GLOUCESTERSHIRE LEP AREA SKILLS STATEMENT

2016 FINAL VERSION

Contents

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1. INTRODUCTION

This report is a refresh of the work the Marchmont Observatory conducted in March 2014[1]. Since the Marchmont report was written there have been a number of developments; the Strategic Economic Plan (SEP)[2] for the County has been adopted, apprenticeship reform, Brexit and the Governments Post 16 Skills plan to name just a few.

This document has been produced by the Strategic Alliance. The Structure of this report roughly replicates the Marchmont report for ease of comparison. The purpose of this Strategic Alliance report is to create a document of common understanding for all parties interested in skills in Gloucestershire.

Local Enterprise Partnerships (LEPs) have been given a clear task by the Government to provide the strategic leadership to set economic priorities and create the right environment for business and growth[3]. GFirst the LEP for Gloucestershire, role is to drive sustainable economic growth in the county, and by doing so, create jobs and business opportunities[4].

At GFirst, the Local Enterprise Partnership for Gloucestershire the Board have committed to the following vision:

'By 2022, Gloucestershire will have world class companies, a diverse businesses portfolio and a reputation for starting and growing great businesses'

Key to achieving this is the LEPs skills objective of creating 'a highly employable and economically productive population'. Part of the skills vision is to ensure that the County produces talented people with the skills businesses need. GFirst has committed to:

- Develop a strong partnership between education and business to support bridging the skills gap

- Equip students with the skills that businesses need; and provide careers opportunities for local skilled talented individuals.

An important starting point is a shared understanding of the employment and skills needs based on a clear evidence base on which to make decisions, with an emphasis on understanding the needs of local employers. The evidence underpinning this Statement allows all interested parties to develop a picture of employer need in the Gloucestershire LEP area and compare that

[1] http://www.gfirstlep.com/gfirst-LEP/Our-Priorities/Our-Vision/
[2] http://www.gfirstlep.com/gfirst-LEP/Our-Priorities/Our-Vision/
[3] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/32076/cm7961-local-growth-white-paper.pdf
[4] http://www.gfirstlep.com/gfirst-LEP/About-Us/Overview/

with the skills of the current workforce and the provision of skills and education for the future workforce.

Purpose of the Statement

The *Gloucestershire LEP Area Skills Statement*:

- sets out the skills needs of the Gloucestershire area to enable discussion and action;
- allows national and European funding to be effectively targeted on local priorities;
- can be used as a basis for ensuring that publicly-funded provision and private investment in skills reflect local labour market requirements;
- provides a baseline of information to inform the direction of the County's Employment and Skills Board.

Evidence base

The research and analysis for the Statement was carried out between August 2016 December 2016 and draws together information from:

- The Draft Economic Summary for Gloucestershire (Dec 2016) by the Strategic Needs Analysis Team, Gloucestershire County Council.
- An analysis of a range of data sources, including forecasts from Cambridge Economics (LEFM) provided by Gloucestershire County Council.
- Data on from NOMIS and learning provision made available by the Skills Funding Agency (SFA).
- A range of reports on Key Sectors which draws on a wide range of evidence from Sector Skills Councils (SSCs) and the UK Commission for Employment and Skills (UKCES), forecasting data and supply-side data.
- And data from recognised sources such as Experian and EMSI.

Information has come from many different sources and as a consequence is from different timelines, this is unfortunate but cannot be avoided due to the publication dates. Wherever possible the most up to date UK Government data has been used.

2. VISION

Gloucestershire has a prosperous and resilient economy set within a highly attractive natural environment, which offers a high standard of living for local residents. GFirst LEP developed a vision for growing Gloucestershire, that by 2022, the county will have 'world class companies, a diverse business portfolio and a reputation for starting and growing great businesses'. In the SEP the LEP has committed to providing a highly employable and economically productive workforce that meets the needs of local business, particularly in high value growth sectors.

GFirst further commits that it will deliver an integrated approach to stimulating the demand for and planning skills provision from school, college and university leavers. This will enable all interested parties to better meet the needs of industry by providing the right number of places in the right skills areas at the right level and so ensure industry in Gloucestershire minimises skills gaps[5].

The Government recently (July 2016) launched the Post 16 Skills Plan[6] where it shared the vision to reform the skills system. The Government recognises that there is a need to support young people and adults to secure a lifetime of sustained skilled employment *and* meet the needs of our growing and rapidly changing economy. The Government wants to improve quality of education and student choice. The Governments vision is one shared by the Strategic Alliance (SA)[i], a partnership between the University of Gloucestershire, Gloucestershire College and South Gloucestershire and Stroud College.

The Strategic Alliance aims to raise the quality, range and accessibility of higher education in Gloucestershire and the West of England. By doing this through a better integrated higher education offer for the area underpinned by a joint higher education strategy mirrors the Government's stance of wanting to improve the quality of education and the student's choice.

[5] p21 of the GFirst SEP 2014

[6] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/536043/Post-16_Skills_Plan.pdf

3. GLOUCESTERSHIRE'S LABOUR MARKET CONTEXT

The latest figures published by the Organisation for Economic Co-operation and Development (OECD)[7] in December 2016 reveal that the UK is climbing the world rankings in both reading and science. This year's report, which has a science focus, revealed that the country has climbed from 21st place in 2012 to 15th place in 2015, despite a fall in point score from 514 to 509 The UK has also climbed two places for reading, rising from 23rd to 21st despite the average point score falling from 499 to 498 in three years.

Closer to home, the Annual report of HM Chief Inspector of Education, Children's Services and Skills 2015/16 (December 2016)[8] reports that in Gloucestershire 91% of pupils are in good or outstanding secondary schools (2016). An increase of 5 percentage points from 2015. For primary schools 96% of pupils are on good or outstanding schools in 2016. A 9 percentage point increase from 2015.

The report 'UKs Skills Mix: current trends and future needs' (2016)[9] by Professor Campbell found UK skills levels (measured by qualification) have improved considerably in recent years and are likely to continue to do so to 2020.

Overall the picture nationally and locally is of improvements in the education sector.

3.1 Wider economic context

The employment rate (the proportion of residents aged 16-64 who were in work) is currently 79.9% (April 2015 to March 2016) which is well above the National Average (73.7%)[10] The corresponding unemployment rate has consequently reduced but there are issues in Gloucestershire particularly relating to youth unemployment and long term unemployment.

Gloucestershire has a better qualified population than the country as a whole. There is a greater proportion of professional occupations than at regional or national level.

83% of residents also work in Gloucestershire[11].

[7] http://www.oecd.org/pisa/

[8] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/574186/Ofsted_annual_report_education_and_skills_201516_web-ready.pdf

[9] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/571675/ER5_The_UK_s_Skills_Mix_Current_Trends_and_Future_Needs.pdf

[10] Annual Population survey, ONS. www.nomisweb.co.uk

[11] 2011 census, ONS

There are approximately 28,295[12] businesses in Gloucestershire. They support a well-qualified and highly skilled employed workforce of approximately 289,400[13] people (those that work in the county, not necessarily residents).

