	30,805	June	Dec	-111,000	-0.4
Self-employment jobs	4,422	June	Dec	-270,000	-5.8
Payroll employees	28,326	September	March	-673,000	-2.3
Total weekly hours worked	925.0	Jul to Sep	Dec to Feb	-127.2	12.1

Source: ONS

<https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/datasets/summaryoflabourmarketstatus>

It is clear that the pandemic is playing out very differently across industry sectors and that the Heart of the South West depends disproportionately on some of the sectors than are most affected (**Table 6**). These include:

- Accommodation and food service activities
- Arts, entertainment and recreations
- Other services
- Administrative & support service activities
- Wholesale & retail; repair of motor vehicles and motorcycles

All these sectors record worse than average performance on the labour market indicators presented in Table 6: namely, employee job growth and vacancies, redundancy rates and take-up of the Coronavirus Job Retention Scheme. Crucially, these sectors account for a larger share of employment across the Heart of the South West (38%) than England (36%) particularly in Torbay (42%) and Devon (39%). Recruitment is also subdued and CRJS take-up and redundancies rates are also relatively high in manufacturing and construction and sections of the business and financial services sector. Utilities and public services have been less impacted than most.

¹²<https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/datasets/workforcejobsbyindustryjobs02>

Table 6 Measures of UK economic performance by sector compared with the relative importance of these sectors to the Heart of the South West

	United Kingdom				HotSW
	Employee jobs ¹³	CJRS claims	Redundancy rate ^{14, 15}	Vacancies ¹⁶	Employees
	Dec 2019 to Jun 2020 (p)	As at 31 August	July-Sep 2020	Dec-Feb to Aug to Oct (p)	2019
	% change in level	% of employments	Rate per thousand	% change in level	LQ ¹⁷
Agriculture, forestry & fishing	-13.4	6	8.0 ¹⁸	n/a	2.5
Mining & quarrying	0.0	6		-50.0	2.0
Manufacturing	-0.8	12	14.7	-28.6	1.2
Electricity, gas, steam & air conditioning supply	3.6	1		0.0	1.5
Water supply, sewerage, waste & remediation activities	10.5	7		0.0	1.2
Construction	8.1	14	21.6	-3.6	1.2
Wholesale & retail trade; repair of motor vehicles and motorcycles	-4.3	12	16.3	-54.9	1.1
Transport & storage	-0.5	10	12.3	-14.3	0.8
Accommodation & food service activities	-5.3	27	23.6	-66.7	1.4
Information & communication	6.9	9	13.2	-41.9	0.5
Financial & insurance activities	1.3	3	8.3	-41.9	0.4
Real estate activities	3.6	12		-23.1	0.9
Professional scientific & technical activities	0.7	13	13.9	-36.4	0.7
Administrative & support service activities	-1.7	12	16.5	-35.2	0.7
Public admin & defence;	1.6	0	2.0	-13.6	1.1

¹³ Source: Workforce Jobs
<https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/datasets/employeejobsbyindustryjobs03>

¹⁴ The redundancy rate is the ratio of the redundancy level for the given quarter to the number of employees in the previous quarter, multiplied by 1,000.

¹⁵ Source: Labour Force Survey
<https://www.ons.gov.uk/employmentandlabourmarket/peoplenotinwork/redundancies/datasets/redundanciesbyindustryagesexandreeploymentratesred02>

¹⁶ Source:
<https://www.ons.gov.uk/employmentandlabourmarket/peoplenotinwork/unemployment/datasets/vacanciesbyindustryvacs02>

¹⁷ % of employees in the Heart of the South West divided by % of employees in England. A value greater than 1.0 indicates that the sector has a higher share of employees than typical nationally.

¹⁸ A, B, D, E

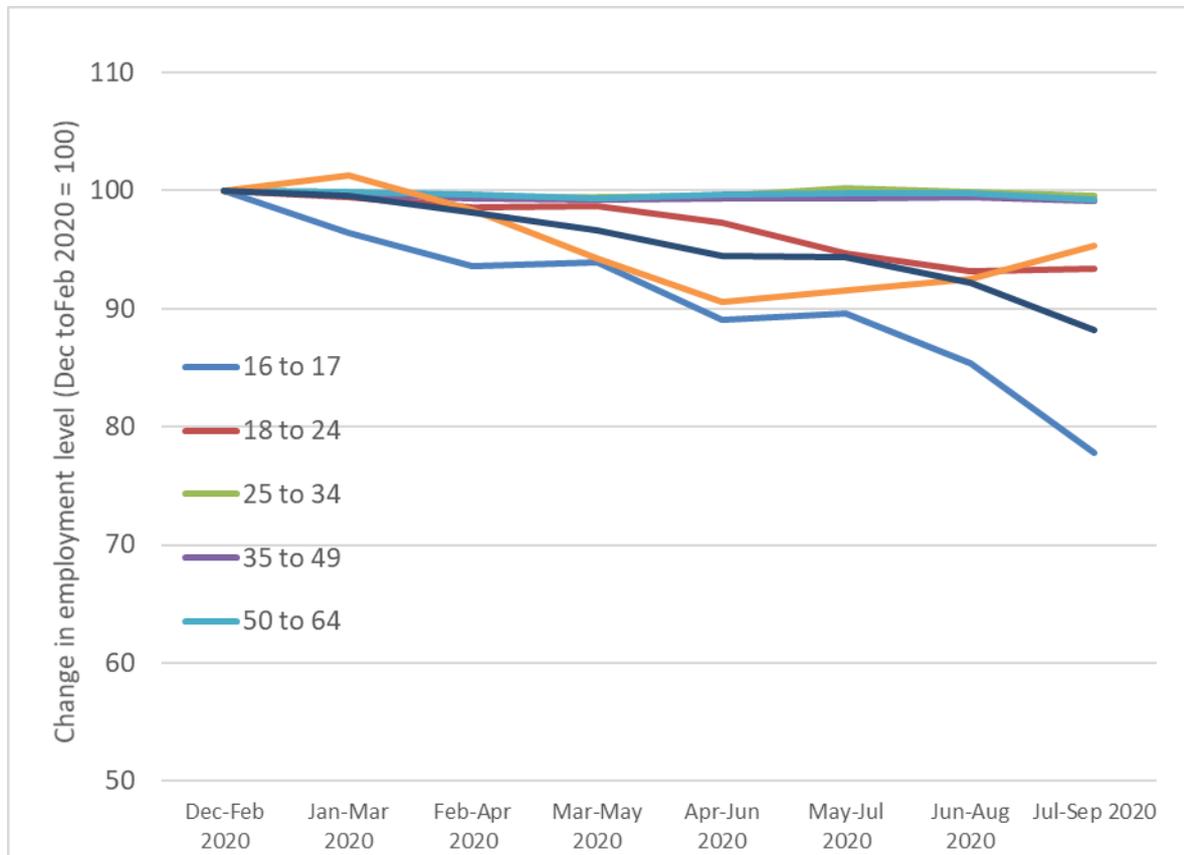
compulsory social security					
Education	-0.1	5	3.3	-23.5	1.0
Human health & social work activities	2.8	4	3.4	-13.1	1.2
Arts, entertainment & recreation	-5.8	33	19.5	-59.1	1.0
Other service activities	-5.4	23		-33.3	0.9
Private households	11.8	2		0.0	
TOTAL	-0.7	11	11.3	-35.8	1.0

Sources: Office for National Statistics

These trends have disproportionately affected the employment opportunities of some groups. For example, Figure 3 shows that the employment prospects of the youngest and oldest workers have been most affected by the pandemic but while the number of workers aged 65 and over has recovered a little since April to June 2020, the number of 16 to 17 year olds in employment continues to fall. This trend is replicated for 18 to 24 year olds but is not as pronounced as that for the very youngest entrants to the labour market. The number students or school pupils working part time has also fallen fairly consistency. Research has revealed that lack of work experience and employment at launch has have persistent over lifetime.

By contrast the number of 25 to 64 years olds in employment has remained fairly robust over the period.

Figure 5 Change in employment levels by age (December 2019 to February 2020 = 100), United Kingdom, December 2019 to February 2020 to July to September 2020



Source:

<https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/datasets/summaryoflabourmarketstatistics>

1.6. Nominal (smoothed) GVA over time

Productivity is a measure of how efficiently resources such as labour and capital are used to produce output. Its importance lies in it being perhaps the key determinant of wages and living standards. It also determines enterprises capacity to grow through investing in their business. McKinsey (2018)¹⁹ identify four phenomena — financial sector boom and bust, employment growth, investment decline, and uneven digitisation — to explain much of the recent decline in labour-productivity growth in the UK (the UK’s productivity puzzle). Enhancing productivity McKinsey argue, requires first and foremost, improvements in

¹⁹ Solving the United Kingdom’s productivity puzzle in a digital age
<https://www.mckinsey.com/~/media/mckinsey/featured%20insights/meeting%20societys%20expectations/solving%20the%20united%20kingdoms%20productivity%20puzzle%20in%20a%20digital%20age/mgi-productivity-in-the-uk-discussion-paper-september-2018.ashx>

education and skills. Secondly, they recommend closing adoption gaps in digital and next-generation technologies could boost productivity growth but will require better information, access to finance, collaborations, and a favourable policy environment for diffusion.

“It is well understood that enhancing employees’ skills is critical for driving productivity growth and maintaining high levels of employment in an era of rapid technological change. Yet what is less clear is the most effective way to achieve that. What kind of education system better equips young people for the workplace of the future? When retraining workers, are government or private-sector programmes more effective? How can reskilling and upskilling be delivered affordably and at scale? How can firms overcome change resistance and inertia in adopting new practices and technologies?”²⁰ (McKinsey 2016)

These are clearly key questions for the SAP.

Productivity – measured in terms of GVA per hour worked – was 17% lower in the Heart of the South West (£29.00) than the UK (£35.00) average in 2018. When ranked on this measure, the Heart of the South West features among several other rural enterprise regions with relatively low labour productivity including Cornwall & the Isles of Scilly, the Marshes, Stoke-on-Trent and Staffordshire, Worcestershire and Greater Lincolnshire ranking 31st of 38 LEP areas overall²¹.

Productivity is lower than the national average in all local authority districts within the LEP area but only marginally so in Exeter (£34.60). The gap between the highest and lowest performing districts on this measure is almost £10 per hour worked. Mendip the lower performing district locally (£25.00) was also the lowest ranked of all NUTS3 areas nationally²².

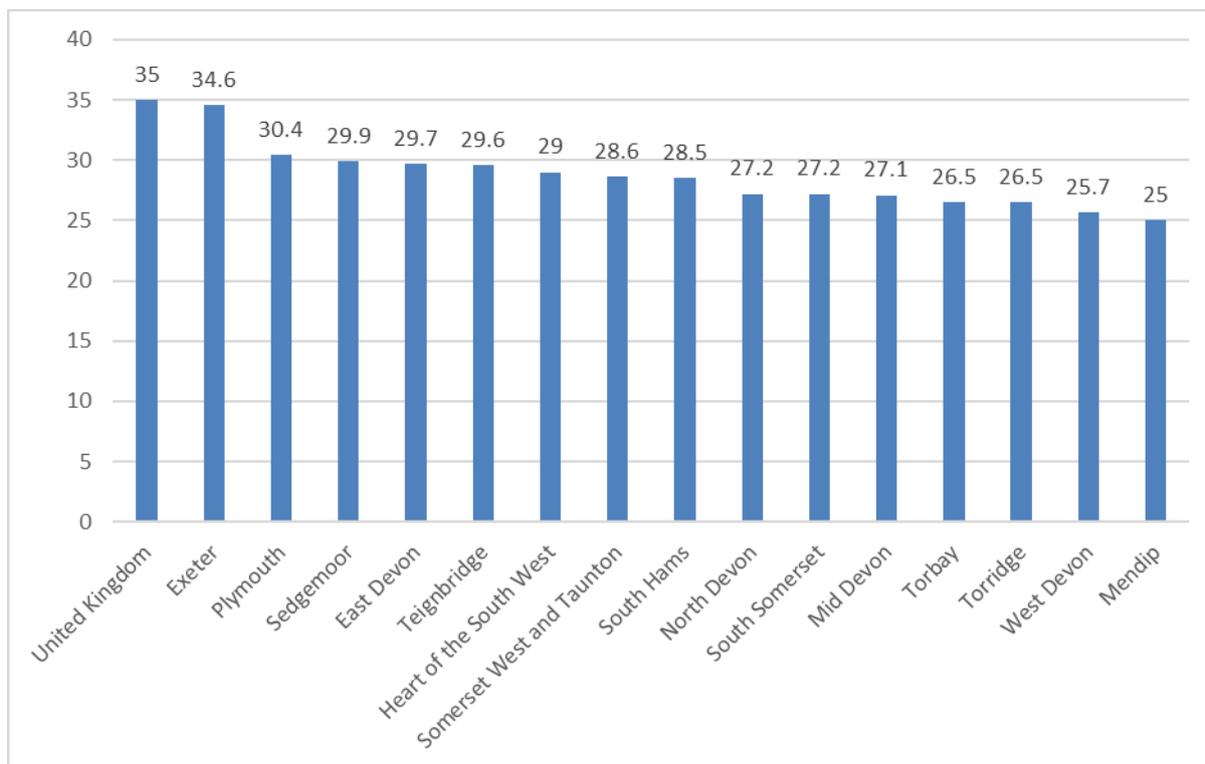
²⁰ <https://www.mckinsey.com/featured-insights/regions-in-focus/solving-the-united-kingdoms-productivity-puzzle-in-a-digital-age>

²¹ <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/labourproductivity/datasets/subregionalproductivitylabourproductivitygvaperhourworkedandgvaperfilledjobindicesbylocalenterprisepartnership>

²²

<https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/labourproductivity/articles/regionalandsubregionalproductivityintheuk/february2020#results-for-enterprise-regions>

Figure 6 Nominal (smoothed) GVA per hour worked (£), Local Authority District, Heart of the South West LEP area, and UK, 2018

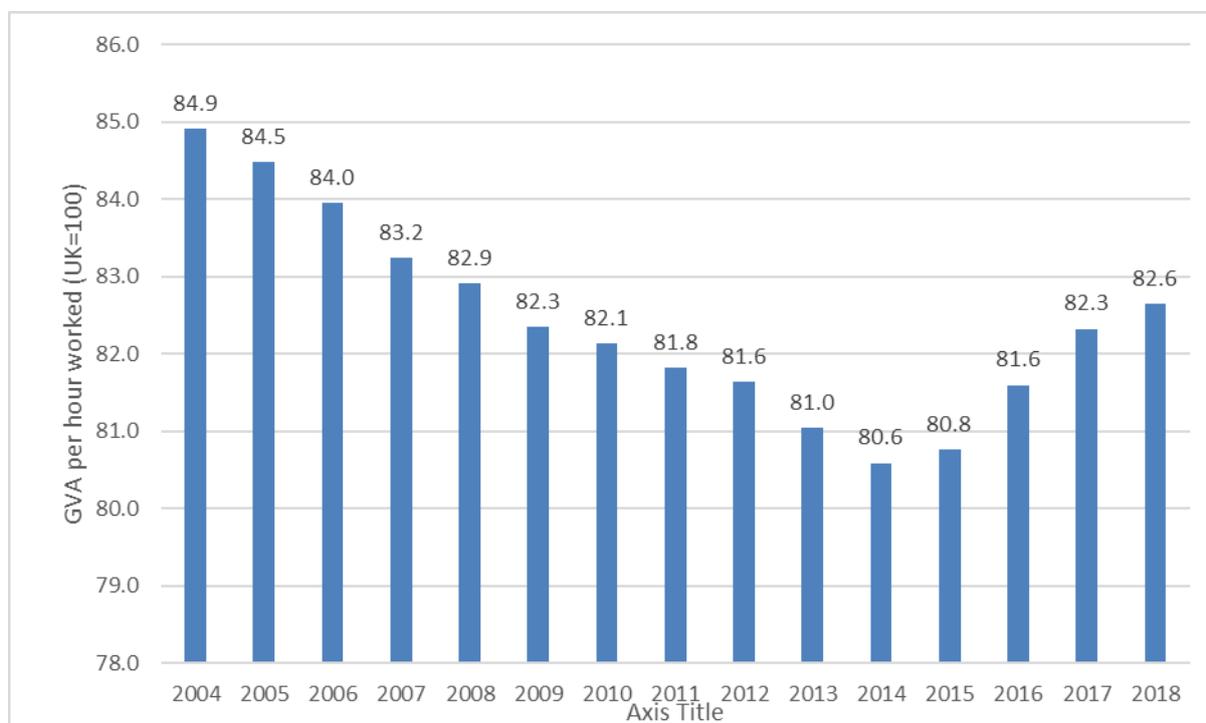


Source:

<https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/labourproductivity/articles/regionalandsubregionalproductivityintheuk/february2020/relateddata>

Nominal productivity data suggests that the productivity gap with the UK widened between 2004 and 2015 but narrowed marginally over the next three years. The Heart of the South ranks mid-table in terms of *real* productivity growth between 2004 and 2018: improving by 4.5% over this period, compared to 9.7% for the UK as a whole.

Figure 7 Nominal (smoothed) GVA per hour worked (UK=100): Heart of the South West: 2004 to 2018



Source:

<https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/labourproductivity/articles/regionalandsubregionalproductivityintheuk/february2020#results-for-enterprise-regions>

Recognising the Heart of the South West's growing productivity gap with the rest of the UK, the Heart of the South West LEP has agreed an ambitious Productivity Strategy²³ underpinned by an evidence base exploring the drivers of productivity²⁴. This, and subsequent, analysis identifies local weakness in terms of:

- Skills – the proportion of residents²⁵ in employment with Level 4 qualifications or above is lower than the England average (39% compared to 45%)²⁶.
- Innovation - on numerous measures the LEP areas performs the lower end of the scale in terms of innovation. For example, business investment in research

²³ <https://heartofswlep.co.uk/growing-our-economy/productivity-strategy/>

²⁴ <https://heartofswlep.co.uk/wp-content/uploads/2020/01/Driving-Productivity-in-HotSW-Green-Paper-AC-Updates-030719.pdf>

²⁵ Aged between 16 to 64.

²⁶ Annual Population Survey, January to December 2019.

development as a proportion of GDP in Devon is typically less than half the UK average²⁷.

- Enterprise – the Heart of the South West tends to create fewer new businesses, and has fewer foreign-owned businesses²⁸. Productivity lags the national average in all sectors apart from public administration and in some sectors, such as finance and insurance and information and communication the gaps are very large. In addition, the LEP area has lower densities of employment in these highly productive financial and insurance and information and communication sectors and higher densities of employment in a number of relatively low productivity sectors²⁹.
- Competitiveness – a greater share of employers locally primarily serve their local area (52%) than the England (47%) average³⁰ and a lower share of GVA locally is exported (10% compared to 18%).³¹
- Infrastructure – located within the South West peninsula, it can take around 3½ hours to drive to London from Exeter and 4 hours from Plymouth. Transport and digital connectivity is one of four key priority areas identified in the Heart of the South West LEP area 2018 Productivity Strategy³².

The Industrial Strategy Council identified three main narratives about the deep roots of spatial productivity differences across the UK³³ in a paper published earlier this year. The agglomeration narrative posits that “some places have been able to attract clusters of economic activity which have become self-sustaining as a result of a circular economic logic” due to localisation³⁴ and urbanisation economies³⁵. Local strategies to develop clusters of activities that capitalise of the “Golden Opportunities” identified in the Devolution Prospectus will assist in this process but as yet, the Heart of the South West lacks business clusters of scale, and its key cities, are relatively small by national standards³⁶.

²⁷ According to Eurostat, business sector investment in R&D as a percentage of GDP was 0.55% in Devon in 2018 compared to 1.17% in the UK.

²⁸ At 0.3% of the total business population the LEP area has one of the lowest shares of foreign-owned businesses of all LEP areas.

²⁹ Including: arts, entertainment & recreation; accommodation and food services; agriculture; and human and social work

³⁰ UK Employer Skills Survey 2019.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/925755/ESS_2019_LEP_Data_Tables_Controlled_v01.01.xlsx

³¹ Heart of the South West LEP (2020) Developing the evidence base for the review of the South West Innovation Ecosystem. Unpublished.

³² Stepping up to the Challenge. Productivity Strategy, Heart of the South West LEP area Partnership 2018

³³ https://industrialstrategycouncil.org/sites/default/files/attachments/UK%20Regional%20Productivity%20Differences%20-%20An%20Evidence%20Review_1.pdf

³⁴ Whereby specialised firms benefit from the ability to trade and interact with other firms in their industry that form part of the same cluster

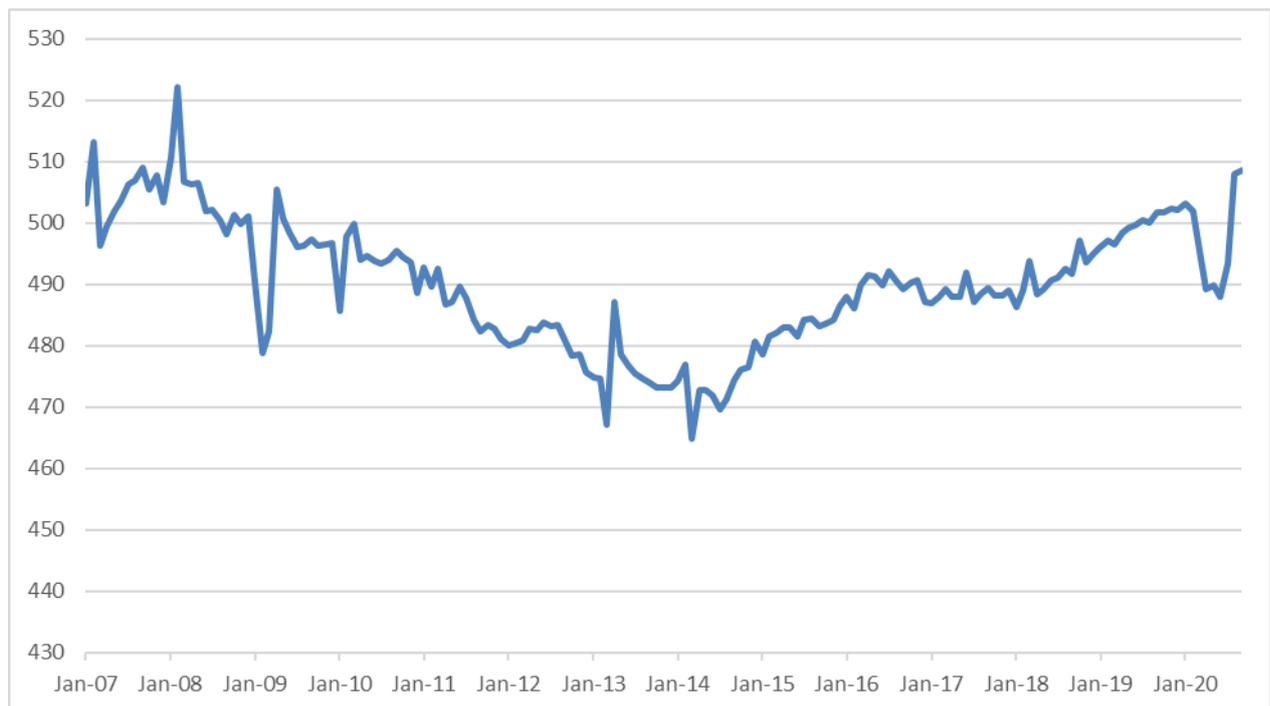
³⁵ Whereby firms benefit from sharing the specific common resources offered by large cities

³⁶ The City of Plymouth is 17th and Exeter, 50th in the ranking of 112 major towns and cities in England based on 2019 population estimates.

1.7. Median wages over time

The impact of the pandemic on wages is beginning to emerge. National average weekly earnings³⁷ data (Figure 8) shows that wages fell sharply between February and April but are now higher than those recorded before the pandemic.

Figure 8 Real average weekly earnings (seasonally adjusted), Great Britain January 2009 to September 2020



Source: ONS

<https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/datasets/averageweeklyearningsearn01>

The latest estimates from the Annual Survey of Hours and Earnings relate to the pay period that includes 22 April 2020, at which time approximately 8.8 million employees were furloughed under the Coronavirus Job Retention Scheme. The source suggests that while pay “held up for most employees” some groups of employees fared less well, most notably younger employees, the lowest-paid part-time employees, and those working in accommodation and food services. Not all furloughed workers received full pay as the employers were not obliged to top up the Government’s 80% contribution. Overall, more than one in ten (11%) employees were furloughed with reduced pay in April 2020 but with significant larger proportions reported for the following groups of employees:

- Accommodation and food service activities (39%), arts, entertainment and recreation (27%), Construction (26%) and other services (20%).

³⁷ For all workers (i.e. average across full and part time workers).

- Process plant and machine operatives (26%), Sales and customer services (20%), caring, leisure and other service occupations (22%).
- 16 to 17 (29%) and 18 to 21 (22%) year olds.

See what the median annual earnings are for your [occupation](#) or [area](#) by searching for or selecting your occupation from the drop-down list in the interactive tools.

In 2020, the median average weekly earnings for full time employees working and living in the Heart of the South West were the same, at £527. Both estimates are lower than the England average. Earnings vary within the region but in most cases differences between local authority districts are smaller than the confidence intervals associated with the point estimates. It is possible to conclude, however, that workplace earnings in Plymouth and Exeter, while not statistically different to each other, are higher than those in Mid Devon, Sedgemoor, South Hams, Teignbridge, Torbay and Torridge.

Differences in residence and workplace based earnings reflect commuting patterns within the LEP area, with higher-skilled employees choosing commute into cities to access the higher-paid work available there from satellite towns and villages. Unfortunately, however, only the difference in resident and workplace earnings are statistically different in South Hams and Plymouth. The median full-time earnings of South Hams residents, exceeds the wages earned by employees working in the district while net commuting flows into Plymouth, is reflected in higher earnings among people who work in the area, than live there. Resident wages are also lower than the England average across the LEP area.

Table 7 Median gross weekly pay of fulltime workers, 2020

	Resident	Workplace
Devon	528	527
East Devon	554	532
Exeter	554	565
Mid Devon	530	474
North Devon	475	509
South Hams	580	479
Teignbridge	493	478
Torridge	512	440
West Devon	494	472
Plymouth	507	558
Somerset	539	526
Sedgemoor	523	483
Mendip	559	556
Somerset West and Taunton	560	544
South Somerset	527	510
Torbay	469	490
Heart of the South West	527	527
England	590	590

Source: ASHE downloaded from NOMIS

Median earnings across the LEP area in 2020 were not statistically different to 2019 but are, nominally at least, higher than those for previous years. Looking forward, the Bank of England Monetary Policy Report sets out an expectation of subdued pay growth in the coming months due to fears of rising unemployment and reduced volumes of job-to-job moves, which are both determinants of upward pressure on pay³⁸.

In-work poverty is a significant problem although our understanding of the scale of the issue locally is frustrated by lack of reliable information on data on the subject. The Annual Survey of Hours and Earnings, however, suggests that median full time earnings for the lowest paid fifth of employees in the Heart of the South West was £375 in 2020, which is around 7% lower than the England figure. The prevalence of low pay in the region is, to a significant degree, a reflection of the structure of the economy and jobs. Reason would, however, also suggest that some Heart of the South West LEP area employees are simultaneously being paid less than others in the same job in areas such as London which, owing to its size and increased cost of living, will impact the national average.

1.8. Population by age group over time

Future economic growth will need to be secured mainly through productivity gains as the demand for labour is likely to exceed supply. Replacement demand – the need for new workers to replace those leaving (for example, through retirement) will outstrip employment growth which could exacerbate labour shortages in localities and sectors with a particularly high share of older workers who may be expected to retire over the next 5 to 10 years. The labour supply challenge is illustrated by the following:

- The Heart of the South West's working age population is projected to grow only modestly over the next 10 years even when adjusted for changes in pension age that will come into effect by 2028. The pattern of change is not uniform across the area: Exeter, East Devon, Sedgemoor and Teignbridge, for example are projected to see an increase in their working age population, whilst West Devon, South Hams, North Devon, South Somerset and Plymouth are projected to record decreases.
- International migration is a source of population growth locally particularly among working age residents. Moreover, whilst, the area has a smaller share of non-UK nationals in the working age population than the UK average, the number of people involved has almost doubled in the last 10 years. It will be important to monitor the effect of the Government immigration policies on the ability of local employers, particularly those in sectors such as agriculture and the food and drink supply chain, leisure & tourism, health & social care and construction, to recruit and retain the workers they need.

38

<https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/bulletins/uklabourmarket/latest#earnings-growth>

- The Heart of the South West has a high employment rate (79%) and low unemployment rate (%)³⁹ suggesting that most residents that want to work can access these opportunities. The scope to increase labour supply from the existing working age population therefore appears fairly limited although the labour market appears less “tight” in Plymouth where employment rates are statistically lower than the LEP average. Employment rates are high locally compared to the England average for women of most age groups this may reflect limited opportunity to encourage further increases in participation among this group⁴⁰.
- The claimant count is low with only 2.2% of the population aged 16 to 64 claiming Jobseeker’s Allowance. However, the rate has been on a gentle upward trend since end of 2015. Unemployment may well rise as a consequence of the UK’s departure from the European Union.
- The LEP area has a lower propensity of economic inactivity than the England average although a slightly higher share of economic active residents locally (almost one-quarter of all economically inactive residents, around 43,000 people) would like a job. It is not clear how real a prospect this might be for these residents since the economically inactive are mostly either: long-term sick (26%), students (22%), looking after a family and/or home (20%) or are retired (17%).
- Labour supply could be increased by increasing the number of hours that people work. For example, the LEP area has a smaller share of residents in employment that work between 34-44 hours a week but a higher share that work less than 34 hours a week. The proportion working 45 hours a week (23%) is comparable to the England average.
- At the higher geographic level, the area makes a modest net gain from commuting although there are sizable commuter flows within the area – most significantly into Exeter. Existing travel to work journeys are long. Attracting commuters from outside the area may not however, be a policy prescription that is environmentally sustainable or socially desirable over the long run.
- In common with most other areas, the Heart of the South West attracts more students than it loses, but loses more graduates than it gains as many young people choose to start their careers in London and other metropolitan areas.

