

# Labour Market & Skills Review

## Section Two: Employment




---

<b>Contents</b>	<b>Page</b>
<b>Employment Overview</b>	<b>2</b>
<b>Economic Activity</b>	<b>5</b>
<b>Workforce Structure</b>	<b>7</b>
<b>Business Growth</b>	<b>13</b>
<b>Employment Status</b>	<b>16</b>
<b>Employment Wage</b>	<b>17</b>
<b>Employee Hours</b>	<b>24</b>
<b>Employer Training</b>	<b>26</b>
<b>Employee Qualifications &amp; Skills</b>	<b>29</b>
<b>Job Vacancies</b>	<b>34</b>
<b>Sectors - Employment</b>	<b>38</b>
<b>GVA &amp; Productivity</b>	<b>43</b>
<b>Covid-19 Economic Impact</b>	<b>45</b>

---

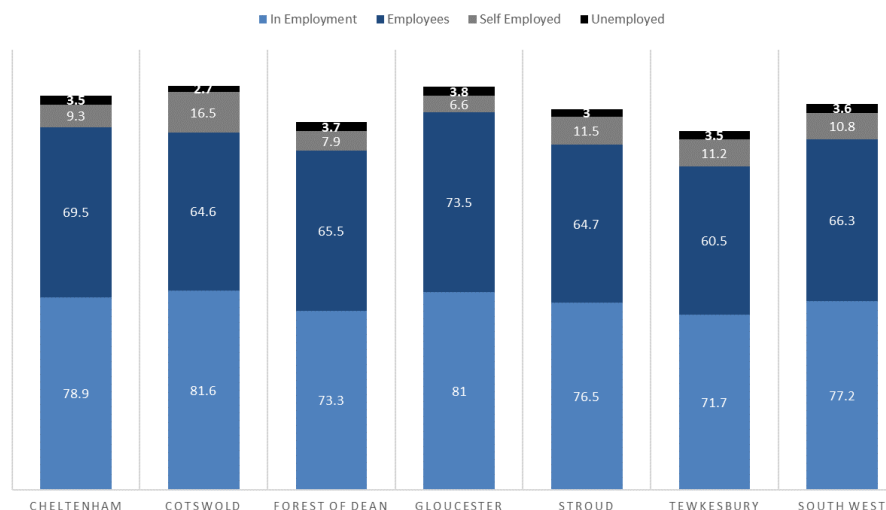
# Employment

The proportion of the population who are of working-age (20-64) is 55.94% in Gloucestershire. This is lower than the overall working-age proportion in England (57.94%) but slightly higher than in the South West (55.70%). Noticeably there is a smaller proportion of 20-39-year olds in Gloucestershire than in England as a whole. Of the working population 322,600 were economically active equating to 80.5% of the population and 73,800 were economically inactive or 19.5%. The majority of those who are economically inactive do not want a job (84.5%). There are 29,735<sup>1</sup> businesses in Gloucestershire, creating 345,000<sup>2</sup> jobs and a workforce of 310,600<sup>3</sup>. At a district level Tewkesbury has the lowest level of those in employment (71.7%), followed by the Forest of Dean (73.3%). The highest level of those in employment is recorded in Cotswolds (81.6%). All areas have slightly decreased on the previous year but are in line with regional (77.5%) and national figures 74.6%.



60.3% aged 16-64 accounting for 386,043 people

EMPLOYMENT - OCTOBER 2020 TO SEPTEMBER 2021

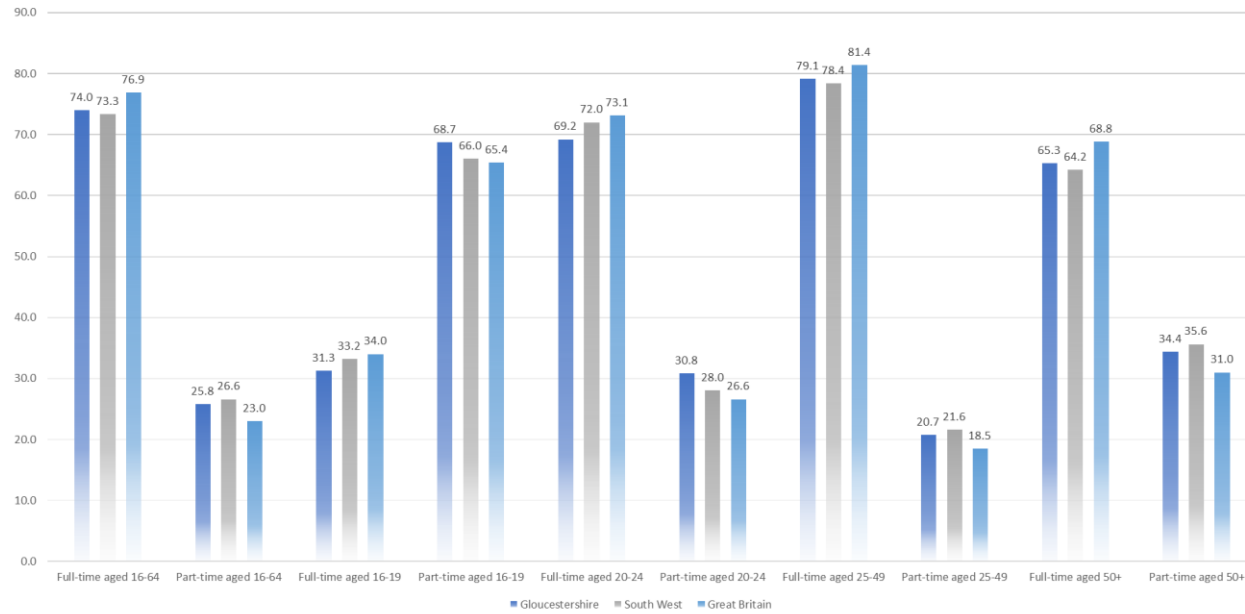


<sup>1</sup> UK Business Counts, ONS via <http://www.nomisweb.co.uk/>, Enterprises (2021)

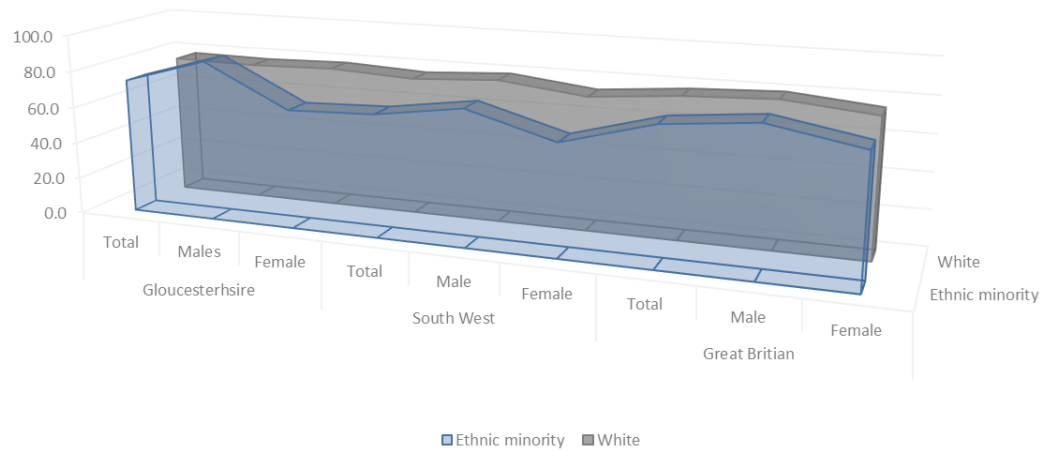
<sup>2</sup> Job Density, ONS, The total number of jobs is a workplace-based measure and comprises employee jobs, self-employed, government-supported trainees, and HM Forces. It will include people that live outside of the county.

<sup>3</sup> Annual Population Survey, ONS, The workforce figure is a residence-based measure and refers to the number of residents aged 16+ in employment, residents may not be employed by businesses in Gloucestershire but instead work outside of the county.

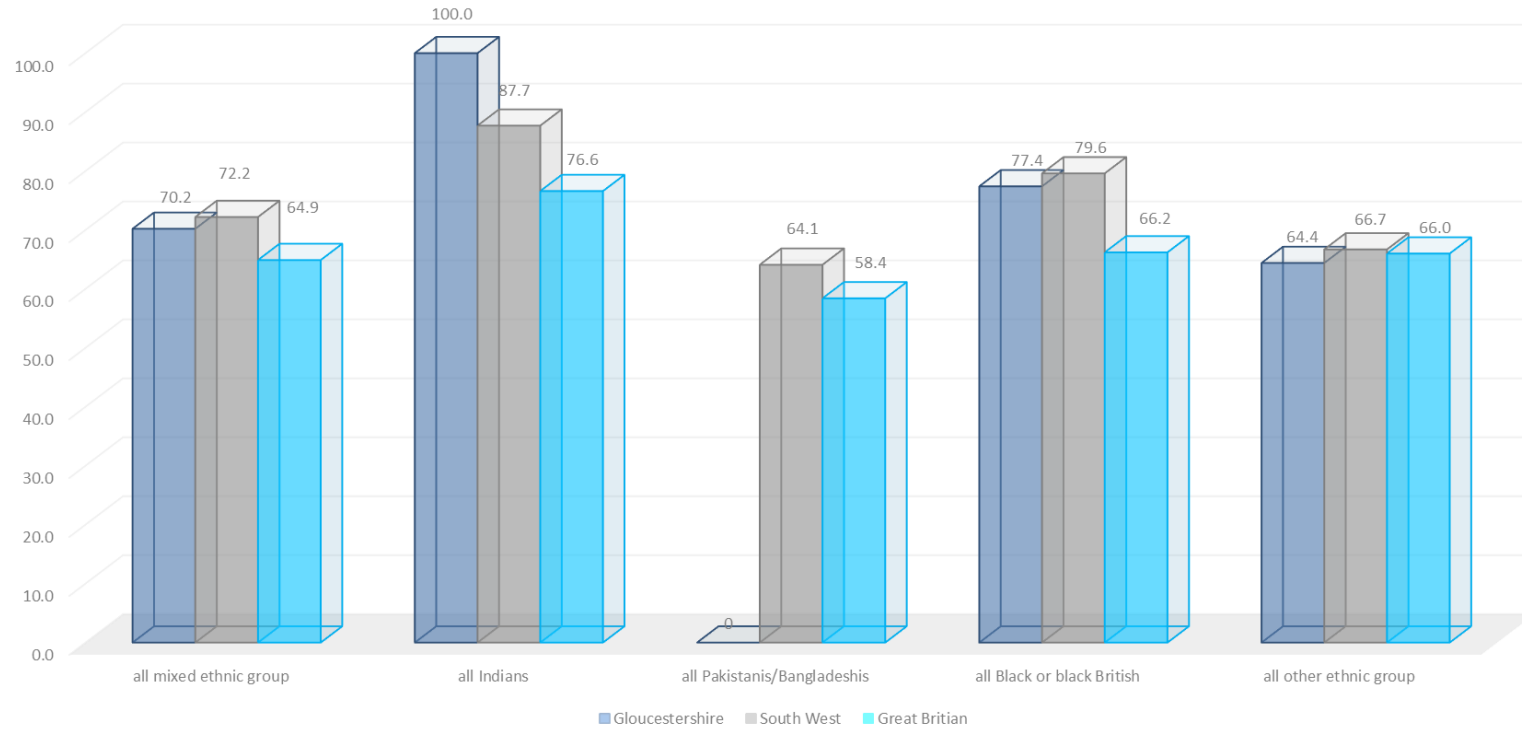
% IN EMPLOYMENT - OCTOBER 2020 TO SEPTEMBER 2021