Both manufacturing and health are significant in terms of employment. Other important sectors to Gloucestershire include:

- public administration and defence (eg GCHQ),
- education,
- construction and
- retail[14].

Employment growth is predicted in the following sectors:

- health,
- business administration and support services,
- construction,
- accommodation and food services and the
- mining quarrying and utilities sector

Source: LEFM, Gloucestershire County Council 2016

The SEP focuses on key drivers of productivity and supporting growth in high value sectors; not necessarily the sectors with the highest number of people employed in them. The SEP focuses on the following sectors:

- Nuclear and renewable energy
- Aerospace
- Precision engineering and medical instruments
- Expert intensive businesses

Professional, scientific and technical, finance and insurance and the media, particularly digital media and tourism are also very important to the county[15]

[12] UK Business Counts – Enterprises, 2016. ONS

[13] Business register and Employment survey 2015, ONS

[14] Business register and employment survey 2015, ONS

The Gloucestershire LEP economy will be strongly influenced by the national economic and policy context. Productivity and increasing productivity is a key issue in the county and ensuring employers have the right skills is of the utmost importance to reduce the GVA gap between Gloucestershire and better performing areas. The LEP originally forecast growth for 2020 of 4.8% GVA pa. However this has since been revised down.

Enterprise

The number of business start-up (births) in 2015 was 3,235. This equates to a rate of 85.0 business 'births' per 10,000 of the working age resident population – higher than the regional average (78.2 births per 10,000) but a lot lower than the national average of 94.3 per 10,000. The area with the greatest percentage increase in business births is Gloucester which saw a 52.1% increase between 2011 and 2015. Cheltenham saw the lowest percentage increase in births over the same period of 17.1%.

In 2015, 2390 businesses closed (business deaths) in Gloucestershire. This equates to a rate of 62.8 business deaths per 10,000. This is broadly similar to regional and national figures. The districts with the highest number of business deaths are Tewkesbury (+19.6%) and Stroud (+2.6%) they are the only districts that have seen an increase of deaths between 2011-2015.

The outlook is positive as there is a net gain in the number of businesses.

GVA and employment

Table 1, below shows the sectoral contributions to local GVA & employment in 2014.

[15] p34 of GFirst SEP 2014

Table 1: GVA and Employment 2014

SIC code	Sector	Employment'[16]		Direction of travel (employment)[17]	GVA[18]	
		Number	%		Million £	%
A	**Agriculture, forestry and fishing**	**1,750**	**0.7**	**Decrease**	**160**	**1**
BDE		**4,250**	**1.5**		**591**	**4**
B	Mining and quarrying	250	0.1	No change		
D	Electricity, gas, steam and air conditioning supply	2,250	0.8	No change		
E	Water supply; sewerage, waste management and remediation activities	1,750	0.6	No change		
C	**Manufacturing**	**35,000**	**12.6**	**Decrease**	**2,426**	**16**
F	**Construction**	**14,000**	**5.1**	**Increase**	**987**	**7**
GHI		**72,000**	**26**		**2,138**	**14**
G	Wholesale and retail trade; repair of motor vehicles and motorcycles	46,000	15.5	Increase		
H	Transportation and storage	10,000	2.9	Increase		
I	Accommodation and food service activities	21,000	7.6	No change		
J	**Information and communication**	**9,000**	**3.2**	**No change**	**760**	**5**
K	**Financial and insurance activities**	**9,000**	**3.2**	**No change**	**804**	**5**
L	**Real estate activities**	**5,000**	**1.8**	**No change**	**1,901**	**13**
MN		**42,000**	**19.1**		**1,585**	**11**
M	Professional, scientific and technical activities	23,000	6.9	Increase		
N	Administrative and support service activities	21,000	8.3	Increase		
OPQ		**75,000**	**27.1**		**2,889**	**19**
O	Public administration and defence; compulsory social security	13,000	4.7	No change		
P	Education	24,000	8.3	Decrease		
Q	Human health and social work activities	40,000	14.1	Increase		

[16] ONS Business Register and Employment Survey https://www.nomisweb.co.uk/reports/lmp/lep/1925185570/report.aspx

[17] Direction of Travel is the difference between 2015 and 2014 ONS figures and if the numbers have increased, decreased or there has been no change

[18] https://www.ons.gov.uk/economy/grossvalueaddedgva/datasets/gvaforlocalenterprisepartnerships

RST		**10,000**	**3.6**		**639**	**4**
R	Arts, entertainment and recreation	5000	1.8	No change		
S	Other service activities	5000	1.8	No change		
T	Activities of households as employers; undifferentiated goods-and services-producing activities of households for own use	No data	No data	No data		

N.B. The SIC codes have been grouped together by the ONS for GVA, the employment figures have been added together to match the GVA groupings.

The top 5 sectors in terms of percentage share of employment in Gloucestershire are:

1st Wholesale and retail trade; repair of motor vehicles and motorcycles (15.5%)

2nd Human health and social work activities (14.1%)

3rd Manufacturing (12.6%)

= 4th Education (8.3%)

= 4th Administrative and support service activities (8.3%)

It is worth noting although these sectors are the largest employers the future direction of travel for manufacturing and education is to decrease.

Those sectors that have a positive direction of travel are: Wholesale and retail trade; repair of motor vehicles and motorcycles, Construction, Transport and storage, Professional, scientific and technical activities, Administrative and support service activities and Human health and social work activities.

The top 5 sectors in terms of GVA contribution in Gloucestershire are:

1st Public administration and defence; compulsory social security, education, human health and social work activities (19%)

2nd Manufacturing (16%)

3rd Wholesale and retail trade; repair of motor vehicles and motorcycles, transportation and storage, accommodation and food service activities (14%)

4th Real estate activities (13%)

5th Professional, scientific and technical activities, administrative and support service activities (11%)

In 2013 manufacturing was the largest sector but this has slipped to second place in 2014. The top sector in 2014 with regard to GVA is Public administration and defence; compulsory social security, education, human health and social work activities worth £2889m.

Competitiveness

The UK Competitive Index for 2016[19] places the Gloucestershire LEP area as the 14th most competitive LEP area in England (out of 39), a drop from 2014 when it was 11th. The West of England, which is the eighth most competitive LEP nationally and the most competitive LEP area in the South West.

There are 379 localities measured on the competitive index. Table 2 below highlights the districts in Gloucestershire and their position on the competiveness scale. Figures highlighted in green have seen a positive increase on their ranking since 2013. Figures in red have seen a fall in rankings since 2013.