1.9. Claimant count

See Annex A

1.10. Proportion of LSOSs in most deprived 10% nationally

See Annex A

³⁹ Annual Population Survey, October 2018 to September 2019.

⁴⁰ By contrast, employment rates for men (of working age) or those aged 50 to 64 (of either gender) locally is not statistically different to the England average.

2. SKILLS SUPPLY

2.1. Highest qualification

“People’s skills and experience underpin the success of an area’s economy. People are a central element in the creation of local prosperity; providing the labour that fuels successful businesses; the talent that drives enterprise and innovation; and the capacity that attracts investment and competition.”

The Heart of the South West’s Productivity Strategy

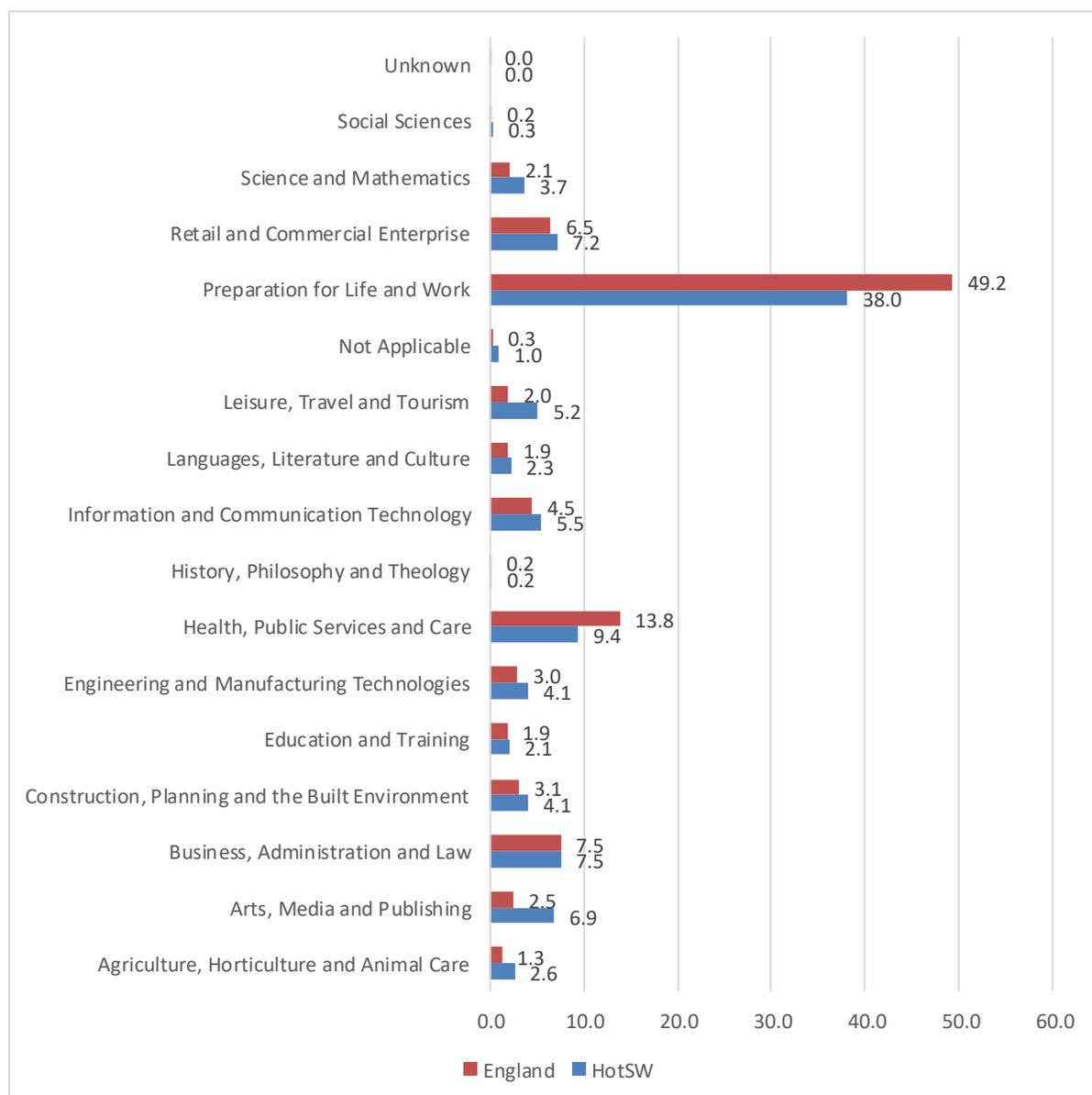
Perhaps surprisingly, given their strategic significance, we know relatively little about the skills, knowledge and experience of people who live and work in the area. This lack of data means that qualifications are used as an (imperfect) proxy for skills with the Annual Population Survey generating reasonably robust annually updated estimates of the highest qualification held by residents at the LEP but not local authority, level. On this measure the Heart of the South West compares favourably against the England average for the share of the economically active population (aged 16 to 64) with intermediate level qualifications at Level 2 and Level 3 (43%). It also has a slightly lower share of the workforce (19%) with either no qualifications or qualifications below Level 2 (considered to the minimum foundation level for sustained employability). Less positively, however, it has a smaller share of the workforce qualified to at least Level 4 (38%) with 30% holding a degree level qualification or equivalent and above.

The qualification ‘gap’ for degree qualifications between the Heart of the South West and the England average is greatest among 20 to 24 year olds (17 percentage points) reflecting the preference of recent graduates to start their careers in London and other metropolitan areas. Competition for new graduates is likely to be intense among employers recruiting from this relatively small pool locally. The gap amongst the age group most likely to be qualified at this level – those in their late 20s, and 30s – is around 9 percentage points, and the gap is all but eliminated among residents aged 40 and over – possibly reflecting the in-migration of well-qualified migrations from elsewhere in the UK and overseas later in life. The availability of degree level qualifications is significant because most of the employment opportunities forecasted to be created locally over the next 20 years will require qualifications at this level. While replacement demand will create opportunities for people with low level qualifications these will diminish over time largely in response to the megatrends of globalisation and technological advances such as automation and digitalisation. The fact that almost one-fifth of the economically active population does not have formal recognition of their vocational or academic capabilities at Level 2 is therefore a cause for concern.

2.2. Adult FE education and training achievements by Sector Subject Area

Broadly, the distribution of achievements across Sector Skill Areas locally follows the England average with 'preparation for life and work' accounting for the largest share followed by health, public services and care, business, administration and law, and retail and commercial enterprise (Core Indicator Figure 9).

Figure 9 Adult FE education & training achievements by Sector Subject Area, Heart of the South West and England, 2018/19



Source: Department for Education – Individualised Learner Record

The sector subject areas can be split into four broad groups:

- Vocational subjects⁴¹
- Preparation for life and work
- Basic skills⁴²
- Academic subjects (other than English and maths)⁴³

Vocational subjects

Around half (49%) of the achievements are in vocational subjects with the most popular being: health and social care; sport, leisure and recreation; crafts, creative arts and design; service enterprises⁴⁴, building and construction and business management. Attainment is typically at either Level 2 (42%) or below Level 2 (38%).

Preparation for life and work

Almost two-fifths (38%) of qualifications are in 'preparation for life and work': commonly in employability skills that help prepare learners for working life. Qualifications tend to be at a fairly low level with the vast majority (85%) below Level 2 with most of the remainder (13%) at Level 2. These qualifications account for a smaller share of all government-funded training locally, than the England average (49%). In the Mid Devon local district authority, the percentage of qualifications that are in Preparation for life and work is unusually low (17%), followed closely by that for Mendip (19%). However, Exeter and West Devon have higher than average rates of achievements in this area (54% and 53% respectively).

Basic skills: Maths, English and IT

One-in-ten qualifications are in Maths & English or IT for users. At the England level, this drops to 7%, slightly lower than the Heart of the South West rate. This suggests that the LEP has higher demand for key skills.

Academic subjects

There is a very small number of qualifications in other academic subjects (other than Maths and English). This does highlight the importance of basic skills across the board, but does not necessarily reflect well on local goals to improve high skilled clusters such as Marine, Nuclear and Aerospace.

STEM subjects

More than one-fifth (22%) of vocational and academic qualifications⁴⁵ were in STEM related subjects: most commonly ICT for users (8%), mathematics and statistics (4%), engineering

⁴¹ This group includes: Agriculture, Horticulture and Animal Care; Arts, Media and Publishing; Business, Administration and Law; Education and Training; Engineering and Training; Engineering and Manufacturing Technologies; Health, Public Services and Care; Information and Communications Technology for x; Leisure, Literature and Culture; and Retail and Commercial Enterprise.

⁴² This includes: Languages (English); Information Technology for Users; and Mathematics and Statistics

⁴³ This group includes: History, Philosophy and Theology; Languages, Literature and Culture: x; Science and Social Sciences.

⁴⁴ Mainly hairdressing, barbering and beauty therapies.

⁴⁵ Excluding unknown and preparation for work and life

(3%), manufacturing technologies (2%), science (2%) and transport operation and maintenance (2%). Achievements at this level was typically at Level 2 (46%) or below (43%) although a small number was at Level 3 and above (12%). Study at Level 3 and above was more common for those achieving qualifications in engineering, science, and IT for practitioners.

In comparison to England, the Heart of the South West has a higher rate of STEM related subject achievements in vocational and academic qualifications, as the rate for England is six points lower at 16%. STEM achievements across England were distributed in a similar fashion to those in the Heart of the South West (51% at level 2, and 41% below level 2), with a notable portion at Level 3 (8%). Key differences are the LEP area's lower rate of STEM achievements below level 2 and higher rate at Level 3.

Looking at the achievements in STEM fields, these have dropped both numerically and as a percentage of total across both England and the LEP area. In England, the number of STEM achievements year by year has dropped by nearly 100,000 since 2014, a drop of 37%, while STEM achievements in the Heart of the South West have dropped by 23%. They also remain a higher percentage of all achievements in the LEP area both of the total, and when removing unknown and preparation for life and work subjects. However, it is worth noting that ICT for Users and Level 2 and below Mathematics and Statistics form a large proportion of STEM subjects: these areas are of use to almost all vocations as well as general life uses and don't necessarily indicate anything about progression to more STEM related careers.

Fit with the needs of the local economy

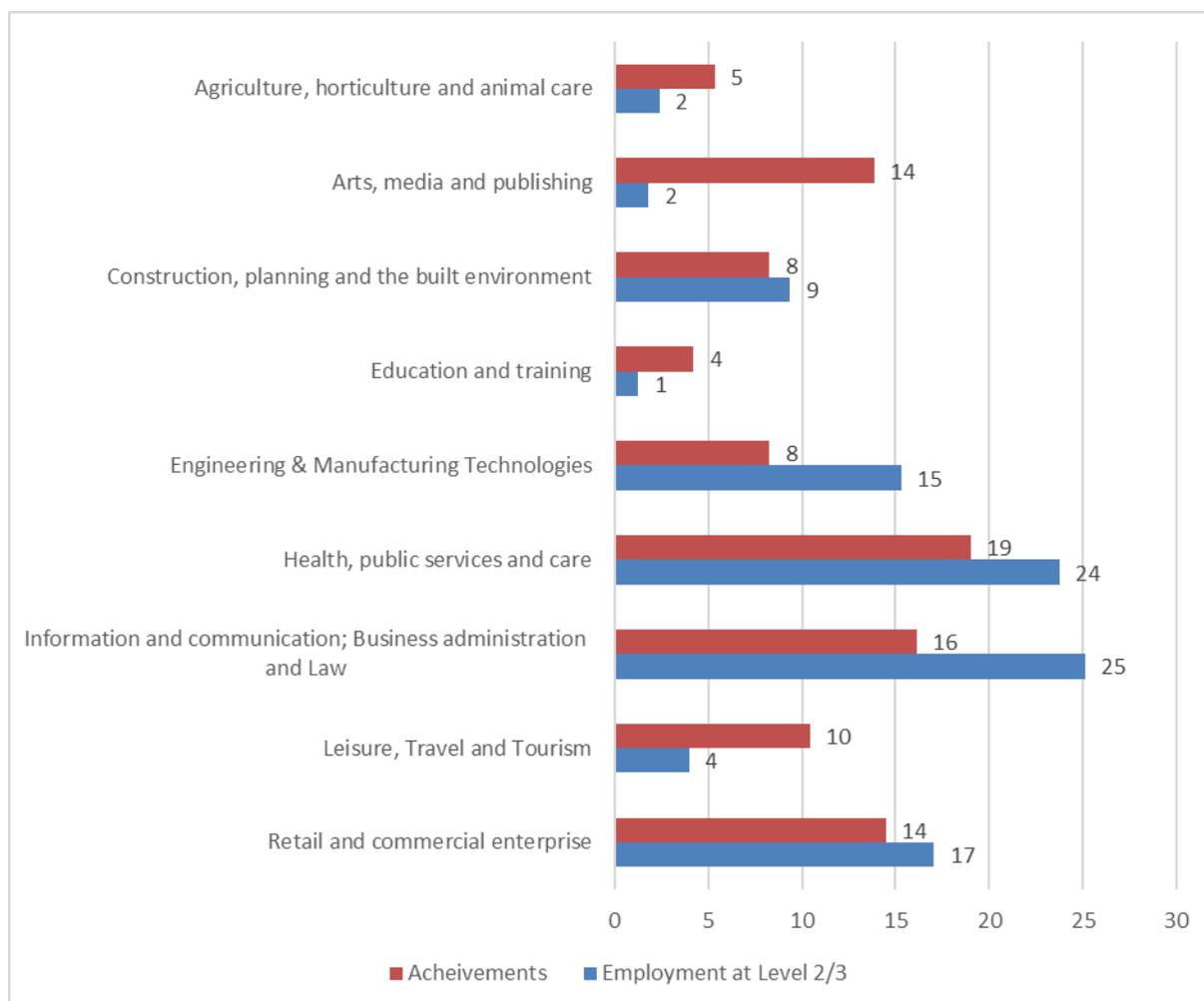
Comparing the profile of achievements across vocational subjects with the profile of local employment across occupations at Level 2 and Level 3⁴⁶ provides a crude assessment of the 'fit' between qualifications awarded and the needs of the local economy).

⁴⁶ Working Futures Employment Projections 2017 to 2027.

Table 8 Number of adult learning achievements and employment in matched SSAs and Occupations, Heart of the South West

SSA	Working Futures Occupational Categories	Number of achievements 2018/19	Employment at Level 2 & 3, 2017
Retail and commercial enterprise	Sales occupations (71), Customer Service occupations (72)	2,300	43,300
Leisure, Travel and Tourism	Leisure, travel and related personal service occupations (62)	1,700	10,100
Information and communication; Business administration and Law	Business, media and public service professionals (24) Business, media and public service associate professionals (35); Administrative occupations (41); Secretarial and related occupations (42)	2,600	63,700
Health, public services and care	Health professionals (22); Health and social care associate professionals (32); Protective service occupations (33); Caring personal service occupations (61)	3,000	60,300
Engineering & Manufacturing Technologies	Science, research, engineering and technology professionals (21) and associate professionals (31); Skilled metal, electrical and electronic trades (52)	1,300	38,900
Education and training	Teaching and educational professionals (23)	700	3,200
Construction, planning and the built environment	Skilled construction and building trades (53)	1,300	23,700
Arts, media and publishing	Culture, media and sports occupations (34)	2,200	4,500
Agriculture, horticulture and animal care	Skilled agricultural and related trades (51)	800	6,000
Total		15,900	253,900

Figure 10 Distribution of adult FE Education and Training achievements in vocational subjects compared to the distribution of employment in matched occupations, Heart of the South West; 2018/19



Source: Department for Education – Individualised Learner Record and NOMIS – Annual Population Survey

Methodological limitations aside, this simple exercise highlights that given the share of employment in matched occupations at Level 2 and 3 locally, the share of adult further education achievements is broadly matched for retail and commercial enterprise and construction, planning and the built environment. Where imbalances exist these are for:

- A potential ‘over-supply’ of qualifications allied to: arts, media and publishing, leisure, travel & tourism and to a lesser extent agriculture, horticulture and animal care. The relative popularity of these courses among learners is not matched to the share of employment at Level 2 and Level 3 in these occupations, at least locally.
- Relatively few learners achieving qualifications in subjects in information & communication, business administration & law, engineering & manufacturing

technologies and health, public services & care relative to current employment levels in related occupations. Given that projections suggest that employment in business & financial services and health & social care will grow strongly in future, these are areas where there appears potential to grow local demand.

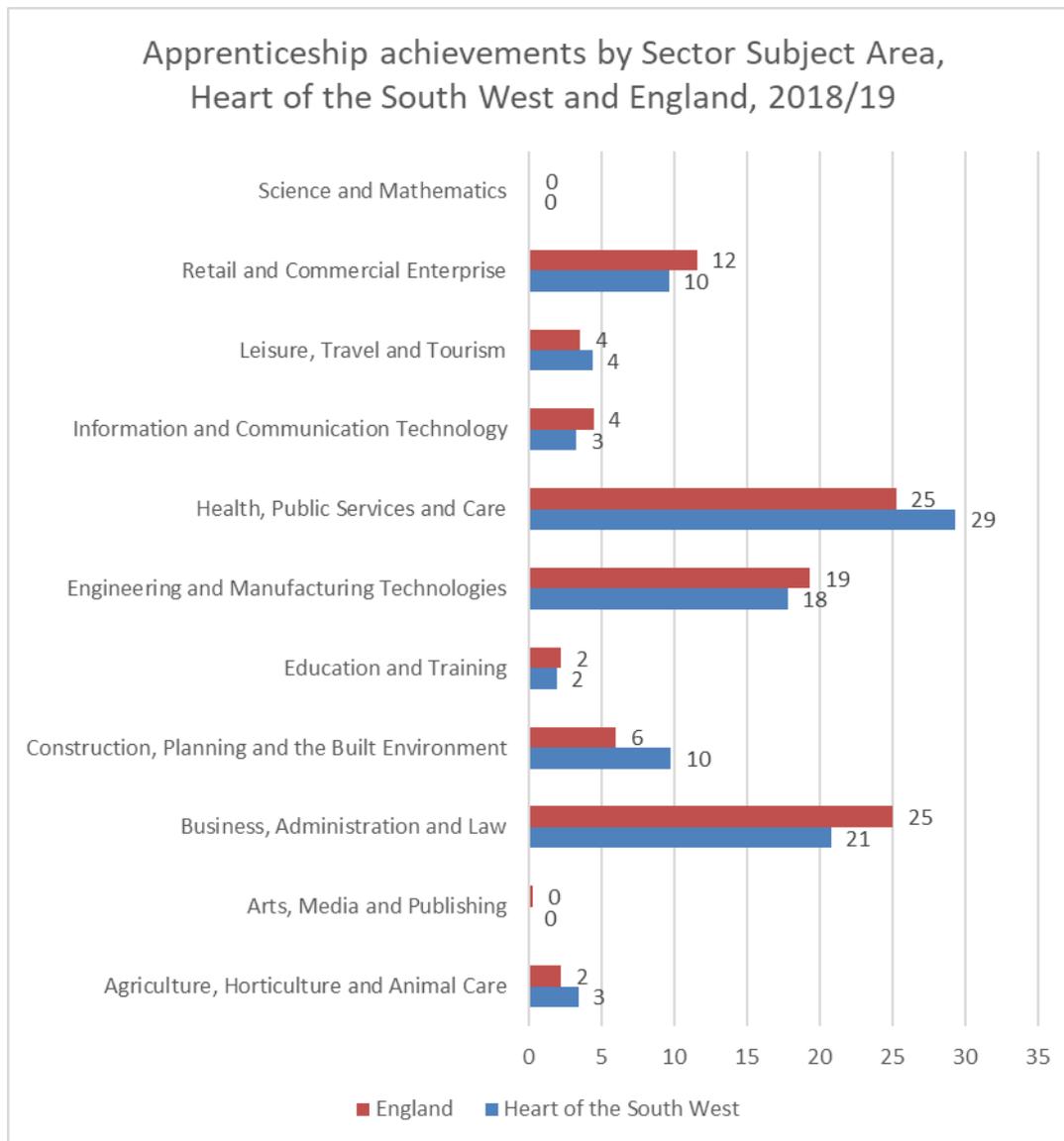
2.3. Apprenticeship achievements by Sector Subject Area

During 2018/19, 7,360 apprentices in the Heart of the South West passed their end-point assessment and thereby successfully achieved their apprenticeship. The distribution of these achievements across sector subject area broadly mirrors the national pattern with most occurring within health, public services and care (29%); business, administration and law (21%) and engineering and manufacturing technologies (18%).

The most notable differences to the national average are:

- slightly greater proportion of apprenticeship achievements in health, public services and care and construction, planning and the built environment; and
- smaller proportion in business, administration and law and retail and commercial enterprise.

Figure 11 Apprenticeship achievements by Sector Subject Area, Heart of the South West and England, 2018/19



Source: ILR data, DfE

2.3.1. Fit with the needs of the local economy

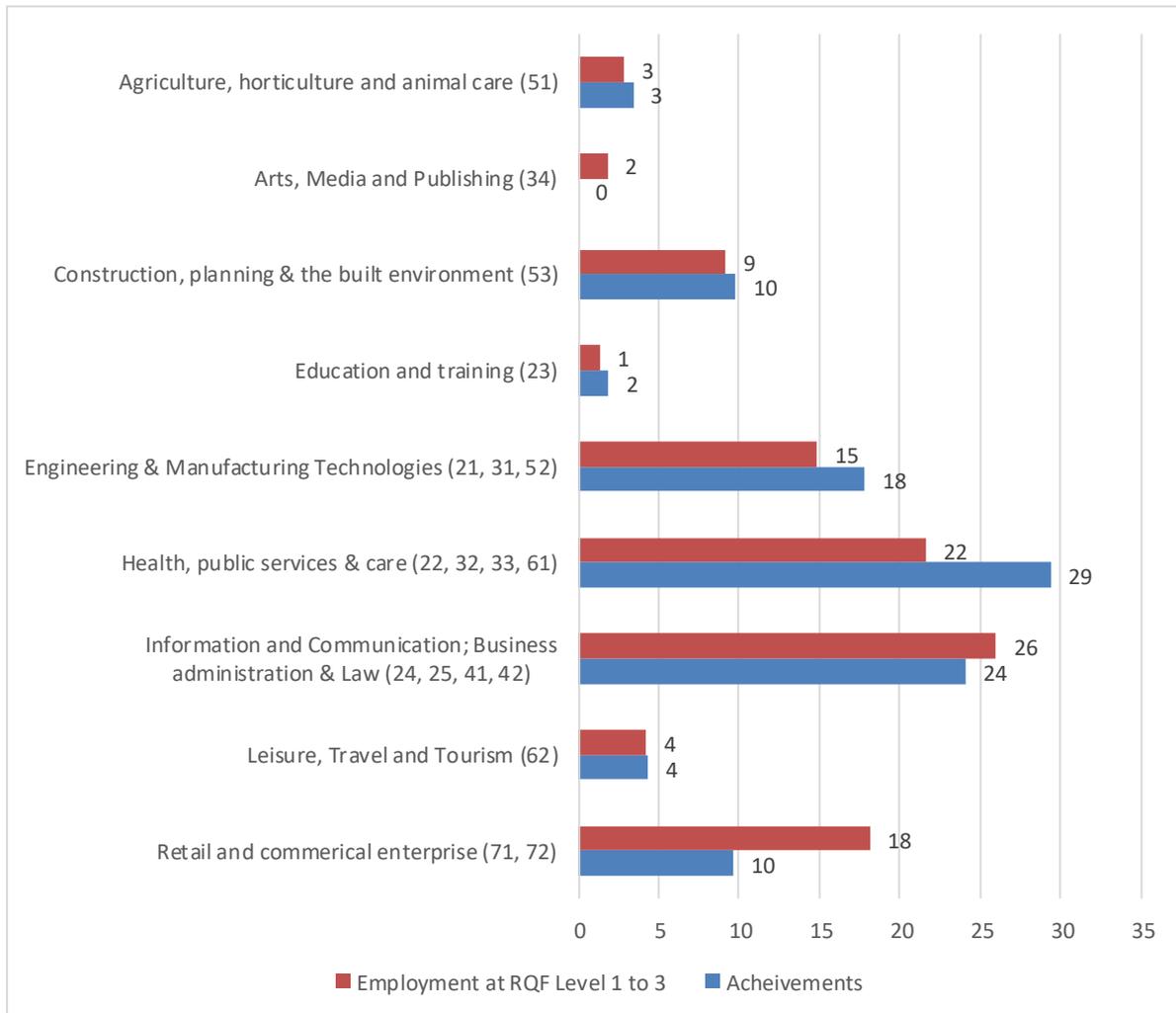
Assessment of labour market ‘fit’ reveals that apprenticeship starts share a similar distribution to employment at RQF Level 1 to Level 3 in matched occupations. The principal differences are:

- Under-representation of achievements within retail and commercial enterprises; and
- Over-representation of achievements within health, public services and care.

However, given the high level of vacancies for health and care related occupations currently, and the fact that the total requirement for workers in these occupations is anticipated to

growth strongly over the next 10 years, the current over-representation of achievements in these occupation is a positive finding.

Figure 12 Comparison of the distribution of apprenticeship achievements in 2018/9 with the distribution of employment at Level 1 and 3 in matched



occupations in 2017

Source: DfE and Working Futures

The Sector Skills Areas are matched to occupations as follows:

Table 9 Number of Achievement and Employment at level 1 to 3 in Sector Skills Areas by Working Futures Occupational Categories, Heart of the South West LEP area, 2018/19

SSA	Working Futures Occupational Categories	Number of achievements 2018/19	Employment at Level 1 to 3, 2017
Retail and commercial enterprise	Sales occupations (71), Customer Service occupations (72)	710	56,000
Leisure, Travel and Tourism	Leisure, travel and related personal service occupations (62)	320	13,000
Information and communication; Business administration and Law	Business, media and public service professionals (24) Business, media and public service associate professionals (35); Administrative occupations (41); Secretarial and related occupations (42)	1,770	81,000
Health, public services and care	Health professionals (22); Health and social care associate professionals (32); Protective service occupations (33); Caring personal service occupations (61)	2,160	67,000
Engineering & Manufacturing Technologies	Science, research, engineering and technology professionals (21) and associate professionals (31); Skilled metal, electrical and electronic trades (52)	1,310	46,000
Education and training	Teaching and educational professionals (23)	140	4,000
Construction, planning and the built environment	Skilled construction and building trades (53)	720	29,000
Arts, media and publishing	Culture, media and sports occupations (34)	0	6,000
Agriculture, horticulture and animal care	Skilled agricultural and related trades (51)	250	9,000
Total		7360	311,000

2.3.2. Distinctive characteristics of apprenticeships locally

Apprenticeship achievements locally are broadly evenly distributed across the three broad age groups but with apprentices aged 25 and over accounting for a slightly larger (35%) larger share than those in either of the other age groups (Table 1). Compared to the national average, the Heart of the South West has a slightly greater proportion in the youngest two age groups.

Half of (50%) apprenticeship achievements locally are at intermediate level with most of the remainder (43%) at advanced level. Few (7%) are at higher level. Achievements locally are

more likely than the national average to be at intermediate level particularly among those aged under 25.

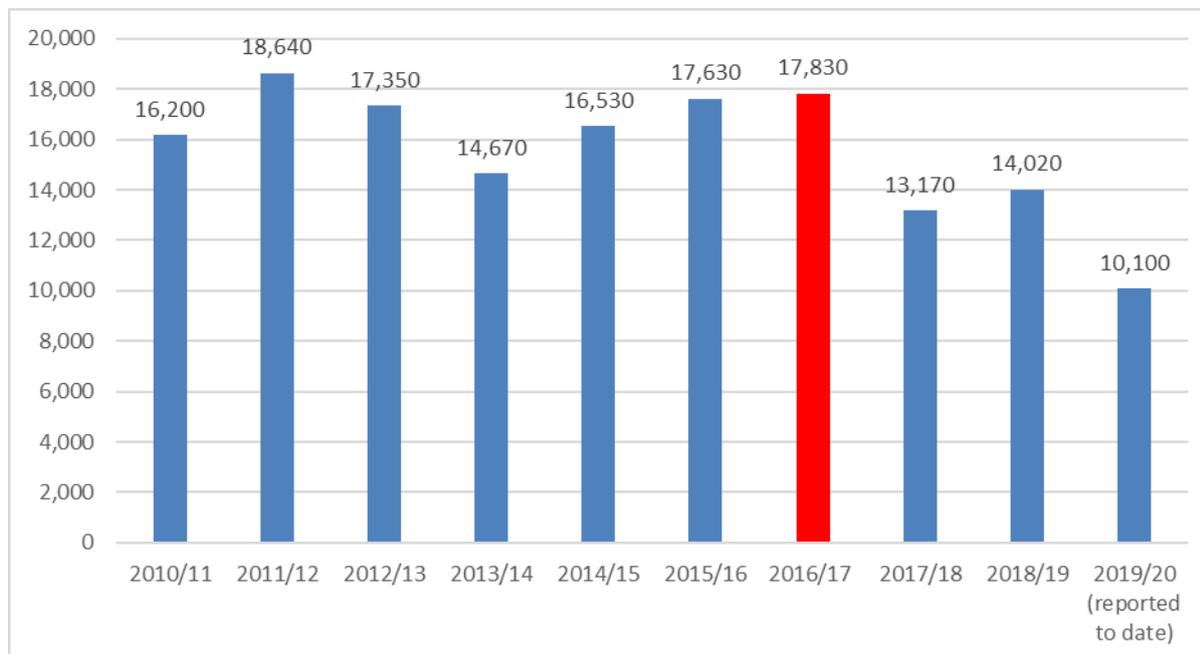
Table 10 Share of apprenticeship achievements by age and level, Heart of the South West, 2018/19

	Intermediate Apprenticeship	Advanced Apprenticeship	Higher Apprenticeship	Total
Under 19	21	12	0	33
19-24	15	16	2	33
25+	15	15	5	35
Total	50	43	7	100

2.3.3. Impact of the apprenticeship levy

The number of people starting an apprenticeship varies year-on-year making it difficult to attribute changes to any singular policy or event (Figure 1). The statistics do show, however, a marked decline in the volume of apprenticeship starts in the two full years following the introduction of the Apprenticeship Levy in April 2017 although there was a slightly recovery between 2017/18 and 2018/19 possibly as employers became more familiar with the new funding regime. Demand for apprentices, in common with other forms of business investment, may also have been reduced due to uncertainties regarding the UK's future trading relationship with the EU following the 2016 Referendum. At more than one-fifth (21%) the contraction in the number of apprenticeship starts locally between 2016/17 and 2018/19 was smaller than the 26% decline nationally between 2016/17 and 2018/19.