Aged 16-64 % of Employment Rate - Oct 2020-Sept 2021



% of Employment Rate by Race - Oct 2020 to Sept 2021



# Economic Activity (Jul 2020 - Jun 2021)



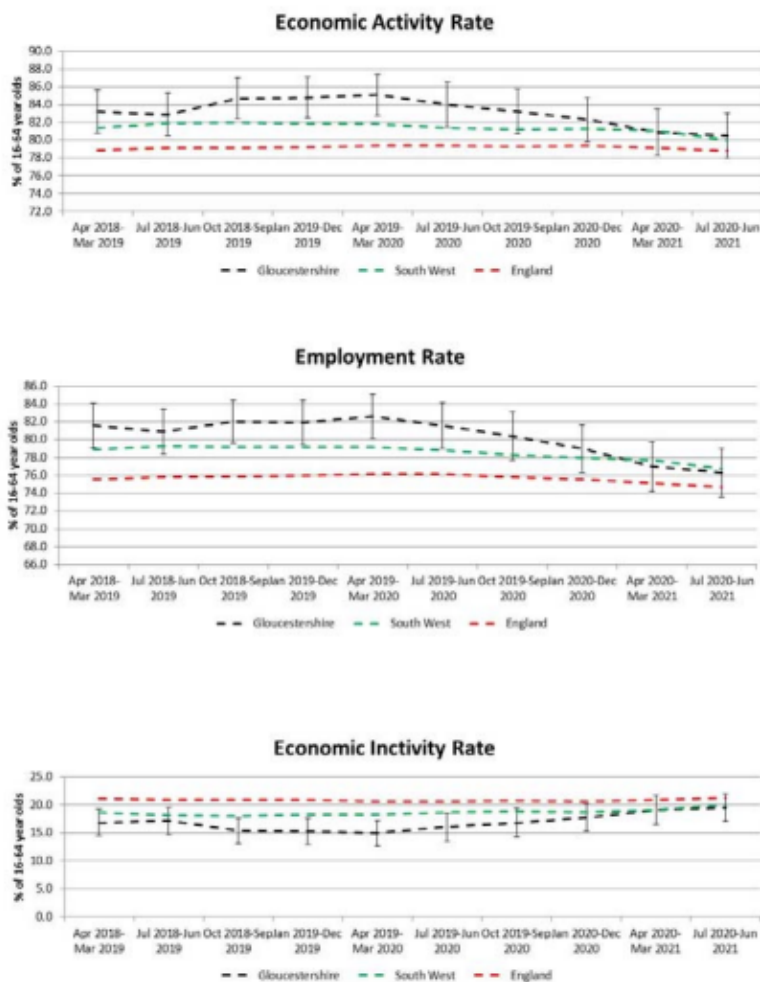
80.5% aged 16-64 are economically active



76.3% aged 16-64 are employed



19.5% aged 16-64 are economically inactive



**Notes:**

This information comes from a survey. In principle, many random samples could be drawn and each would give different results. The error bars indicate the level of confidence for each value.

The data covers a 12 month period rather than a snapshot. The latest data covers 3 months pre pandemic.

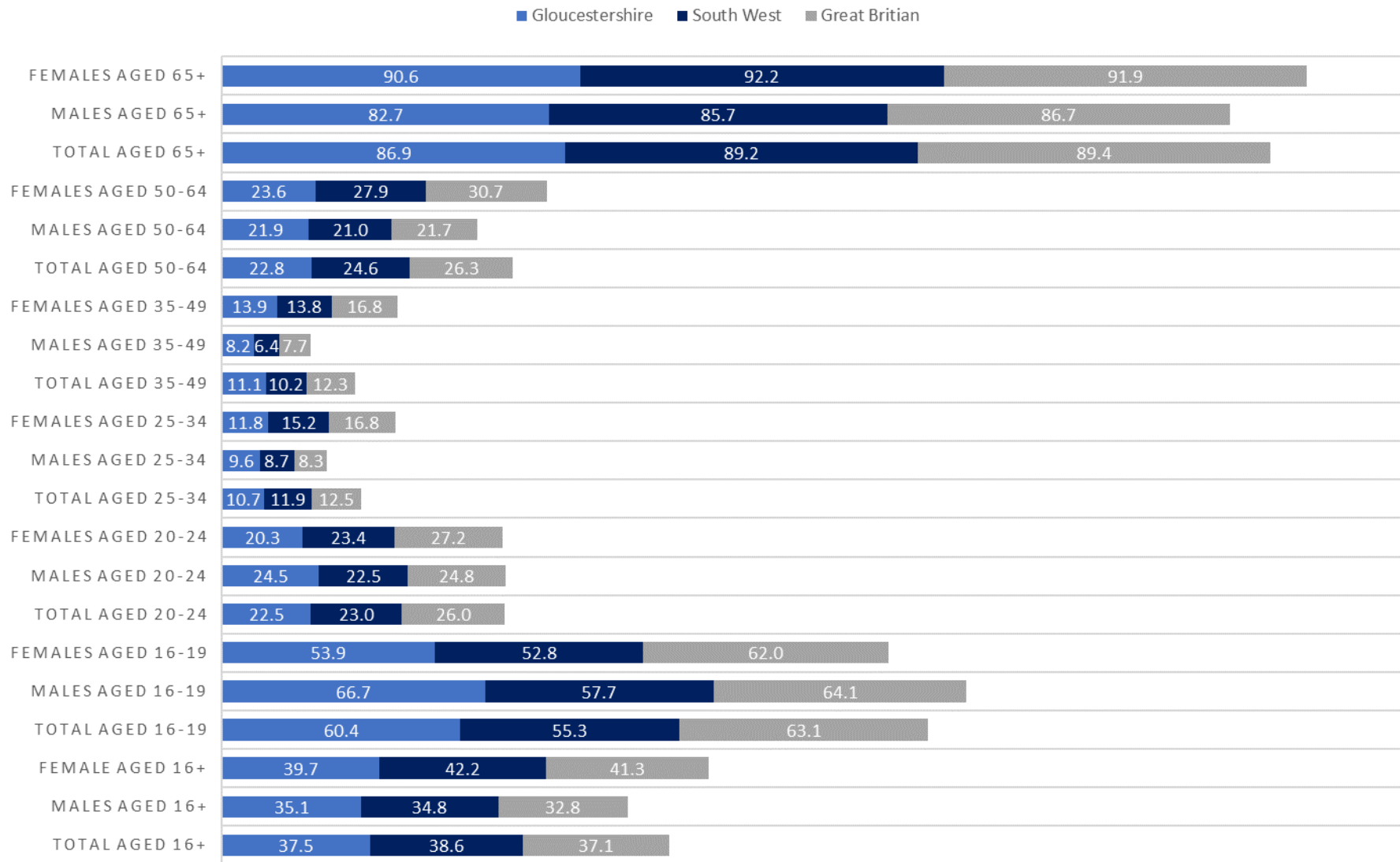
Economically active refers to those in employment or looking for work.

Employment captures those employed and those self employed

Economically inactive refers to those who aren't working or actively seeking a job, this could be because they are retired, looking after a home, unable to work for ill health etc.

<sup>4</sup> <https://glostext.gloucestershire.gov.uk/documents/s78122/Economic%20Dashboard%20January%202022%20v1.pdf>

## ECONOMICALLY INACTIVE - OCTOBER 2021 TO SEPTEMBER 2021



<sup>5</sup> ONS, Annual Population Survey, Oct 20 – Sept 21

# Workforce Structure

Gloucestershire has broadly the same representation of employment in higher skilled occupations, compared with the UK as a whole. In Gloucestershire, 49.2% of employment is in the three high skilled occupational groups: managers, professionals and associate professionals. This compares with a UK average of 49.7%.

The proportion of employment in the three lowest-skilled occupations is slightly lower than the UK average. In Gloucestershire, 31.0% of employment is in sales or customer service, plant/process operatives and elementary roles, compared with a UK average of 31.2%.

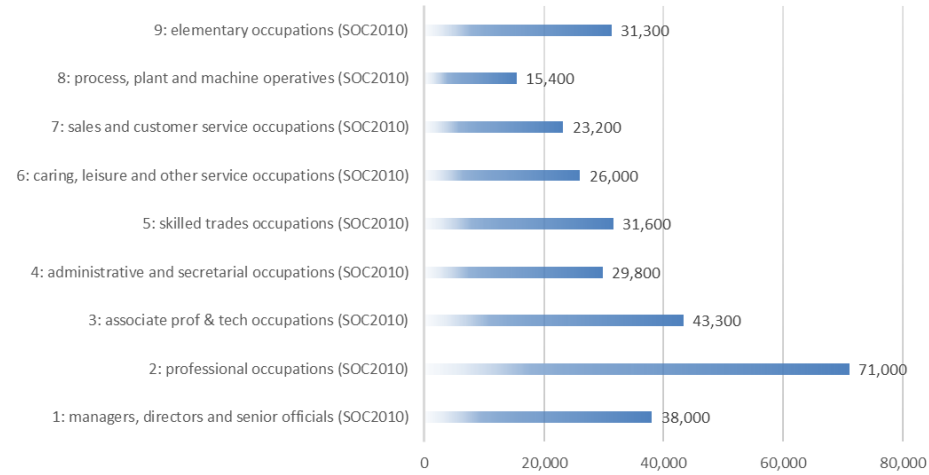
The proportion employed in middle-ranking occupations is higher than the UK average: jobs in administrative, skilled trades and caring/leisure roles account for 19.8% of employment in Gloucestershire, compared with 19.1% in the UK.<sup>6</sup>

Occupational Profile			
SOC 2010 Major Groups	2019	Change	2020
<b>High Skills</b>	<b>50%</b>	<b>-1%</b>	<b>49%</b>
% all in employment who are - 1: managers, directors and senior officials (SOC2010)	11%	2%	12%
% all in employment who are - 2: professional occupations (SOC2010)	25%	-2%	23%
% all in employment who are - 3: associate prof & tech occupations (SOC2010)	14%	0%	14%
<b>Mid-Skills</b>	<b>21%</b>	<b>-1%</b>	<b>20%</b>
% all in employment who are - 4: administrative and secretarial occupations (SOC2010)	10%	0%	10%
% all in employment who are - 5: skilled trades occupations (SOC2010)	11%	-1%	10%
<b>Low Skill</b>	<b>31%</b>	<b>0%</b>	<b>31%</b>
% all in employment who are - 6: caring, leisure and other service occupations (SOC2010)	10%	-2%	8%
% all in employment who are - 7: sales and customer service occupations (SOC2010)	5%	3%	8%
% all in employment who are - 8: process, plant and machine operatives (SOC2010)	7%	-2%	5%
% all in employment who are - 9: elementary occupations (SOC2010)	9%	1%	10%

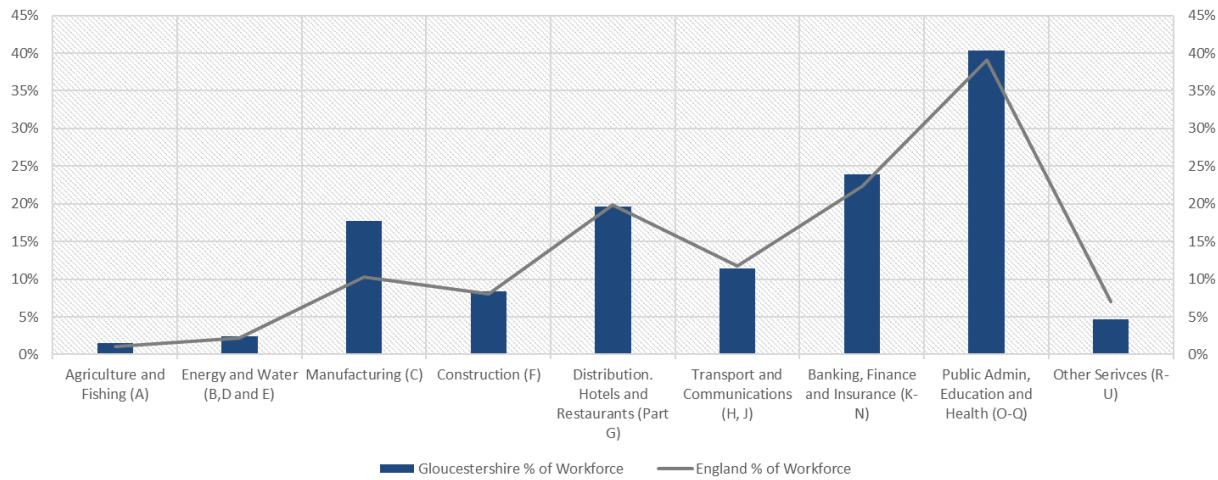
<sup>6</sup> Annual Population Survey – October 2020 – September 2021, 2021 SAP Boundaries



### EMPLOYMENT BY OCCUPATION (SOC 2010) OCT 20 - SEPT 21



### Employment by Occupation Type (SIC 2007) - Oct 20 - Sept 21



Gloucestershire's economy is very diverse with a variety of industries well represented, and not relying too much on any one sector for employment. The Health and Social Care sector employing most people in Gloucestershire and accounting for 13% of total employment. The Manufacturing sector is the next largest sector, accounting for 12% of employment, followed by Retail, Accommodation & Food Services and Professional, Scientific & Technical Sector. Together these sectors account for over half of total employment in Gloucestershire.<sup>8</sup>

Gloucestershire has broadly the same representation of employment in higher skilled occupations, compared with the UK as a whole. The proportion of employment in the three lowest-skilled occupations is slightly lower than the UK average. The proportion employed in middle-ranking occupations is lower than the UK average.