Table 2: Competiveness

Locality	**Position 2013**	**Position 2016**
Cheltenham	73rd	67th
Cotswolds	93rd	82nd
Stroud	89th	95th
Tewkesbury	106th	97th
Gloucester	163rd	167th
Forest of Dean	246th	234th

[19] http://www.cforic.org/pages/ukci2016.php

Unfortunately two districts in Gloucestershire have seen a reduction in their competitiveness (Stroud and Gloucester). The Forest of Dean, whilst improving on its competitiveness score, is still worryingly near the bottom of the league table.

Productivity

Productivity is an underlying weakness of the UK economy. Workers in France, Germany and the US produce on average as much in four days as UK workers do in five.[20.] Improving skills is one way to change this fact.

In 2015 the total output of the Gloucestershire economy was approximately £15.97 billion, representing 13% of the value of output in the South West and 1% of the UK economy.[21]

The latest figures show GVA per head in Gloucestershire was £48,8741, which was above the South West (£45,361) but below the UK average (£50,830)[22]. In 2015 Gloucestershire's GVA per hour worked was £30.20. This was above the South West average (£29.40) but below the UK average (£31.80)[23]. Increasing productivity is not a case of the workforce working longer hours but it is producing more for each hour of their time. This can be changed by improving the workforce's skills and/or using technology. Over 10,000 employees in Gloucestershire are not proficient at their job[24]. To change this requires training and investment.

In the Centre for Cities report[25] the authors categorise cities into four groups according to their performance in terms of exports and productivity. Gloucester falls into the third quadrant; a group of cities that underperform and urgently need to improve. Gloucester is below average for exports per job and productivity per job. The report suggest that 'policy should focus on improving the attractiveness of these cities as places for business investment for exporters through improving skills, local infrastructure and looking at existing strengths on which those cities can capitalise.'

There is a correlation that overall research and development investment tends to be lower in areas with low productivity[26]. The HE establishments in Gloucestershire should consider this an opportunity and examine ways to engage business and conduct research and development through Knowledge Transfer Partnerships (KTPs).

[20] ONS (2016) International Comparisons of Productivity for 2015

[21] Regional Gross Value Added (Income Approach), 1997 to 2015, ONS http://www.ons.gov.uk/economy/grossvalueaddedgva/datasets/regionalgrossvalueaddedincomeapproach

[22] Regional and sub-regional productivity in the UK: Jan 2017, ONS, https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/labourproductivity/articles/regionalandsubregionalproductivityintheuk/jan2017/relateddata

[23] *Ibid.*

[24] https://data.gov.uk/dataset/ukces-employer-skills-survey-2015

[25] http://www.centreforcities.org/wp-content/uploads/2017/01/Cities-Outlook-2017-Web.pdf

[26] ONS (2016) UK Gross Domestic Expenditure on Research and Development: 2014

3.2 Current skills demand

Employment structure

The figures for the number of people employed by sector can be found in Table 1.

Gloucestershire has broadly the same representation of employment in higher skilled occupations, compared with the UK as a whole. In Gloucestershire, 42% of employment is in the three high skilled occupational groups: managers, professionals and associate professionals. This compares with a UK average of 43%. However, the figure is much higher in London (57%).

The proportion of employment in the three lowest-skilled occupations is slightly lower than the UK average. In Gloucestershire, 24% of employment is in sales or customer service, plant/process operatives and elementary roles, compared with a UK average of 25%.

The proportion employed in middle-ranking occupations is higher than the UK average: jobs in administrative, skilled trades and caring/leisure roles account for 34% of employment in Gloucestershire, compared with 32% in the UK.

Skills shortages and skills gaps

Table 3: Vacancies, skills gaps, training and underutilisation in Gloucestershire

	England Total	**South West Total**	**Gloucestershire Total**
Vacancies			
Establishments with any vacancies	20%	18%	16%
Have at least one vacancy that is hard to fill	8%	8%	7%
Have a skills shortage vacancy (prompted or unprompted)	6%	5%	4%
Number of vacancies	-	-	6828
Number of skill-shortage vacancies (SSV)	-	-	1424
Number of vacancies as a % of all employment	3%	3%	3%
% of all vacancies which are SSVs	23%	24%	21%
Skills gaps			
% of establishments with any staff not fully proficient	14%	14%	16%
Number of staff not fully proficient as a % of employment	5%	4%	4%

Training			
% of establishments training staff over the last 12 months	66%	66%	65%
% of establishments providing off-the-job training in the last 12 months	48%	50%	50%
% of establishments providing on-the-job training in the last 12 months	52%	53%	51%
% of training establishments providing online training or e-learning in the last 12 months	45%	44%	44%
Underutilisation			
Establishments with underutilised staff	30%	27%	28%

The data from the UKCES 2015[27] report presented in Table 3 above identifies that around 16% of Gloucestershire's employers had vacancies, in total 6,828. Of this number 7% were identified as being 'hard-to-fill'.

The consequences of not filling vacancies are detrimental to the local economy.

Employers were asked the consequences of not filling vacancies. See Table 4 below. It appears that employers are well aware of the consequences. When the employer was asked why they thought the vacancy was hard to fill the top three responses were;

- low number of applicants with the required skills (28%),
- low number of applicants generally (19%) and
- not enough people interested in doing this type of job (16%).

[27] https://data.gov.uk/dataset/ukces-employer-skills-survey-2015

Table 4: Employers responses for not filling vacancies

Consequence of not filling vacancies (prompted). Participants could answer more than once.	**Average %**	**Gloucestershire %**
Lose business or orders to competitors	40	40
Delay developing new products or services	37	25
Have difficulties meeting quality standards	32	26
Experience increased operating costs	39	36
Have difficulties introducing new working practices	32	19
Increase workload for other staff	83	87
Outsource work	28	33
Withdraw from offering certain products or services altogether	23	21
Have difficulties meeting customer services objectives	46	45
Have difficulties introducing technological change	21	12
None	6	6
Don’t know	1	0

Using Labour Insights, a tool which provides data relating to job vacancies, in October 2016 there were 6,342 vacancies. During the period November 2015 to October 2016, 73,660 jobs were advertised in Gloucestershire, up from 53,704 over the equivalent period the previous year.

The UKCES data reports that Gloucestershire employers identified 10,566 employees assessed as not being fully proficient in their jobs. This accounted for 4% of total employment (slightly below the national average of 5%). The next logical question is why employers don't train their existing staff to help alleviate the problems caused by not recruiting. This figure of over 10,000 people not being fully proficient in their jobs has ramifications on the county's productivity as already mentioned. Further work should be done to look more closely as to why over 10,000 people are not fully proficient, in what sectors and at what level; if they have just come out of education this should be examined to ensure what is being taught is relevant to employers needs.

Barriers to providing more training

A number of reasons were given when asked why employers didn't offer more training. The most popular responses were; lack of funds /training expensive mentioned by 48% of respondents (but lower than the national average of 51%). Can't spare more staff time (having them away on training) was mentioned by 44% of Gloucestershire businesses (lower than the national average of 49%).