Figure 13 Apprenticeship starts in the Heart of the South West, 2010/11 to 2019/20

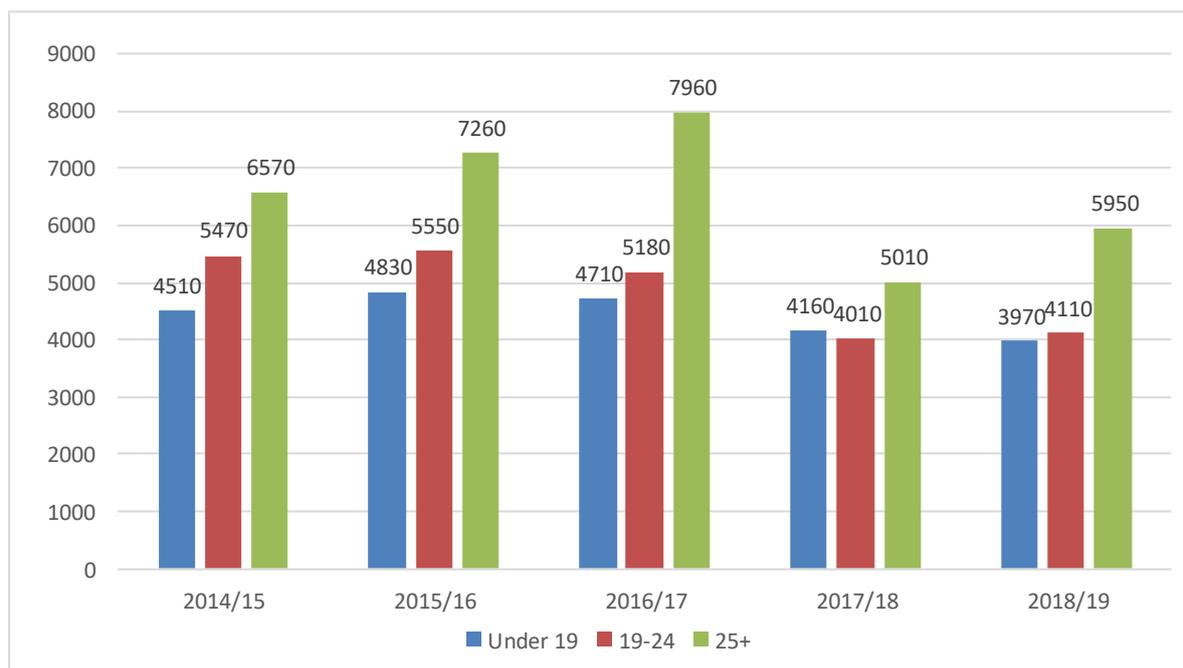


Source:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/899753/201920-July_totals-since-may-2010-and-2015.xlsx

The broad age profile of apprentices has not changed since 2016/17 (Figure 2). Apprentices aged 25 and continue to account for the largest share of starts (42% in 2018/19) with the remainder broadly evenly split between those aged under 19 (28%) and aged 19 to 24 (29%). That said, the contraction in starts recorded over the period was higher for older age groups, so that the share of starts among those aged 25 was slightly smaller in 2018/19 than in 2016/17 and the share of starts among young people was slightly greater. In comparison with England overall, the same trend of over 25-year olds being the most common starts is apparent. With the exception of the 2017/18 year, when the gap was only 2%, the overall England starts featured higher numbers of starts in the 19-24-year old age group, while these are nearly equal locally, pointing towards greater demand for apprenticeships as a post 16 path rather than other options.

Figure 14 Number of starts by broad age group, Heart of the South West, 2014/15 to 2018/19



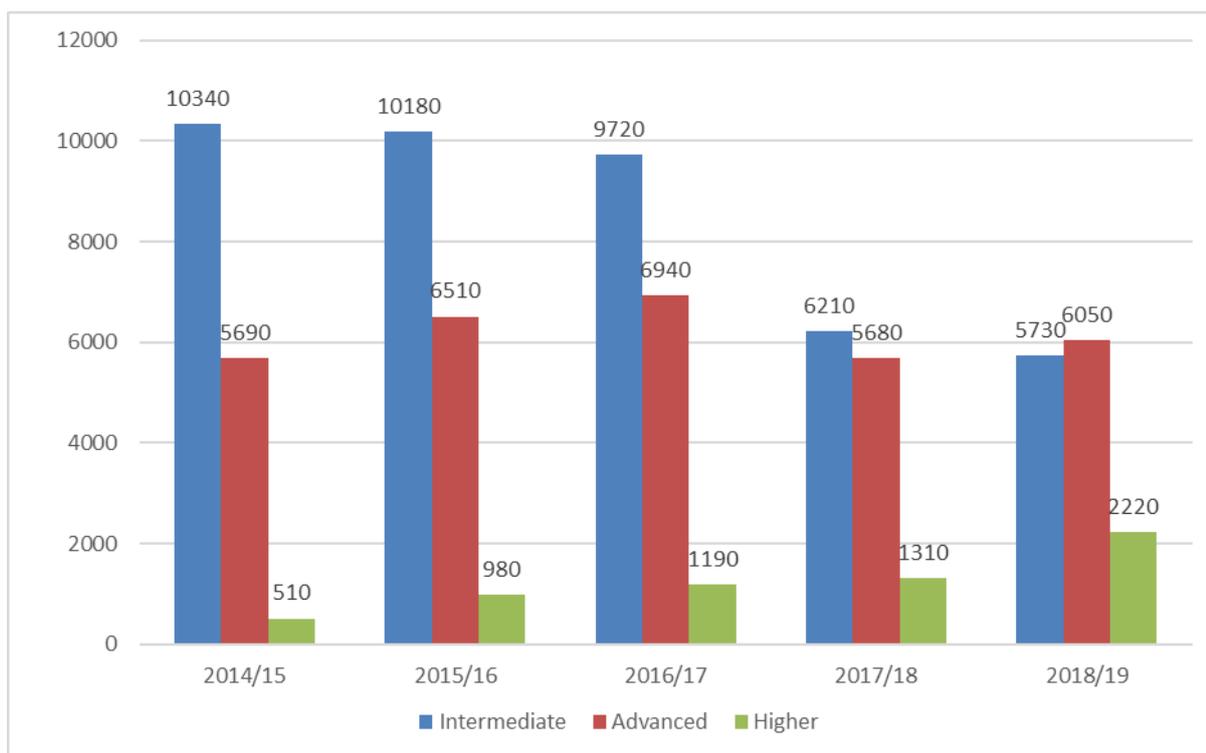
Source: <https://www.gov.uk/government/statistical-data-sets/fe-data-library-apprenticeships>

The distribution of starts by level has changed since 2016/17 although to some extent these trends pre-date the introduction of the levy. The number of starts on ‘higher’ apprenticeships (at Level 4 or above) have increased each year since 2014/15 with particularly strong growth recorded between 2017/18 and 2018/19 when the number of starts doubled from 1,310 to 2,220 at a time when apprenticeship starts were only rising modestly overall (6%). This could reflect an expansion in degree apprenticeships. Higher apprenticeships have increased considerably as a proportion of the total since 2014/15 at both the LEP and national level, although it is worth noting that as of the 2018/19 data, the national average rate of higher starts is 3 percentage points higher than that of the Heart of the South West.

The number of intermediate apprenticeships has fallen each year since 2014/15 with the most dramatic reduction occurring between 2016/17 and 2017/18. Apprenticeship starts at this lowest level accounted for around two-fifths (41%) of starts in the last full year for which data is available – down from almost two thirds (63%) in 2014/15. This pattern is the same on the national level, as take-up of intermediate apprenticeships has fallen away.

The number of starts at advanced level were rising slowly before the levy and fell in the year following its introduction but numbers have recovered modestly recently. Starts at this level now account for a slightly greater share of starts (43%) than those at intermediate level (41%). Advanced starts in the local area have reflected the trend in advanced starts in England, which have increased from 36% to 44% on the national level.

Figure 15 Apprenticeship starts by level, Heart of the South West, 2014/15 to



2018/19

Source: <https://www.gov.uk/government/statistical-data-sets/fe-data-library-apprenticeships>

Fewer starts were recorded in 2018/19 than in 2016/17 on apprenticeship frameworks in most Sector Skills Areas with the notable exception of Information and Communication Technology which has grown strongly during the two years preceding and following the introduction of the levy. Despite this, it accounted for a small share of starts in 2018/19 (3%) placing it broadly on par with: agriculture, horticulture, and animal care (3%); education & training (2%) and leisure, travel, and tourism. Most sectors have declined on a national level as well since 2016/17, except for Arts, Media and Publishing, Information and Communication Technology, and Construction. The Heart of the South West also saw a small increase in Arts, Media and Publishing, but only sufficient to bring it back in line with the figure for 2014/15 and a low enough numerical figure to be easily influenced by small changes. The increase in Construction was not reflected locally, however, although this sector area had a small decrease and remained notably higher than the number of local 2014/15 Construction starts. Information and Communication Technology saw a greater proportion of starts nationally (5%) rather than locally, while Construction saw a lower rate (9% locally against 6% nationally).

Table 11 Apprenticeship starts by subject, Heart of the South West LEP area, 2014/5, 2016/17 and 2018/19

	HotSW		
SSA T1	2014/15	2016/17	2018/19
Agriculture, Horticulture and Animal Care	420	490	420
Arts, Media and Publishing	40	20	40
Business, Administration and Law	3580	3830	3540
Construction, Planning and the Built Environment	920	1390	1330
Education and Training	250	360	300
Engineering and Manufacturing Technologies	2730	2670	2110
Health, Public Services and Care	5150	5640	3880
Information and Communication Technology	190	270	420
Leisure, Travel and Tourism	540	580	310
Retail and Commercial Enterprise	2740	2650	1690
Science and Mathematics	0	10	0
Totals	16530	17850	14020

Table 12 Apprenticeship starts by subject, England, 2014/5, 2016/17 and 2018/19

	England		
SSA T1	2014/15	2016/17	2018/19
Agriculture, Horticulture and Animal Care	7,010	7,390	6,650
Arts, Media and Publishing	1,460	870	1,000
Business, Administration and Law	142,980	138,480	118,650
Construction, Planning and the Built Environment	18,290	21,210	22,530
Education and Training	7,450	8,920	7,110
Engineering and Manufacturing Technologies	74,060	75,020	59,970
Health, Public Services and Care	129,890	138,850	97,720
Information and Communication Technology	15,660	15,470	21,110
Leisure, Travel and Tourism	13,070	13,790	7,220
Retail and Commercial Enterprise	89,570	74,590	51,300
Science and Mathematics	380	290	130
Totals	499,890	494,880	393,380

2.3.4. Impact of Covid-19

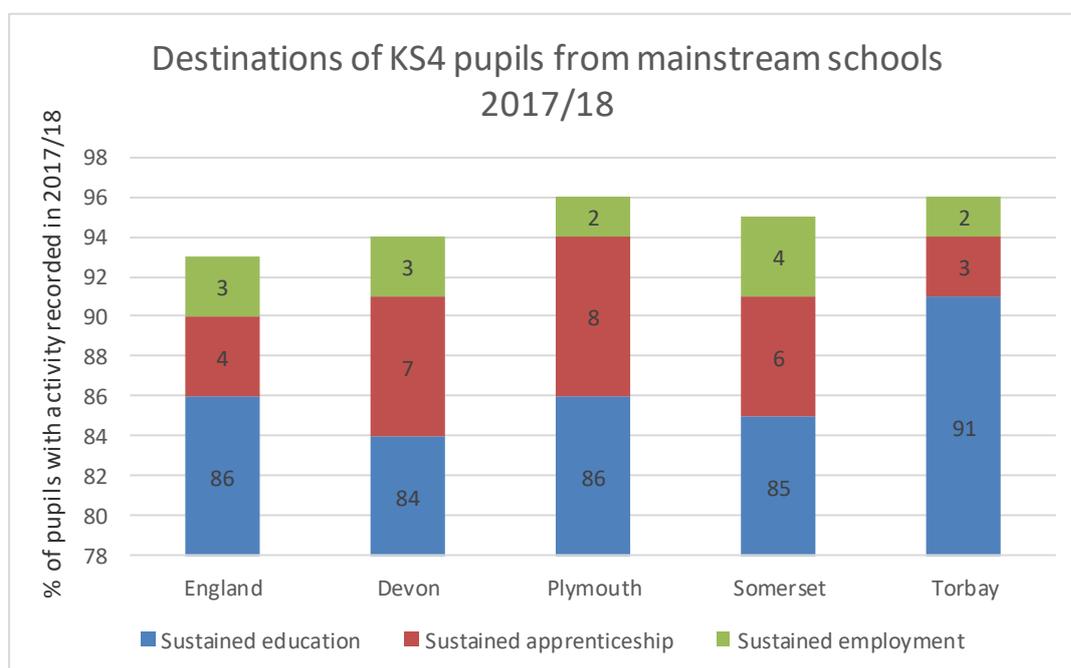
When comparing the number of starts between Quarter 3 2019/20 and Quarter 3 2018/19, the number of starts this year is 87% of that of last year at both the LEP and the national level.

Nationally, apprenticeship vacancies dropped to a low of 1,850 in May 2020: by July 2020, this had risen to 9,570, a similar figure to those between September 2019 and January 2020, and higher than the previously occurring low-points in December 2018 and December 2019. However, this is still considerably lower than the monthly highpoint of 16,830 in July 2018.

2.3.5. Participation in apprenticeships

Apprenticeships are popular locally, particularly in Plymouth (8%), Devon (7%) Somerset (6%) where the percentage of KS4 leavers progressing into apprenticeships is higher than the England average (4%).

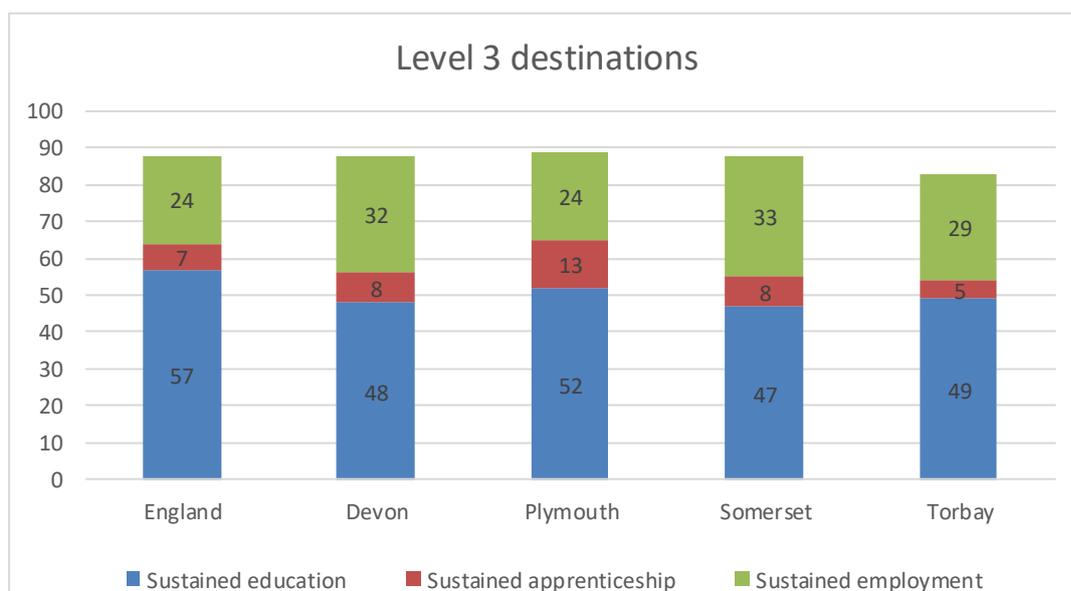
Figure 16 Destinations of KS4 pupils from mainstream schools, local authorities



in the Heart of the South West compared to England, 2017/18

Source: Gov.uk – Destinations of key stage 4 and 16-18 students

Figure 17 Level 3 Destinations of KS4 pupils from mainstream schools, local authorities in the Heart of the South West compared to England, 2017/18



Source: Gov.uk – Destinations of key stage 4 and 16-18 students

2.4. Higher Education qualifiers by Sector Subject Area

The Heart of the South West is endowed with four higher institutions located in the cities of Plymouth and Exeter. Plymouth is host to the University of Plymouth, the University of St Mark and St John and Plymouth College of Arts offering a wide variety of courses to mainly locally domiciled students but with teaching and research strengths in:

Reflecting its status as a Russell Group, research intensive university, the University of Exeter has fewer locally domiciled students than the Plymouth-based institutions, both overall and as a share of their total student population.

At any one time, around 50,000 students are enrolled on courses at HEIs in the Heart of the South West. Income – split between research and teaching? Employ x staff, x of which are academic.

While the four institutions differ markedly in their offer (Table 1) together they offer a very similar range of courses to institutions nationally. The most popular five subject areas locally are the same as those nationally but with some differences in ranking behind the most popular, business and administrative studies. The LEP also has the same proportion of students to the UK average on STEM related courses at 42%.

Differences in the share of students studying each subject area between the Heart of the South West and UK are generally small but with the most notable being:

- Higher proportion of students locally studying languages, biological sciences, physical sciences and education
- Lower proportion of students locally studying business and administrative studies, mass communications and documentation, computer science, architecture, building and planning and engineering and technology.

Table 13 Distribution of students by subject area; HEIs in the Heart of the South West and UK: 20

	The University of Exeter	Plymouth College of Art	University of Plymouth	University of St Mark and St John	Heart of the South West	UK
Medicine and dentistry	2	0	3	0	2	2
Subjects allied to medicine	4	0	23	5	11	11
Biological sciences	15	0	8	26	12	9
Veterinary science	0	0	0	0	0	0
Agriculture and related	0	0	1	0	0	1

subjects						
Physical sciences	4	0	7	0	5	4
Mathematical sciences	3	0	1	0	2	2
Computer science	1	0	4	0	2	4
Engineering and technology	5	0	6	0	5	7
Architecture, building and planning	0	0	2	0	1	2
Social studies	13	0	7	3	9	10
Law	5	0	2	0	3	4
Business and administrative studies	15	0	15	5	14	18
Mass communications and documentation	0	0	0	5	0	2
Languages	15	0	1	3	9	4
Historical and philosophical studies	7	0	2	0	4	3
Creative arts and design	2	100	7	16	7	8
Education	7	0	10	37	10	8
Combined	2	0	0	0	1	1
Subject area total	8890	395	7085	940	17310	

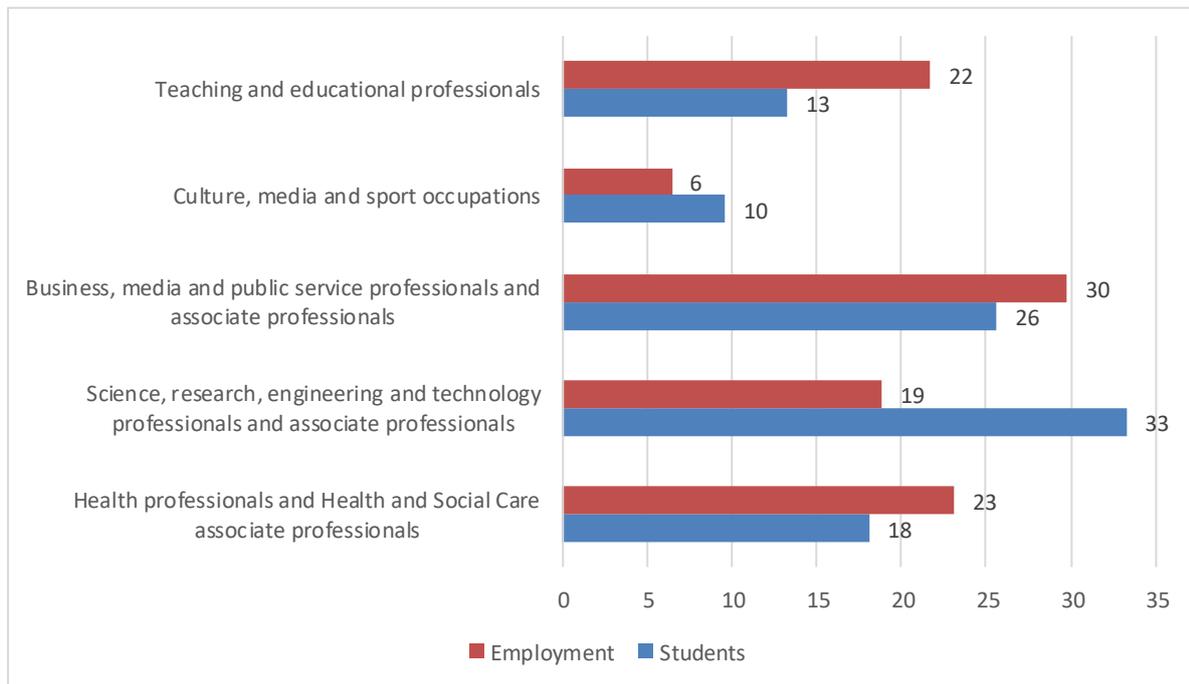
Source:

Comparing the distribution of students across subjects with the distribution of employment at RQF level 4 and above across selected professional and associate professional occupations provides a crude assessment of the degree of 'fit' between local provision and the needs of the local economy. Including only subjects and occupations that can be broadly mapped to one another⁴⁷ reveals a fair degree of synergy between the two measures. For example, 30% of students included in the analysis are on courses that can be broadly mapped to professional and associate professional occupations in business, media and public services. This includes, for example, students on courses leading to higher education qualifications in business and administrative studies and law. These occupations accounted for more than a quarter of employment at RCQ level 4 and above within the Heart of the South West in 2017 according to the Working Futures employment projections. The fit between local provision and local needs is similarly broadly balanced for health and social care.

The share of students on courses allied to science, research, engineering and technology is greater than the share of highly qualified employment in these sectors suggesting considerable scope for local employers to tap into graduates leaving with these qualifications. The opposite is true, however, for student on education courses.

⁴⁷ For example, excluding humanities subject.

Figure 18 Distribution of students and employment at RQF level 4 and above in selected professional and associate professional occupations⁴⁸; Heart of the South West, 2017



Source: Working Futures 2017

⁴⁸ Includes total employment at RQF level 4 and above in selected professional and associate professional occupations.

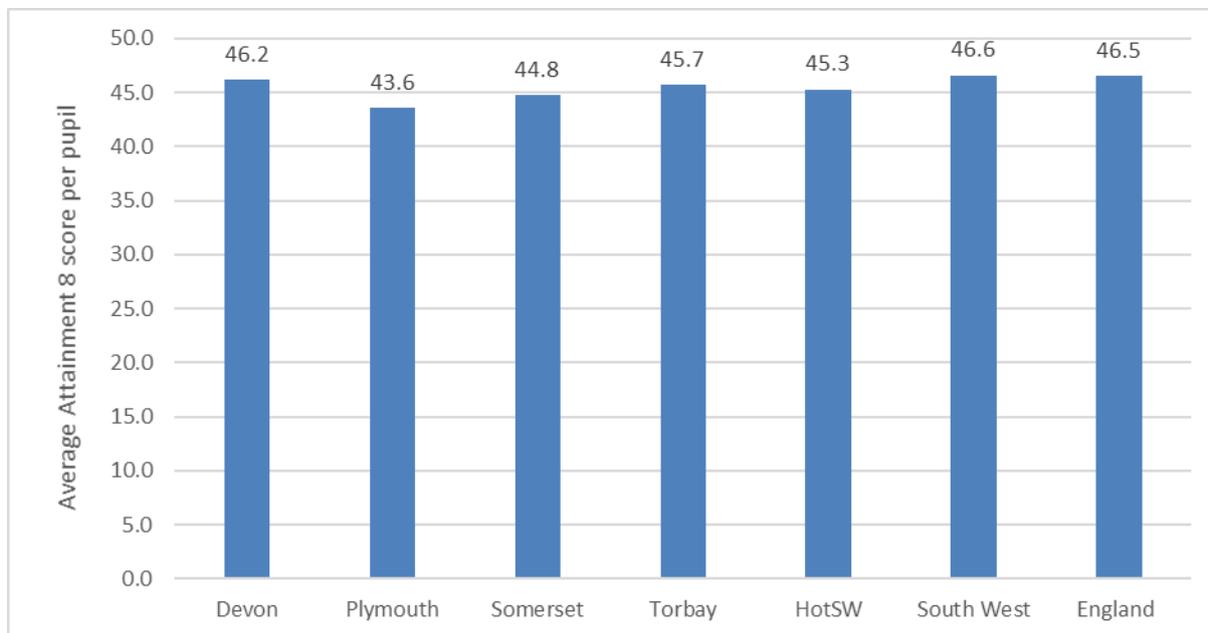
2.5. Key Stage 4 destinations

2.5.1. Attainment

Performance at GCSE level is lower than average in the Heart of the South West LEP area, with an average Attainment 8 score⁴⁹ per pupil of 45.3 in 2018/19, compared to 46.6 for the South West and 46.5 for England. Within the LEP area, only Devon achieved results that were broadly comparable the national and regional averages. Results were lowest in Plymouth.

⁴⁹ Attainment 8 measures the achievement of a pupil across 8 qualifications including mathematics (double weighted) and English (double weighted), 3 further qualifications that count in the English Baccalaureate (EBacc) measure and 3 further qualifications that can be GCSE qualifications (including EBacc subjects) or any other non-GCSE qualifications on the DfE approved list. Each individual grade a pupil achieves is assigned a point score, which is then used to calculate a pupil's Attainment 8 score.

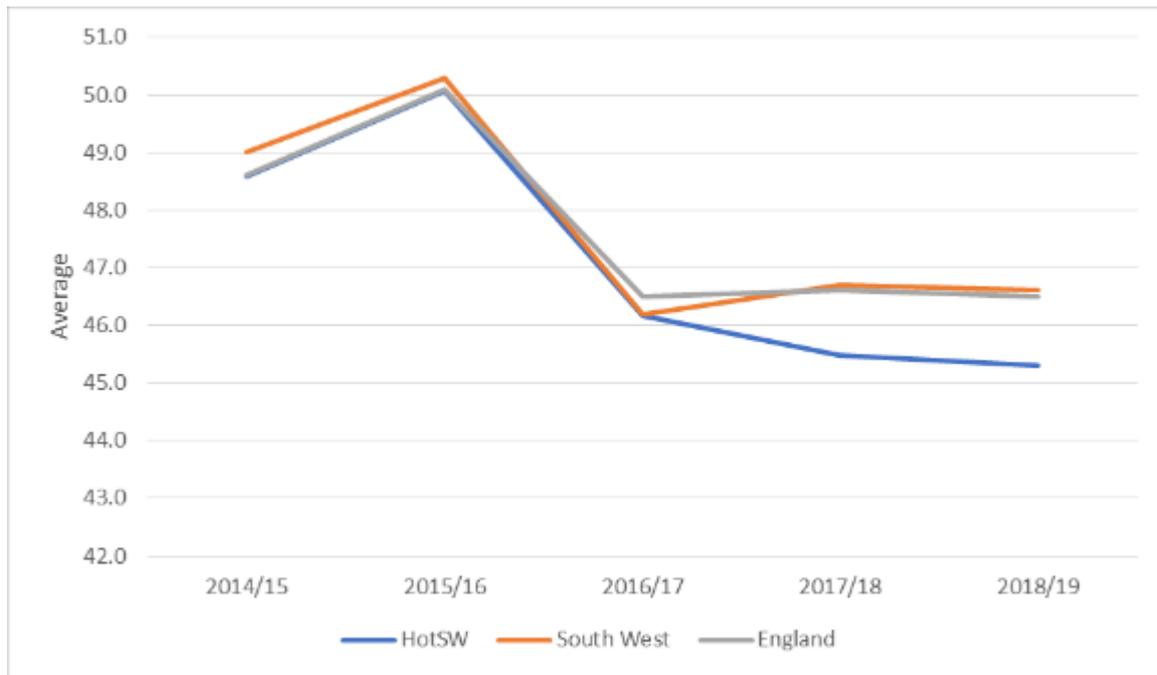
Figure 19 Average Attainment 8 score per pupil, Heart of the South West LEP area, its constituent higher tier local authority districts, South West and England, 2018/19



Source: DFE <https://www.gov.uk/government/collections/statistics-gcses-key-stage-4> . Note: Data for England is for the state funded sector only.

Figure 20 below shows that recent performance in the local area has been worsening, while the region as a whole has following the national trend, with a slight increase in the average score in 2017/18, followed by similar results in 2018/19. This figure shows that recent performance in the local area has been worsening, while the region as a whole has following the national trend, with a slight increase in the average score in 2017/18, followed by similar results in 2018/19. The fall across all areas between 2015/16 and 2016/17 was due a change in the system of points awarded to different grades. Locally, all 4 LEAs saw a dip in average scores achieved in 2017/18, and provisional data for 2018/19 shows that 3 of the 4 experienced a further fall in performance, with Devon being the exception.