Four sectors, namely Agriculture, forestry & fishing; Health; Information & communication; and Accommodation & food services are anticipated to see the greatest growth over the next 20 years for Gloucestershire compared to the UK average. These sectors along with Construction; Mining, quarrying and utilities; Motor trades; and Education are all expected to grow above the national rate. The Wholesale sector is expected to exceed the national decline, while the Manufacturing sector is also expected to decline, but at a slower rate than the national average. The Finance & insurance; Property; Public administration & defence; and Transport & storage sectors are also expected to decline in contrast to the national picture. In absolute numbers the greatest increase in employment in Gloucestershire is expected to be in Health and Accommodation & food services. Conversely the greatest fall is projected to be in Manufacturing, followed by Public administration & defence<sup>9</sup>.

Gloucestershire's economy is notably broad-based, rather than having pronounced and distinctive sectoral specialisms.

Three sectors have seen significant additional business formation and start-up activity: Professional scientific and technical; Mining and Utilities; and ICT.

A further three sectors that have comparable levels of employee growth, but lower levels of business formation: Construction; Property; and Business Administration

---

<sup>8</sup> Source: BRES, 2019

<sup>9</sup> Gfirst LEP Industrial Strategy – Five Foundations of Productivity 2018

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

10

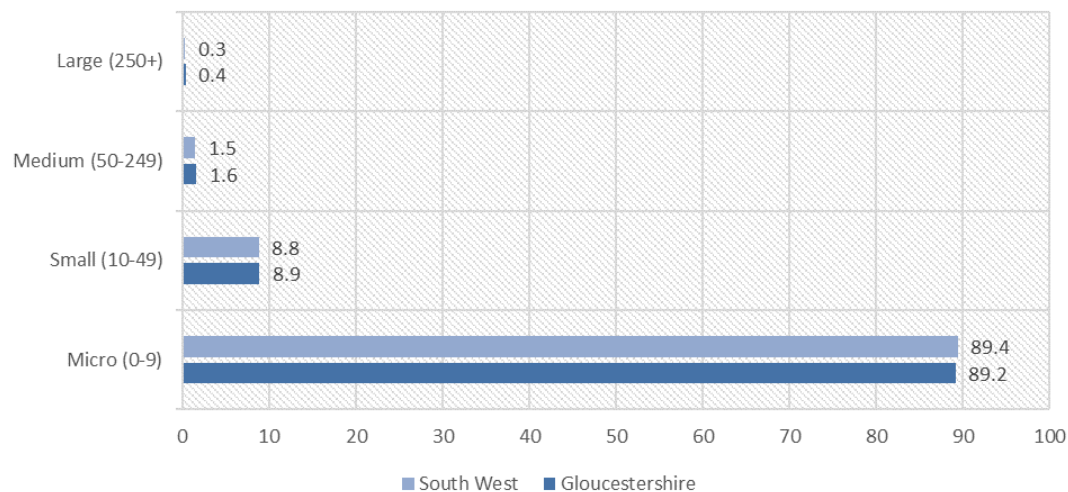
Gloucestershire LEP	
Sectors with highest forecast growth (2017-2027)	Sectors with lowest forecast growth (2017-2027)
1) Health and social work	1) Food drink and tobacco
2) Arts and entertainment	2) Rest of manufacturing
3) Information technology	3) Engineering
4) Professional services	4) Agriculture
5) Other services	5) Public admin. and defence

Gloucestershire has **a large SME community**; 89% of Gloucestershire's businesses employ less than 9 people, the same as the national average, compared to approximately 110 businesses employing 250 or more people<sup>11</sup>.

<sup>10</sup> EMSI Economic Modelling

<sup>11</sup> <http://www.nomisweb.co.uk/>

### % of Business Size Total - 2021

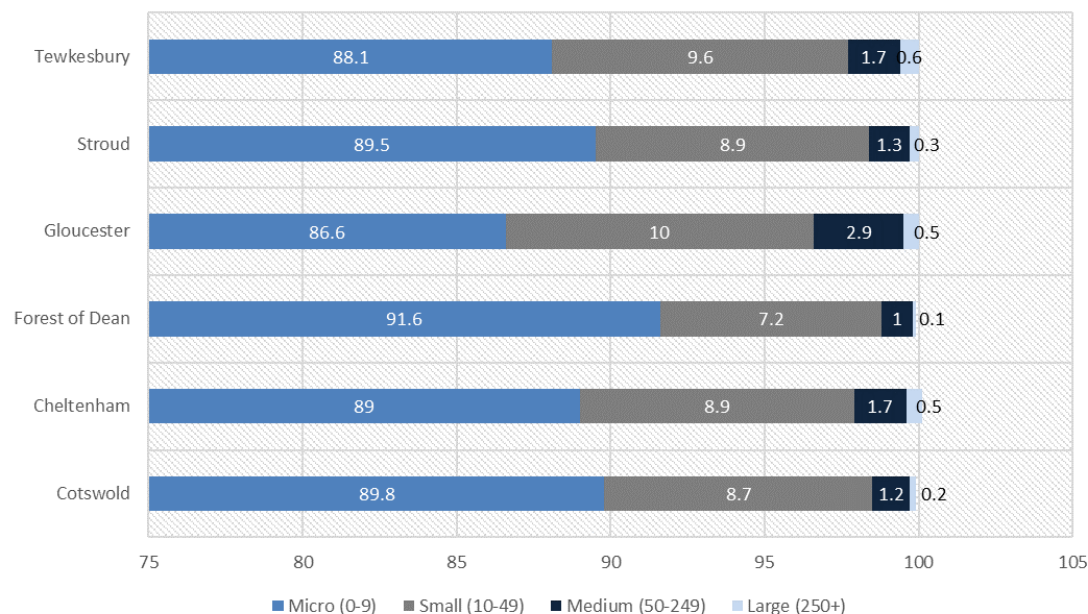


Business formation, entrepreneurialism and start-up rates are high in Gloucestershire, and a healthy overall growth dynamic can be observed in terms of employee and business growth, though with weaker recent performance. The benefits of deep skills networks in surrounding areas such as Bristol and Oxfordshire provide growth businesses with access to mature skills but scaling up is proving challenging, as seen in the business structure of the area. Growth dynamics in these neighbouring areas have out-paced Gloucestershire, but this represents an opportunity for the future. Convergence with more dynamic neighbours is unlikely without addressing specific localised place constraints, however opportunities to harness the ‘pull-through’ effect from proximity to high-level industrial capabilities will continue to be explored. Across the county, though with important local trends, three relatively distinct groups of growth sectors can be observed, with knowledge intensive and micro-business sectors of ICT, professional scientific and technical leading performance. The numbers of micro-businesses in knowledge sectors are also driving private sector innovation activity in terms of the number of firms involved. This suggests there is potential for innovation networks and clusters to become stronger through networking.<sup>12</sup>

The COVID-19 pandemic and subsequent containment measures have placed SMEs firmly at the centre of the economic crisis, perhaps more so than during the last recession. As such, the business composition may be different to the one presented in the report, although this will largely depend on the duration of the pandemic and whether there is a quick rebound, and the ability of businesses to access finance and deferring payments. To help mitigate for lost revenue the Government has introduced various policies geared mostly to SMEs such as: Job Retention Scheme; Business Interruption Loan Schemes; Business Rate Relief; VAT deferral; and some protection from eviction and cessation of repossession proceedings for a set period. Initially excluded, larger businesses can access the Large Business Interruption Loans Scheme. The impact of Brexit and new the rise of new tariffs and how that will effect these businesses is not yet clear either.

<sup>12</sup> Gfirst Local Industrial Strategy, Five Foundations of Productivity Report 2019

**% of Business Size by District - 2021**



13

Business formation, entrepreneurialism and start-up rates are high in Gloucestershire, and a healthy overall growth dynamic can be observed in terms of employee and business growth, though with weaker recent performance. The benefits of deep skills networks in surrounding areas such as Bristol and Oxfordshire provide growth businesses with access to mature skills but scaling up is proving challenging, as seen in the business structure of the area. Growth dynamics in these neighbouring areas have out-paced Gloucestershire, but this represents an opportunity for the future. Convergence with more dynamic neighbours is unlikely without addressing specific localised place constraints, however opportunities to harness the 'pull-through' effect from proximity to high-level industrial capabilities will continue to be explored. The evidence has highlighted variations in performance between districts, with Cotswold and Cheltenham performing more strongly, possibly by harnessing a stronger set of skills and business environment assets. Locations such as Gloucester, which show less strong performance, have spare capacity and are likely to see greater dynamism as infrastructure and regeneration investment provide improved settings for scaling and growth spill-overs. The repurposing of traditional industrial stock and innovative rural and home working settings across the districts have potential to unlock further dynamism.

Across the county, though with important local trends, three relatively distinct groups of growth sectors can be observed, with knowledge intensive and micro-business sectors of ICT, professional scientific and technical leading performance. The numbers of micro-businesses in knowledge sectors are also driving private sector innovation activity in terms of the number of firms involved. This suggests there is potential for innovation networks and clusters to become stronger through networking.

<sup>13</sup> Inter Departmental Business Register (ONS) 2020, Note: % is as a proportion of total (enterprises)

# Business births and deaths (2020)



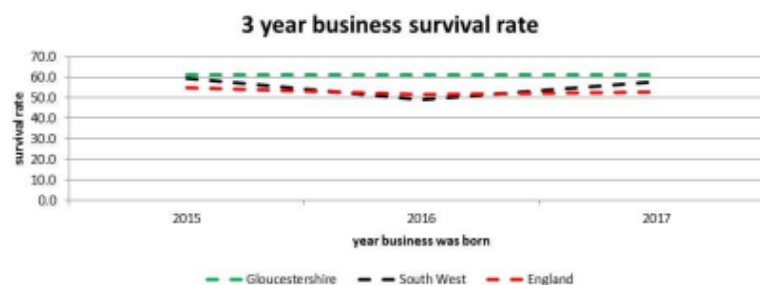
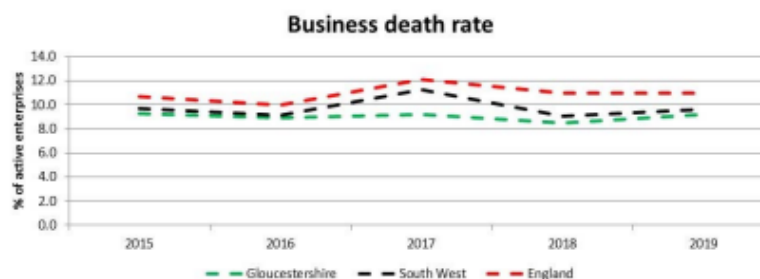
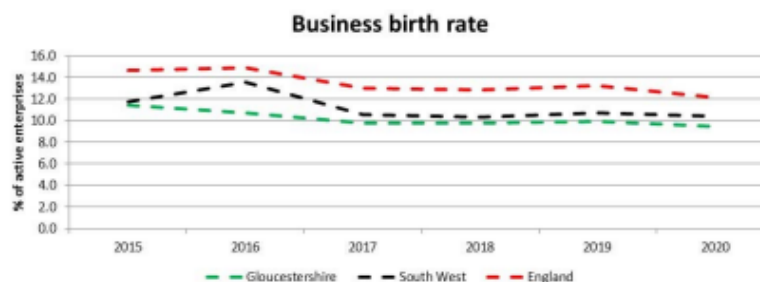
Business birth rate of 9.5%



Business death rate of 9.1%



61.2% of businesses survived for 3 years



**Notes:**

An enterprise is essentially a business. It is generally located at the main site or the head office.