Levels of qualification of workforce

When asked about the level of qualification employees have trained to, most say their employees are trained but not towards nationally recognised qualifications (36% higher than the national average of 33%). 33% said they do not train (slightly lower than national average of 34%). In Gloucestershire 4% are trained to level 1. 12% are trained to level 2, 12% are trained to level 3. 6% are trained to level 4 and above[28].

3.3 Future skills demand

There are a number of sources of information predicting the type of jobs that will be available in the future, what skills will be needed and what level and type of qualifications will be required. The most respected figures are produced by the Government in their LMI summary, this takes information from Working Futures, Employer Skills Survey and the Employer Perspective Survey[29]. Information from Experian and other sources have also been used but the forecast numbers are not consistent.

[28] UKCES 2015, Raw data

[29] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/483126/LMI_Summary_-_Gloucestershire__Final_.pdf

The Governments LMI Summary predicts the number of jobs in Gloucestershire is set to rise by around 14,000 over the next decade (2012-2022), an average annual rate of growth of 0.4%. This is a little below the UK average rate (0.6%). This does not take into account projections should the Growth Deal 3 submissions be successful. If the 11 submissions are successful this will account for an additional 16,008 jobs[30].

The main sources of employment growth in Gloucestershire (in absolute terms) are forecast to be:

- Health and social work (9000+)
- Professional services (3000+)
- Construction (2000+)
- Wholesale and retail (2000+)

Declining sectors are expected to be:

- Manufacturing (including engineering) with a loss of 4,000 jobs.
- Public administration is expected to see a decline (-1,000) in its level of employment between 2012 and 2022 in the LEP area, broadly in line with that projected at the UK level[31].

Working Futures[32] 2012-2022 predicts that Gloucestershire, like the wider UK picture, can expect to see job growth concentrated in higher level roles, as well as in lower level roles relating to care.

The Working Futures projections for Gloucestershire are:

- 22,000 additional high level jobs (for managers, professionals and associate professionals), with 55% of these in professional roles.
- 11,000 fewer jobs in middle ranking administrative, secretarial and skilled trade occupations. Despite this decline these roles are expected to remain significant sources of employment in 2022. There are expected to be around 31,000 administrative and secretarial jobs in the LEP area, despite the loss of around 6,000 jobs in the previous decade. In addition there are expected to be around 9,000 additional jobs in caring or leisure roles.

[30] http://www.gfirstlep.com/News/Growing-Gloucestershire-~~-new-bid-for-Growth-Deal-funding/

[31] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/483126/LMI_Summary_-_Gloucestershire__Final_.pdf

[32] https://data.gov.uk/dataset/working-futures

STEM

Many jobs of the future will require STEM subjects. Industries related to STEM subjects are important to Gloucestershire. The recent Science and Innovation Audit (SIA)[33] (including Gloucestershire) found that just over a third (36%) of subjects being studied by undergraduates in Gloucestershire are STEM. This figure has increased by 1.8% since 2012. This is better than the consortia area[34] (average 1.1% increase) but matches the overall picture for England and Wales – increase of 1.8%.

For post graduate students 46% of subjects are in STEM subjects. Biological science and Architecture, building and planning being the most popular subjects. The report shows that out of the consortium Gloucestershire is losing graduate skills the most. 60.7% remain in the LEP area 6 months after graduating which may sound high but not compared to Cornwall and Isles of Scilly at 74.9%. The reasons for this should be examined further. Out of 40 LEP regions Gloucestershire ranks 32nd for retaining graduates 6 months after graduation. This is significant in Gloucestershire and should be addressed. The report found that 6.6% of Gloucestershire's workforce is employed in science, research, engineering and technology professionals and associated professions. Ranking =21st out of 40 LEPs.

A positive statistic is Gloucestershire (14.5%) is above the GB average (11.9%) for the share of employees employed in all SIA 5[35] themes (14.5% equates to 40,200 employees).

The county appears to have a particular strength in next generation microelectronics (LQ[36] 5.48) and for this area is ranked 3rd in Great Britain. However, there are only 80 businesses classed as microelectronics; only 0.3% of the share of enterprises in the 5 themes. The largest share of enterprises in 2015 was the 'resilience, environment and sustainability theme' at 13.3% but it had the lowest location quotient of all 5 themes of 0.93. It also had the greatest number of businesses in 2015 (3650).

Jobs growth and replacement demand

Working Futures forecasts replacement demand, which occurs where there is a need to recruit and train new entrants into jobs to replace those leaving[37], combined with jobs growth and contraction across sectors, means there will be a net requirement to fill 130,000 jobs between

[33] http://gw4.ac.uk/sww-sia/

[34] The consortia area is South West of England (Cornwall & Isles of Scilly, Gloucestershire, Heart of the South West, Swindon & Wiltshire, and West of England LEPs) and South East Wales

[35] The 5 themes are: Aerospace and advanced engineering, Digital living innovation, Resilience, environment and sustainability, Next generation microelectronics and New energy systems

[36] A LQ or Location Quotient is a way that measures a county's industrial specialization relative to a larger geographic unit (usually the nation). For example, an LQ of 1.0 in mining means that the county and the nation are equally specialized in mining; while an LQ of 1.8 means that the county has a higher concentration in mining than the nation. If the LQ is 0.8 then the county has a lower than national average concentration in mining.

[37] 'Replacement demand' is defined as the number of retirements, plus occupational mobility, plus migration.

2012-2022. Total net requirements are positive across all occupations, which shows that there is a continuing need for relevant skills provision, even in areas where overall employment levels may be falling.