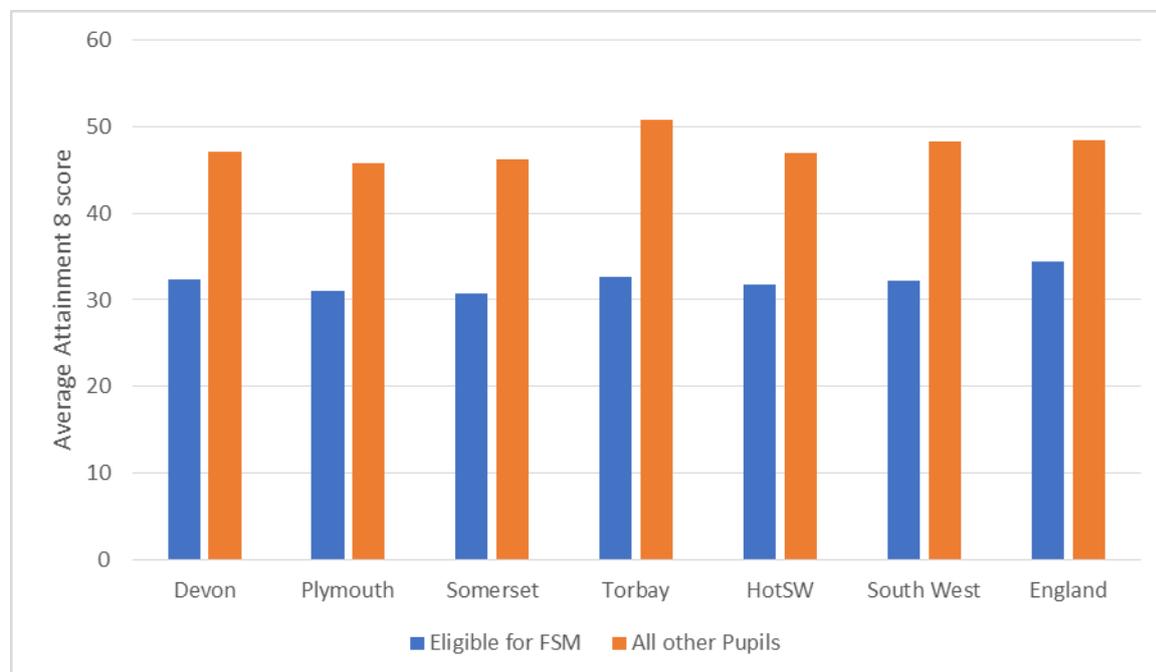
Figure 20 Average Attainment 8 score per pupil, Heart of the South West LEP area, vs South West and England, 2014/15 - 2017/18



Source: DFE <https://www.gov.uk/government/collections/statistics-gcses-key-stage-4> . Note: Data for England is for the state funded sector only.

Figure 21 shows differences in Attainment 8 scores by eligibility for free school meals (FSM), a useful indicator of deprivation. The gap in achievement between FSM pupils and others was 15.3 points in the Heart of the South West LEP area, compared to 13.9 points nationally. The achievement gap is wider than nationally across all 4 LEAs within the LEP area and is highest in Torbay at 18.1 points.

Figure 21 Average Attainment 8 score per pupil by eligibility for Free School Meals, Heart of the South West LEP area, its constituent higher tier local authority districts, South West and England, 2017/18



Source: DFE <https://www.gov.uk/government/collections/statistics-gcses-key-stage-4> . Note: Data for England is for the state funded sector only.

In terms of performance at Level 3, the average point score per entry is very similar in Heart of the South West LEP area to regional and national averages, at 31.7 points. The figure below shows that performance locally is lowest in Plymouth (29.3 points) and highest in Torbay (35.5 points). Torbay also has the highest average Attainment 8 score for the “All other pupils” category, higher than the average for Heart of the South West LEP area, the South West and England overall.

2.5.2. Destinations

Overall, 95% of pupils were in sustained education, employment or apprenticeships in the year after key stage 4, unchanged from 2016/17. This was one percentage point higher than the national average.

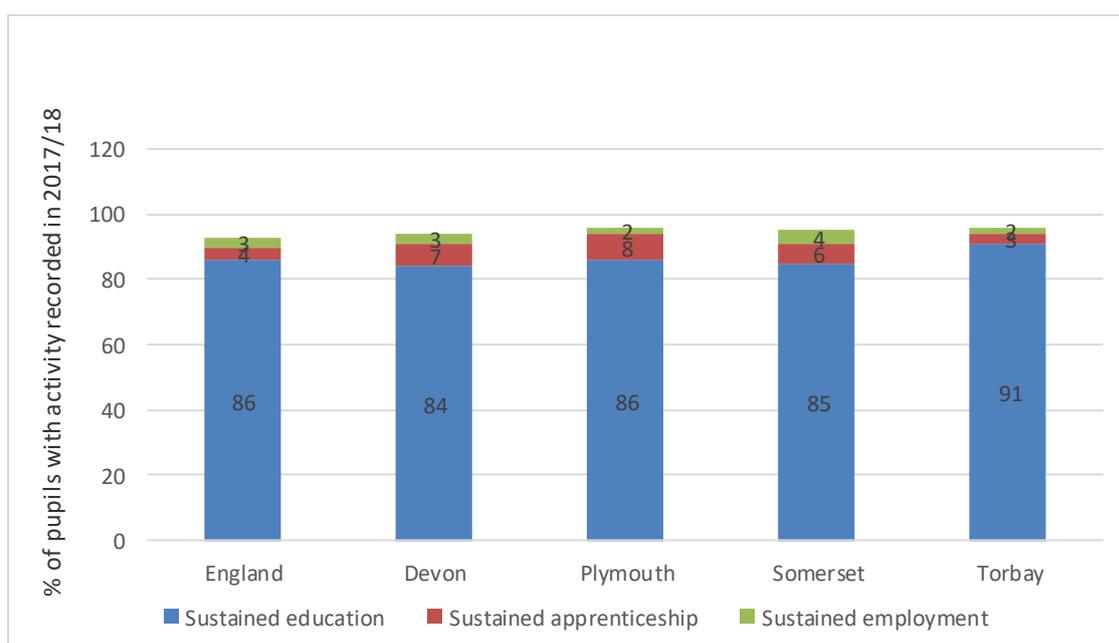
85% of pupils were in sustained education, down from 86% from 2016/17. This was slightly below the national average, due to the fact that a higher proportion of KS4 leavers locally were going into Apprenticeships.

Table 14 Percentage of pupils in sustained destinations after key stage 4, Heart of the South West LEP area, vs South West and England, 2017/18

Area	Number of pupils at the end of key stage 4 in 2016/17	Any sustained education or employment	Any sustained education destination
Devon	6,584	95	84
Plymouth	2,456	96	86
Somerset	4,788	95	85
Torbay	1,255	95	91
Heart of the South West LEP area	15,083	95	85
South West	49,416	95	86
England	517,634	94	86

Source: DFE <https://www.gov.uk/government/statistics/destinations-of-ks4-and-16-to-18-ks5-students-2018> Note: Data is for the mainstream sector only.

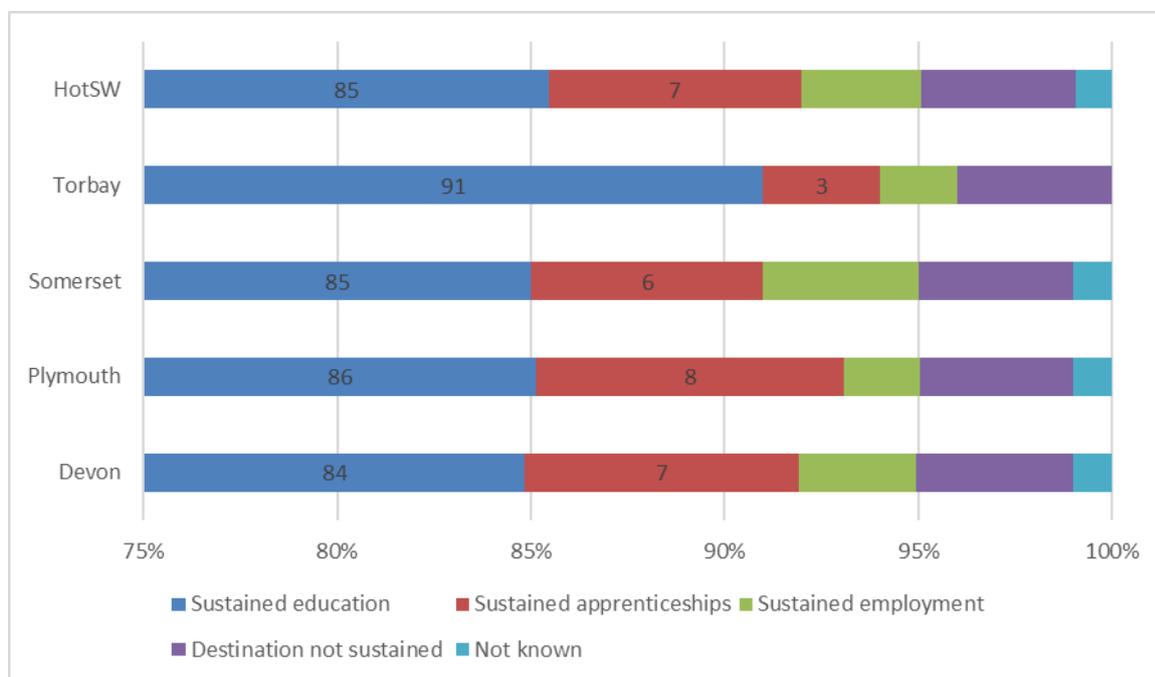
Figure 22 Destinations of KS4 pupils from mainstream schools, Heart of the South West upper tier local authorities and England, 2017/18



Source: DFE <https://www.gov.uk/government/statistics/destinations-of-ks4-and-16-to-18-ks5-students-2018> Note: Data is for the mainstream sector only.

Within the Heart of the South West LEP area, there are some differences between local authority areas regarding destinations. The figure below shows that Torbay has a far lower proportion of KS4 leavers going into Apprenticeships or employment destinations, with a higher proportion remaining in education. Plymouth has the highest proportion of leavers going into Apprenticeships at 8%, twice the national average.

Figure 23 Destinations of pupils in after key stage 4 (% of total cohort), by Heart of the South West LEP area LEA, 2017/18



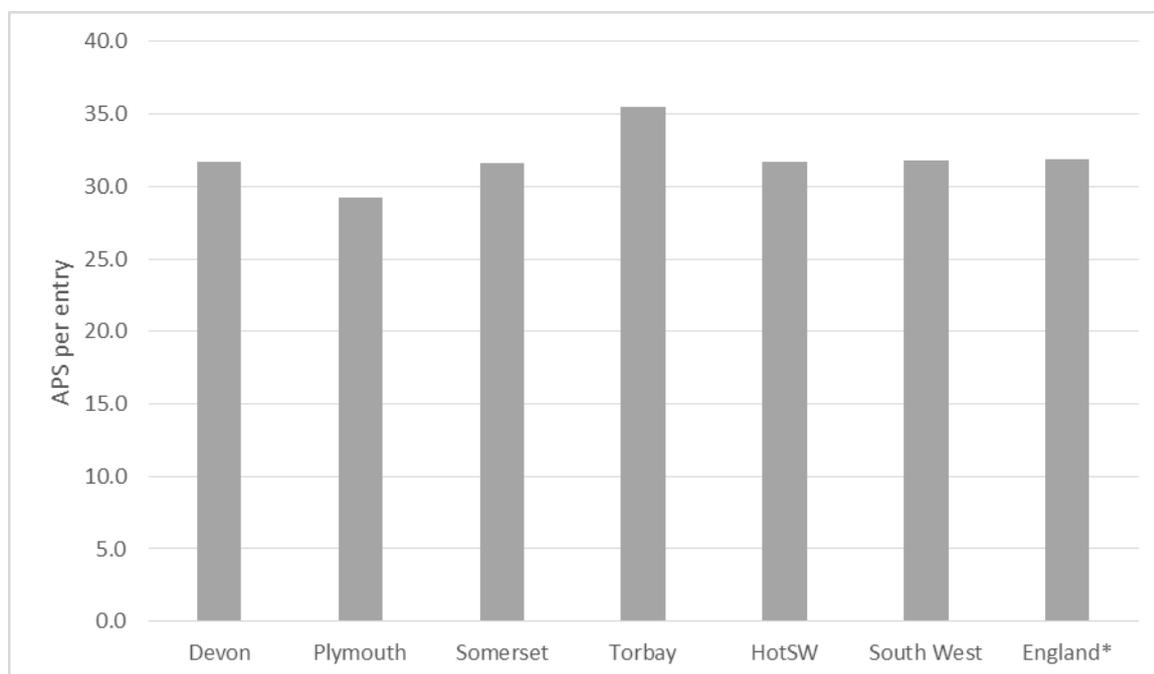
Source: DFE <https://www.gov.uk/government/statistics/destinations-of-ks4-and-16-to-18-ks5-students-2018> Note: Data is for the mainstream sector only.

2.6. Key Stage 5 destinations

2.6.1. Attainment

Between 2017 and 2018, the general trend was for a slight decline in the APS per entry, both locally and nationally. However, Torbay was a notable exception to this, with its APS per entry increasing from 32.5 to 35.5, well above the national average of 31.8. This improvement has coincided with a significant fall in Level 3 student numbers in Torbay, from 1,312 in 2016 to just 832 in 2018.

Figure 24 Average Point Score per entry, Level 3 Qualifications, Heart of the South West LEP area, vs South West and England, 2017/18



Source: DFE <https://www.gov.uk/government/collections/statistics-attainment-at-19-years#a-levels-and-other-16-to-18-results> Note: Data for England is for the state funded sector only.

In a new measure introduced for 2017/18 results, 76.8% of Heart of the South West LEP area students achieved at least 2 substantial level 3 qualifications⁵⁰, compared to 77.9% for the South West and 80.3% for England. The individual LEAs within Heart of the South West LEP area recorded the following results:

- Devon 76.3%
- Plymouth 77.1%
- Somerset 76.6%
- Torbay 79.2%

2.6.2. Destinations

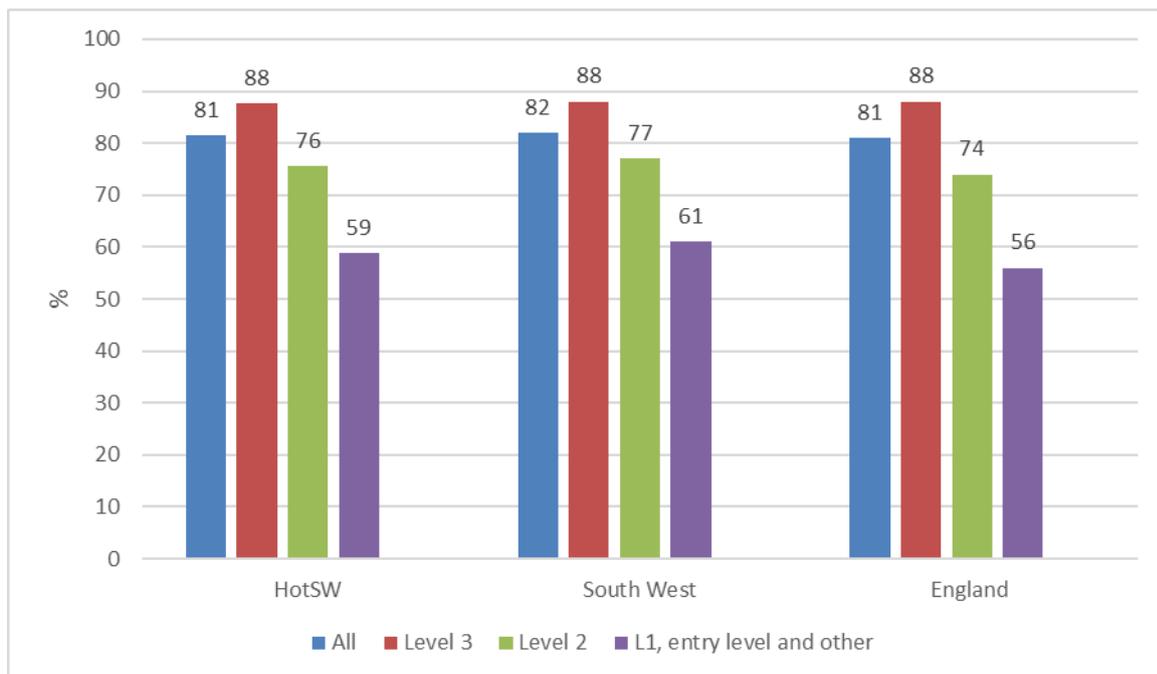
Overall, 81% of 16-18 students in the Heart of the South West LEP area went on to sustained education or employment destinations⁵¹, similar to regional and national averages.

⁵⁰ Substantial level 3 qualifications are defined as qualifications that are at least the size of an A level (180 guided learning hours per year), such as a BTEC subsidiary diploma level 3. If a qualification is equal in size to 2 A levels it is counted as 2 substantial level 3 qualifications.

⁵¹ To count as a 'sustained' destination, the young person has to be participating for 'two terms' or 'six months' in the academic year following their last recorded attendance at the institution to which they were allocated. Young people are counted as being in an apprenticeship if they participate in relevant training for at least six consecutive months at any point in the destination year.

The figure below shows that students who took level 3 qualifications during their 16 to 18 study were more likely to have a sustained destination (88%) than those who took courses at level 2 or below. The figure also shows that for students studying at level 2 and below, a higher proportion of local students had sustained destinations than the national average, although slightly below the South West average.

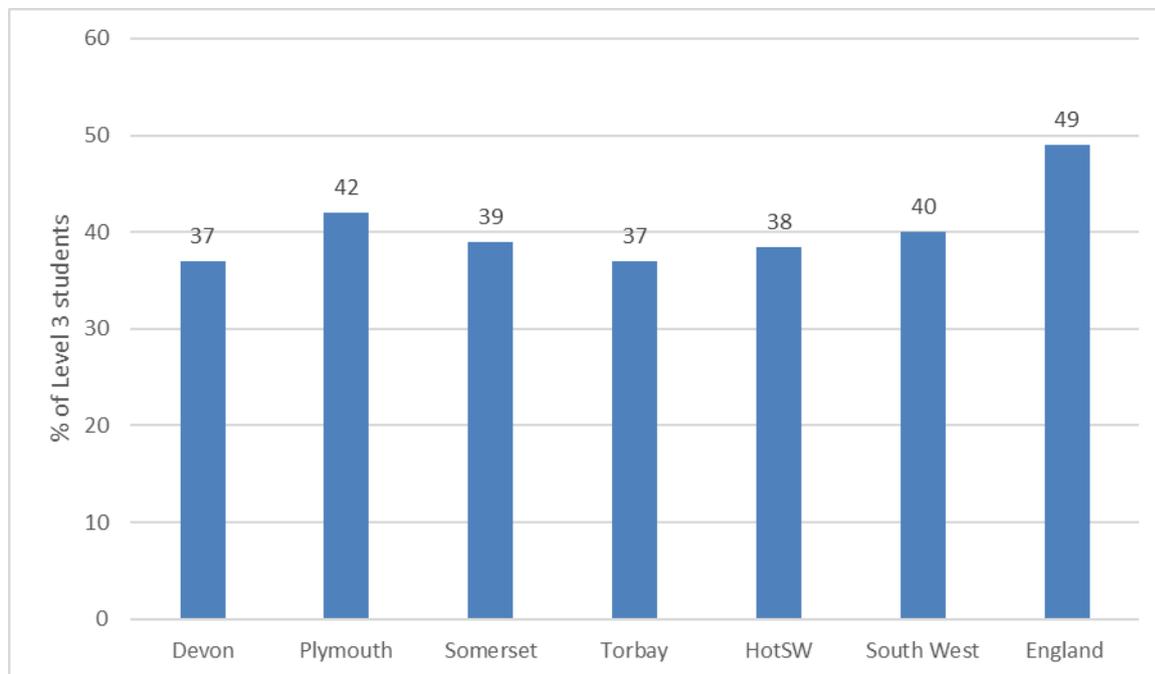
Figure 25 Student destinations after 16 to 18 study by level of study, Heart of the South West LEP area, vs South West and England, 2017/18



Source: DFE <https://www.gov.uk/government/statistics/destinations-of-ks4-and-16-to-18-ks5-students-2018> Note: Data is for the mainstream sector only.

The Heart of the South West LEP area suffers from surprisingly low levels of progression into higher education. Looking specifically at the progression of level 3 students into higher education, the figure below shows a lower level of progression locally than nationally – 38% compared to 49%. All areas within the Heart of the South West LEP area have a lower than average level of progression into HE, but this is because a higher proportion of leavers are progressing into other sustained destinations (such as further FE at Level 3, Apprenticeships or employment) rather than a less positive rate of sustained destinations.

Figure 26 Progression of Level 3 Students into Higher Education (% of Level 3 cohort), Heart of the South West LEP area, vs South West and England, 2017/18



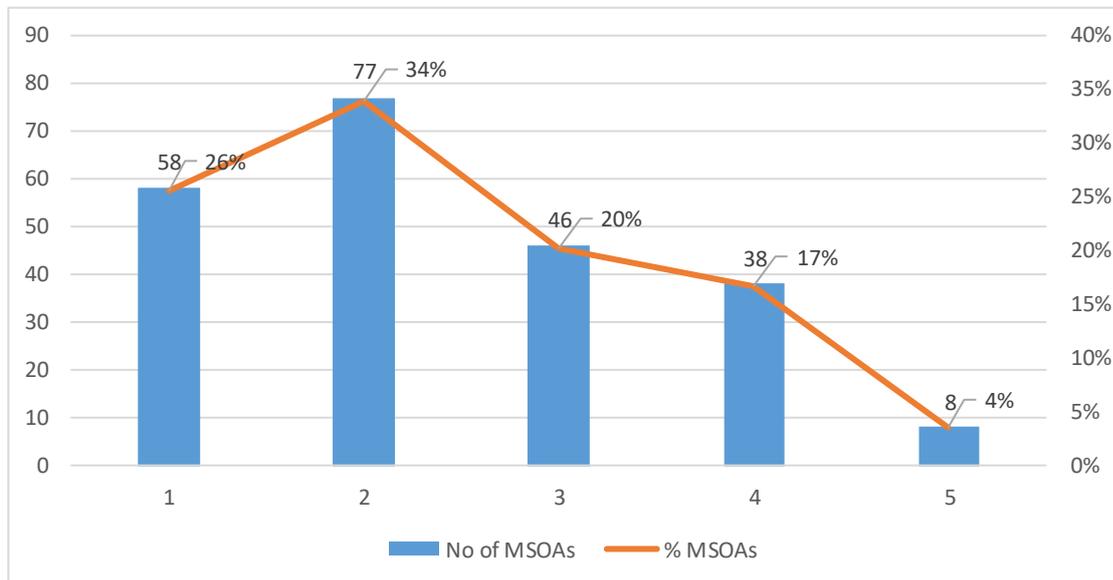
Source: DFE <https://www.gov.uk/government/statistics/destinations-of-ks4-and-16-to-18-ks5-students-2018> Note: Data is for the mainstream sector only.

TUNDRA data (for tracking underrepresentation by area) tracks the proportion of state-funded mainstream school pupils who at age 16, on completion of their GCSEs in 2010 to 2014, participated in higher education in 2017-2018, when they were aged 18 or 19.

The data, from the Office for Students, shows which quintile each Middle Layer Super Output Areas falls in. MSOAs in quintile one have the lowest rate of progression into higher education and those in quintile five have the highest. The main use of the data is to help policy makers and outreach programmes identify and target areas of low participation. Data is based on students' home post-code, not school location.

Figure **27** below shows that 58 (or 26%) of Heart of the South West LEP area's 227 MSOAs fall in quintile one, with the lowest rates of HE participation. Only eight (4%) fall into the quintile with the highest rate of progression. Alarming, 60% of Heart of the South West LEP area's MSOAs are in the bottom two quintiles.

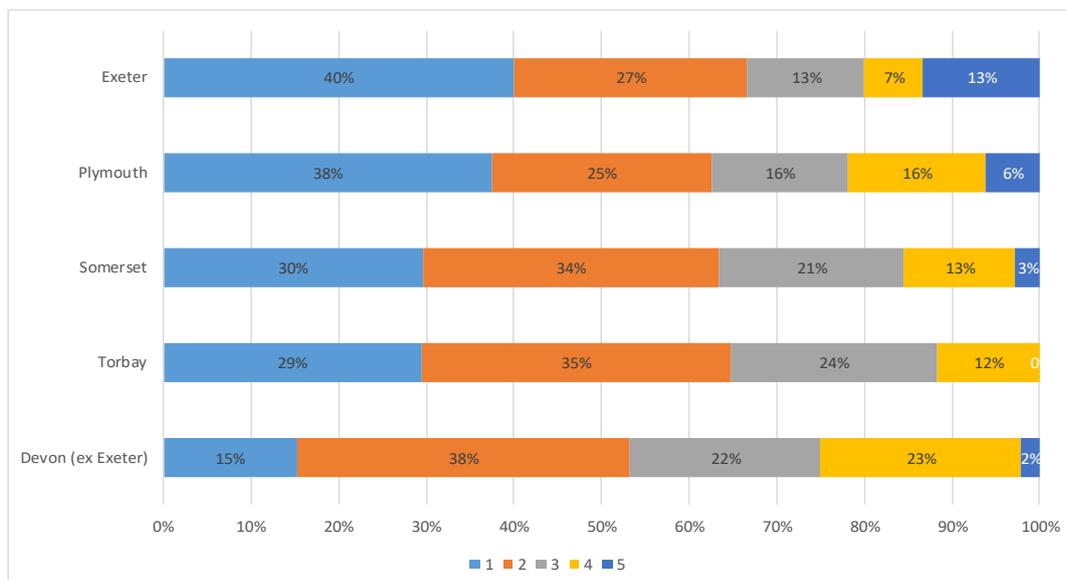
Figure 27 Proportion of mainstream state school students aged 16 progressing into Higher Education, 2019



Source: Office for Students

Figure 28 breaks this data down for smaller geographical areas. Heart of the South West LEP area’s two major cities have the highest proportion of MSOAs in quintile 1, with the lowest rate of participation in Higher Education. At the other end of the spectrum, Exeter also has the highest proportion of MSOAs in quintile 5, but at 13% even this remains below the national average (20%). However, this is a problem that doesn’t only impact on cities. Only 16% (or 11 of 71) MSOAs in Somerset sit in the top two quintiles, far below the national average (40%).

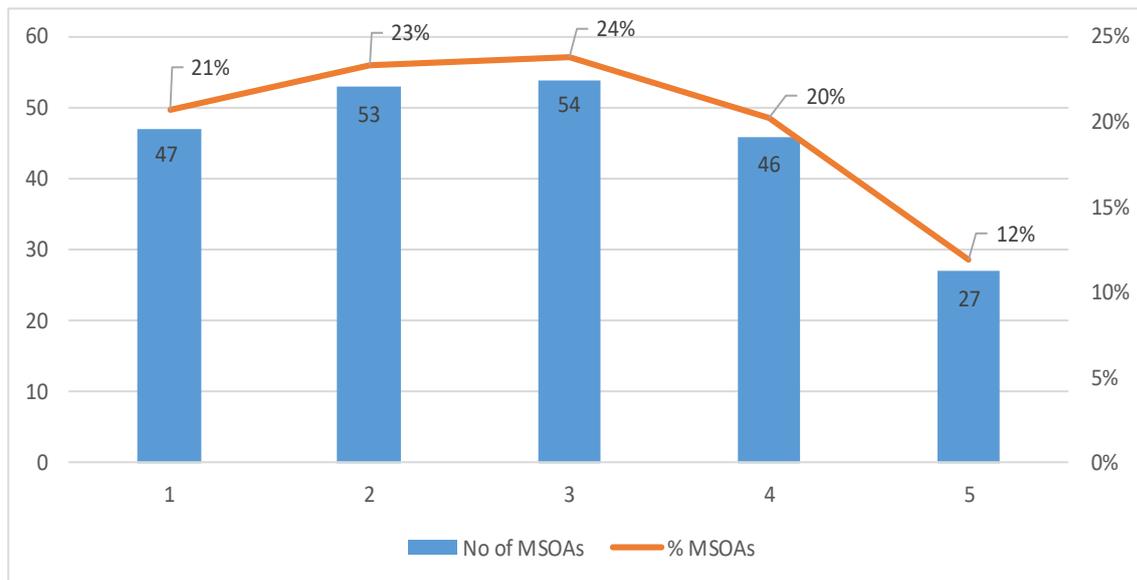
Figure 28 Proportion of mainstream state school students aged 16 progressing into Higher Education, local areas, 2019



Source: Office for Students

POLAR4 provides the same information, but does not limit the student population by school type. Once private schools are included the picture improves. The proportion of MSOAs in quintiles 1 and 2 falls from 26% to 21% and from 34% to 23%, respectively. At the other end of the spectrum, the proportion of MSOAs in quintile 5 rises from 4% to 12%. However, these improvements in the overall picture also point to an educational system that fails to deliver equality of opportunity to all young people across our area.