A business birth is based on new business registrations. The birth rate is calculated using the number of births as a proportion of the active businesses.

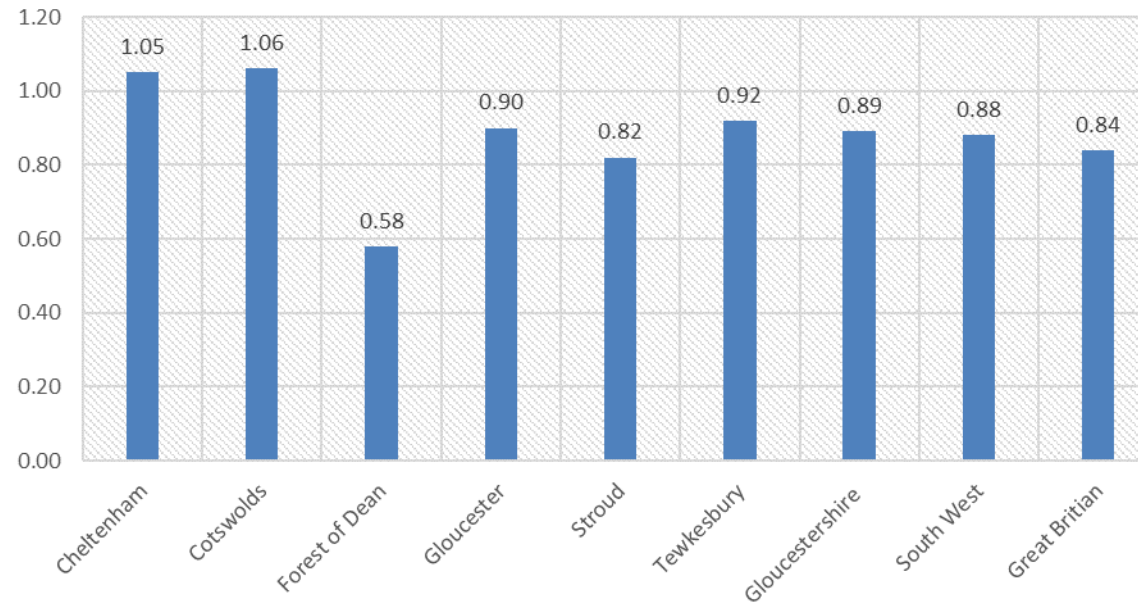
Businesses that have ceased to trade are referred to as business deaths. The death rate is calculated using the number of deaths as a proportion of the active businesses.

A business has survived if, having been a birth in year t or having survived to year t, it is active in terms of employment and/or turnover in any part of year t+1.

<sup>14</sup> <https://glostext.gloucestershire.gov.uk/documents/s78122/Economic%20Dashboard%20January%202022%20v1.pdf>



## Job Density - 2020



Job density is an estimation of the overall balance between jobs and people. It is defined as the number of filled jobs in an area divided by the number of people of working age resident in that area, a job density of 1.0 would mean that there is one job for every resident of working age. In 2019 Gloucestershire had a job density of 0.89 which is higher than the regional average (0.88) and higher than the national average (0.84). By district, Cotswold has the highest job density (1.06) and Forest of Dean the lowest (0.58)<sup>16</sup>.

<sup>15</sup> ERC UK Local Growth Dashboard, June 2018 - The dataset used in the production of the growth and start-up data is the Business Structure Database (BSD). This is a dataset produced by the Office of National Statistics (ONS) and is an annual snapshot of the Inter-Departmental Business Register (IDBR) which is a live register of data collected by HM Revenue and Customs via VAT and Pay as You Earn (PAYE) records. The IDBR data are complemented with data from ONS business surveys. If a business is liable for VAT (turnover exceeds the VAT threshold) and/or has at least one member of staff registered for the PAYE tax collection system, then the business will appear on the IDBR (and hence in the BSD). We use the firm-level BSD for firm growth rates, start-ups, and T/O calculations and the site-level BSD for the calculation of new and gross new jobs. All the data contained in this report can be downloaded from the Data Hub on the ERC website.

<sup>16</sup> Job Density, 2017, ONS <https://www.nomisweb.co.uk>

### Top Growing Industries



17

The Western Gateway is formed by an alliance of local authorities that have made a commitment to work together to drive innovation, maximise economic growth and improve industrial productivity by strengthening travel connections to local, national and international markets.

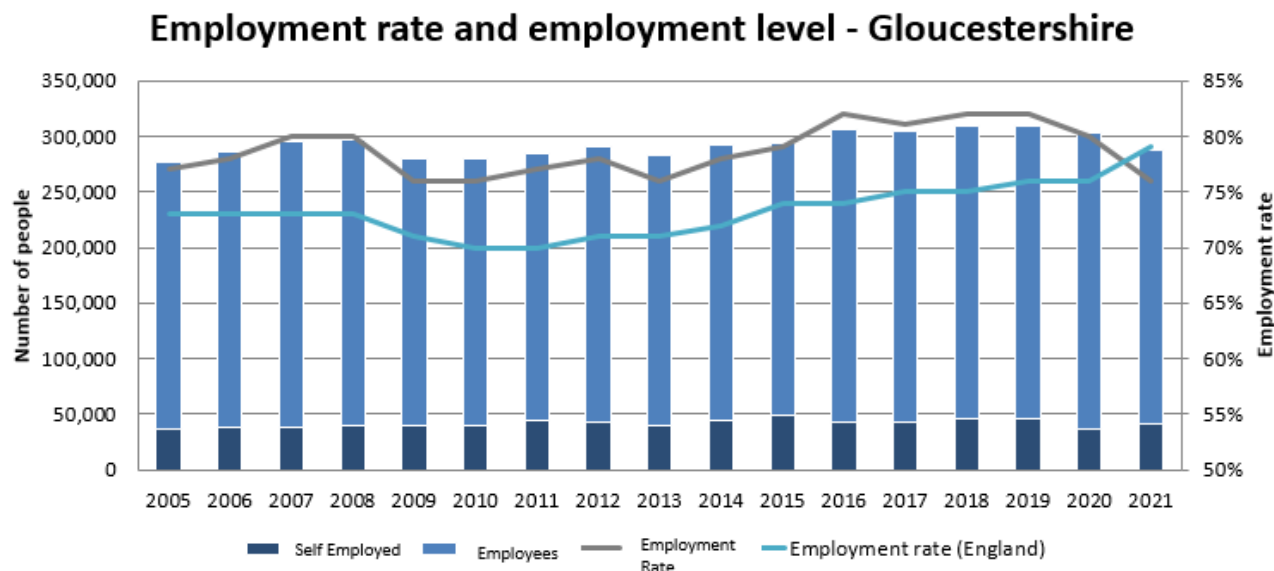
The Gateway area is home to over 3 million people and is set for a step change in prosperity and productivity through an ambitious growth agenda over the next 20 years delivering 300,000 new homes and over 190,000 new jobs. Gloucestershire aims to deliver over 60,000 new homes and over 35,000 new jobs by 2031. The growth is focused around unlocking employment and housing land within the M5 Growth Zone. This includes delivery of a new Cyber Business Park near Cheltenham and extensions to Gloucester’s Southern Fringe. The District Planning Authorities have embarked on a review of their local plans. The County Council will support this by facilitating a coordinated approach to secure improvements to transport networks that provide safe, reliable and convenient transport choices<sup>18</sup>

<sup>17</sup> Top Growing Industries – ESMI Economic Modelling 2021 (Gfirst LEP)

<sup>18</sup> Western Gateway Sub-National Transport Plan, 2020



## Employment status:



The employment and unemployment rates in Gloucester have followed a similar trajectory to national rates during the economic downturn and gradual recovery, although there remain persistent gaps in some rural areas of the county. Those that were economically inactive have remained a relatively similar size over the past decade. Full time employment remains the most common type of employment in Gloucestershire, followed by part-time employment and self employment.<sup>19</sup>

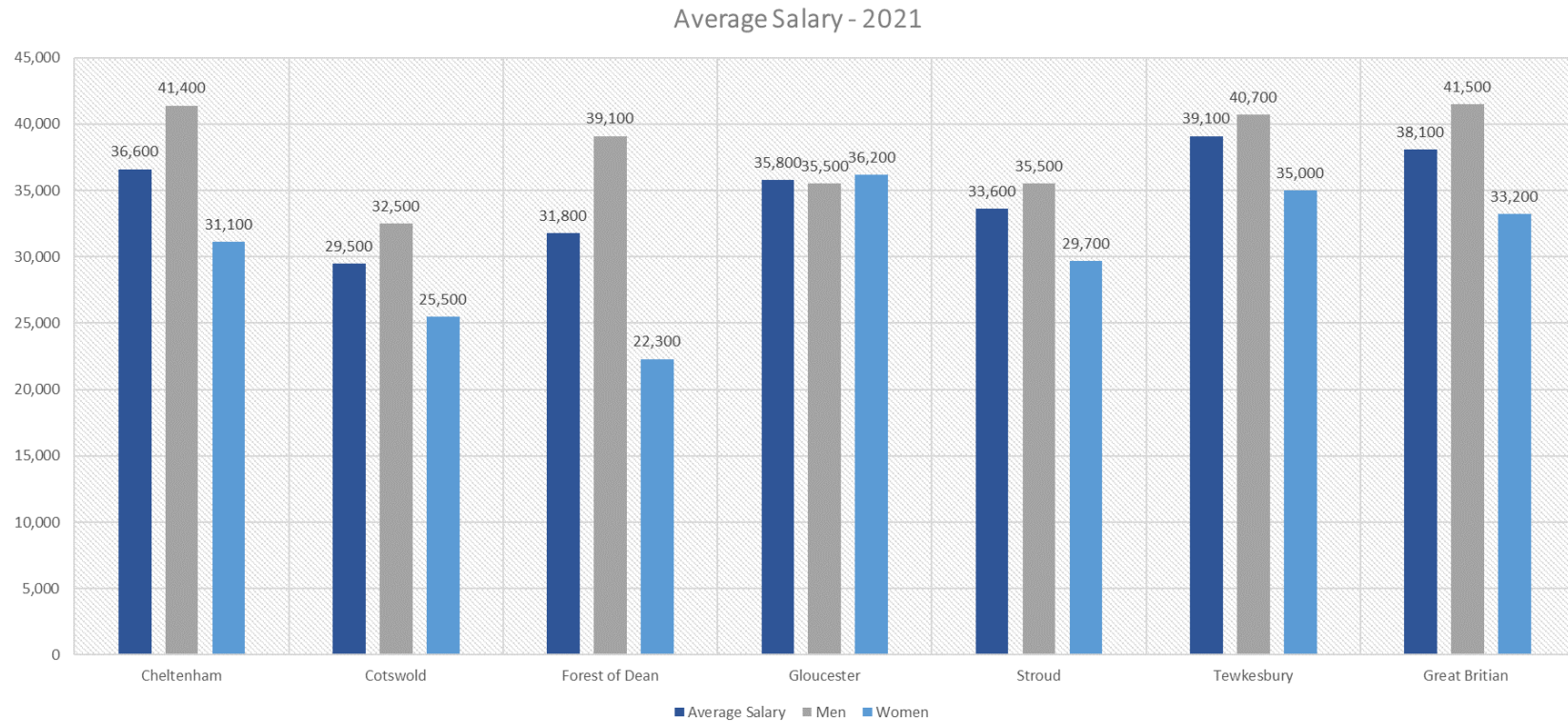
According to the Local Economic Forecasting Model (LEFM), Gloucestershire's employed population (employee and self-employed) is set to increase by around 24,000 between 2016 and 2036, to 360,600 people. This trend, however, shows that growth is expected to be at a more conservative rate than it has been recently, with a projected average annual change of 0.35% in line with the regional and national average.<sup>20</sup>

There has been a potential rise in atypical working however atypical work is very hard to quantify as it covers various categories of 'atypical' work –sole-trading, freelancing, fixed-term contracts, zero hours contracts, agency, self-employment and the gig-economy, to name but a few and these often overlap, creating the risk of double-counting.