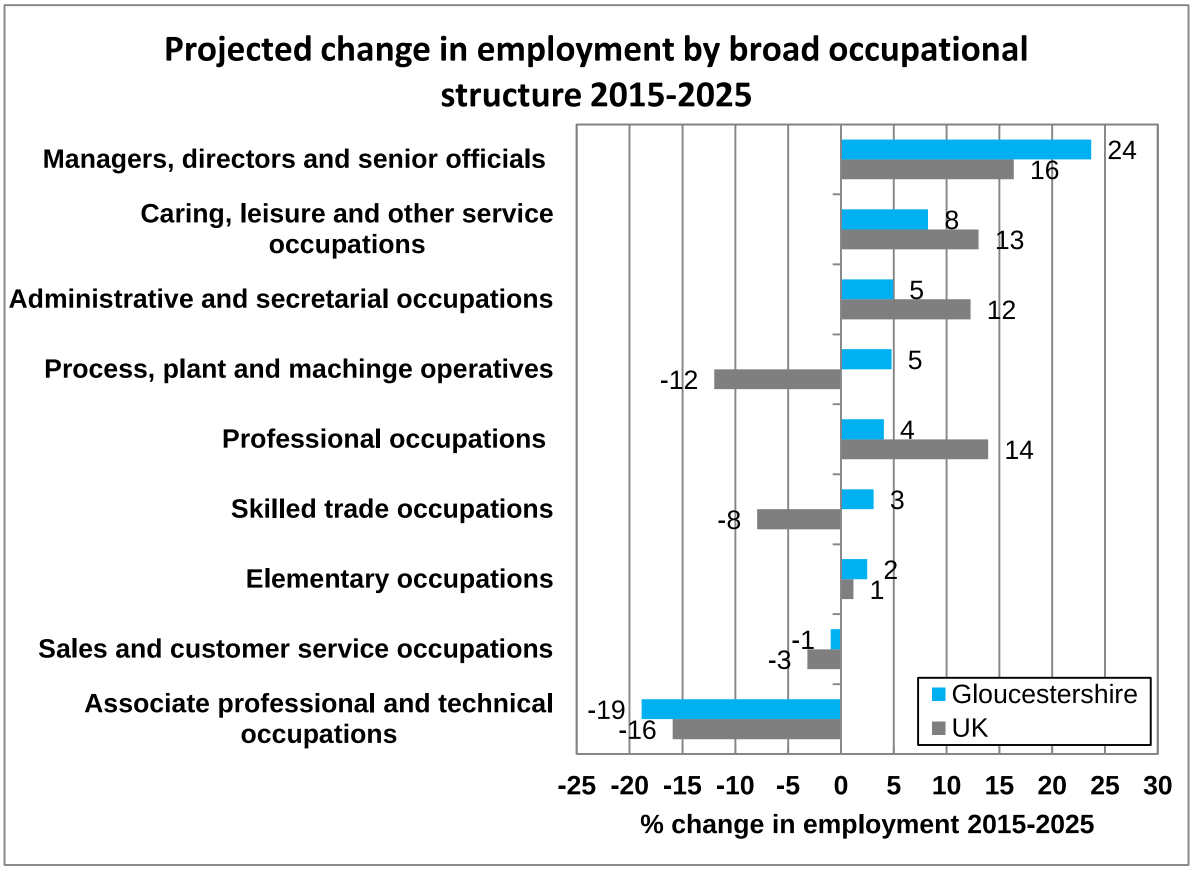
The overall requirement is again skewed towards higher skilled occupations. This shift towards higher-skilled occupations will generate a rising demand for higher levels of skills and qualifications. Working Futures[38] expects to see a net growth of 12,000 jobs in professional roles which are projected to be supplemented by 26,000 job openings arising from replacement demands in Gloucestershire.

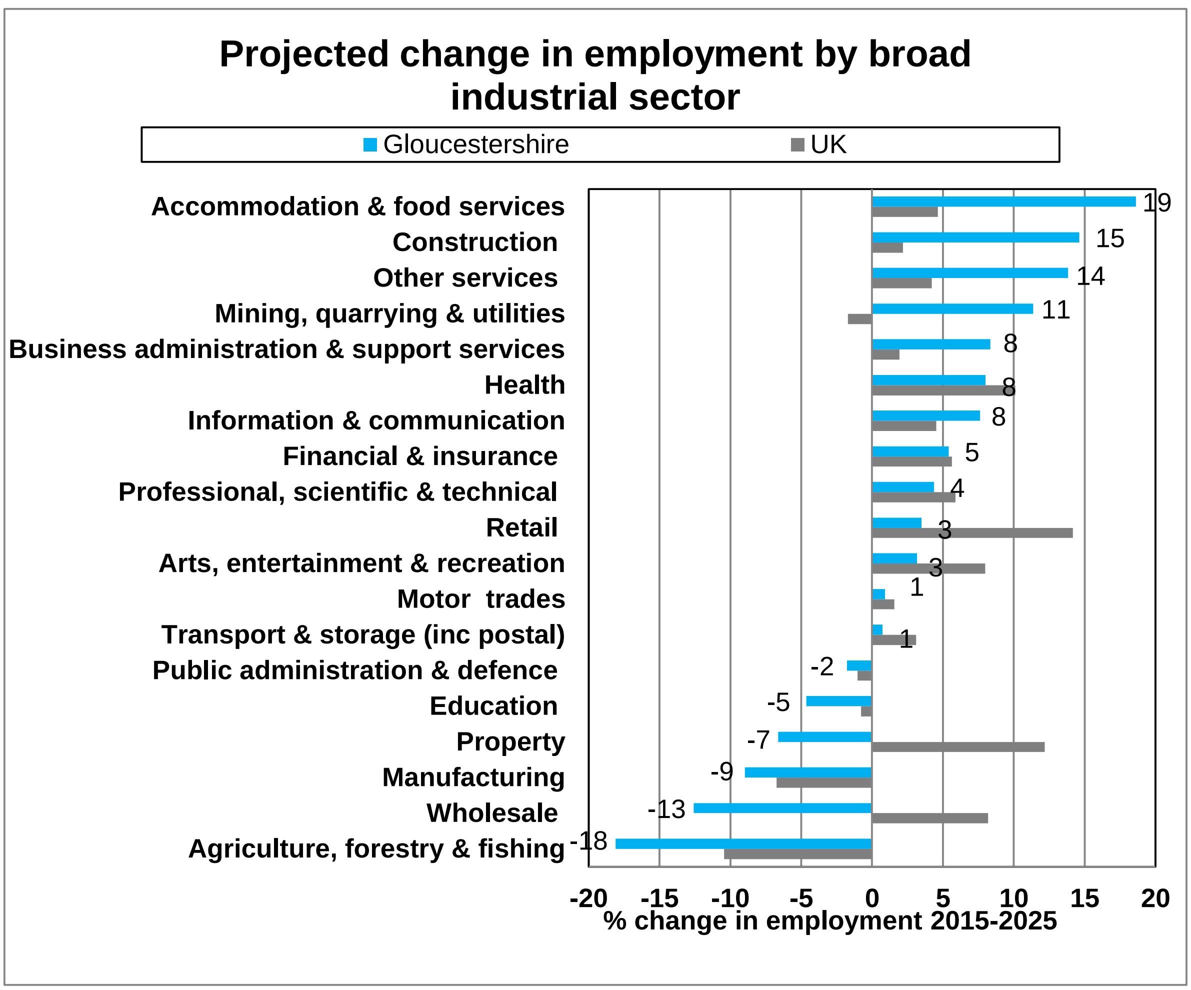
For those occupational areas in which we expect to see a net decline in the number of jobs, replacement demands mean that we can still expect a strong supply of job openings. For example, in administrative roles, it is projected that a loss of around 2,000 jobs will be more than offset by 12,000 job openings resulting from replacement demands.

As a result of supply and demand factors, the qualification profile of employment is expected to shift markedly in Gloucestershire. The proportion of jobs held by people qualified at a higher level (level 4 and above) is projected to increase from 38% to 48% between 2012 and 2022. Workers with low qualifications (below level 2) are expected to decline from 18% to 12% of the total workforce over this period.

The graphs below shows a different set of projected changes in employment for Gloucestershire over the period 2015-2025 by Cambridge Ecometrics LEFM, courtesy of Gloucestershire County Council.