Figure 29 POLAR4 proportion of students aged 16 in local areas progressing into Higher Education, 2018



Source: Office for Students

2.7. Outcomes for adult FE and Skills learners

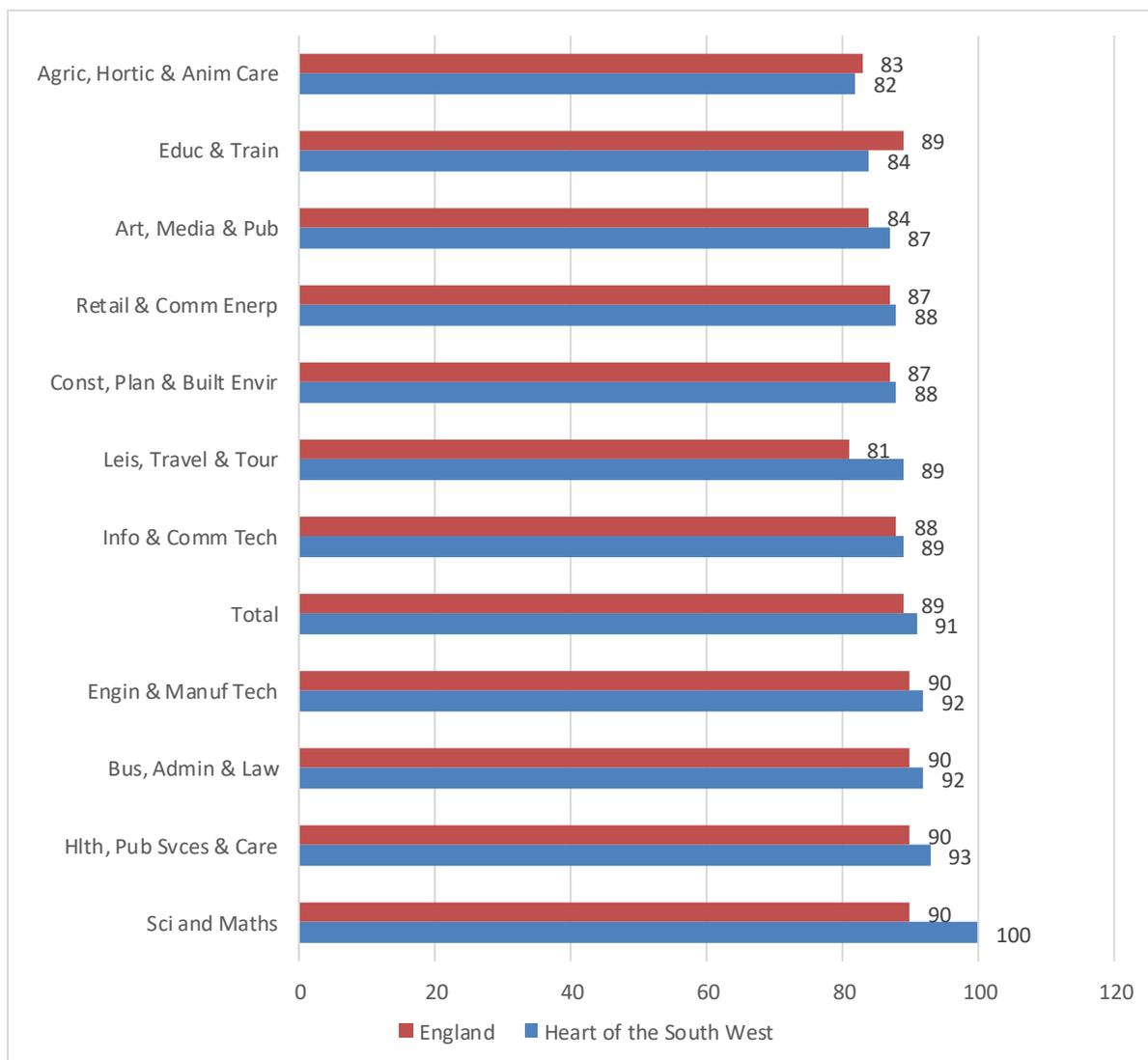
During 2018/19, the government funded almost 32,200 qualification 'achievements' among learners aged 19 and over across the Heart of the South West. These are most commonly at Level 1 (37%) or Level 2 (31%) but a significantly minority are also acquired at Entry (19%) and Level 3 (10%). On a national level, Entry Level achievements were second most common at 30%, considerably higher as a proportion than locally. The most common local achievement was Level 2 (33%), with Level 1 in third (29%). Notably these three tiers are consistently the most common, compared to higher level occupations. The Heart of the South West also has approximately twice the rate of Level 3 achievements compared to nationally (5%).

2.8. Outcomes for Apprenticeships by level

During 2016/17, 10,470 learners in the Heart of the South West successfully completed their apprenticeship. The vast majority (93%) of these apprentices had a positive destination of either employment, further learning, or both in the following academic year. As apprentices are employed, the majority remained in sustained employment upon completing their training (91%) with employment often being combined with learning. Overall, more than a fifth (22%) were in sustained learning most often further education (18%) or another apprenticeship (17%).

Sustained employment rates were high across all Sector Subject Areas and in most cases higher than the England average. As nationally, employment rates locally were lowest in agriculture, horticulture, and animal care.

Figure 30 Percentage of apprentices in sustained employment by SSA; Heart of the South West and England, 2016/17

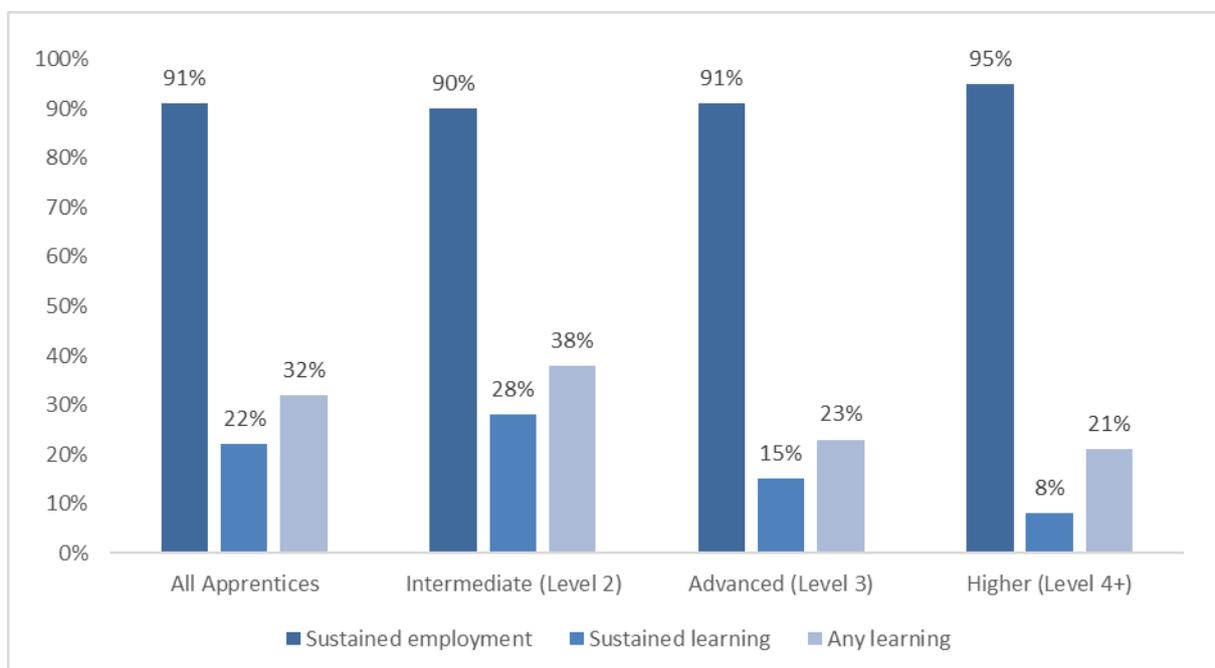


Source: DFE

Analysis by apprenticeship level shows that while high for all levels, higher apprenticeships are associated with higher probabilities of sustained employment and lower probabilities, as might be expected, of sustained learning.

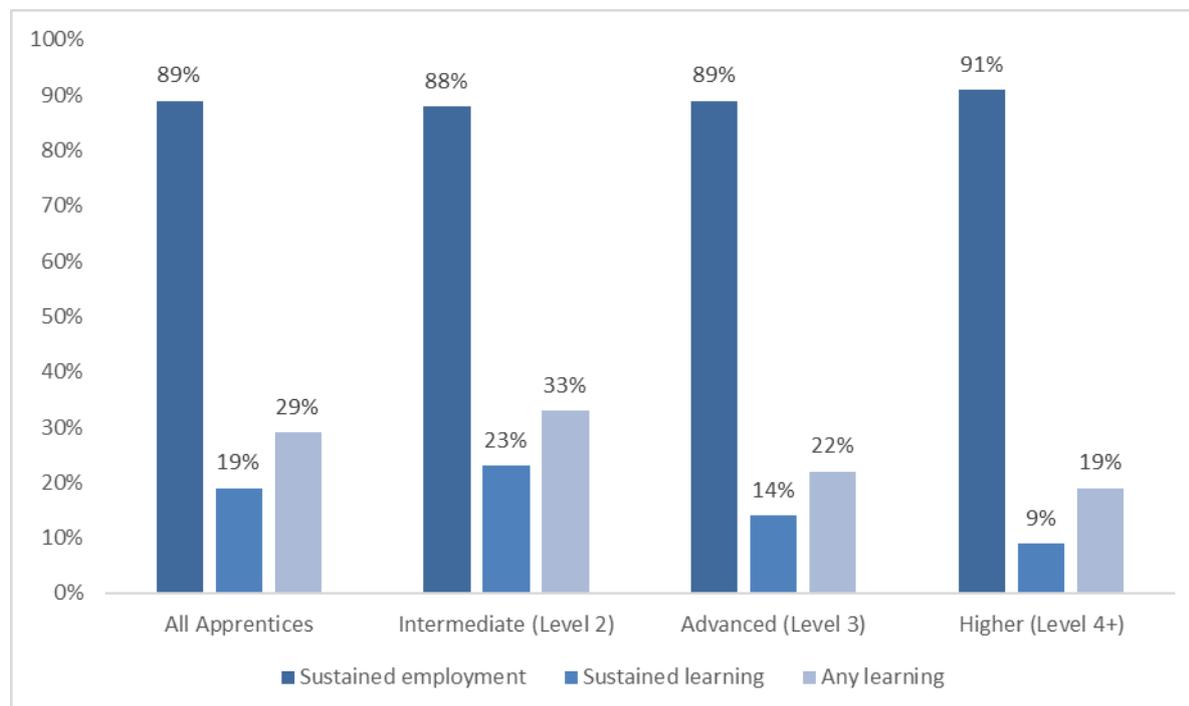
Many of those achieving an intermediate apprenticeship (Full Level 2) continue their learning (28%) with most of these learners progressing to an Advanced Apprenticeship (22%) at Level 3 or above. Progression to a higher level of apprenticeship is particularly common for those completing intermediate apprenticeships in education and training (42%) and engineering and manufacturing technologies (38%) but is less common amongst learners completing an intermediate apprenticeship in retail and commercial enterprise (12%).

Figure 31 Destinations rates for apprenticeships 2016/17 achievements, Heart of the South West



Source: FE Outcome Based Success Measures, DfE (LEO data)

Figure 32 Destination rates for apprenticeship 2016/17 achievements, England



Source: FE Outcome Based Success Measures, DfE (LEO data)

More than nine in ten (91%) of apprentices completing an advanced apprenticeship (Full Level 3) enter sustained employment and 15% remain in sustained learning often at within further education studying at Level 4/5 (5%), higher education working towards Level 6 qualifications or above (3%) or another apprenticeship at Level 3 or above (6%). Sustained learning is particularly common among those completing an advanced apprenticeship in education and training (24%).

Finally, apprentices achieving a higher level apprenticeship at Level 4 or above are the most likely to be in sustained employment (91%) particularly in the Heart of the South West (95%). Almost one in ten (8%) enter sustained learning with 2% working towards qualifications at Level 4 or 5 in further education and 3% entering higher education to gain qualifications at Level 6. Apprentices at this level are largely concentrated in three areas: mainly health, public services and care but with smaller numbers in business, administration and law and engineering and manufacturing technologies.

Sustained employment rates by level and sector subject area locally are in most cases within a couple of percentage points of the national average. The largest differences are for leisure, travel, and tourism where sustained employment rates are higher locally than the England average at intermediate (+5 percentage points) and advanced (+10 percentage points) level. Sustained employment rates for these apprentices nationally are among the lowest of all Sector Subject Areas particularly at advanced level (77%).

2.9. Higher Education graduate activities

Destinations are known for around half (52%) of students graduating from HEIs in the Heart of the South west in 2017/18. As nationally, the vast majority of graduates were in work and/or further study 15 months after graduation (87%) although the patterns of destinations varied by institution reflecting among other things the share of undergraduates among the cohort of leavers (since many of these will progress into further study rather than enter employment).

Table 15 Graduate activities by HEI provider; 2017/18

	The University of Exeter	Plymouth College of Art	University of Plymouth	University of St Mark and St John	Heart of the South West
Full-time employment	2565	115	2060	340	5080
Part-time employment	305	55	295	75	730
Unknown pattern of employment	25	0	15	0	40
Voluntary or unpaid work	100	5	40	10	155
Employment and further study	445	15	275	45	780
Full-time further study	580	5	220	20	825
Part-time further study	20	0	15	0	35
Unknown pattern of further study	5	0	0	0	5
Other including travel, caring for someone or retired	320	15	160	25	520
Unemployed and due to start work	40	0	30	5	75
Unemployed and due to start further study	15	0	5	0	20
Unemployed	190	15	95	15	315
Total with known outcomes	4615	225	3205	535	8580
Non-respondents	4005	180	3285	380	7850
Total	8620	405	6490	915	16430

Source: HESA

Relatively few graduates for whom an outcome is known are unemployed and are not due to start work or further study. The share of unemployed students locally is on par with the England average at 4%.

Table 16 Graduate outcomes by HEI provider,

	The University of Exeter	Plymouth College of Art	University of Plymouth	University of St Mark and St John	Heart of the South West	England
Full-time employment	56	51	64	64	59	59
Part-time employment	7	24	9	14	9	10
Unknown pattern of employment	1	0	0	0	0	0
Voluntary or unpaid work	2	2	1	2	2	1
Employment and further study	10	7	9	8	9	10
Full-time further study	13	2	7	4	10	8
Part-time further study	0	0	0	0	0	1
Unknown pattern of further study	0	0	0	0	0	0
Other including travel, caring for someone or retired	7	7	5	5	6	6
Unemployed and due to start work	1	0	1	1	1	1
Unemployed and due to start further study	0	0	0	0	0	0
Unemployed	4	7	3	3	4	4
Total with known outcomes	100	100	100	100	100	100

Source: HESA

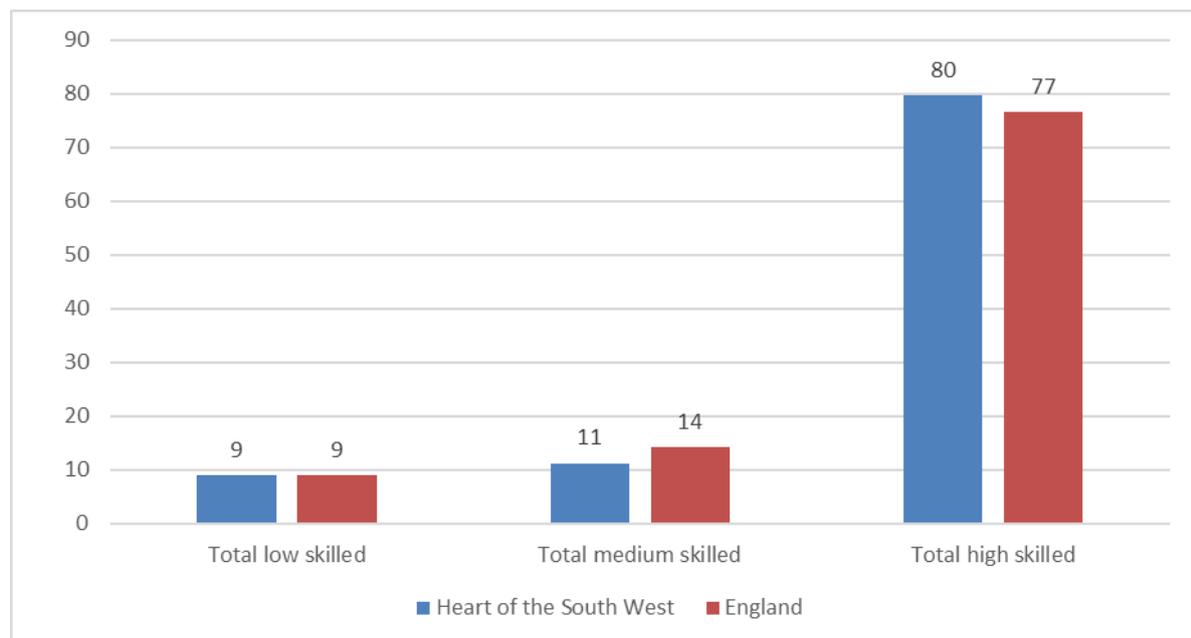
Salaries earned by graduates of HEIs in the Heart of the South West compare favourably with the England average. The median undergraduate salary is £24,000 to £26,000 a year, with almost one quarter (23%) of graduates from local HEIs earning this sum (compared to 21% of students nationally). Local graduates are as likely as those nationally to be earning more than the median salary (33%) and are less likely to be earning less than £24,000 a year (44% compared to 47%).

Figure 33 Graduate incomes



Source: HESA

Figure 34 Graduate outcomes by skill level of employment, Heart of the South West LEP area and England,



Source: HESA

From this information, graduate outcomes overall seem positive for HE leavers in the Heart of the South West, with a median salary matching the national average and a higher proportion than nationally in high skilled job roles. However, the large differences in each of the HEIs across the LEP need to be taken into consideration, as graduate outcomes including wages and skill-level of employment can vary hugely between institutions.

2.10. Region of residence of HE graduates from local institutions 1, 3 and 5 years after graduation

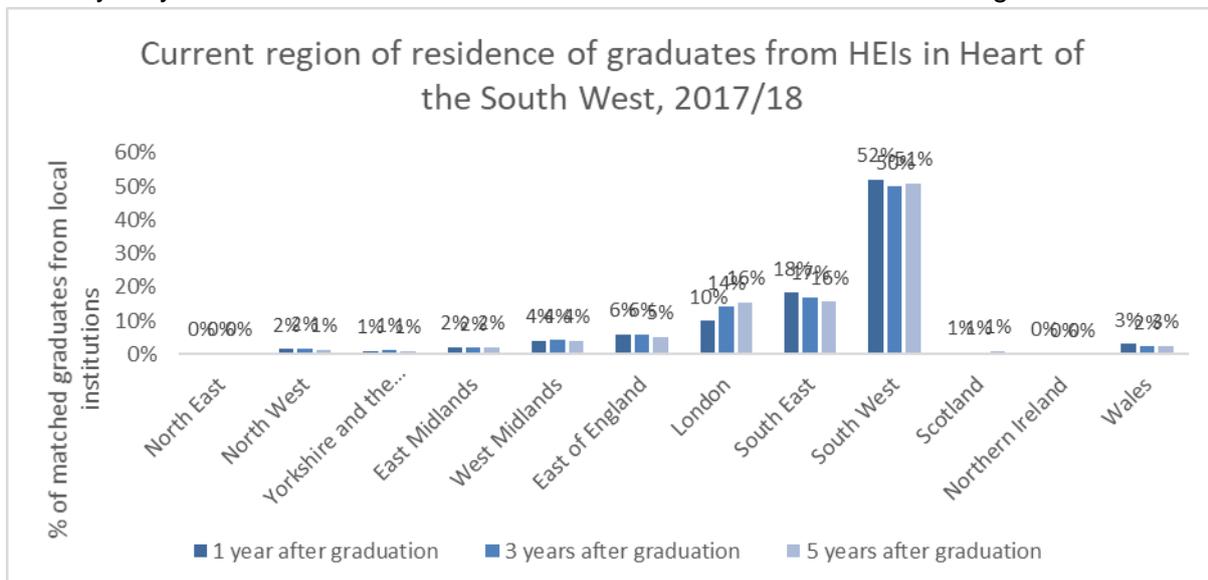
Graduate retention is a significant issue for the area not least because all the region's job growth over the next decade is expected to be in occupations requiring higher education qualifications. Students who chose to study in the Heart of the South West are an important source of graduate level skills and efforts to retain them, likely to drive local growth and productivity⁵². As a group however, graduates, are highly mobile and the so-called 'graduate brain drain' to London, well documented⁵³.

Analysis of graduate mobility flows undertaken by the Higher Education Funding Council for England in 2017 found that almost two-thirds of students move away from their home LEP area to study, but nearly 50% return after graduation. The fact that many graduates return to their home region to work explains some of the differential in graduate retention rates by higher education institutions in the Heart of the South West and in particular the finding that the Plymouth-based institutions retain a significantly greater share of graduates within the South West of England than the University of Exeter. For example, more than half (54%) of University of Exeter graduates in 2017/18 who had graduated five years before, were living in London or the South East, compared to one-fifth (20%) of University of Plymouth graduates. Across all institutions in the Heart of the South West retains around half of graduates within the wider region but 'loses' almost a third (31%) to London and the South East.

⁵² <https://www.universitiesuk.ac.uk/policy-and-analysis/reports/Documents/2017/graduate-retention-meeting-local-skills-needs.pdf>

⁵³ The Great British Brain Drain – Where graduates move and why, Centre for Cities, 2016.

Importantly, from a social mobility perspective, research has found that while graduates from lower socio-economic backgrounds are less likely to be mobile, they are better outcomes if they are: this suggests that while this group may be the easiest to retain, encouraging them to stay may have an adverse effect on their career outcomes. The lack of graduate



opportunities locally is likely to have a negative impact on graduate retention locally especially among the relatively large share of students on courses in business and administrative studies. According to High Fliers research, accounting & professional services was one of the largest recruiters of graduates in 2019 (23%). Initiatives set-up to improve graduate retention locally include Gradsouthwest, a graduate job board for South West England⁵⁴.

2.11. Employer provided training over the last 12 months

A recent rapid-review of the literature on adult learning published by Marchmont Observatory on behalf of the TUC⁵⁵ highlighted studies that have documented:

- Significant decline in recent years in terms of the time spent training; the amount of employer-funded training and amount of formal training⁵⁶
- Low levels of participation in learning among adult with low or no qualifications, and in low social groups and occupations^{57, 58}

⁵⁴ <https://www.gradsouthwest.com/>

⁵⁵ The Future of the Union Learning Fund (2020) unpublished.

⁵⁶ Green, F., Henseke, G. (2019). Training trends in Britain. LLAKES and Unionlearn. <https://www.unionlearn.org.uk/sites/default/files/publication/Training%20trends%20in%20Britain.pdf>

⁵⁷ <https://learningandwork.org.uk/what-we-do/lifelong-learning/adult-participation-in-learning-survey/> (Website accessed October 2020)

⁵⁸ Social Mobility Commission: State of the Nation 2018-19: Social Mobility in Great Britain, April 2019. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/798404/SMC_State_of_the_Nation_Report_2018-19.pdf

- Low levels of employer and government investment in skills by international standards.

2.11.1. Level of employer investment in training

Employers fund 82% of training in the UK (£36 billion in 2013/14⁵⁹) and target it at the most skilled in their workforce.

The Heart of the South West performs well on most measures of employer-funded training explored in the UK Employers Skills Survey 2019: the percentage of employers offering training is higher than the national average as is the percentage of employers providing on-the-job training. Furthermore, the percentage of local employers providing off-the-job training and the share of employees engaging in training is broadly in line with the national average. Less positively, however, the LEP area performs less well on measures that describe the intensity of training – with fewer days provided per trainees and member of staff.

Table 1 Percentage of Employer investment in training summary measures, Heart of the South West and England, 2017 and 2019

Training Measure	2017		2019	
	Heart of the South West	England	Heart of the South West	England
% of establishments training staff	70%	66%	63%	61%
% of establishments providing off-the-job training	49%	48%	44%	43%
% of establishments providing on-the-job training	56%	53%	51%	49%
% of training establishments providing online training or e-learning	50%	52%	54%	56%
Total number trained (including modelled data)	442,917	15,232,729	434,658	15,238,042
Total number of staff	708,281	24,452,030	725,204	25,480,720
Number trained as % of total staff	62.5	62.3	59.9	59.8
Total Days Training	2,615,488	97,581,459	2,468,016	91,882,646
Training days per trainee	5.9	6.4	5.7	6.0
Training days per staff	3.7	4.0	3.4	3.6

Source: ESS, 2017

Employers have been relatively consistent in the type of training offer over time. Within the South West LEP area, the most common training is job-specific training (85%) followed by health and safety and/or first aid training (73%), basic induction training (61%). More

⁵⁹ Ibid

specialised training (for example, training in technology or management training) tends to be less commonly offered. The Heart of the South West LEP area compares favourably against the England average for the percentage of employers (who train) who provide job specific training but less so, for other specialised training.

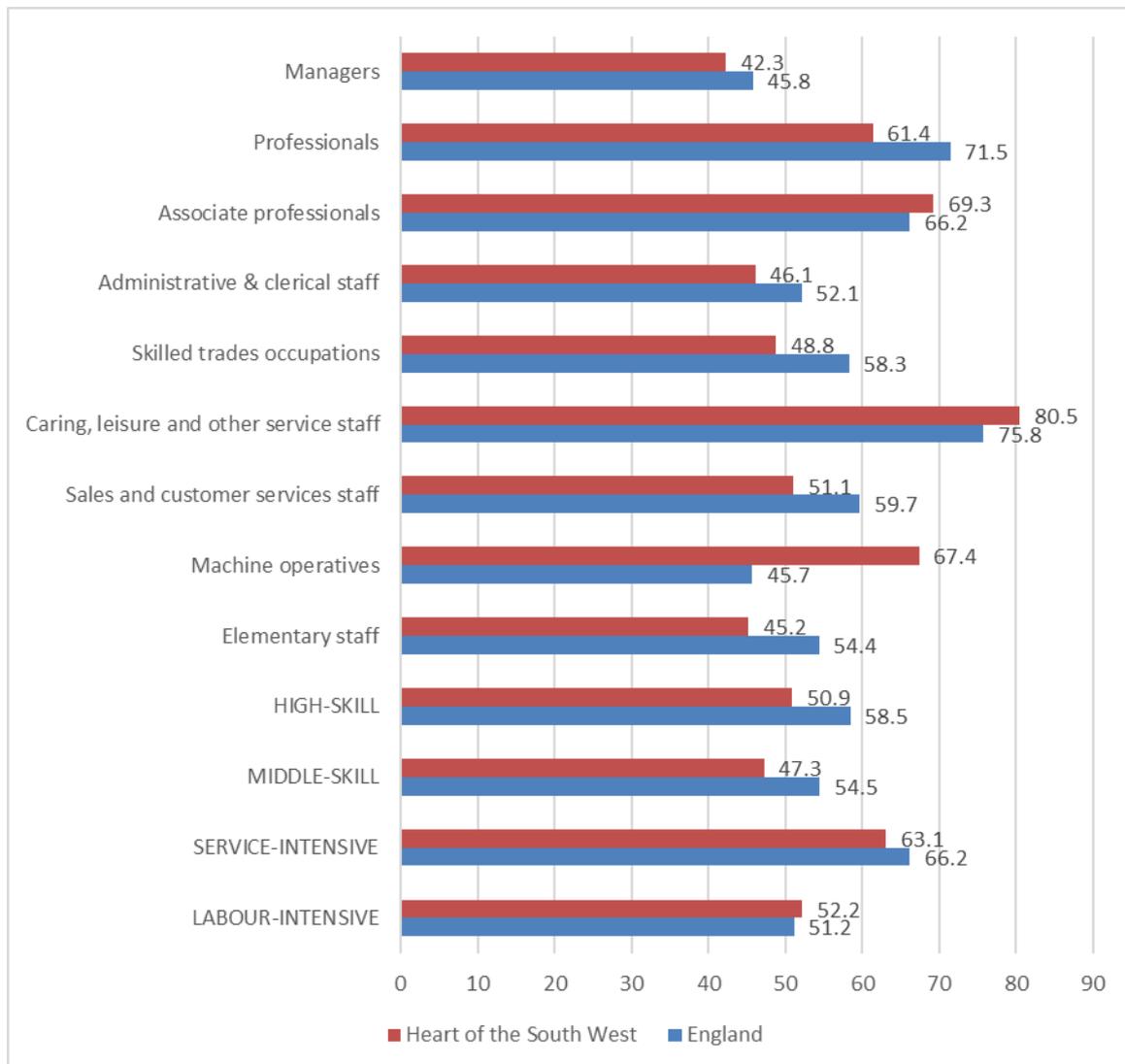
Table 17 Percentage of employers (providing training) offering each type of training, Heart of the South West and England, 2017 and 2019

	2017		2019	
	Heart of the South West	England	Heart of the South West	England
Job specific training	87%	83%	85%	85%
Health and safety/first aid training	75%	74%	73	71
Basic induction training new staff receive when they start the job	62%	65%	61	61
Training in new technology	46%	47%	47	48
More extensive induction training for new staff	34%	36%	33	34
Supervisory training	31%	35%	30	32
Management training	30%	35%	29	32
Personal Development Training*	1%	1%	1	1
GDPR*			*	1
Any other types	1%	1%	1	1
None of these	1%	1%	1	1

Source: ESS, 2017 and 2019

Results for England as a whole, suggest that the incidence of training varies considerably across occupations with caring, leisure and other services staff (80% of staff within this occupation) and professionals (71%) significantly more likely to train than managers (50%), machine operatives (52%) and administrative and clerical staff (53%).

Figure 35 Density of training by occupation, Heart of the South West and England: 2019



Source: UK ESS 2109

As nationally, the percentage of employers providing training within the LEP area varies considerably by sector and size. Unsurprisingly, larger employers are more likely to have trained their staff with the ‘step change’ tending to occur as employers reach the 5+ employee size bracket.

Table 18 Provision of training and total amount of training, Heart of the South West LEP area, 2019

	2 to 4	5 to 24	25 to 49	50 to 99	100+
% of establishments training staff over the last 12 months	48%	79%	92%	92%	95%
% of establishments providing off-the-job training in the last 12 months	32%	56%	74%	75%	80%
% of establishments providing on-the-job training in the last 12 months	36%	66%	83%	86%	91%
% of training establishments providing online training or e-learning in the last 12 months	41%	61%	77%	80%	83%
Total number trained (including modelled data)	31943	116483	70199	62529	153504
Number trained as % of total staff	39%	55%	62%	67%	68%
Total Days Training	251,643	825,784	408,542	339,792	642,256
Training days per trainee	7.9	7.1	5.8	5.4	4.2
Training days per staff	3.1	3.9	3.6	3.6	2.9

Source: UK ESS 2019

Local or Central government funded establishments (90%) and those from the charity or voluntary sector (77%) are more likely to train staff than profit-seeking enterprises (61%).