<sup>19</sup> <http://www.nomisweb.co.uk/>

<sup>20</sup> Gfirst Local Industrial Strategy, Five Foundations of Productivity 2019

# Employment Wage



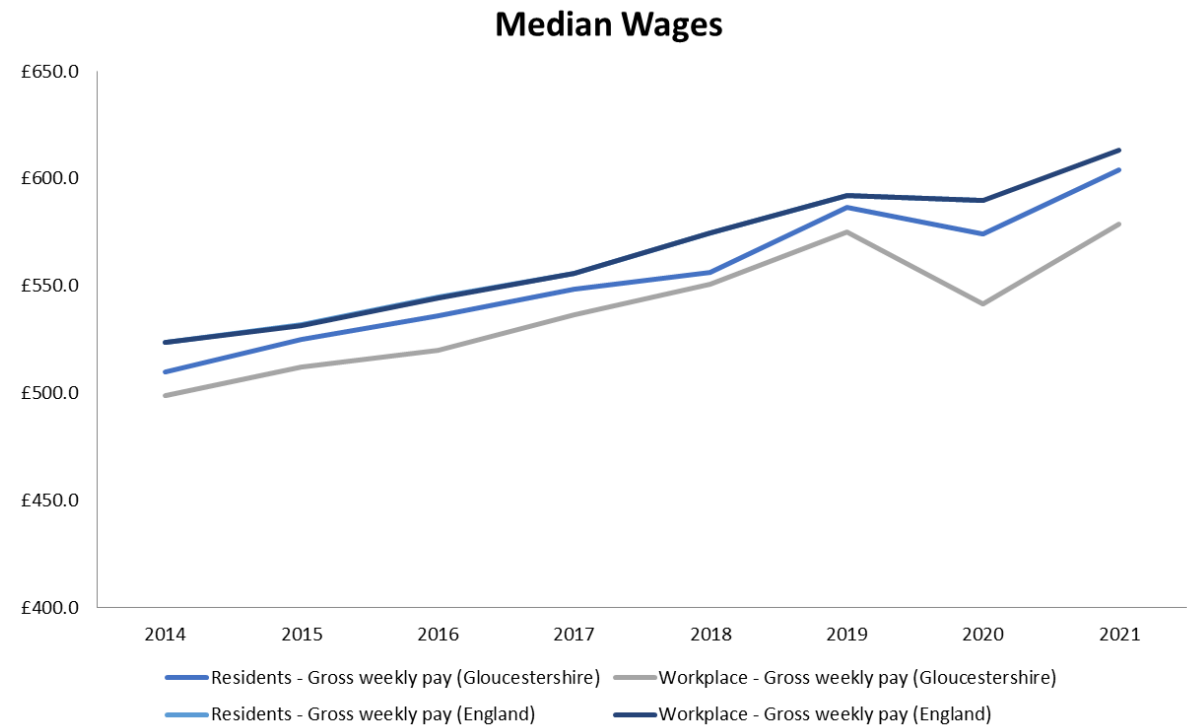
Gloucestershire had a median annual residential wage of £28,186 in 220 (£541.60 weekly), which is lower than the England figure of £30,674. Gloucestershire has slightly higher median gross weekly pay for residents than workplace earnings (£574.00 against £541.60) suggesting some out-commuting to higher paying jobs. There are two main measures of earnings, workplace based earnings and residence base earnings. The difference between the two is often related to commuting patterns, areas with higher workplace based earnings tend to be centres of employment attracting commuters from elsewhere, while areas with higher residence based earnings are generally residential areas where people commute from. However, significant variance in distribution of earnings exists: by geography – Nine neighbourhoods in Gloucestershire fall into the top 10% nationally for income deprivation. By gender - women in full time roles less then male. There are particular concerns that coronavirus related economic and employment issues will affect those at the lowest wage part of the spectrum.

<sup>21</sup> Annual Survey of Hours and Earnings, 2014 – 2021, 2021 LEP Boundaries

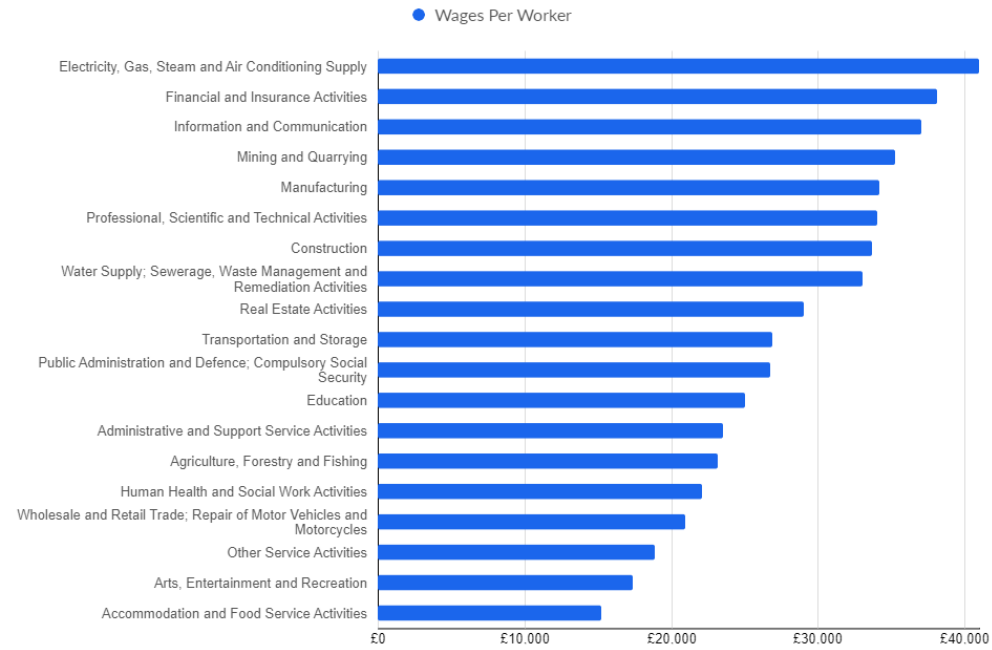
Earnings data is another alternative indicator of the value of skills (skills demanded) in an open labour market.

Labour market projections, such as Working Futures, suggest that this broad pattern of change in occupational employment, characterised by growth in higher skilled occupations and in lower skilled caring roles, is likely to persist into the future. Such projections also highlight the crucial importance of replacement demands to future recruitment requirements. Replacement demands consist of the job openings that arise when workers leave the labour force due to retirement or other reasons, such as maternity leave. Working Futures estimates that replacement demands will generate 10 times as many job openings over the next decade as net employment growth, equivalent to a recruitment requirement of around 600,000 openings. Moreover, replacement demands are expected to create job openings across all broad occupational areas, in the short to medium term, even in those that are expected to see net employment decline. In the longer term, developments like automation may impact on the career prospects in particular occupational areas. Higher occupations tend to have a higher proportion of jobs that require higher-level skills.

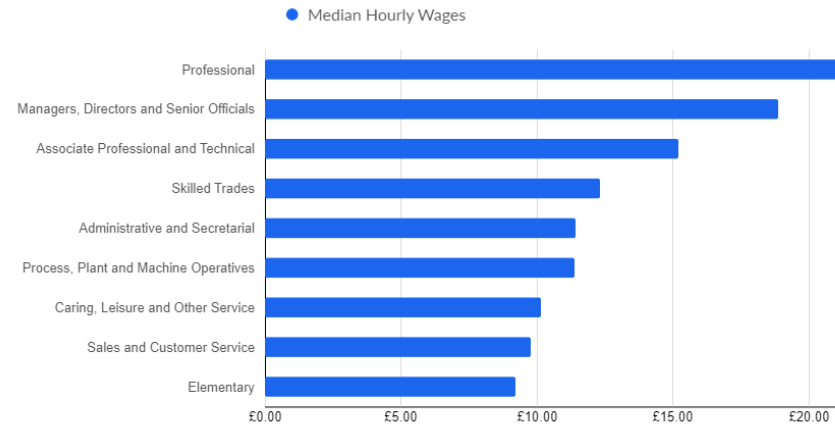
Given that skills are hard to define and hard to measure, occupational data is often used as a proxy indicator in the analysis of skills demand. Data on qualification attainment of people in employment is another proxy indicator that is frequently used to define skills demand.



### Top Industry Wages

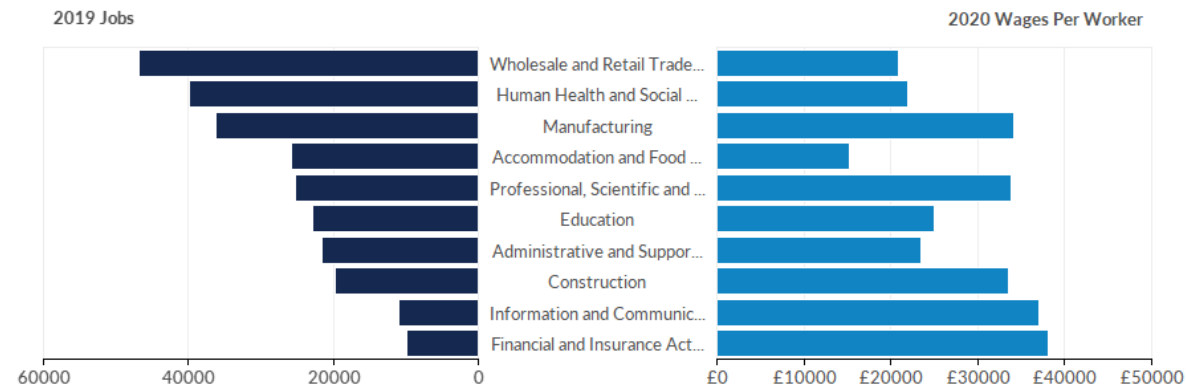


### Top Occupation Wages



Largest Industries

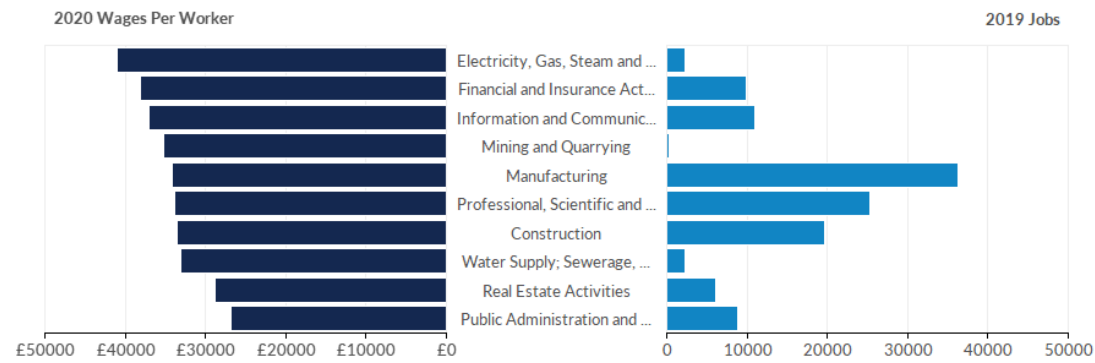
Largest Industries



Industry	2019 Jobs	2021 Jobs	Change in Jobs (2019-2021)	% Change	2020 Wages Per Worker
Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	46,848	47,286	438	1%	£20,952
Human Health and Social Work Activities	39,949	39,225	-724	-2%	£21,991
Manufacturing	36,301	36,703	402	1%	£34,128
Accommodation and Food Service Activities	25,876	26,024	148	1%	£15,295
Professional, Scientific and Technical Activities	25,296	26,868	1,572	6%	£33,902
Education	22,918	22,594	-324	-1%	£25,028
Administrative and Support Service Activities	21,516	21,739	223	1%	£23,542
Construction	19,689	21,060	1,371	7%	£33,608
Information and Communication	10,957	10,762	-195	-2%	£37,036
Financial and Insurance Activities	9,933	10,669	736	7%	£38,102