[38] https://data.gov.uk/dataset/working-futures
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/483126/LMI_Summary_-_Gloucestershire__Final_.pdf


Projected change in employment by broad occupational structure 2015-2025
Managers, directors and senior officials
Caring, leisure and other service occupations
Administrative and secretarial occupations
Process, plant and machinge operatives
Professional occupations
Skilled trade occupations
Elementary occupations
Sales and customer service occupations
Associate professional and technical occupations
24
16
8
13
5
12
5
-12
4
14
3
-8
2
1
-1
-3
-19
-16
Gloucestershire
UK
-25 -20 -15 -10 -5 0 5 10 15 20 25 30
% change in employment 2015-2025


Projected change in employment by broad industrial sector
Gloucestershire
UK
Accommodation & food services
Construction
Other services
Mining, quarrying & utilities
Business administration & support services
Health
Information & communication
Financial & insurance
Professional, scientific & technical
Retail
Arts, entertainment & recreation
Motor trades
Transport & storage (inc postal)
Public administration & defence
Education
Property
Manufacturing
Wholesale
Agriculture, forestry & fishing
19
15
14
11
8
8
8
5
4
3
3
1
1
-2
-5
-7
-9
-13
-18
-20 -15 -10 -5 0 5 10 15 20
% change in employment 2015-2025

Top forecast occupations

Top 10 growth occupations for Gloucestershire are forecast to be;

1. Care and home workers
2. Nurses
3. Nursing auxiliaries and assistants
4. Teaching assistants
5. Production managers and directors in manufacturing
6. Managers and directors in retail and wholesale
7. Sales accounts and business development managers
8. Financial managers and directors
9. Medical practitioners
10. Customer service occupations (not elsewhere classified)

However, it should be noted that forecasting cannot always predict what jobs and roles will be in demand in a decade's time, due to the pace of change. This argues for all education and training embedding skills and attitudes that embrace flexibility and change.

3.4 Skills supply

Population forecasts

The Office for National Statistics (ONS)[39] projections suggest that the population in Gloucestershire will rise by 46,300 between 2014 and 2024, rising from 611,300 to 657,600. This increase of 7.6% of the 2014 population is equivalent to an average annual increase of 0.8% per annum. Between 2024 and 2039, the population is projected to rise to 714,000, an increase of 8.6% of the 2024 population. Over the full 25 year period of the ONS projections, the Gloucestershire population is projected to increase by 16.8%, with an annual average growth

[39] 2014-Based Population Projections, Office for National Statistics

rate of 0.7%. These projections are slightly higher than those for England and Wales. The dominating feature of the projections is the sharp increase in population in the age group 65 or over, which is projected to increase from 123,800 in 2014 to 206,300 in 2039 (an increase of 66.6%). This increase is sharper than the national trend for England and Wales and means that by 2039 the proportion of people in Gloucestershire who are aged 65 or over will have risen from 20.3% of the population to 28.9%. The population of children and young people (those aged 0-19) is projected to rise by 11.0% over the twenty-five year period which is in line with the trend for England and Wales. By comparison, the working age population (those aged 20-64) is projected to rise by only 1.4% over the same period. This increase is lower than the national trend for this group and means that by 2039 the working population in Gloucestershire will have fallen from 57.1% of the population to 49.6% of the population. This will limit the pool from which employers can recruit and may have implications for the ability of the local economy to grow, unless growth is accompanied by a rise in productivity.

Economic activity

While the size of the working age population is an important factor in looking at the volume of labour supply in the region, it is also important to look at how many people of working age are economically active. Economic activity rates in Gloucestershire are high: during the period April 2015 to March 2016, Gloucestershire had an economic activity rate of 83.5%, which was above both the South West and Great Britain average of 80.8% and 77.8% respectively[40].

During the period April 2015 to March 2016 an estimated 314,700 residents of Gloucestershire in employment, of these 300,500 or 96% were aged 16-64. This equates to a resident based employment rate of 79.9% which is higher than the South West and Great Britain averages of 77.4% and 73.7% respectively[41]. In July 2016 the number of people claiming unemployment related benefits stood at 4,180, a rate of 1.1%[42]. The International Labour Organisation (ILO) measure of unemployment is much higher, there were 13,800 16-64 year old's unemployed in Gloucestershire during the period April 2015 to March 2016, a rate of 3.7%[43]. The situation relating to those 18-24 year olds claiming unemployment benefits in Gloucestershire is one of improvement from July 2013 to July 2016, with the number of claimants falling from 2,360 to 925 people, this represents a decrease of 61% over the three year period. As a proportion of total working age claimants, the percentage of 18-24 year old claimants has decreased from 26.1% to 22.1%[44].

There has been a steady decline in long term unemployment, with the proportion of the unemployed who are long term unemployed (more than a year) falling from 26.5% in April 2013

[40] Source: Annual Population Survey, Office for National Statistics

[41] Annual Population Survey

[42] Claimant Count, Office for National Statistics

[43] Annual Population Survey, Office for National Statistics

[44] Claimant Count, Office for National Statistics

to 22.6% in April 2015[45]. Long term unemployment leads to a loss of skills, motivation and workplace behaviours, is an important issue and one that may have a lasting legacy, as long-term unemployment is normally slowest to fall during periods of economic recovery.

Pockets of deprivation

Although unemployment in the county is generally low, there were 39 wards (of 146) with claimant rates above the July 2016 County average of 1.1%. They range from St Paul's, Swindon Village, Lydbrook and Ruardean, Newland and St Briavels, Barnwood, Grange, Valley, Hucclecote, Innsworth with Down Hatherley, and Northway, at 1.2%, to Westgate at 4.0%[46]. This demonstrates that deprivation and high unemployment levels are by no means solely an urban issue.

NEETs

The number of NEET's in Gloucestershire has decreased over the last three years from 580 in July 2013 to 429 people in July 2016. This represents an overall decrease of 26% over the three year period. Actual rates of NEETs, although seeing seasonal increases around the month of September, have also shown an overall decrease. Over the same period, NEET rates have decreased from 4.5% to 3.3% in Gloucestershire[47].

Participation in learning

In June 2016 90% of 16 and 17 year olds in the Gloucestershire LEP area were engaged in some form of education or work-based learning, a rise of 3.7 percentage points from 86.2% at the same point in the previous year[48].

Skills of the workforce

Gloucestershire has a better qualified population than the country as a whole, in 2015 those with degrees or equivalent accounted for 30.1% of the 16-64 year old population which was above the national average of 28.5%. At the other end of the scale some 6.5% of the 16-64 year

[45] Job Seekers Allowance, ONS
[46] Claimant Count, Office for National Statistics
[47] Gloucestershire Youth Support Team
[48] Participation in education and training: local authority figures, Department for Education

old population had no qualifications which was some 2% below the national average and amounted to 24,000 people[49].