It follows therefore, that training is almost ubiquitous within non-marketed services sector (87%) within the health and social work (85%), education (90%), However, training is also commonly offered within financial services (92%) and business services (71%) and transport and storage (72%). Establishments in construction (48%) and primary and utilities (50%) are the least likely to have trained staff in the last 12 months.

Establishments that have relatively few highly qualified⁶⁰ employees (i.e. where these employees account for less than one-fifth of the workforce) are less likely than those with higher shares of highly-qualified staff to train their employees (63% compared to 78% of established with between 20 to 80% of highly skilled staff).

2.11.2. Barriers to training and employment

Almost two-fifths (37%) establishments operating in the Heart of the South West LEP area had not trained any staff during the 12 months preceding their participation in the UK Employer Skills Survey. This is slightly lower than the English figure of 39%.

Employers who had not offered any training were asked (unprompted) why they had not done so. While a wide range of reasons for mentioned by small numbers of respondents by far the most common – mentioned by 69% of non-trainers locally and 70% of non-trainers nationally, was the “all our staff are fully proficient” or they had “no need for training”. Other

⁶⁰ Staff with qualification at Level 4 or above.

reasons included: ““training is not considered to be a priority for the establishment” (8%), “no training available in relevant subject” (7%) and “any staff training has been arranged AND funded elsewhere” (6%). Additionally, the UK Employer Skill Survey explored whether employers who did train would have provided more training for staff then they were able to over the last 12 months if they could have done so. Within the South West LEP area, 45% of establishments who had trained would have provided more training for staff if they had been able to. The main barriers that had prevented them doing so were: lack of funds for training or training too expensive (56%) and can’t spare more staff time (having them away on training) (52%).

Table 19 Barriers to providing MORE training (% of establishments who would have provided more training in the past 12 months if they could), Heart of the South West and England, 2017 and 2019

Barrier	2017		2019	
	Heart of the South West	England	Heart of the South West	England
Lack of funds for training / training expensive	56%	51%	48%	48%
Can't spare more staff time (having them away on training)	52%	49%	50%	49%
Hard to find the time to organise training	12%	15%	14%	15%
A lack of appropriate training / qualifications in the subject areas we need	6%	5%	5%	2%
Staff not keen	3%	4%	5%	4%
Difficulty finding training providers who can deliver training where or when we want it	6%	4%	5%	4%
Staff now fully proficient / don't need it	3%	3%	3%	4%
A lack of GOOD local training providers	3%	3%	2%	2%
Other	1%	3%	2%	3%
Lack of provision (e.g. courses are full up)	4%	2%	2%	2%
Lack of knowledge about training opportunities and/or suitable courses	2%	2%	1%	2%
Staff turnover	1%	2%	1%	1%
Decisions taken at head office	1%	1%	1%	1%
Training not a management priority	1%	1%	3%	2%
Lack of suitable candidates / staff not ready for the training we had in mind	2%	1%	*%	1%
None	2%	3%	5%	6%

Source: UK Employer Skills Survey, 2017 and 2019

Training equilibrium refers to the proportion of employers with no desire to increase their current training levels. On a national level, this measure increased from 59% to 61% between 2017 and 2019, driven by an increase in non-training employers showing no desire for training. The larger the company, the less likely they were to be in training equilibrium, with the Education, Public Administration, and Health and Social Care sectors also notably

less likely to be in training equilibrium. Patterns across the LEP area were largely similar to those nationally.

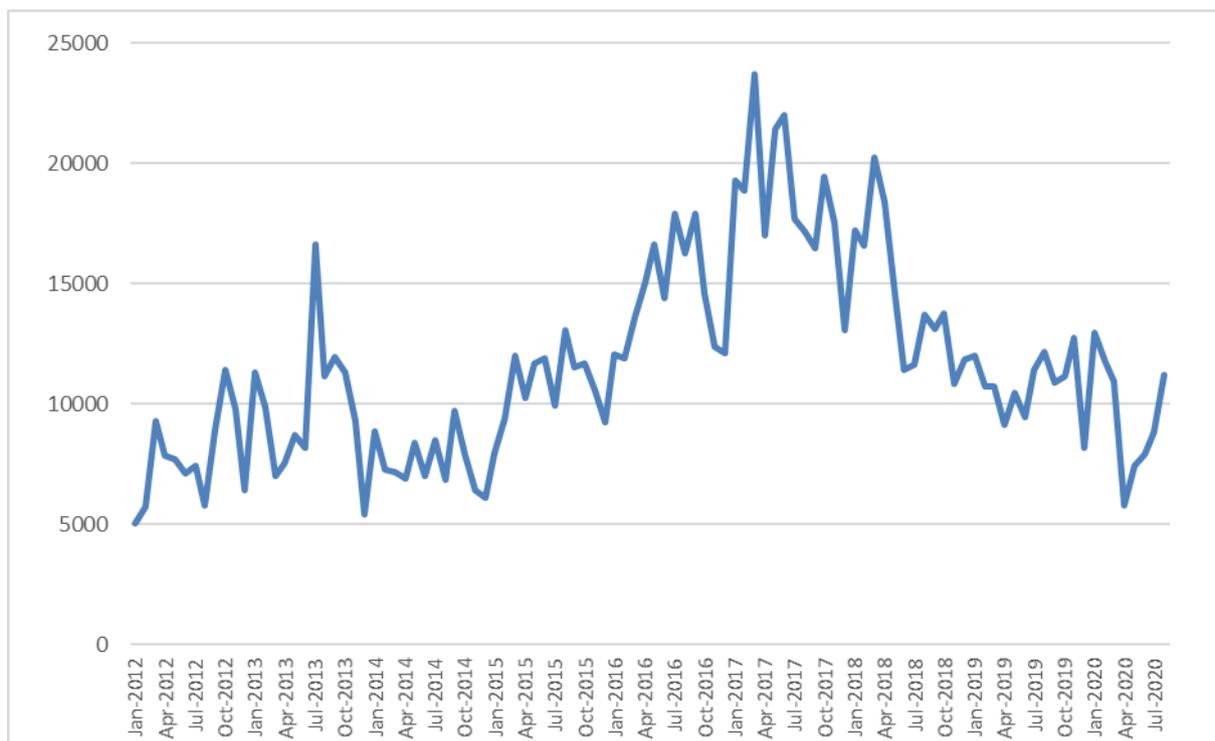
3. SKILLS DEMAND

3.1. Number of vacancies by sector

3.1.1. Vacancy trends

According to Labour Insights, an online vacancy data source, there were almost 13,000 unique job postings in the Heart of the South West in September 2020. While the number of postings fluctuates from month to month (Figure 38), the data suggests that recruitment activity had slowed long before Covid-19 precipitated a dramatic decline in vacancies in the weeks following the introduction of the national lockdown in March 2020. Current vacancies exceed those posted this time last year; although, they remain substantially lower than those recorded in 2017.

Figure 36 Number of vacancies in the Heart of the South West, 2012 to 2020



Source: Labour Insights, Burning Glass Technologies

This decline in recruitment activity is also reflected in the UK ESS 2019 which identified almost 20% fewer vacancies in 2019, than two years previously⁶¹. The UK ESS also suggests that Labour Insights data under-estimates the number of service-intensive and labour-intensive vacancies in the economy since together these occupations accounted for a much smaller share of Labour Insight postings (33%) than vacancies identified in the UK ESS (53%).

Table 20 Profile of vacancies by occupation, Heart of the South West and England, 2019 and 2020

Occupation	HotSW 2019 Labour Insight	HotSW 2019 UK ESS	HOTSW 2020 Labour Insight	England 2020 Labour Insight
Managers	8%	3%	8%	10%
Professionals	29%	11%	34%	37%
Associate professionals	16%	9%	14%	16%
Administrative/clerical staff	8%	10%	6%	7%
Skilled trades occupations	8%	12%	7%	5%
Caring, leisure and other services staff	9%	18%	12%	9%
Sales and customer services staff	9%	10%	6%	6%
Machine operatives	5%	8%	5%	4%
Elementary staff	8%	18%	7%	5%
Unclassified staff	0%	2%	0%	0%
Total vacancies (=100%)	75,963	21,473	65,006	2,454,346
HIGH-SKILL	53%	23%	56%	63%
MIDDLE-SKILL	17%	22%	13%	13%
SERVICE-INTENSIVE	18%	28%	18%	16%
LABOUR-INTENSIVE	13%	25%	12%	9%

Source: *Burning Glass - Labour Insights and UK Employer Skills Survey 2019*

The most common job postings across the Heart of the South West in September 2020 were:

- Nurses (729)
- Care workers and home carers (691)
- Programmers and software developers (413)
- Other administrative occupations n.e.c. (289)
- Cleaners and domestics

⁶¹ As nationally, fewer employers in 2019 than in 2017 had any vacancies (17% compared with 20%), and the 21,473 vacancies reported at the time of the survey was 19% lower than the number in 2017.

- Customer service n.e.c.
- Sales and related n.e.c.
- Managers and proprietors in other services (242)
- Large goods vehicle drivers (226)
- Chartered and certified accountants (210)

This list is not dissimilar from the most popular job posting profile nationally and reflects a long term high demand for nursing and care positions in the Heart of the South West LEP area. Demand for software roles is unsurprising as part of an overall trend towards digitalisation that has been accelerated by the Covid-19 pandemic and resultant demands for adaptability⁶².

3.1.2. Impact of Covid-19 pandemic

While the national lockdown did result in a dramatic decline in vacancies between March and April 2020 (Figure x) recruitment activity has largely recovered although current levels are substantially below those recorded during 2017. The outlook for labour demand is subdued suggesting that vacancies may yet fall further as a consequence of the second national lockdown and the adoption of new trading relationships with the EU once the transition period ends in the New Year. Table 2 examines the distribution of the change in job posting by occupation in the period immediately following lockdown in March, and the subsequent recovery between April to September 2020. It also shows how the number of vacancies in September (the latest month available) compares to March. The results show that the number of job postings for each occupation fell between March and April but have subsequently increased and in most cases have exceeded the number posting pre-lockdown. Job areas that have recovered most strongly since lockdown include:

- Manufacturing and production
- Information Technology
- Maintenance, repair and installation
- Construction, extraction and architecture
- Agriculture, horticulture and the outdoors
- Personal services

Job families that have yet to return to pre-lockdown levels include job postings in the performing arts, marketing and public relations and design, media and writing.

⁶² <https://www.digitalpulse.pwc.com.au/digital-trust-insights-2021-the-need-for-cyber-resilience/>

Table 21 Change in job postings during and after Covid-19 by Burning Glass job family, Heart of the South West, March 2020 to September 2020

	Change in number of vacancies		Number of vacancies in September as a % of those in March 2020
	March to April	April to September	
BGTOCC			
Agriculture, Horticulture, & the Outdoors	-22	33	137%
Business Management and Operations	-533	720	122%
Clerical and Administrative	-408	440	106%
Community and Social Services	-60	123	111%
Construction, Extraction, and Architecture	-197	331	140%
Customer and Client Support	-220	221	100%
Design, Media, and Writing	-53	45	92%
Education and Training	-225	316	113%
Engineering	-371	458	113%
Finance	-310	351	107%
Health Care including Nursing	-373	494	107%
Hospitality, Food, and Tourism	-405	556	122%
Human Resources	-71	88	111%
Information Technology	-298	624	151%
Law, Compliance, and Public Safety	-146	183	110%
Maintenance, Repair, and Installation	-175	323	144%
Manufacturing and Production	-162	359	163%
Marketing and Public Relations	-87	64	80%
Performing Arts	-7	2	50%
Personal Services	-24	41	133%
Planning and Analysis	-71	118	127%
Sales	-567	436	83%
Science and Research	-39	17	71%
Transportation	-195	374	158%

Source: Burning Glass – Labour Insights

There is also a clear sense that Covid-19 has created a ‘new normal’ changing consumer tastes and preferences and how they purchase products. To get a sense of these longer-term trends we have compared the distribution of vacancies across Burning Glass occupational ‘families’ during July to September 2020 with the same period during 2017 (Table 23).

Table 22 Vacancies in the Heart of the South West by occupation, July to September 2017 and July to September 2020

BGT OCC	Number of vacancies		% change
	July to September 2017	July to September 2020	
Agriculture, Horticulture, & the Outdoors	171	116	-32%
Business Management and Operations	4,458	2,692	-40%
Clerical and Administrative	3,122	1,478	-53%
Community and Social Services	1,925	1,761	-9%
Construction, Extraction, and Architecture	1,753	1,263	-28%
Customer and Client Support	1,566	716	-54%
Design, Media, and Writing	568	253	-55%
Education and Training	2,238	2,112	-6%
Engineering	3,114	1,959	-37%
Finance	2,840	1,560	-45%
Health Care including Nursing	4,771	5,285	11%
Hospitality, Food, and Tourism	3,059	2,128	-30%
Human Resources	1,233	494	-60%
Information Technology	5,282	2,367	-55%
Law, Compliance, and Public Safety	1,421	1,030	-28%
Maintenance, Repair, and Installation	1,464	1,108	-24%
Manufacturing and Production	1,978	1,114	-44%
Marketing and Public Relations	831	255	-69%
Performing Arts	24	17	-29%
Personal Services	216	159	-26%
Planning and Analysis	997	534	-46%
Sales	4,879	1,690	-65%
Science and Research	264	178	-33%
Transportation	1,698	1,193	-30%

Source: *Burning Glass – Labour Insights*

Recruitment activity is lower for the latest period than that three years previously for almost all occupational families with the exception of health care including nursing. Demand in this field is high in part due ageing demographics but will only have increased due to the health-related emergency, with the government having appealed for former medical staff to return to the field to provide further assistance as well as major impact from coronavirus on care homes and higher fatalities in this sector due to increased viral exposure. Sales, marketing and Public Relations, and Human Resources have seen particularly large percentage drops

in vacancies: these sectors will have been heavily impacted by the closure of non-essential shops and services, and the overall reduction in hiring will have reduced demand for the Human Resources staff that would normally process applications and recruitment as well as handling conflicts between staff that may now be working from home and thus have less opportunities for disputes.

Work organisation has also changed with home-working generally being more widely accepted and even promoted by employers. This is likely to have changed employers demand for skills within occupations, to reflect for example, the challenges in managing a remote workforce and digital applications. This also presents skill challenges for individual staff members, who may now have to handle digital requirements that would have been handled by dedicated office IT staff.

3.2. Highest and lowest sectors by forecast growth

While employer surveys such as the BRES and UK Employer Skills Survey reveal important details about how the nature of employer demand for labour and skills has changed in the past, on their own they offer a 'rear view mirror' approach to policy making. Decisions about resource allocation are typically based on some assessment on what the future will look like (even if these are based on the continuation of long-run trends). Economic forecasting models can help in this regard although their results will vary depending on assumptions built into the model.

The latest "Working Futures" projections produced by Cambridge Econometrics and the Warwick Institute for Employment Research provides a view on the likely level and pattern of demand for labour by qualification level, occupation, and industry. Crucially, however, these projections were created when it was expected there would be a negotiated Brexit and before the Covid-19 pandemic. The projections may therefore prove to be optimistic in the short-term but long-term structural trends are likely to endure and may be exaggerated by recent developments.

The Heart of the South West results suggest that on the basis on the assumptions above the "total requirement" for employment would increase by 321,000 between 2017 and 2027 with the majority of this change stemming from the need to replace existing workers (297,000) rather than "expansion demand" (25,000) which increases the overall number of people in employment. The model predicted that even before Covid-19, the rate of employment growth due to expansion demand over the next decade (2.8%) was likely to be slower than that recorded over the last 10 years (8.2%).

Focusing first on how expansion demand is projected to be distributed across industry sectors, Table 3 suggests that growth is likely to be concentrated within *business and other services and non-marketed services* and in particular, *health and social work* (+14,300), *professional services* (+4,900) and *support services* (+3,800) although *accommodation and food* (+3,500) and *construction* (+2,700) are also likely to be key areas of employment growth. Employment is expected to contract in the *primary sector* and *utilities* and in *manufacturing*.

In percentage terms, employment growth is expected to be greatest in health and social work (1.1% per annum), professional services (0.8% per annum), information technology (0.8%), arts and entertainment (0.8%), support services (0.7%) and water and sewerage (0.6%). Employment in almost all sectors is anticipated to increase more slowly over the next 10 years, than recorded over the previous 10 years.

Table 23 Employment by industry group, Heart of the South West, 2017 and 2027

	2017 Level '000s	2027 Level '000s	Change 2017 to 2027 Level	Change 2007 to 2017, %	Change 2017 to 2027, %
<i>Primary sector and utilities</i>	41	40	-1,300	4.9	-0.3
Agriculture	29	28	-1,500	5.6	-0.5
Mining and quarrying	1	1	- 200	-3.7	-2.4
Electricity and gas	4	4	0	0.2	-0.1
Water and sewerage	7	7	400	7.9	0.6
<i>Manufacturing</i>	81	77	-4,300	0.6	-0.5
Food drink and tobacco	17	15	-1,900	2.8	-1.2
Engineering	13	12	-1,000	-0.3	-0.8
Rest of manufacturing	52	50	-1,400	0.2	-0.3
<i>Construction</i>	66	69	2,700	1.6	0.4
<i>Trade, accomod. and transport</i>	243	246	3,800	0.3	0.2
Wholesale and retail trade	135	137	1,200	-0.4	0.1
Transport and storage	31	30	-1,000	0.4	-0.3
Accommodation and food	76	80	3,500	1.6	0.5
<i>Business and other services</i>	201	214	12,900	0.5	0.6
Media	5	4	-200	-1.4	-0.4
Information technology	19	20	1,500	2.4	0.8
Finance and insurance	13	12	-400	-0.3	-0.3
Real estate	14	14	100	-0.9	0.1
Professional services	53	58	4,900	2.0	0.9
Support services	53	57	3,800	0.4	0.7
Arts and entertainment	23	25	2,000	-0.3	0.8
Other services	22	24	1,200	-1.2	0.5
<i>Non-marketed services</i>	249	260	11,000	0.8	0.4
Public admin. and defence	40	37	-3,400	-2.1	-0.9
Education	82	82	200	1.3	0.0
Health and social work	127	142	14,300	1.6	1.1
All industries	881	906	24,800	0.8	0.3

Source: Working Futures Employment Projects, IER and Cambridge Economics

Several researchers have explored which occupations, industries and localities are most 'at risk' from automation. Using an algorithm linking 'automatability' to the characteristics of the tasks involved in different jobs as well as those of the workers doing them (e.g. the education and training levels required) Berriman & Hawksworth (2017) estimate that around

30% of jobs in the UK are at high risk of automation. Applying the 'at risk' percentages for different industries to the employment distribution of the Heart of the South West reveals that almost two-fifths (39%) of these potential jobs losses are in two key industry sectors: wholesale & retail trade and manufacturing.

Table 24 Estimated proportion and total number of employees at potential high risk of automation for all industry sectors, Heart of the South West, 2018

	Job automation (% at potential high risk)	Jobs at high risk of automation
Wholesale and retail trade	44.0	51,900
Manufacturing	46.4	32,000
Human health and social work	17.0	19,400
Accommodation and food service	25.5	18,900
Transportation and storage	56.4	16,900
Administrative and support services	37.4	15,700
Professional, scientific and technical	25.6	10,000
Construction	23.7	9,200
Public administration and defence	32.1	10,000
Agriculture, forestry and fishing	18.7	1,900
Education	8.5	5,500
Information and communication	27.3	4,600
Arts and entertainment	22.3	4,500
Real estate	28.2	3,400
Water, sewage and waste management	62.6	3,800
Other services	18.6	2,600
Financial and insurance	32.2	2,600
Electricity and gas supply	31.8	1,400
Mining and quarrying	23.1	300
Domestic personnel and self-subsistence	8.1	0
Total	30.0	214,500

Sources: Berriman & Hawksworth (2017) and ONS employment estimates (BRES, 2018) via NOMIS

3.3. Highest and lowest occupations by forecast growth

The sectoral changes described above will drive changes in demand for occupations and qualifications, although as noted above, expansion demand is only part of the 'total requirement' for labour. Additionally, workers will be needed to replace those leaving the labour market, primarily for retirement. The total requirement work workers give a more complete perspective on the demand for labour over the near term.

Table 4 shows that while employment in several occupational areas is expected to decline over the next 10 years, demand for workers will still increase in all but secretarial and related occupations due to the need to replace the workers who leave the labour market. The total requirement for workers is anticipated to be greatest for:

- *Caring personal service occupations (+46,000)*
- *Corporate managers and directors (+31,000)*
- *Elementary administrative and service occupations (+26,000)*
- *Business and public service associate professionals (+24,000)*
- *Health professionals (+23,000)*
- *Teaching and educational professionals (+22,000).*

Caring personal service occupation demand has been a recurring theme across this document, and the impact of the pandemic is likely to intensify this demand, particularly with phenomena such as 'long Covid'. The ageing demographics of the UK and particularly the Heart of the South West will have higher care needs.

Table 25 Employment change by occupation and replacement demand, Heart of the South West, 2017 to 2027

Occupation	2017 Level '000s	2027 Level '000s	Change 2017 to 2027 Level '000s	Change 2017 to 2027, %	Change 2017 to 2017 Replacement Demand Level 000s	Change 2017 to 2027 Total Requirement Level 000s
Corporate managers & directors	60	69	8	1.3	23	31
Other managers & proprietors	35	38	2	0.7	14	17
Science, research, engineering & technology professionals	39	43	4	0.9	10	14
Health professionals	42	49	7	1.5	17	23
Teaching & educational professionals	47	52	5	1.1	17	22
Business, media & public service professionals	37	42	4	1.1	13	18
Science, engineering & technology associate professionals	15	16	0	0.1	4	4
Health & social care associate professionals	15	17	2	1.5	6	9
Protective service occupations	7	6	-1	-0.9	2	1
Culture, media & sports occupations	19	20	1	0.6	6	7
Business & public service associate professionals	53	60	6	1.1	18	24
Administrative occupations	66	59	-7	-1.1	22	15
Secretarial & related occupations	17	9	-8	-6.2	4	-4
Skilled agricultural & related trades	15	14	-1	-0.6	5	4
Skilled metal, electrical & electronic trades	36	31	-5	-1.4	9	4
Skilled construction & building trades	34	35	1	0.2	10	11
Textiles, printing & other skilled trades	20	16	-3	-1.9	5	2
Caring personal service occupations	77	90	13	1.6	32	46
Leisure, travel & related personal service occupations	19	19	0	0.1	7	7
Sales occupations	64	61	-3	-0.5	20	17
Customer service occupations	15	17	2	1.4	5	7
Process, plant & machine operatives	25	19	-5	-2.5	6	0
Transport & mobile machine drivers & operatives	26	27	1	0.4	10	11
Elementary trades & related occupations	17	17	0	-0.2	5	5
Elementary administration & service occupations	80	80	0	0.0	26	26
All occupations	881	906	25	0.3	297	321

Source: Working Futures Employment Projections, IER and Cambridge Economics

The key drivers of occupational change over the decade 2017-2027 are expected to be related to changing ways of working within industries and the way in which technological change, especially IT, impacts on the need for different skills. This is in contrast to earlier decades, when the changing sectoral structure of employment was the prime driver (University of Warwick and Cambridge Econometrics, 2020). Bakhshi et al's (2017) analysis of occupations with the greater probabilities of future increased demand (note: relative to other occupations not overall) in the UK suggests that there is a 'high probability' of the following occupations increasing their share of total employment:

<ul style="list-style-type: none"> • Sports and fitness professionals • Health and social services managers and directors • Food preparation and hospitality trades • Natural and social science professionals • Therapy occupations • Managers and proprietors in health and care services • Teaching and educational professionals • Managers and proprietors in hospitality and leisure services • Design occupations • Health professionals • Conservation and environment professionals • Engineering professionals 	<ul style="list-style-type: none"> • Chief executives and senior officials • Artistic, Literary and media occupations • Nursing and midwifery professions • Functional managers and directors • Research and development managers • Managers and proprietors in agriculture-related services • Electrical and electronic trades • Information technology and telecommunications professionals • Cleaning and housekeeping managers and supervisors • Public services and other associate professional • Welfare professionals
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Similarly, the World Economic Forum (2018) anticipated an increase in demand for the following 'emerging roles' between 2018 and 2022:

<ul style="list-style-type: none"> • Software and applications developers and analysts • Managing Directors and Chief Executives • Sales and Marketing Professionals • Data Analysts and Scientists • General and Operations Managers 	<ul style="list-style-type: none"> • Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Productions • Assembly and Factory Workers • Human Resources Specialists • Financial and Investment Advisers • Financial Analysts
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More recently, researchers have deployed innovative metrics generating insights into emerging opportunities for employment across the global economy as well as the skills sets needed to leverage these opportunities (World Economic Forum, 2020). Their analysis of job vacancies identifies seven professional clusters that are emerging in tandem: green economy jobs, roles at the forefront of the data and AI economy, and new roles in engineering, cloud computing and product development; care economy jobs; roles in marketing, sales and content production; as well as roles at the front of people and culture.

Technological and other changes will also create new occupations. MGI (2019) suggests that that several trends will influence the creation of these new roles: caring for others in

ageing societies; improving energy efficiency and addressing climate challenges; producing goods and services for the expanding consumer class (especially in developing countries); and investing in technology, infrastructure and buildings. Understandably, predicting what these new roles will be is difficult. Recent examples of new roles include those that have arisen due to the internet including web developers, app developers, social media marketers, search engine optimisation consultations and user experience designers but also uber drivers, airbnb hosts, instagram influencers and YouTube stars. Data scientists, a new breed of analytical experts, and ethics officers are also examples of jobs that have arisen fairly recently.