## Highest Paying Industries

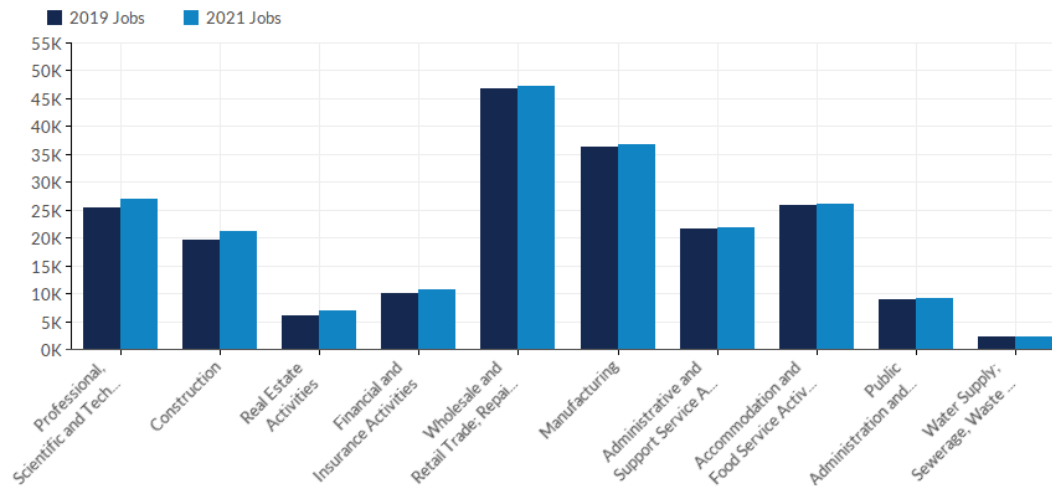
Highest Paying Industries



Industry	2019 Jobs	2021 Jobs	Change in Jobs (2019-2021)	% Change	2020 Wages Per Worker
Electricity, Gas, Steam and Air Conditioning Supply	2,298	2,291	-7	0%	£41,007
Financial and Insurance Activities	9,933	10,669	736	7%	£38,102
Information and Communication	10,957	10,762	-195	-2%	£37,036
Mining and Quarrying	344	360	16	5%	£35,252
Manufacturing	36,301	36,703	402	1%	£34,128
Professional, Scientific and Technical Activities	25,296	26,868	1,572	6%	£33,902
Construction	19,689	21,060	1,371	7%	£33,608
Water Supply; Sewerage, Waste Management and Remediation Activities	2,214	2,327	113	5%	£33,065
Real Estate Activities	6,036	6,903	867	14%	£28,779
Public Administration and Defence; Compulsory Social Security	8,909	9,051	142	2%	£26,775

## Fastest Growing Industries

Fastest Growing Industries



Despite the recent uncertainty around the economy, there are still industries in the UK which have enjoyed exceptional growth. They also have big projections for the future though some industries will struggle and may find it hard to adapt to the current economic restrictions.

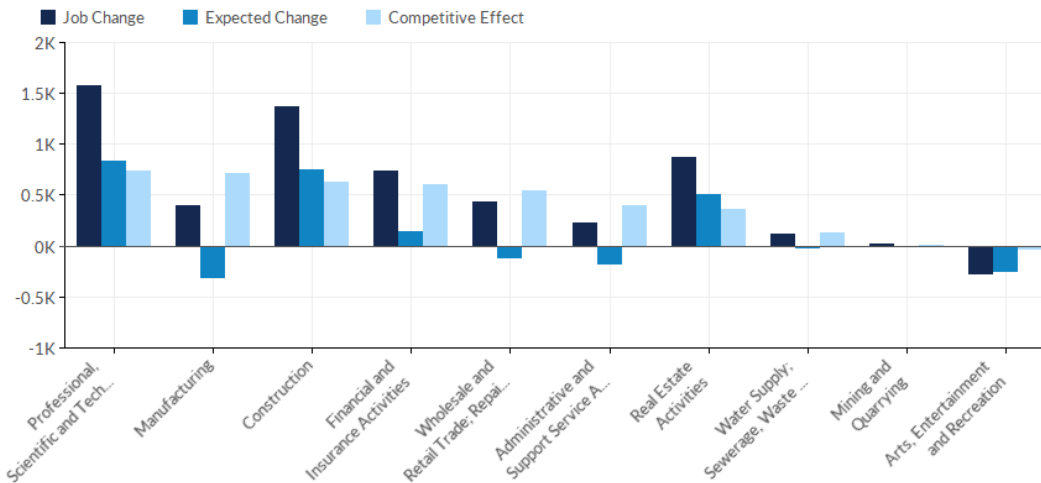
Accommodation and Food Service Activities had been on the rise in Gloucestershire and the COVID-19 Pandemic has only increased demand in health and social care. Elsewhere the construction industry, and job creation remains strong, with investment returning to the sector.

At the other end of the scale industries with the slowest growth remained relatively in line with the previous.

Industry	2019 Jobs	2021 Jobs	Change in Jobs (2019-2021)	% Change	2020 Wages Per Worker
Professional, Scientific and Technical Activities	25,296	26,868	1,572	6%	£33,902
Construction	19,689	21,060	1,371	7%	£33,608
Real Estate Activities	6,036	6,903	867	14%	£28,779
Financial and Insurance Activities	9,933	10,669	736	7%	£38,102
Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	46,848	47,286	438	1%	£20,952
Manufacturing	36,301	36,703	402	1%	£34,128
Administrative and Support Service Activities	21,516	21,739	223	1%	£23,542
Accommodation and Food Service Activities	25,876	26,024	148	1%	£15,295
Public Administration and Defence; Compulsory Social Security	8,909	9,051	142	2%	£26,775
Water Supply; Sewerage, Waste Management and Remediation Activities	2,214	2,327	113	5%	£33,065

## Most Competitive Industries

Most Competitive Industries



Competition with other firms is a key aspect of running a business of any size, from a brand new venture to a large corporation. In competitive markets, companies have to fight over the business of potential consumers. The UK job market is becoming more competitive. However, this is no surprise given that so many professionals have sadly been made redundant or placed on furlough, due to the coronavirus pandemic.

As lockdown restrictions relax over the next few months, many organisations will see an influx of business and may need to hire new staff. This job market data spells good news for those that are looking to expand their workforce, as it's clear there is no shortage of candidates applying for jobs.

Industry	Jobs Change	Ind Mix Effect	Nat Growth Effect	Expected Change	Competitive Effect	2020 Wages Per Worker
Professional, Scientific and Technical Activities	1,572	538	299	837	735	£33,902
Manufacturing	402	-736	429	-307	709	£34,128
Construction	1,371	518	233	751	621	£33,608
Financial and Insurance Activities	736	20	117	137	599	£38,102
Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	438	-664	553	-111	548	£20,952
Administrative and Support Service Activities	223	-430	254	-176	398	£23,542
Real Estate Activities	867	430	71	501	365	£28,779
Water Supply; Sewerage, Waste Management and Remediation Activities	113	-44	26	-18	130	£33,065
Mining and Quarrying	16	-3	4	1	14	£35,252
Arts, Entertainment and Recreation	-275	-333	89	-244	-32	£17,412



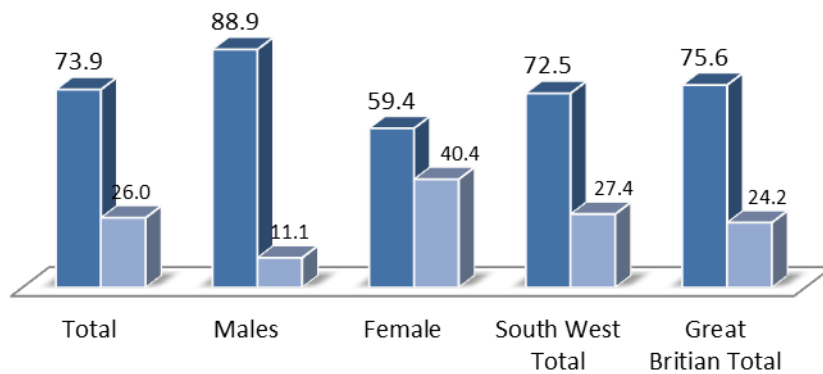
# Employee Hours

**% of Employee Hours**



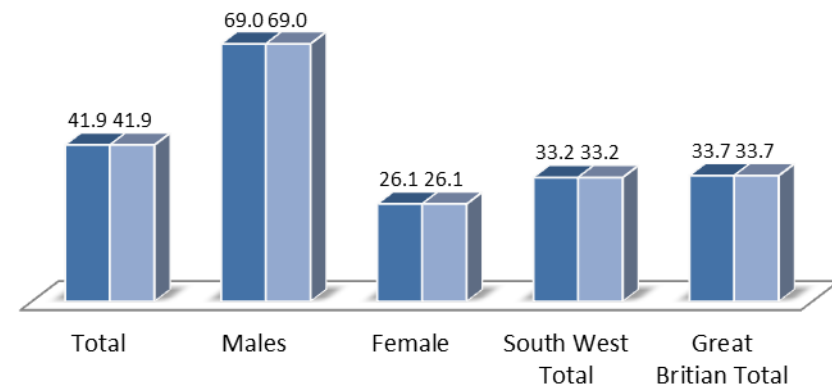
**% in Employment - Aged 16-64**

■ full-time ■ part-time

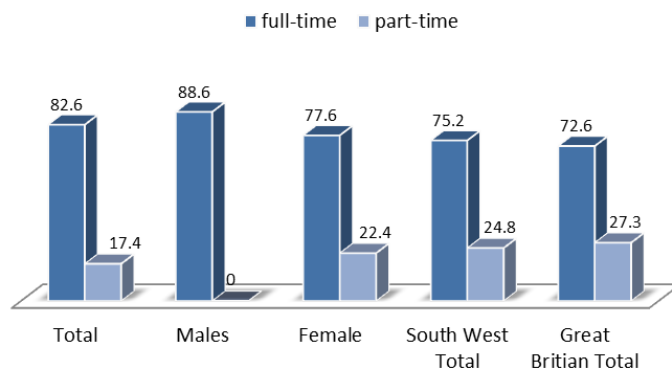


**% in Employment - Aged 16-19**

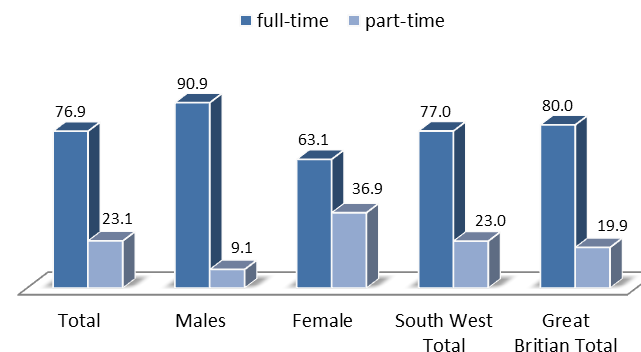
■ full-time ■ full-time



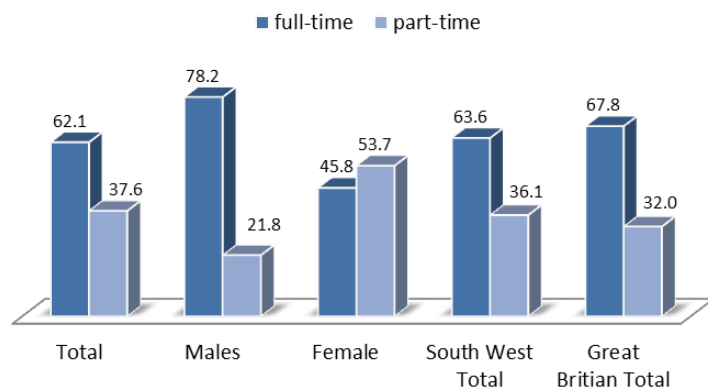
### % in Employment - Aged 20-24



### % in Employment - Aged 25-49



### % in Employment - Aged 50+



A recent study by the UK Office for National Statistics (ONS, 2019) looks at the probability of automation in the UK across occupations and sub-areas (local authority districts). This study is a modified version of the OECD approach which accounts for the fact that high risk occupations contain a share of tasks that would be difficult to automate. The ONS study finds that 7.4% of people in England were employed in jobs at high risk of automation (where the probability of automation is greater than 70%) but the estimate for 2017 is lower than for 2011. The same study finds that 27.7% of all employees were in jobs at low risk of automation (where the probability of automation is lower than 30%). This represents an increase on 2011. The same study shows that women account for 70.2% of employees in jobs with a high risk of automation and 42.6% of employees in jobs at low risk of automation. People in part-time jobs seem to be more exposed to the high risk of automation (69.9%) than people in full-time employment. In 2017, younger people were proportionally more likely to be working in jobs at high risk of automation. People between the ages of 20 and 30 accounted for over 45% of the high-risk jobs. The share of the people in jobs at high risk of automation is the lowest for the 35 to 39-year olds. The risk then increases with age. The risk then increases with age. The OECD study by Nedelkoska and Quintini (2018) has also found that the risk of automation is higher among young people’s jobs than those of older workers.