3.5 Skills pipeline

GCSEs

After peaking at 63% in 2011 he proportion of Gloucestershire pupils achieving 5+ A*-C GCSEs including English and Maths declined to 61% in 2014. The regional and national picture reflects a different pattern in that values peaked in 2013 before declining a year later by 3 percentage points. The county does, however, remain above the regional and national averages[50].

Progression routes

Progression at 18 years of age shows a varied picture;

- 53% of Gloucestershire students are entering higher education at 18 which is below the national average of 58%.
- 22% going to Russell Group Universities. Higher than national average of 17%
- 9% going into employment against 7% nationally
- 5% doing apprenticeships at 18 – in line with national average

There are anecdotal signs of progression to advanced and higher apprenticeships increasing but only slightly and being held back by lack of supply.

3.6 Apprenticeships

The SFA data[51] for the number of apprenticeship starts in 2015/16 shows there were 5130. This can be further broken down by type of apprenticeship and age. In 2015/16 Under 19 (or youth) apprenticeships accounted for 1520 starts. 29.6% of total apprenticeship starts in 2015/16. 19-24 year olds accounted for 1580 starts (30.7%) and over 25 year olds accounted for 2030 starts (39.5%).

[49] Annual Population Survey, ONS

[50] https://inform.gloucestershire.gov.uk/get/ShowResourceFile.aspx?ResourceID=213

[51] https://www.gov.uk/government/statistical-data-sets/fe-data-library-apprenticeships

Intermediate level

The number of starts for intermediate level apprenticeships in 2015/16 was 2900. The number of starts was fairly equally distributed across all age ranges (1050 starts for 25+ years (36%) 33% under 19 and 30% for 19-24 year old age group).

Advanced level

The number of starts for advanced level apprenticeships starts in 2015/16 was 2010. The number of starts for under 19s was 530 (26% of starts for this level). 670 19-24 year olds started this level (33%) and 810 over 25 year olds started this level (40%)[52].

Higher level

The number of starts for higher level apprenticeships starts in 2015/16 was 220. The number of starts for under 19's was only 10 (5% of the starts for this level). 40 19-24 year olds started this level (18%). The largest group to start this level was the over 25s, 170 started this level in 2015/16 (77%).

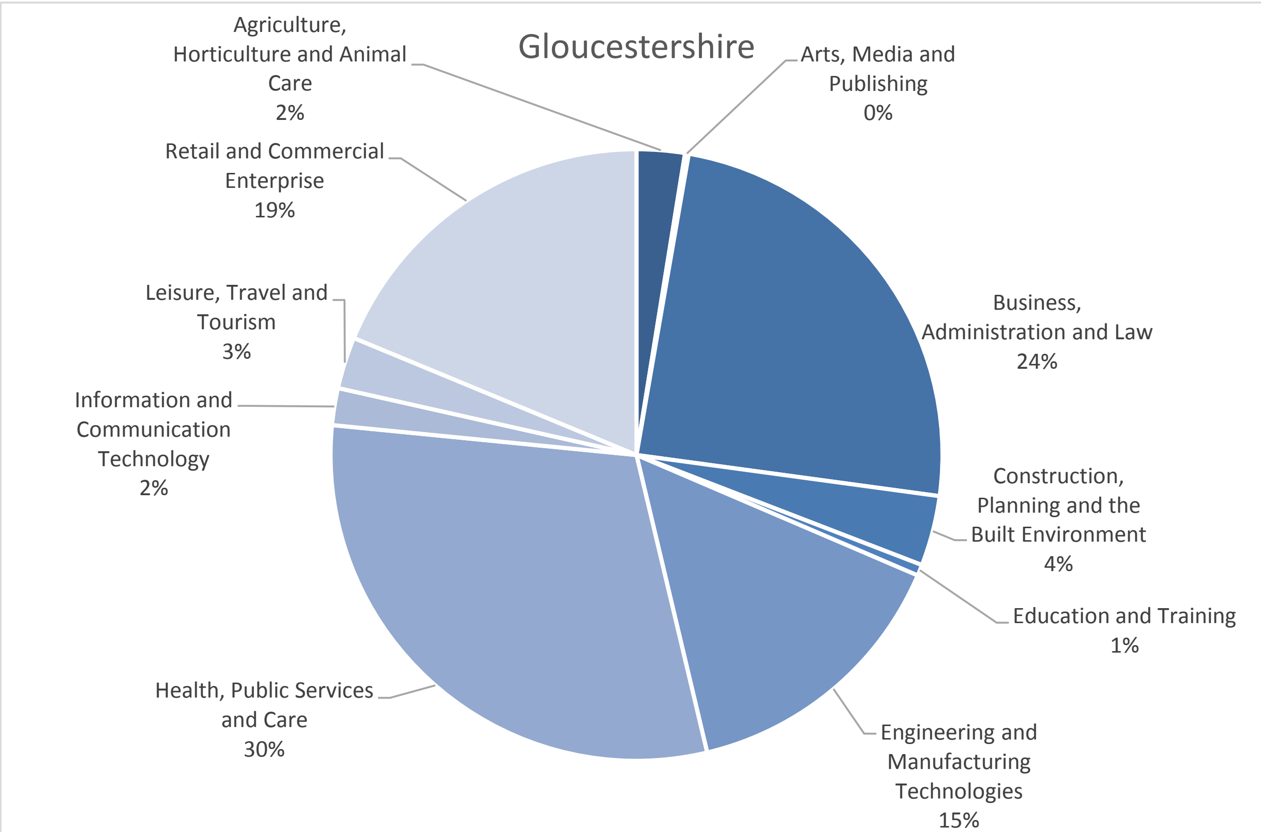
Comparing the 2015/16 data with previous years (table 5 below) shows that the total number of all apprenticeship starts has increased from 2013/14 from 4350 to 5130 in 2015/16. Intermediate level apprenticeships have gone down slightly. Advanced and higher apprenticeships have both increased over this period of time. Although the numbers for higher apprenticeship starts are low, the progress made since 2013/14 is significant.

Table 5: number of apprenticeships starts by year in Gloucestershire.

Type of apprenticeship	**2013/14**	**2014/15**	**2015/16**
Intermediate	2740	3000	2900
Advanced	1520	1770	2010
Higher	90	150	220
Total	4350	4920	5130

[52] Does not equal 100% due to rounding

Not only is it important for the number of apprenticeships to increase it is also important that the apprentices are going into the right area to support the Gloucestershire economy and matches the projected increases in number of jobs by sector. Information gathered by the SFA on the subjects the apprentices were starting in Gloucestershire for 2015/16 were; Health 30% (1550 starts), Business 24% (1250 starts) Retail and commercial enterprise 19% (960 starts) and Engineering 15% (760 starts). The pie diagram below illustrates the distribution of subjects as a percentage.



3.7 Other factors

Employer-sponsored learning

Using data available from UKCES 2015, 65% of employers in the Gloucestershire LEP area had arranged or funded training for staff in the 12 months prior to the survey, compared with 66% nationally. There was a slightly higher than average incidence of off-the-job training in Gloucestershire – a reversal of trend since the last skills statement.