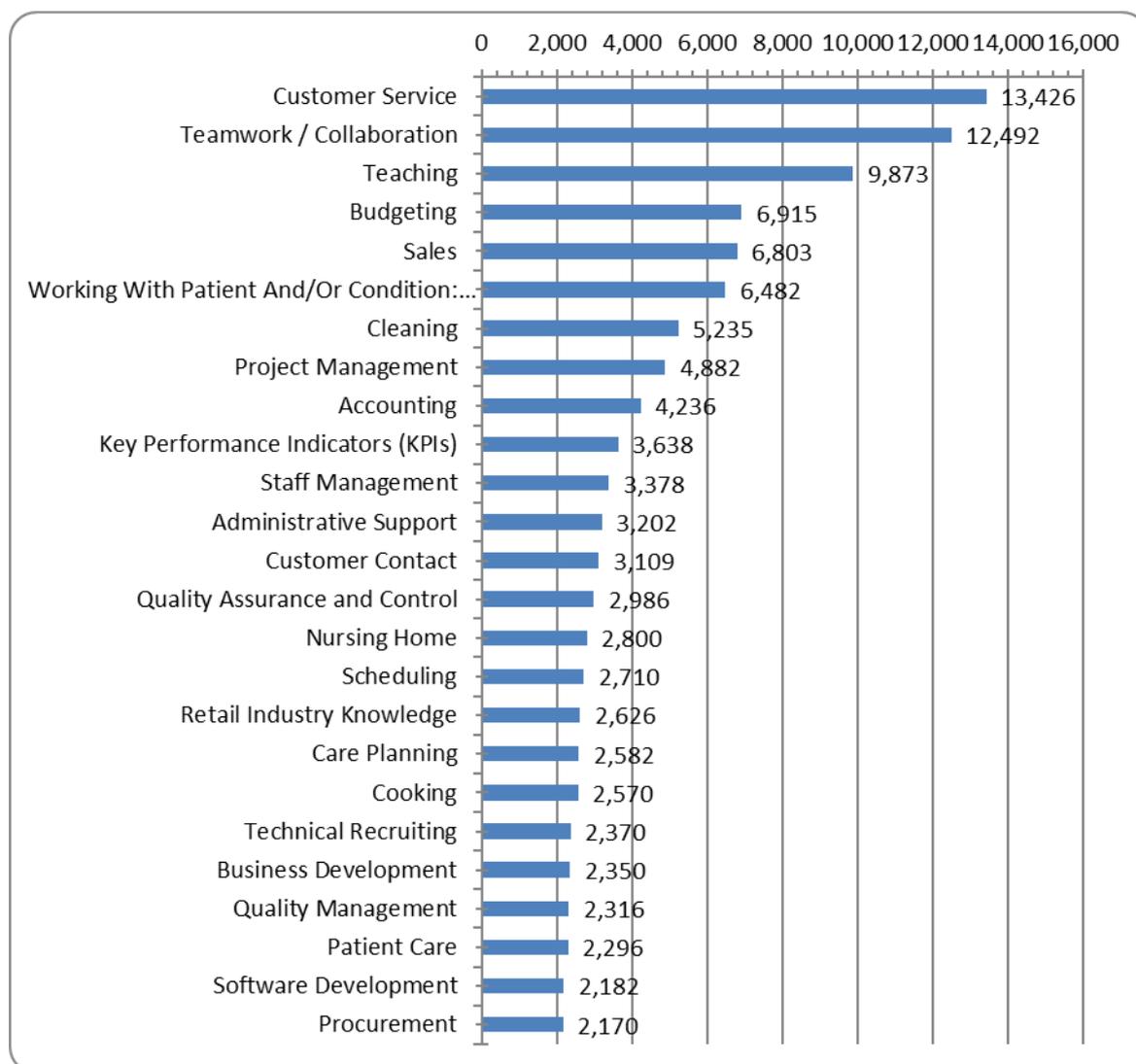
3.4. Skills that need developing

3.4.1. Current demand for skills

The job postings harvested by Labour Insights contain useful information about the skills being sought by recruiters. Figure 30, highlights the skills most commonly mentioned in job vacancies posted during the 12 months to September 2020. The most frequently mentioned were:

- Customer service
- Teamwork and collaboration
- Teaching
- Budgeting
- Sales

Figure 37 Skills most commonly mentioned in job postings, Heart of the South



West, September 2019 to September 2020

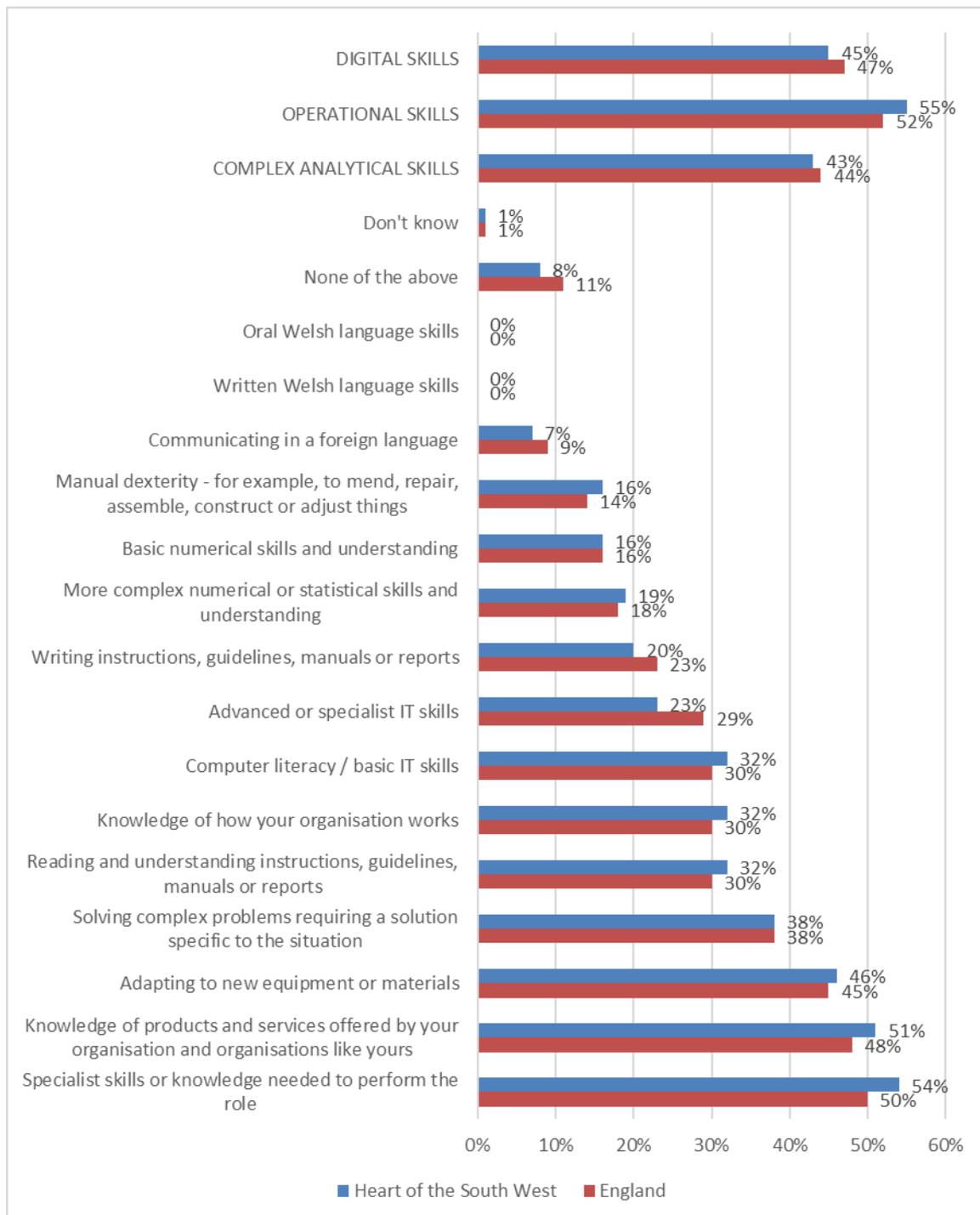
Source: Labour Insights, Burning Glass Technologies

3.4.2. Skills that need developing in the workforce

The UK Employers Skills Survey asked employers what new skills or knowledge their staff needed to acquire in future. The 60% of employers who identified a need for new skills or knowledge in future, were most likely to identify a need for staff to develop specialist skills or knowledge needed to perform their role (Figure 40), improve their knowledge of products or services offered by their organisation or organisations like theirs or adapt to new equipment or materials. Digital skills, where there was a perceived need to improved, were most likely to be in the use of new or updated company software and programmes (Figure 41) although basic digital skills were mentioned by more than one-fifth of employers identifying a need to improve the digital needs of their staff. The survey also identified a need to identify soft-skills within the workforce (Figure 42): most commonly the ability to manage own time and

tasks (45% of those identifying a need to improve skills in future). Almost (48%) half of employers identifying a need to improve skills in future saw a need to improve one or more management and leadership skills. Almost half (45%) of employers that cited a skills development need felt that managers were most affected by a need for up-skilling followed by skilled trades occupations (11%) and administrative and secretarial occupations (10%) and customer service occupations (9%).

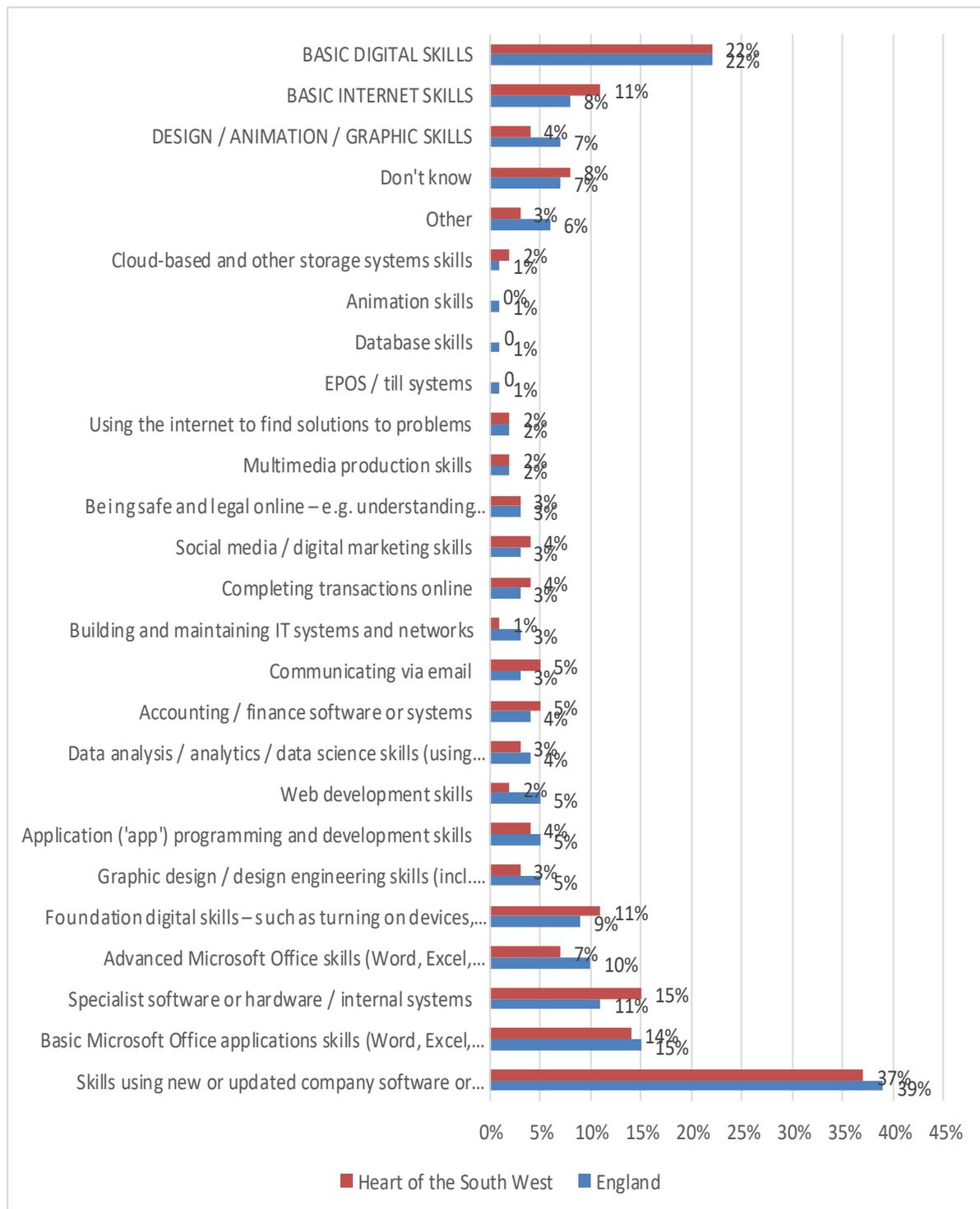
Figure 38 Skills that will need developing among workforce (prompted)



Base: All establishments who anticipate a need for new skills in next 12 months (and could identify an occupation that would be most affected)

Source: UK Employer Skills Survey, 2019

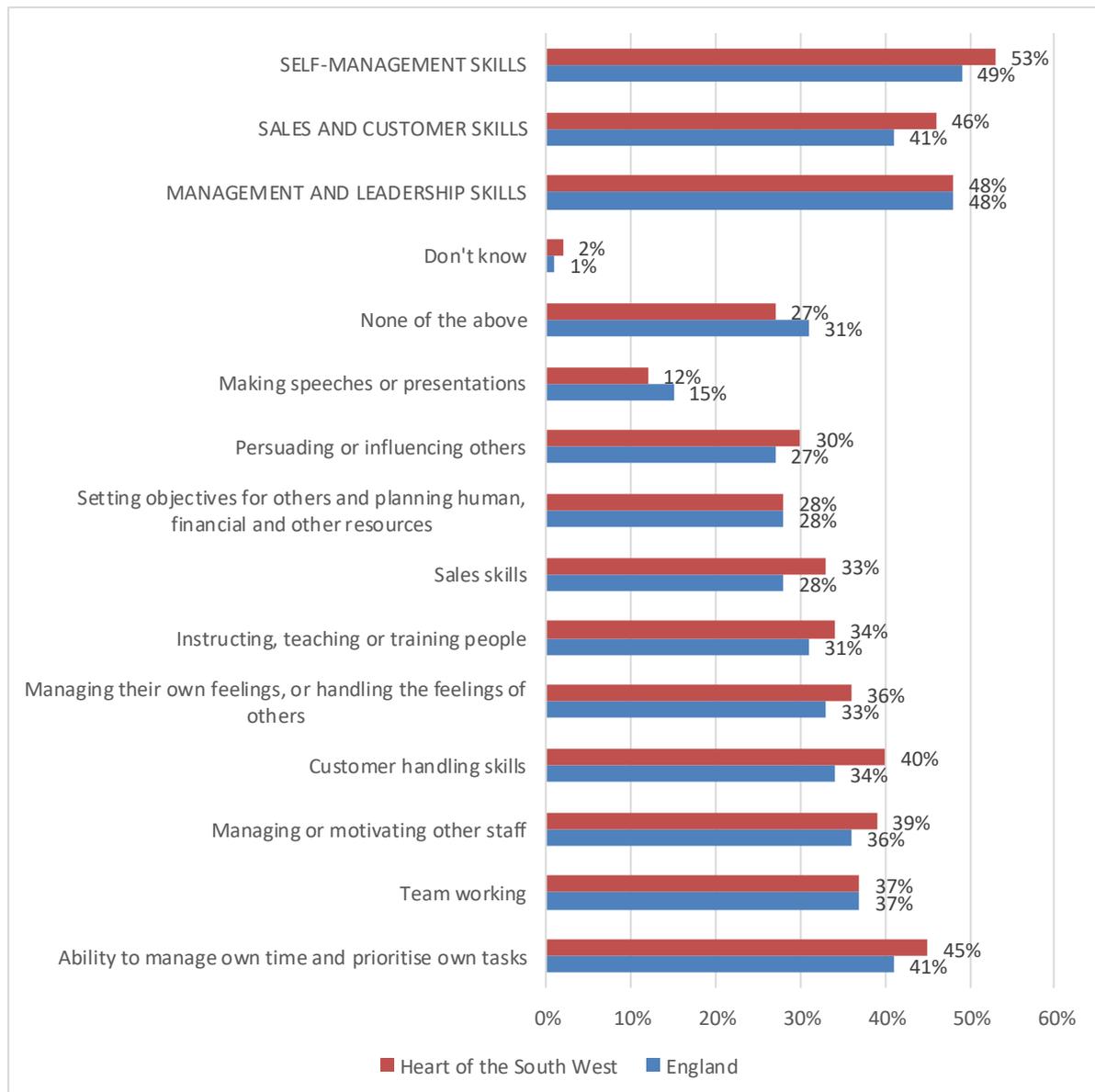
Figure 39 IT skills that will need developing among workforce (unprompted)



Base: All establishments who anticipate a need for new IT skills in next 12 months (and could identify an occupation that would be most affected)

Source: UK Employer Skills Survey, 2019

Figure 40 People skills than will need developing among the workforce (prompted)



Base: All establishments who anticipate a need for new skills in next 12 months (and could identify an occupation that would be most affected)

Source: UK Employer Skills Survey, 2019

3.4.3. Skills needed in the workforce of the future

The accelerating pace of technological, demographic, and socio-economic disruption is transforming industries and business models, changing the skills that employers need and shortening the shelf-life of employees' existing skill sets in the process. For example, technological disruptions such as robotics and machine learning—rather than completely

replacing existing occupations and job categories—are likely to substitute specific tasks previously carried out as part of these jobs, freeing workers up to focus on new tasks and leading to rapidly changing core skill sets in these occupations.

Even those jobs that are less directly affected by technological change and have a largely stable employment outlook may require very different skill sets just a few years from now as the ecosystems within which they operate change. In this new environment, business model change often translates to skill set disruption almost simultaneously and with only a minimal time lag. WEF 2016⁶³

In August 2018, Nesta launched a comprehensive public map of skills in the UK to help tackle skill shortages ahead of Brexit. To do this they analysed 41 million online job adverts – with the intention of enabling more informed decisions by policymakers, educators, businesses, workers, and students. Nesta’s analysis detected the skills needed for different jobs and showed how those have changed over time. They also provided estimates of the market value they command. Skill groups with relatively high salaries and high growth were revealed to be:

- Data engineering
- IT security operations
- Marketing research
- App development
- Web development

Skill groups with relatively low salaries and low growth include:

- Shipping and warehouse operations
- Medical administration and coding
- General sales
- Archiving and libraries
- Journalism and writing

Several of the skill groups with relatively low salaries and low growth require engagement with digital technology for administrative purposes, rather than in a creative way. This is consistent with another recent Nesta’s study⁶⁴ which found that the digital skills most likely to be needed in growing job sectors are ones that are used in non-routine tasks, problem-solving and the creation of digital outputs. World Economic Forum (WEF) research⁶⁵ states that the Top 10 skills that will be in demand in the near future are:

- Complex problem-solving
- Critical thinking
- Creativity

⁶³ The Future of Jobs Employment, Skills and Workforce Strategy for the Fourth Industrial Revolution. World Economic Forum. http://www3.weforum.org/docs/WEF_FOJ_Executive_Summary_Jobs.pdf

⁶⁴ <https://www.nesta.org.uk/report/which-digital-skills-do-you-really-need/>

⁶⁵ The Future of Jobs. World Economic Forum 2016. <https://www.weforum.org/reports/the-future-of-jobs>

- People management
- Coordinating with others
- Emotional intelligence
- Judgment and decision-making
- Service orientation
- Negotiation
- Cognitive flexibility

The WEF (2016) report also stated:

“...over one-third of skills (35%) that are considered important in today’s workforce will have changed. By 2020, the Fourth Industrial Revolution⁶⁶ will have brought us advanced robotics and autonomous transport, artificial intelligence and machine learning, advanced materials, biotechnology and genomics.”

WEF (2016) asked chief human resources and strategy officers from leading global employers what the current shifts mean, specifically for employment, skills and recruitment across industries and geographies.

- Creativity will become one of the top three skills workers will need. With the avalanche of new products, new technologies and new ways of working, workers are going to have to become more creative in order to benefit from these changes. Robots may help us get to where we want to be faster, but they can’t be as creative as humans (yet).
- Whereas negotiation and flexibility are high on the list of skills now, in 2020 they will begin to drop from the top 10 as machines, using masses of data, begin to make our decisions for us.

Respondents to the WEF survey stressed that the global workforce is expected to experience significant churn between job families and functions, with administrative and routine white-collar office functions at risk of ‘being decimated’ and strong growth in Computer and Mathematical and Architecture and Engineering related fields. Manufacturing and Production roles are also expected to see a further bottoming out but might have the worst behind them and still retain relatively good potential for upskilling, redeployment and productivity enhancement through technology rather than pure substitution.

Employment growth is expected to derive disproportionately from smaller, generally high-skilled job families that will be unable to absorb job losses coming from other parts of the labour market:

“Even if they could, significant reskilling would be needed. This factor plus the increase in global unemployment due to global population growth and slow job

⁶⁶ <https://www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond>

creation over the period 2015-2019 leaves no room for complacency. ” WEF (2016)

It is important to note that the WEF survey yielded only limited data around Care and Service sectors – as jobs in this field are not typically found on a large scale among large multinational employers- the target for the survey. Logically with an ageing demographic these sectors are anticipated to expand – though with limited scope for well-paid and highly skilled employment, other than in associated eHealth and eWellbeing developments, which nonetheless will require personal support on the ground.

The UK Employer Skills Survey also covered questions on ‘upskilling’, where employers anticipate that staff will need to acquire new skills over the next twelve months. Across the Heart of the South West, six in ten employers (60%) expect that at least some of their staff will need to acquire new skills or knowledge over the next twelve months. The need for new skills was being driven in the main by:

- New legislative or regulatory requirements (39% of all establishments)
- Introduction of new technologies or equipment (39%)
- Development of new products and services (33%)
- Introduction of new working practices (33%)
- Increased competitive pressure (21%)
- The UKs decision to leave the EU (16%)

3.4.4. Projected demand for qualifications

The projections described above reveal a growing ‘total requirement’ for qualifications at each qualification level at QCF level 2 and above but particularly at RQF6 and 7 (first and higher degree). The demand for level 2 and 3 qualifications is to replace existing workers only, however, with the total number of people in the workforce with these as their only qualifications expected to fall. Opportunities for workers with no qualifications or those at Level 2 is anticipated to reduce over time.

Table 26 Demand by qualification level, Heart of the South West, 2017 to 2027

All qualifications	2017 Level	2027 Level	Change 2017 to 2027, Expansion demand Level	Change 2017 to 2027, Replacement demand Level	Change 2017 to 2027 Total Requirement Level
RQF8 Doctorate	13,300	19,200	5,900	5,200	11,100
RQF7 Other higher degree	87,300	122,400	35,100	36,000	71,100
RQF6 First degree	167,000	222,600	55,600	77,000	132,600
RQF5 Foundation degree; Nursing; Teaching	53,000	60,800	6,900	21,900	28,800
RQF4 HE below degree level	49,600	63,400	13,700	21,300	35,000
RQF3 A level & equivalent	200,800	195,100	-5,700	58,600	52,900
RQF2 GCSE(A-C) & equivalent	174,400	146,800	-27,600	52,200	24,600
RQF1 GCSE(below grade C) & equivalent	107,700	64,100	-43,600	20,400	-23,200
No Qualification	27,200	11,700	-15,500	4,000	-11,500
All qualifications	881,200	906,000	24,800	296,600	321,400

Source: Working Futures Employment Projects, IER and Cambridge Economics

4. MATCHING SUPPLY AND DEMAND

4.1. Proficiency of the workforce

4.1.1. Skills gaps

A skills gap is said to exist when an employer has an employee that lacks the required proficiency or proficiencies to fulfil their role effectively.⁶⁷ The vast majority of Heart of the South West employers (84%) considered all of their staff to be fully proficient at their jobs.

The proportion who reported that at least some of their staff were not fully proficient has remained relatively consistent over the last five years, ranging from 16% in 2019, 17% in 2017 and 14% in 2015. However, the number of employees with skills deficiencies has fallen slightly since the previous survey (Table 1). Employers in the Heart of the South West were more likely than the England average (13%) to report a skills gap.

Table 27 Prevalence of Skills Gaps. Heart of the South West and England, 2017 and 2019

Measure	2017		2019	
	Heart of the South West	England	Heart of the South West	England
% of establishments with any staff not fully proficient	17%	13%	16%	13%
Number of skills gaps (Absolute figures)	38,958	1,060,004	36,340	1,167,961
Number of staff not fully proficient as a % of employment	6%	4%	5%	4.6%

Source: ESS, 2017 and 2019

Skills gap density refers to the number of staff perceived to be lacking proficiency, as a proportion of all staff. This proportion has fallen from 5.5% in 2017 to 5.0% in 2019. In total, more than 36,000 employees across the Heart of the South West were felt to be lacking proficiency.

By occupation, Figure 2 shows that the skills gap densities are highest, and in most cases, higher than the England average, for:

- Elementary occupations (9.5% compared to 9.5%)
- Skilled trades (6.8% compared to 5.1%)
- Associate professionals (6.4% compared to 4.4%)
- Sales and customer services (6.4% compared to 6.5%)

⁶⁷ <https://www.gov.uk/government/publications/employer-skills-survey-2017-uk-report>

- Caring, leisure and other service occupations (6.2% compared to 3.8%).

By contrast skills gaps were less common locally, than the England average among managers, professionals, administrative and clerical occupations and machine operatives.

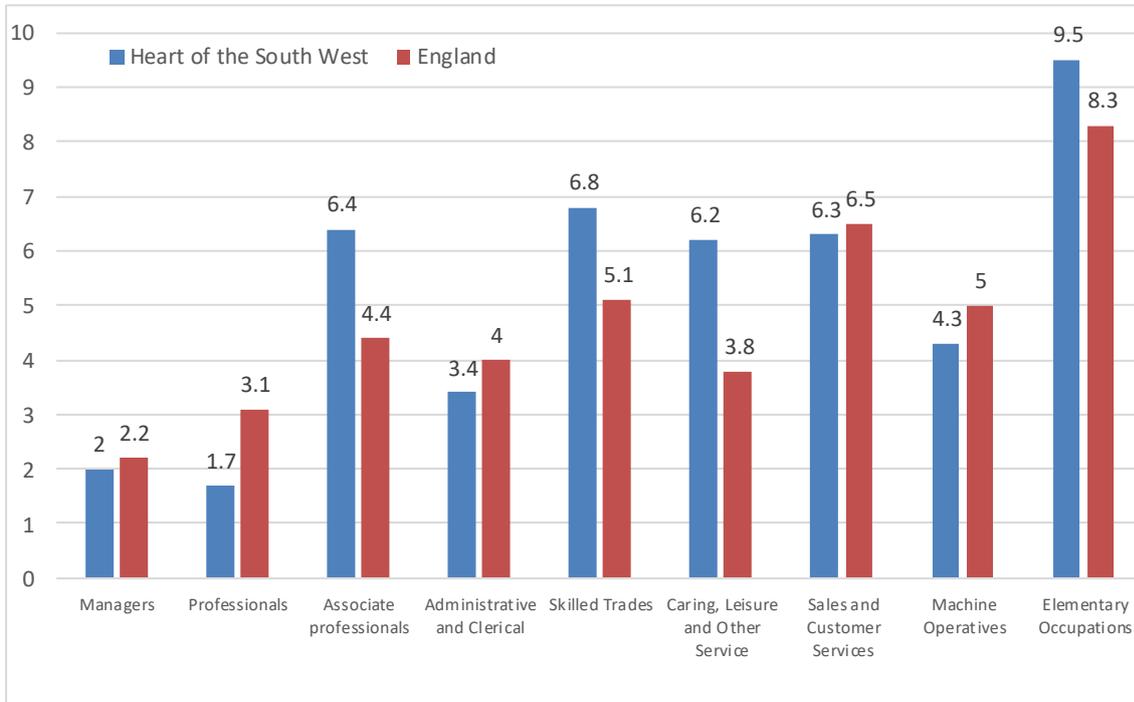


Figure 41 Density of skills gaps by occupations

Source: 2019 UK ESS

Skills densities locally were particularly common in hotels and restaurants (10%) with the largest number of staff perceived to lacking proficiency in:

- Hotels and restaurants (6,972)
- Wholesale and retail (6,049)
- Health and social work (5,959)
- Business services (5,123)

Together these sectors account for more than two-thirds (66%) of staff with skills deficiencies.

The skills lacking across these two categories of skills are shown in Tables 2 to 4. A deficiency in technical and practical skills was a contributing factor to most (88%) skills gaps (Table 2), most commonly:

- Specialist skills or knowledge needed to perform the role' (54%)
- Knowledge of the products and services offered by your organisation and organisations like yours (44%)

- Knowledge of how your organisation works (41%)

These operational skills contribute to a marginally higher share skills gaps than the national average. Employees in the Heart of the South West, however, are less likely than the England average to be deficient in:

- Complex analytical skills (44% compared to 47%)
- Basic skills (33% compared to 39%)
- Digital skills (30% compared to 37%)

It is not clear whether this is because employees don't need these skills, or because they are proficient already. Employers citing deficiencies in IT skills were asked which skills needed improving (Table 3). These were most commonly basic digital skills (51% of staff with digital skills needs) and in particular Basic Microsoft Office skills (39%) and Foundation digital skills (21%).

People and personal skills can be less tangible than technical and practical skills, but they can have a big impact on the ability of a potential employee to adapt to the workplace and be an effective member of staff. People and personal skills were often a contributing factor to most (85%) to most skills gaps with issues most commonly report with respect to self-management skills (76%) and in particular the ability to manage own time and prioritise own tasks (64%). Almost three-fifths (56%) of skills deficiencies were attributed to a management and leadership skills and almost half (47%) sales and customer skills.

Table 28 Technical/practical skills than need improving in occupations with (skills gaps that were followed up (prompted))

Skill area	% staff with skills gap		% all employers with skills gaps	
	Heart of the South West	England	Heart of the South West	England
Specialist skills or knowledge needed to perform the role	54	53	56	57
Solving complex problems requiring a solution specific to the situation	37	40	43	45
Knowledge of products and services offered by your organisation and organisations like yours	44	42	48	48
Knowledge of how your organisation works	41	40	41	39
Reading and understanding instructions, guidelines, manuals or reports	32	34	27	32
Writing instructions, guidelines, manuals or reports	27	24	25	24
Basic numerical skills and understanding	19	24	20	21
More complex numerical or statistical skills and understanding	21	23	19	23
Adapting to new equipment or materials	28	36	33	32
Computer literacy / basic IT skills	23	28	25	26
Manual dexterity - for example, to mend, repair, assemble, construct or adjust things	16	17	16	15
Advanced or specialist IT skills	16	21	19	22
Communicating in a foreign language	11	1	9	11
None of the above	12	7	11	9
Don't know	1	1		1
ANY TECHNICAL OR PRACTICAL SKILLS	88	92	89	90
COMPLEX ANALYTICAL SKILLS	44	47	48	51
OPERATIONAL SKILLS	54	53	57	56
DIGITAL SKILLS	30	37	35	38
BASIC SKILLS	33	39	36	37

Source: ESS 2019 Table 38/1 and 39/1.

Table 29 IT skills that need improving in occupations with skills gaps that were following up (unprompted)

Skill area	% skills gaps ⁶⁸		% of employers reporting skills shortages	
	Heart of the South West	England	Heart of the South West	England
Basic Microsoft Office skills	39	34	36	33
Specialist software or hardware /internal systems	24	26	30	25
Foundation digital skills	21	18	19	19
Advanced Microsoft Office skills	15	18	15	18
Communicating via email	4	10	7	7
Data analysis / analytics / data science skills	2	6	4	6
Application ('app') programming and development skills	4	5	6	6
Graphic design / design engineering skills	2	5	2	5
Skills using new or updated company software or systems	3	5	4	4
Using the internet to find solutions to problems	1	3	3	3
Building and maintaining IT systems and networks	1	3	*	3
Completing transactions online	8	2	4	3
Web development skills	7	2	3	3
Accounting / finance software or systems	1	2	2	3
EPOS / till systems	1	1	2	2
Social media / digital marketing skills	1	1	*	2
Being safe and legal online	2	1	1	2
Multimedia production skills	*	1	1	1
Database skills	*	1	1	1
Animation skills	*	*	*	1
Cloud-based and other storage systems skills	0	*	0	*
Other	7	7	5	7
Don't know	6	4	4	4
DESIGN / ANIMATION / GRAPHIC SKILLS	1	3	2	6
BASIC INTERNET SKILLS	11	13	11	11
BASIC DIGITAL SKILLS	51	47	48	45

⁶⁸ Base: all skills shortage vacancies – up to 2 occupations followed up

Table 30 Soft/people skills that need improving in occupations with skills gaps that were followed up (prompted)

Skill area	% skills gap base ⁶⁹		% of employers reporting skills shortages	
	Heart of the South West	England	Heart of the South West	England
Ability to manage own time and prioritise own tasks	64	60	62	61
Customer handling skills	53	50	50	47
Team working	53	49	48	46
Managing their own feelings, or handling the feelings of others	44	45	39	42
Managing or motivating other staff	40	41	35	35
Persuading or influencing others	43	39	31	34
Sales skills	32	30	32	32
Instructing, teaching or training people	22	29	27	28
Setting objectives for others and planning human, financial and other resources	23	26	21	25
Making speeches or presentations	17	19	14	17
None of the above	14	14	17	16
Don't know	1	1	*	1
ANY PEOPLE AND PERSONAL SKILLS	85	84	81	83
MANAGEMENT AND LEADERSHIP SKILLS	58	57	49	51
SALES AND CUSTOMER SKILLS	47	50	59	53
SELF-MANAGEMENT SKILLS	76	71	67	68

Source: UK ESS 2019

The most common causes of skills gaps (Table 5) were that employees were new to their role (64%) or that their training in only partially complete (57%). These transient skills gaps – so called because they would be expected to ease naturally over time – were a factor in 72% of skills gaps locally compared and the only factor in almost a quarter (24%). A smaller proportion of skills gaps were caused by transient factors locally than the England average (79%). Local employers were also less likely to report skills gaps due to problems retaining staff (15% compared to 28%).