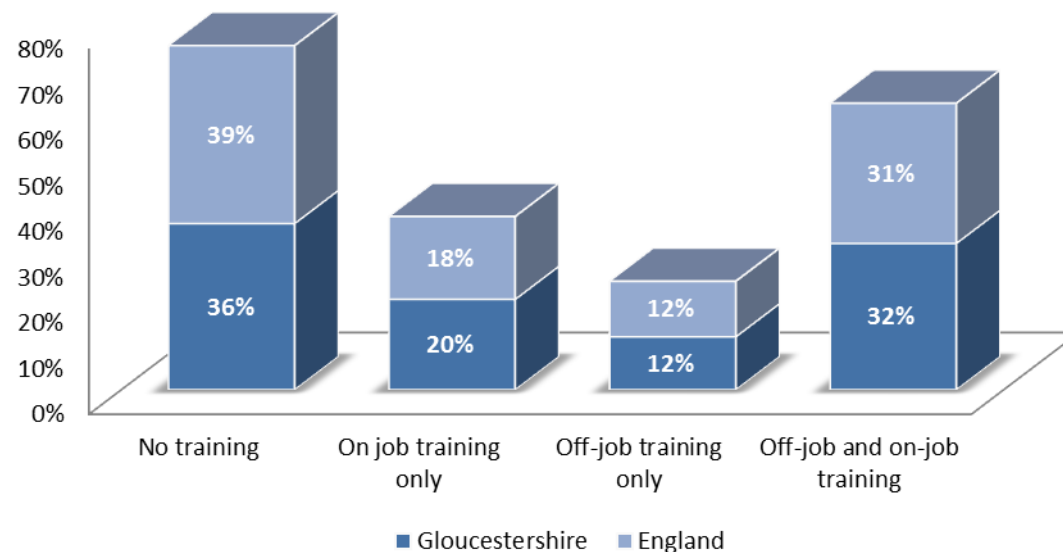
<sup>23</sup> ONS (2019) The probability of automation in England: 2011 and 2017, UK

<sup>24</sup> Nedelkoska, L. and Quintini, G. (2018) Automation, skills use and training, OECD Social, Employment and Migration

# Employer Training

There can also be shortages in the skill levels of the existing workforce—known as a ‘skills gap’. Skills gap density refers to the number of staff judged to lack proficiency as a proportion of all staff. For employers, the ability to recruit skilled staff is vital, staff who are not fully proficient in their roles can lead to quality issues, loss of business, increased operating costs and additional workload for other members of staff. Effective staff training and personal development is seen as just as vital as employers attitudes toward recruitment. Gloucestershire has a higher incidence of firms reporting vacancies than nationally and regionally – with 28% of firms reporting at least one vacancy<sup>25</sup> and 43% of these classed as ‘hard to fill’.<sup>26</sup> The main reasons for hard-to-fill vacancies are low number of applicants with required skills, as well as a lack of qualifications or work experience required by the employer. This is broadly the same pattern as was witnessed across England as a whole.<sup>27</sup> The increasing demand for high skilled roles is a concern for many employers. In 2017, three quarters of businesses surveyed in the CBI/Pearson Education and Skills Survey expected to have more job openings for people with higher level skills over the coming years, and 61% expressed a lack of confidence that there will be enough people available in the future with the necessary skills to fill their high-skilled job vacancies.<sup>28</sup>

**% of Employer Training**



Strong competition for candidates with appropriate qualifications (62%) and a lack of candidates with appropriate qualifications (55%) were identified as the most widespread cause of the skills gap, but ranking almost as high was lack of awareness among young people of education routes to enter particular

**Working Papers**

<sup>25</sup> 20% nationally and 21% in the South West region

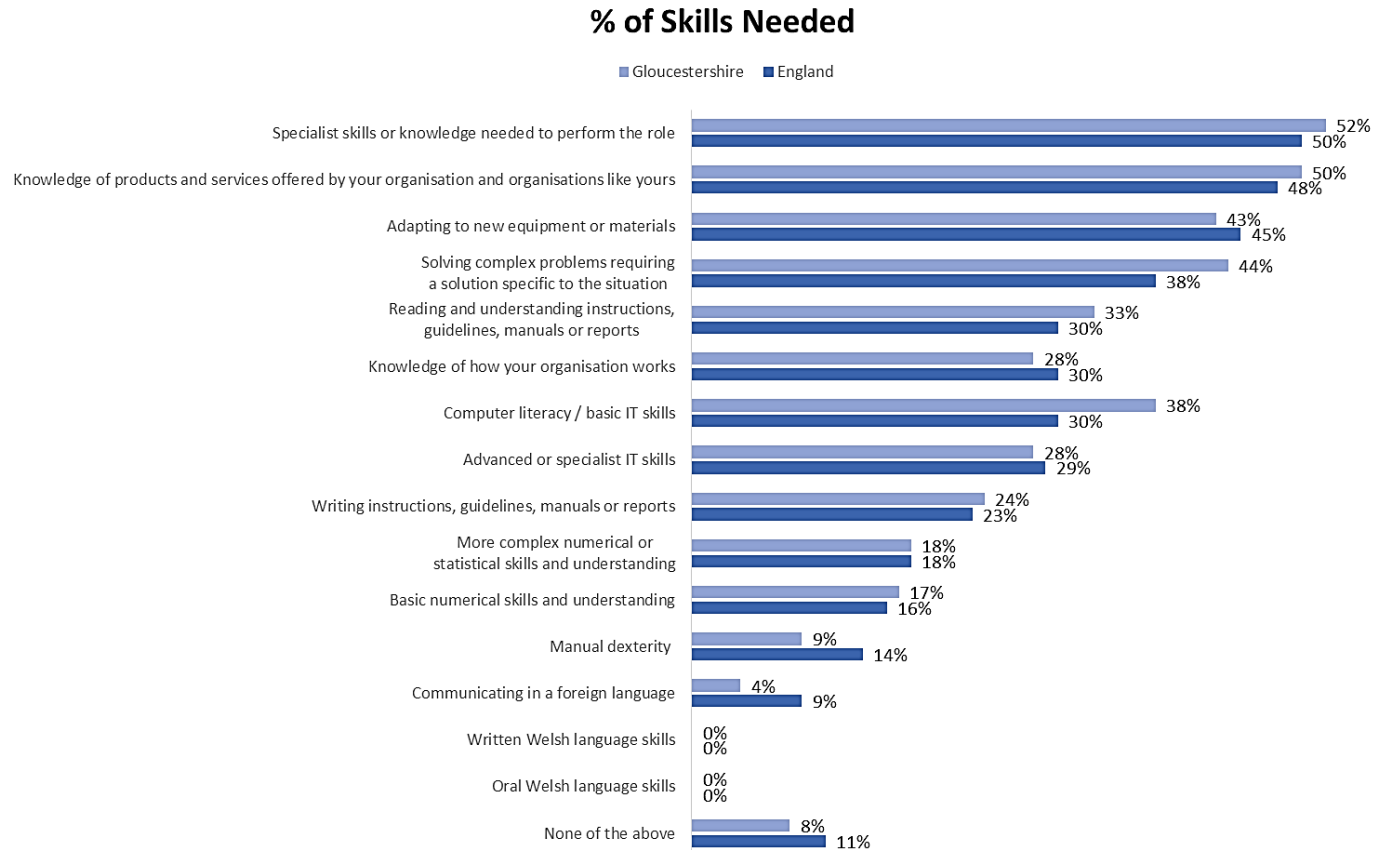
<sup>26</sup> Gloucestershire Five Foundations of Productivity Evidence Report

<sup>27</sup> LMI Summary – Working Futures 2012-2022

<sup>28</sup> Employer Skills Survey, 2019

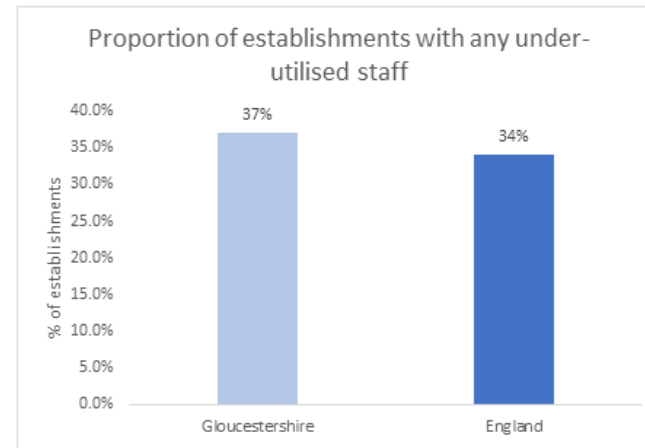
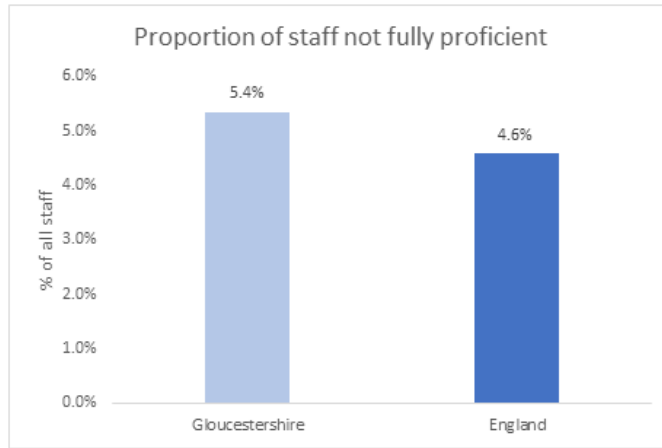
careers (50%) and careers advice poorly aligned to the sector (49%). Notably, the proportion of employers reporting a lack of candidates with appropriate qualifications was much higher among the manufacturing, construction, and engineering, science and hi-tech/IT sectors than on average<sup>29</sup>

Evidence from employers suggests that the current provision of training is not necessarily meeting the skills needs of the workforce. Specialist skills are most cited as the largest skills gaps as well as more digital based skills. There is a need to ensure that training providers and the courses that are offered better reflect the needs of local employers and that they bridge the skills gaps that exist in the workforce to support the growth of local businesses.