The survey estimates that a total of 171,396 employees in Gloucestershire had received training in the last year, equating to 65% of the workforce and above the national average (63%). 24% of these studied towards a nationally-recognised qualification.

The survey also shows that the average number of training days per staff is 4.5. Above the National average of 4.2.

Careers support

The Careers and Enterprise Company (CAEC) produced a heat map[53] of what careers support is needed across the country. This was last produced with 2014 data. The figures from the report are in table 6 below. The indicators show that Gloucestershire is better than England for offering work experience. This is particularly important as recent research has shown that students that do have workplace exposure earn up to 18% more than their peers[54].

Table 6: Indicators of careers support

Indicator	England	Gloucestershire
% Employer establishments who had anyone in on work experience	**38%**	44%
% Employer establishments who offered any work inspiration	**18%**	17%
% Employers answering: 16 year old school leavers are "poorly" or "very poorly prepared" for work	**36%**	29%
% Employers answering: 17-18 year olds recruited to first time job from school are "poorly" or "very poorly prepared" for work	**29%**	20%

Work experience

Even though the proportion of employers that offer work experience is higher in Gloucestershire (44%) than nationally, there is still a lack of work experience, as required by the employer. Less than one-fifth (17%) of local employers within the LEP area had offered any work inspiration, such as holding site visits at their establishment for students or conducting mock interviews with

53 www.careersandenterprise.co.uk/wp-content/uploads/2015/10/20151026-Cold-Spots-Report-vF1.pdf

54 http://www.publications.parliament.uk/pa/cm201617/cmselect/cmese/757/75702.htm Original source Mann, A., & Percy, C. (2014). Employer engagement in British secondary education: wage earning outcomes experienced by young adults. *Journal of education and Work, 27(5),* pp. 496–523

students those children in year 7 and above. Somewhat paradoxically, while a little over three-fifths of Gloucestershire employers cited relevant work experience as critical or significant when recruiting, less than half of employers (44%) in the LEP area had anyone on work experience in the previous 12 months.

The Government report ‘Enterprise education: how secondary schools prepare young people for work’[55] published in November 2016, it highlights a number of failings which the local LEP should address. The involvement of the LEP was already highlighted by Lord Young’s report[56] ‘Enterprise for All’ in 2014.

Research from Ofsted[57] found that local employers and their national representatives suggested that a lack of work-related learning was a major barrier to young people gaining employment. School leaders who offered well-managed work experience in key stage 4 reported that it had a positive impact on pupils’ attitudes to school on their return and was therefore well worth the investment in curriculum time. A report by Pye Tait consulting for HEFCE[58] examining employer demand for intermediate technical education in HE identified that just over half of the employers surveyed report skills developed through work experience as being missing or hard to find when recruiting to technician-level roles, demonstrating a clear need for work experience.

Soft Skills

Employers also note that attitudes to employment are key. Employability skills and attitudes need to built into all post 16 offers.

Employers were asked what skills they valued the most, they said; communication, team work, problem solving, organisation, being able to work under pressure, perseverance, leadership, negotiation, commercial awareness and confidence[59].

In the Governments report ‘The Future of Work: Jobs and Skills in 2030’[60] it identified that young people will need to be willing to jump across specialist knowledge boundaries as technologies and disciplines converge, developing a blend of technical training and ‘softer,’ collaborative skills. In the future young people will have more than one career and adaptability using softer skills (such as collaborative working, communication skills) will be of paramount importance.

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55 https://www.gov.uk/government/publications/enterprise-education-how-secondary-schools-prepare-young-people-for-work

56 https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/338749/EnterpriseforAll-lowres-200614.pdf

57 https://www.gov.uk/government/publications/enterprise-education-how-secondary-schools-prepare-young-people-for-work

58 http://www.hefce.ac.uk/pubs/rereports/Year/2016/techdemand/Title,108883,en.html

59 http://get-trained.org/latest-news/top-10-skills-employers-value-most

60 https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/303334/er84-the-future-of-work-evidence-report.pdf

The Career Design company conducted an employability research[61] to track the skills employers seek when recruiting graduates. 90% of respondents said their ideal candidate would be 'passionate' and 'positive'. Employers wanted digital fluency (the ability to interpret information, discover meaning, design content, construct knowledge and communicate).

Employers were concerned by the lack of curiosity of graduates.

Free School Meals

Measuring Free School Meals (FSM) is a proxy measure of disadvantage. The Department for Education's statistical release in August 2016[62] for widening participation in Higher Education (HE) shows that the progression to HE of those claiming free school meals has got worse in Gloucestershire.

The percentage progressing to HE has actually dropped from when it was at its highest (13% in 2012/13) and had the least percentage points different (26). The gap has since risen to 28 percentage points difference (still higher that the National average of 17). Only 10% of those who have FSM go on to HE, whilst amongst those that don't have FSM, 39% go on to HE. The gap is 28 percentage points.

Looking at a comparison for the region and England, Gloucestershire's progression rate is lower than the region and considerably lower than the national average (see Table 7 below).

Table 7: 2013/14 cohort Free School Meals

Area	% Those claiming Free School Means that go on to HE	% Those that **do not** have FSM that go on to HE	Percentage points difference	Overall % pf pupils with FSM
Gloucestershire	**10%**	39%	28	7%
South West region	**14%**	35%	21	9%
National	**22%**	39%	17	-

61 https://gallery.mailchimp.com/a600cd29335e0f06efa8d0ed3/files/16_03_003_CD_White_paper_no1_FINAL.pdf

62 https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/543126/SFR37-2016_-_WPHE2016_01.08.2016.pdf

4. FURTHER INFORMATION

For further information about this report or the work of the strategic alliance please contact Kathryn Wagstaff, Strategic Alliance Project Manager, 01242 715454 kwagstaff@glos.ac.uk www.glos.ac.uk/strategicalliance

[i] Extract from the Strategic Alliance Memorandum of Understanding

The Strategic Alliance partnership will raise the quality, range and accessibility of higher education in Gloucestershire and the West of England, through a better integrated higher education offer for the area underpinned by a joint higher education strategy.

5. ADDENDUM

Since the publication of the skills statement in February 2017 the Local Enterprise Partnership for Gloucestershire (GFirst LEP) have announced the successful bids for projects funded by Government; they are a project to build a new roundabout on the A40 north of Gloucester in order to release land for housing and commercial development. It is forecast that this project will bring an additional 630 jobs. The GFirst LEP expect these to be level 2 and above jobs. The second project given the go ahead is the Cyber Business Park, in Cheltenham; this is anticipated to bring an additional 7,500 graduate level jobs. The final project given funding is the development of a Forest of Dean Campus for Gloucestershire College. This project will safeguard 150 jobs.

In total, Growth Deal 3 brings an additional 8130 jobs and secures a further 150 jobs in the Forest of Dean.