There are some workplace activities which, although a cause of skills gaps in the short-term, represent a positive tendency for employers to invest in future growth. The introduction of new working practices contributed to 30% of skills gaps, while the introduction of new technology was a factor in 20%, and the development of new products and services 23%.

⁶⁹ Base: all skills shortage vacancies – up to 2 occupations followed up

Overall, however, these positive transformational factors were marginally less likely to be a contributory cause of skills gaps locally (40%) than the England (42%) average.

Table 31 Causes of Skills Gaps. Heart of the South West and England (skills gaps base)

Cause	2019	
	Heart of the South West	England
Their training is currently only partially completed	57	67
They are new to the role	64	60
Staff lack motivation	37	38
They have been on training but their performance has not improved sufficiently	32	33
They have not received the appropriate training	27	29
Unable to recruit staff with the required skills	29	31
The introduction of new working practices	30	30
The introduction of new technology	20	25
The development of new products and services	23	19
Problems retaining staff	15	28
Lack of other skills e.g. communication, interpersonal*	2	2
Non-work related problems e.g. health or personal problems*	1	1
Lack of aptitude to do job/reached maximum potential*	1	1
Staff are too old to carry out the work required*	0	1
Language barrier - English not first language*	0	1
Other	0	2
No particular cause	*	1
Don't know	0	1
NEW TO THE ROLE/TRAINING NOT COMPLETE	72	79
TRANSIENT SKILLS GAPS	24	20
POSITIVE TRANSFORMATIONAL CAUSES	40	42

Base: All skills gaps followed up, Source: ESS, 2017 and 2019

Almost two thirds (64%) of employers with skills gaps reported that these gaps impact on the performance of their establishment (compared to 66% for England). In most cases the impact was minor (52%) although one-in-eight (12%) reported major impacts. Where reported impacts were most commonly increased workload for other staff (49%) but others were:

- Higher operating costs (28%)
- Difficulties meeting quality standards (24%)
- Difficulties introducing new working practices (24%)

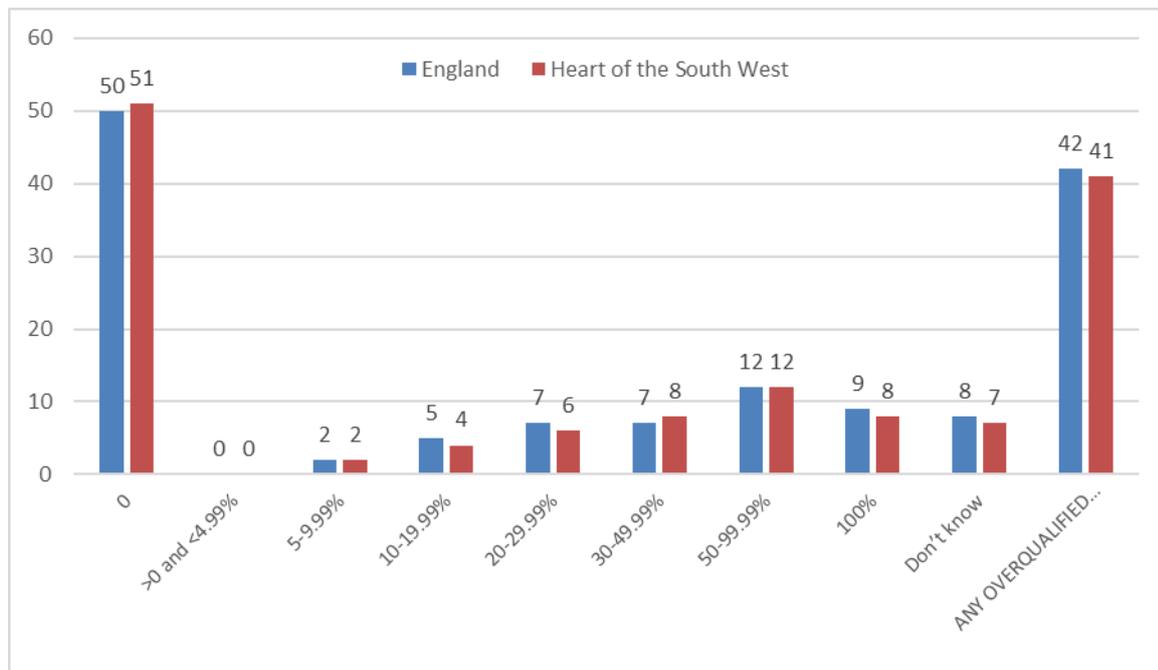
- Loss business or orders to competitors (20%)
- Delays developing new products or services (16%)
- Out-sourcing work (8%)

However, two-fifths (41%) of employers with skills gaps did not report any particular problems. Most (86%) employers with skills gaps had taken steps to improve the proficiency or skills of staff with skills gaps (slightly higher than the England average of 83%). The most frequently mentioned action was increased training activity (68%) although other strategies included: greater supervision of staff (56%); more staff appraisals (47%); implementation of mentoring or buddy schemes (48%); reallocation of work (38%); changing work practices (27%) and increase recruitment activity (19%). One in six (16%) employers, however, had done 'nothing' in response to address skills gaps within their establishment.

4.1.2. Under-utilisation of skills

The 2019 Employer Skills Survey (ESS) found that around 41% of employers in the Heart of the South West reported that they had one or more member of staff with qualifications more advanced than required for their current role (Figure 2). This is marginally lower than the England average (42%) but lower than the proportion reported in the 2017 ESS (45%). One in five employers reported that 50% or more of their staff had qualifications that were more advanced than needed for their current role including 8% who reported that all their employees were over-qualified for the work they did (Figure 2).

Figure 42 Proportion of staff with qualifications more advanced than required for their current job role, Heart of the South West LEP area & England, 2019

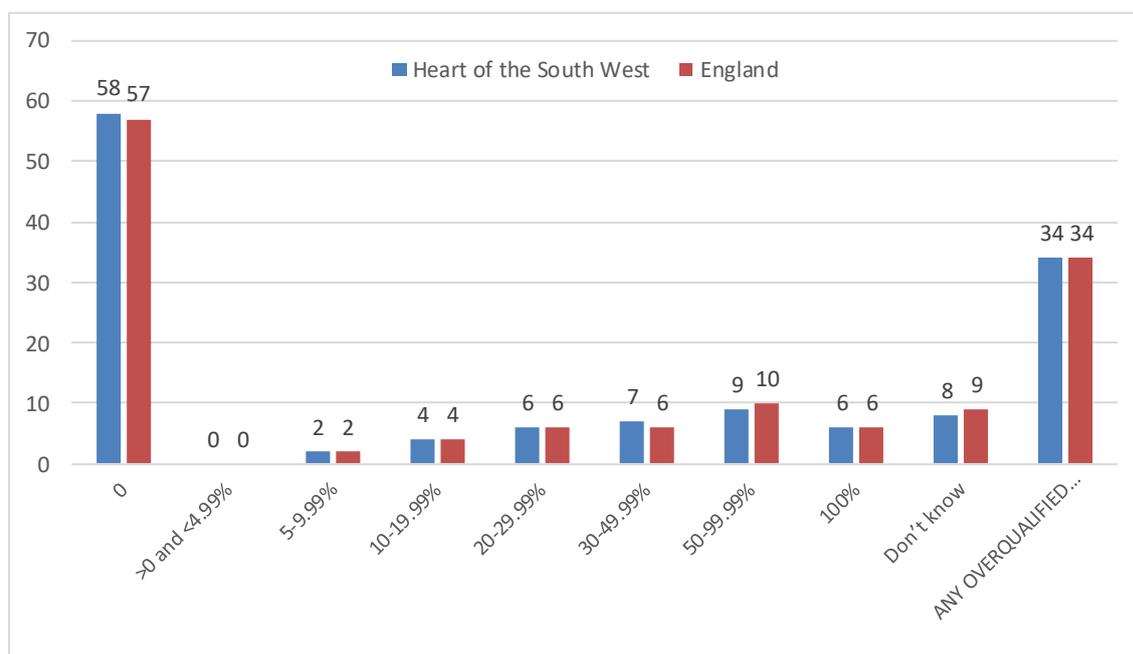


Source: Employer Skills Survey, 2019

A variety of factors may underlie these employer perceptions. Some staff might, for example hold humanities degrees that may confer reasoning, writing or other abilities that are not perceived as relevant to that person’s employment. Others may have valuable technical qualifications which they simply don’t use as a result of having failed to find a job where they can apply these skills. The latter could be regarded as a greater waste of potential than the former. Unfortunately, the data does not illuminate issues such as this.

Qualifications are, of course, only a broad proxy for skills. The Employer Skills Survey also asks employers about whether they have staff who are more generally ‘under-utilised’: i.e. whether they have both qualifications and skills that are more advanced than required for their current job role. The proportion of employers who respond that they have staff whose skills and qualifications are under-utilised is smaller than the proportion report staff with under-utilised qualifications. The proportion of employers in Heart of the South West LEP area who report having staff who are under-utilised (34%) is the same as the England average. The proportion of staff at each place of employment who are under-utilised in Heart of the South West LEP area is not significantly different to the national average, but the broad picture, of there being a significant number of employers, locally and nationally, where a significant number of employees have talents that are not fully utilised, remains.

Figure 43 Proportion of staff that are under-utilised, 2019



Source: Employer Skills Survey

Recent regional data on individuals perceptions of the extent to which their skills are fully used at work is, unfortunately, not available. However, research by Ewart Keep⁷⁰ and by

⁷⁰ Keep, E, 2016, Improving Skills Utilisation in the UK – Some Reflections on What, Who and How?, SKOPE Research Paper No. 123

Wright and Sissons⁷¹ suggests that between 35 per cent and 45 percent of individual workers believe that they have skills that were not being fully used at work. The inference is that any response to regional skills challenges must go beyond exhorting or incentivising the supply side to behave differently and should extend to a consideration of management practice and the extent to which these fully exploit the skills already available.

4.2. Summary of vacancies

Identifying skills shortages is important. Skill shortages are costly and can hamper growth, with the Open University⁷² estimating that they cost the UK £2bn a year in higher salaries, recruitment costs and temporary staffing bills. As nationally, fewer employers in 2019 than in 2017 had any vacancies (17% compared with 20%), and the 21,473 vacancies reported at the time of the survey was 19% lower than the number in 2017⁷³. The vacancies were broadly evenly distributed across the four skills groups (Figure 1) but with the elementary and caring, leisure and other services staff accounting for the greatest share of vacancies. Compared to the England average, the Heart of the South West had fewer high-skill vacancies but more vacancies in the other three categories.

⁷¹ Wright, J., and Sissons, P. 2012. 'The Skills Dilemma, Skills Under-Utilisation and Low-Wage Work', A Bottom Ten Million Research Paper, London: Work Foundation

⁷² The Open University (2017), 'The £2.2 Billion cost of the skills gap'.
<https://www3.open.ac.uk/media/fullstory.aspx?id=31527>

⁷³ By comparison, vacancies across England fell by 7% over the same period.

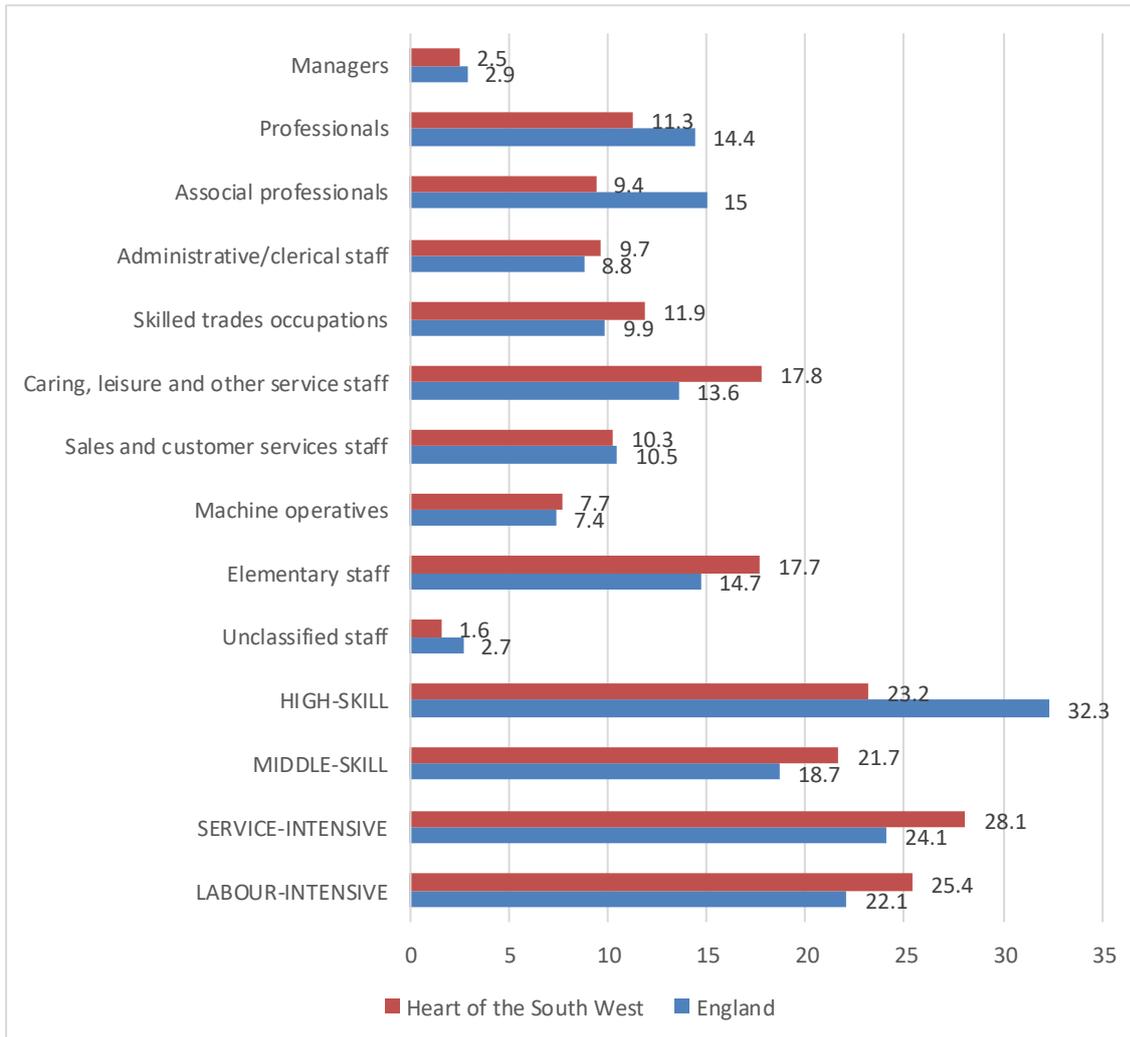


Figure 44 Profile of vacancies by occupation

Base: All vacancies in up to six occupational groups followed up.

Source: UK Employer Skills Survey 2019 Table 22/1

4.2.1. Hard to fill vacancies

Reflecting the overall fall in vacancies and recruitment activity, fewer hard-to-fill vacancies were reported 2019 than at the time of the 2017 survey, although the share of vacancies that were hard-to-fill rose slightly, from 45% to 46%. A greater proportion of vacancies in the Heart of the South West were hard-to-fill than the England average (46% compared to 37%) with service-intensive staff particularly difficult to recruit locally (51% compared to 35%).

Skilled trades remain the most difficult occupation to recruit followed by caring, leisure and other services staff (Table 1).

Table 32 Hard to Fill Vacancies by Occupation as a % of all Vacancies, Heart of the South West vs comparator LEPs and England

Occupation	2017		2019	
	Heart of the South West	England	Heart of the South West	England
All Occupations	45%	34%	46%	37%
Managers	31%	24%	29%	30%
Professionals	50%	43%	52%	44%
Associate professionals	25%	29%	34%	31%
Administrative/clerical staff	31%	21%	25%	17%
Skilled trades occupations	68%	53%	68%	59%
Caring, leisure and other services staff	56%	40%	59%	45%
Sales and customer services staff	23%	23%	35%	21%
Machine operatives	46%	44%	54%	48%
Elementary staff	55%	28%	42%	33%
Unclassified staff	76%	23%	10%	19%
Total HTF Vacancies	11,880	286,818	9,854	292,488
HIGH-SKILL	37%	34%	42%	37%
MIDDLE-SKILL	52%	39%	49%	39%
SERVICE-INTENSIVE	38%	32%	51%	35%
LABOUR-INTENSIVE	52%	32%	46%	38%

Source: ESS, 2017 and 2019

Employers attributed their recruitment difficulties to a wide variety of factors: mostly commonly, low number of applicants with the required skills (31%), not enough people interested in doing this type of job (25%), remote location/poor public transport (22%) and low number of applicants generally. While Heart of the South West employers with hard to fill vacancies were more likely to cite issues with the *quality* of applicants (56%) they were slightly less likely to do so than employers nationally (59%) and were slightly more likely than average to report difficulties associated with the quantity of applicants (42% compared to 35%) and context factors (43% compared to 39%). In particular, local employers were more than twice as likely than employers nationally to attribute their recruitment difficulties to remote location or poor public transport (22% compared to 10%).

4.2.2. Skills shortages

Where employers struggle to fill vacancies, due to a lack of skills, qualifications or experience amongst applicants these are known collectively, as 'skill-shortage vacancies' (SSVs). The number of SSVs has fallen since 2017, reflecting the decline in recruitment

overall, however, the density of SSVs (as a proportion of all vacancies) rose from 27% to 2017 to 31% in 2019. SSVs continue to account for a larger share of vacancies locally than the England average (25%). Skills shortages were reported by 6% of all employers in the Heart of the South, and 36% of employers with vacancies. This compares with 6% and 32% respectively, among employers across England

The experience of skill-shortage vacancies varied by sector. Nationally, skills shortages are most acute in the manufacturing and construction where more than one in three vacancies are affected. While skills shortages are also widespread in the construction sector locally (and indeed are more acute than those evidence nationally) they are even more commonly reported among vacancies in the information and communication (43%) and transport and storage (50%) sectors. By contrast, SSVs account for a smaller share of vacancies in the manufacturing sector locally than the national average. Compared to the previous survey, the density of skills shortages has increased in:

- Wholesale & retail (from 19% in 2017 to 30%)
- Health and social work (from 26% in 2017 to 37%)
- Hotels and restaurants (from 24% in 2017 to 28%)

Table 33 Density of SSVs by sector (% of all vacancies that are SSVs). Heart of the South West vs comparator LEPs, South West and England

Occupation	2017		2019	
	Heart of the South West	England	Heart of the South West	England, NI & Wales
Primary Sector & Utilities	34	36	31	31
Manufacturing	35	29	23	36
Construction	43	36	42	36
Wholesale & Retail	19	18	30	22
Hotels & restaurants	24	16	28	21
Transport & Storage	48	29	50	26
Information & Communications	48	29	43	23
Financial Services	12	19	**	13
Business Services	28	24	29	27
Public admin.	8	15	**	13
Education	21	23	14	23
Health & social work	26	22	37	25
Arts & Other Services	28	26	25	25
Total	27	23	31	24
Total number of SSVs	7,015	193,842	6,601	199,088

Source: ESS, 2017 and 2019

The density of skills-shortage vacancies was greater among small establishments than large ones. More than one-third (35%) of vacancies in establishments with fewer than five employers were proving hard to fill due to difficulties in finding applications with appropriate skills, qualification or experience, compared to fewer than a quarter (24%) among establishments with 100 or more employees.

By occupation, SSVs persist among skilled trades with more than half of vacancies within this occupation locally proving hard-to-fill for this reason. This occupation has had the highest density of skill-shortage vacancies in all previous iterations of the ESS series.

Following skilled trades, the next most commonly affected occupations are professionals (42%) and caring, leisure and other services staff (41%). SSVs in these occupations have become more prevalent since the last survey, as they also have for associate professionals, sales and customer services staff and machine operatives. Most occupations have a higher density of SSVs locally than the national average although these appear to be particularly acute locally within respect to professional occupations, associate professionals, caring leisure and other services staff and skilled trades.

Table 34 Density of SSVs by occupation (% of all vacancies that are SSVs). Heart of the South West vs comparator LEPs, South West and England

Occupation	2017		2019	
	Heart of the South West	England	Heart of the South West	England
Managers	23%	17%	19%	23%
Professionals	32%	30%	42%	33%
Associate professionals	16%	23%	29%	20%
Administrative/clerical staff	25%	15%	13%	12%
Skilled trades occupations	51%	42%	51%	47%
Caring, leisure and other services staff	27%	24%	41%	29%
Sales and customer services staff	16%	16%	18%	14%
Machine operatives	23%	31%	32%	31%
Elementary staff	24%	14%	22%	18%
Unclassified staff	59%	14%	n/a	15%
Total	27%	23%	31%	25%
Total SSVs	7,015	193,843	6,601	199,088
HIGH-SKILL	24%	25%	34%	26%
MIDDLE-SKILL	40%	30%	34%	31%
SERVICE-INTENSIVE	21%	20%	32%	22%
LABOUR-INTENSIVE	24%	19%	25%	22%

Source: ESS, 2017 and 2019

The Employer Skills Survey collected data on the particular skills that employers have found to be lacking among applicants for vacancies. Employers with skill-shortage vacancies (SSVs) were read a list of skills and asked, for each occupation in which they reported skill-shortage vacancies, which skills were lacking. The specific skills that employers perceive to be lacking among applicants can be broadly grouped into two categories, described by DfE as:

- Technical and practical skills – these are the specific skills required to perform the specific functions of a job role.
- People and personal skills – these are the ‘softer’, less tangible skills required to manage oneself and interact with others in the workplace.

The skills lacking across these two categories of skills are shown in Table 4 and Table 5.

Technical and practical skills

Almost all employers reporting SSVs identified a lack a technical or practical skills (87%) with this affecting around 84% of skills shortage vacancies locally. This was most commonly ‘specialist skills or knowledge needed to perform the role’ (69%). Other technical and practical skills that were often lacking included:

- Complex analytical skills (46% of vacancies affected)
- Operational skills including knowledge of products and services offered and/or knowledge of how the organisation works (39%)
- Digital skills (34%)
- Basic skills (24%)

Employers in the Heart of the South West were more likely than employers nationally to report difficulties finding candidates with the required digital skills – at basic and advanced or specialist level.

Table 35 Skills found difficult to obtain from applicants (prompted)

Skill area	% skill shortage vacancies		% of employers reporting skills shortages	
	Heart of the South West	England	Heart of the South West	England
Specialist skills or knowledge needed to perform the role	69	63	69	68
Solving complex problems requiring a solution specific to the situation	42	39	46	44
Knowledge of products and services offered by your organisation and organisations like yours	28	37	39	44
Knowledge of how your organisation works	29	31	36	35
Reading and understanding instructions, guidelines, manuals or reports	27	30	32	31
Writing instructions, guidelines, manuals or reports	24	25	26	29
Basic numerical skills and understanding	19	23	27	26
More complex numerical or statistical skills and understanding	17	23	27	26
Adapting to new equipment or materials	19	21	24	24
Computer literacy / basic IT skills	16	20	26	21
Manual dexterity - for example, to mend, repair, assemble, construct or adjust things	19	18	22	21
Advanced or specialist IT skills	24	17	19	21
Communicating in a foreign language	23	17	15	14
None of the above	7	8	9	7
Don't know	9	9	4	4
ANY TECHNICAL OR PRACTICAL SKILLS	84	84	87	89
COMPLEX ANALYTICAL SKILLS	46	45	53	52
OPERATIONAL SKILLS	39	46	50	51
DIGITAL SKILLS	34	29	31	32
BASIC SKILLS	24	33	33	36

Source: ESS 2019 Table 38/1 and 39/1.

People and personal skills

People and personal skills can be less tangible than technical and practical skills, but they can have a big impact on the ability of a potential employee to adapt to the workplace and be an effective member of staff. Seven in ten (70%) employers reporting SSV reported difficulties finding applicants with the required soft and people skills. As was the case in the previous two employer skills surveys, the most common skill of this type lacking in the labour market were 'self-management' skills (58% of all SSVs in the Heart of the South West), including the ability to manage ones' own time and task prioritization (47%).

Management and leadership skills were also reported to be lacking (affecting 40% of SSVs locally) including: managing or motivating other staff, persuading and influencing others, and setting objectives and/or planning resources. Skills related to ‘sales and customer skills’ were commonly reported to be lacking, cited as a cause for 37% of all skill-shortage vacancies locally. This grouping includes customer handling skills and sales skills.

Table 36 Soft/people skills found difficult to obtain from applicants (prompted)

Skill area	% skill shortage vacancies ⁷⁴		% of employers reporting skills shortages	
	Heart of the South West	England	Heart of the South West	England
Ability to manage own time and prioritise own tasks	47	45	48	51
Customer handling skills	34	33	40	39
Team working	36	33	45	37
Managing their own feelings, or handling the feelings of others	44	33	43	36
Managing or motivating other staff	28	31	34	34
Persuading or influencing others	25	26	30	30
Sales skills	21	22	28	25
Instructing, teaching or training people	20	21	26	25
Setting objectives for others and planning human, financial and other resources	18	21	27	24
Making speeches or presentations	11	14	12	16
None of the above	21	24	24	21
Don't know	10	10	6	6
ANY PEOPLE AND PERSONAL SKILLS	70	66	70	73
MANAGEMENT AND LEADERSHIP SKILLS	40	44	48	49
SALES AND CUSTOMER SKILLS	37	39	45	45
SELF-MANAGEMENT SKILLS	58	52	61	58

Source: UK ESS 2019

Implications of skill shortage vacancies

Nearly all of the 6% of employers that reported skill-shortage vacancies said that they had had an impact on business performance (96%)⁷⁵. The most common impacts were ‘increased workload for other staff (87%) and ‘difficulties meeting customer service objectives (48%) but direct financial impacts were also reported, including a loss of business or orders to competitors (46%), increased operating costs (41%) and delay in developing

⁷⁴ Base: all skills shortage vacancies – up to 2 occupations followed up

⁷⁵ All establishments with hard-to-fill vacancies that are all as a result of skill shortages

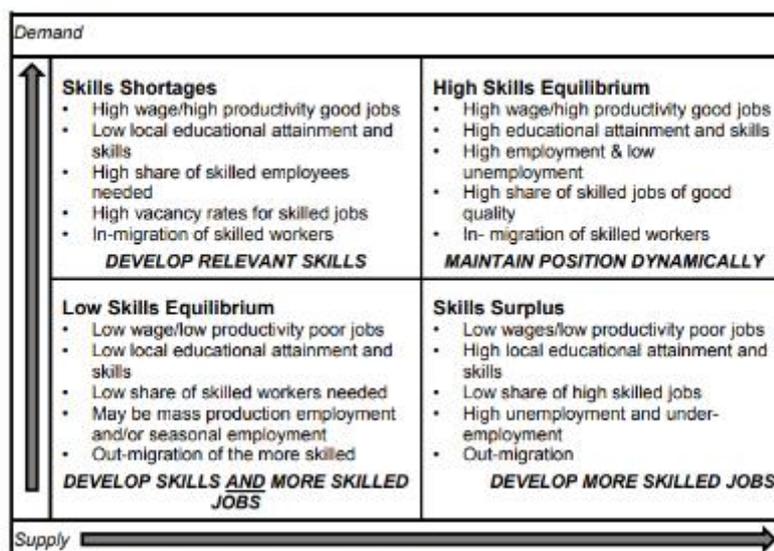
new products and services (43%). SSVs had also led to difficulties introducing technological change (24%).

Most employers reporting impacts of SSV had attempted to address the situation in some way (91%) most commonly using new recruitment methods of channels (42%) or increasing advertising or recruitment spend (36%).

4.3. Diversity of performance across the region

In their examination of the role of LEPs in enhancing local productivity in 2019, the CIPD⁷⁶ suggested that the Heart of the South West LEP area as whole was in skills surplus (Figure x) a status that it shared with Dorset LEP, Yorkshire, North Yorkshire and East Riding and Worcestershire. That is, the region is characterised by low wages and poor productivity, high educational attainment and skills, low share of high skilled jobs, high unemployment and under-employment and out-migration.

Figure1: Inter-relationship between low and high levels of skills supply and demand



Source: based on Green et al. (2003); Froy et al. (2009)

⁷⁶ <https://www.cipd.co.uk/knowledge/work/skills/role-of-leps>

Our own analysis of labour market conditions reveals a rather more complex picture than the broad analysis above suggesting the need for nuanced policy prescriptions. Reflecting authors' acknowledgement that some LEP areas will have considerable variation within their boundaries, our own analysis suggests:

- Exeter is operating at a 'high skills equilibrium': the district has relatively high levels of productivity, the City attracts a net flow of workers with high level qualifications; and has a high share of jobs in the top three occupational categories;
- Somerset and but particularly Torbay and Plymouth demonstrate most of the features of having a low skills equilibrium: productivity is lower than the national average and the share of highly-qualified residents and high-skilled jobs is low. Torbay and Plymouth, appear to maintain this equilibrium through net inward commuting flows, and the co-existence of relatively high unemployment rates and reporting of skills gaps, suggests a mismatch between the skills available locally and those needed by local employers.
- Taken together the "rest of Devon" – districts comprising West Devon, East Devon, South Hams, Teignbridge and Torridge share most of the characteristics of "skills surplus" areas: productivity is generally low, and workforce qualifications are higher than those required by local employers. Hence, net commuting out-flows to neighbouring areas.

This combination suggests a nuanced policy response which recognises the inter-dependencies within the LEP area is required.