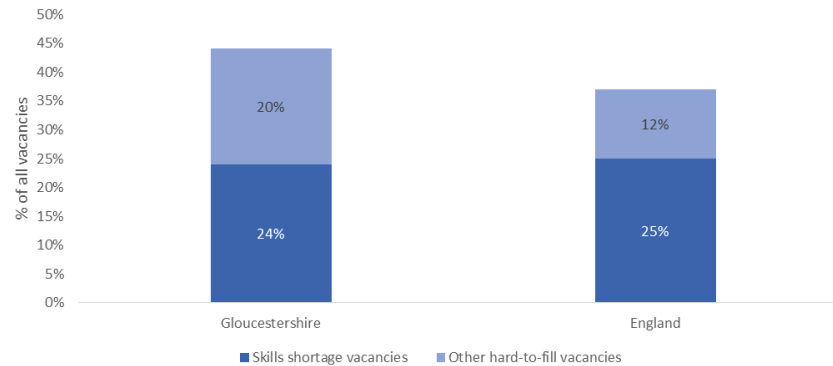
<sup>29</sup> CBP Pearson Education and Skills Survey 2017

<sup>30</sup> Employer Skills Survey, 2019



31

Proportion of all vacancies that are hard-to-fill due to skills shortages or other reasons, 2019

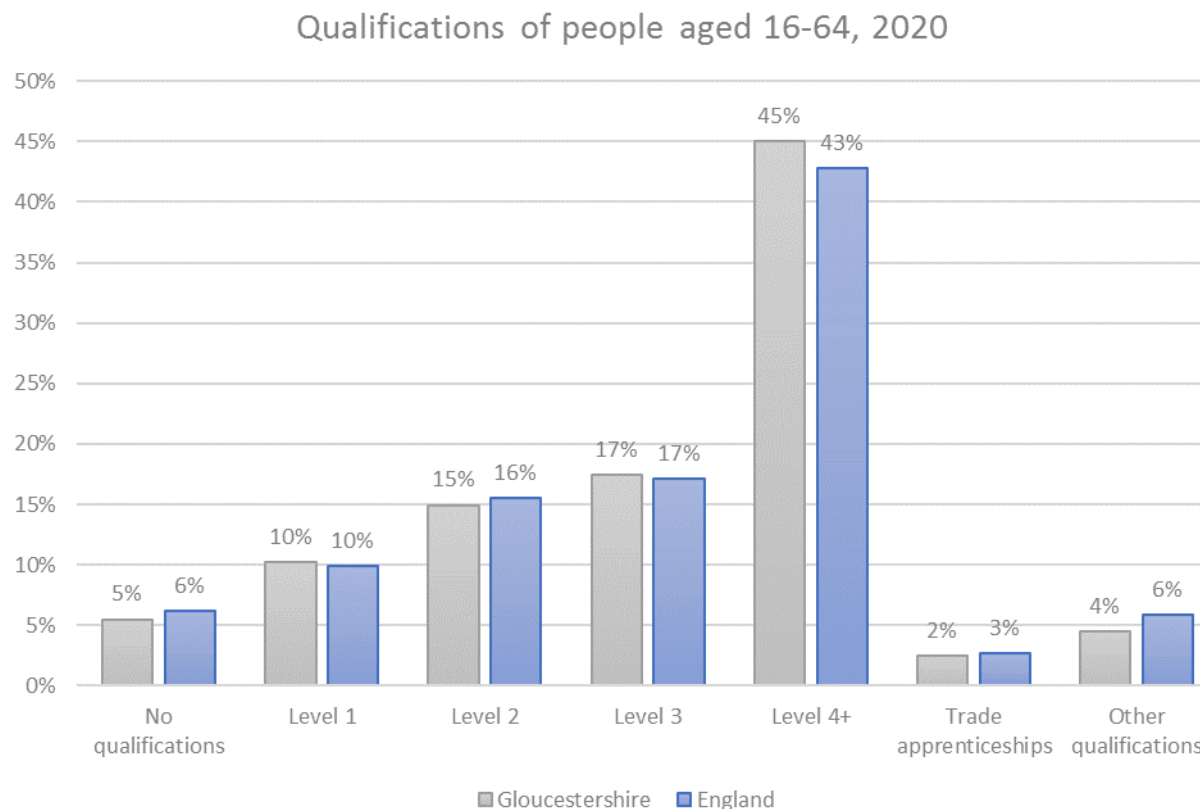


We know that skills contribute in a number of ways:

- Apprenticeships enable employers to develop specialist skills needed to drive the performance of their business.
- A strong supply of high level skills supports the effective use of technology within firms and an increased focus on innovation.
- Management skills are key to implementing positive business practices and more productive business models and strategies.
- A strong skills base is key to attracting inward investment from productive companies who can transfer technology and best practice through supply chains

<sup>31</sup> Employer Skills Survey, 2019

# Employee Qualifications



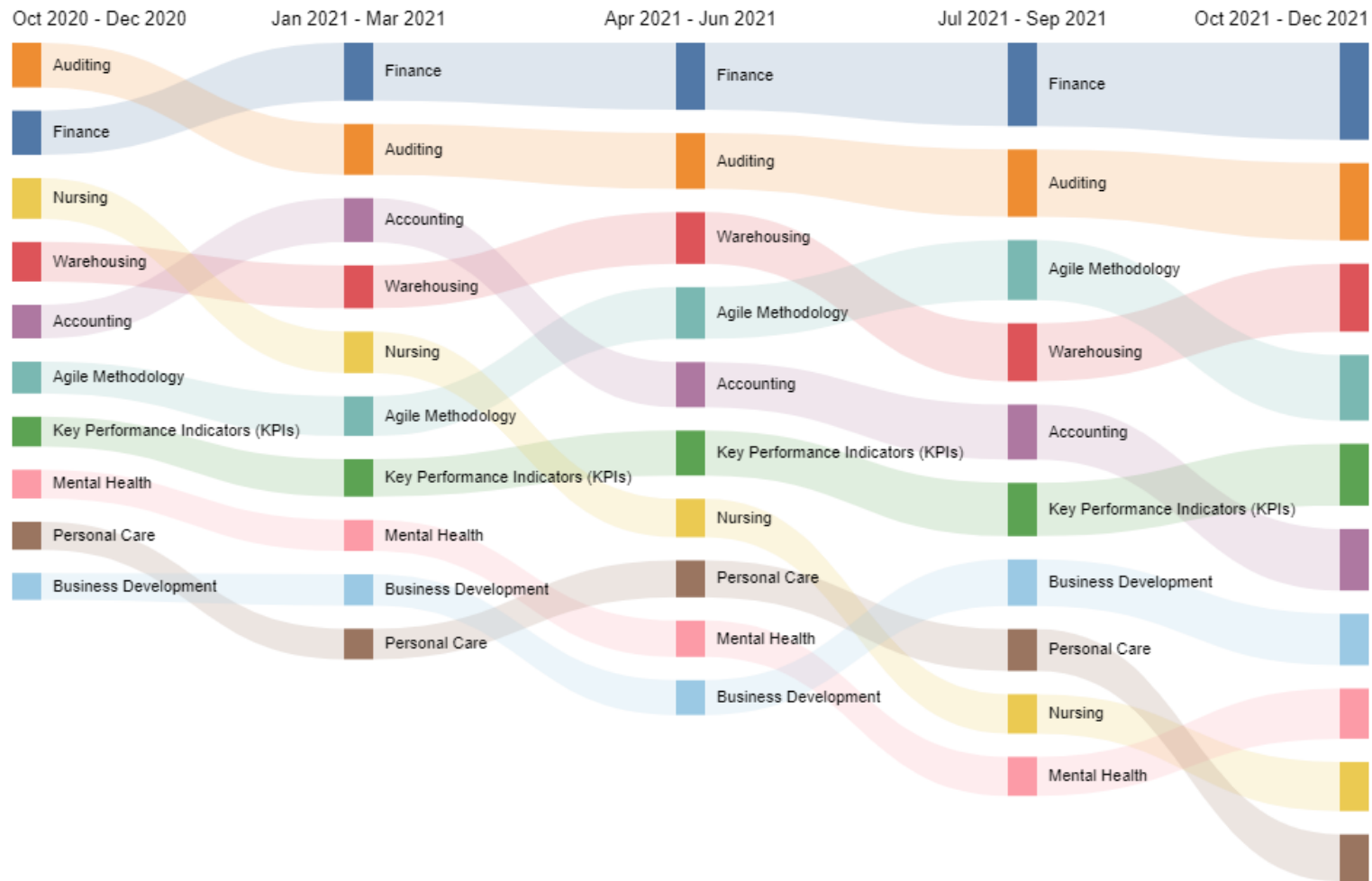
32

According to a Local Government Association and Learning & Work Institute report, by 2024 there will more than four million too few high-skilled people to take up available jobs, two million too many with intermediate skills and more than six million too many low skilled. On average, expectations for higher qualification requirements are on the rise. Forecasting models show continued shift to high-level qualifications with 55% of those employed expected to be qualified at level 4 and above, whilst the proportion of those with level 1 or no formal qualifications expected to shrink from 14% to under 8% in 2027. This growing demand for formal qualifications going forwards is most clearly reflected in the net demand of jobs projected.

<sup>32</sup> Employer Skills Survey 2019

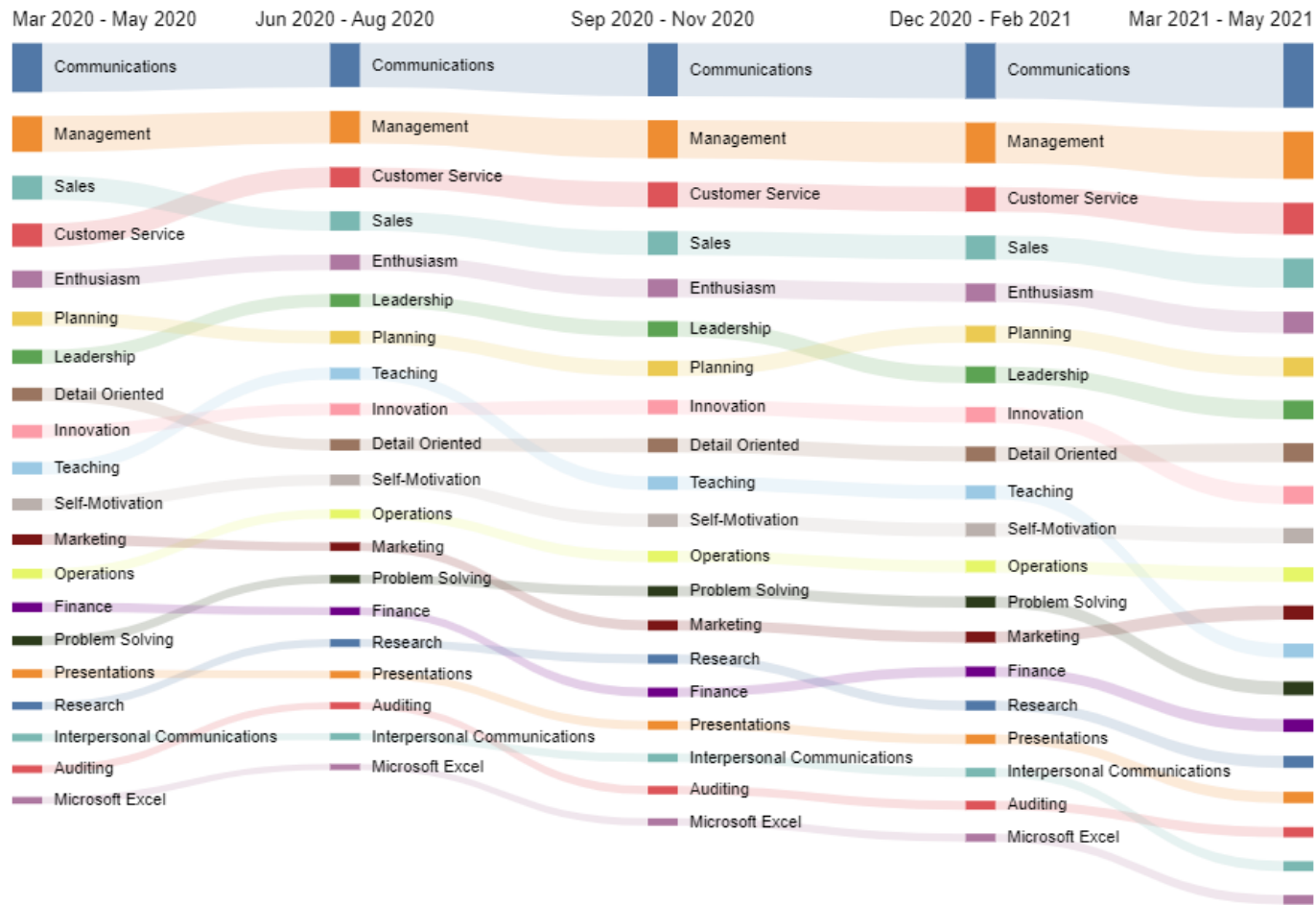
## Top 10 Skills in Gloucestershire by Quarter

Skills help us understand not only what an area excels in, but how it is growing.



Top 20 Skills for All Job Types Sought by Your Selected Companies by Quarter

Skills help us understand not only where a company is trying to go, but how they intend to get there.

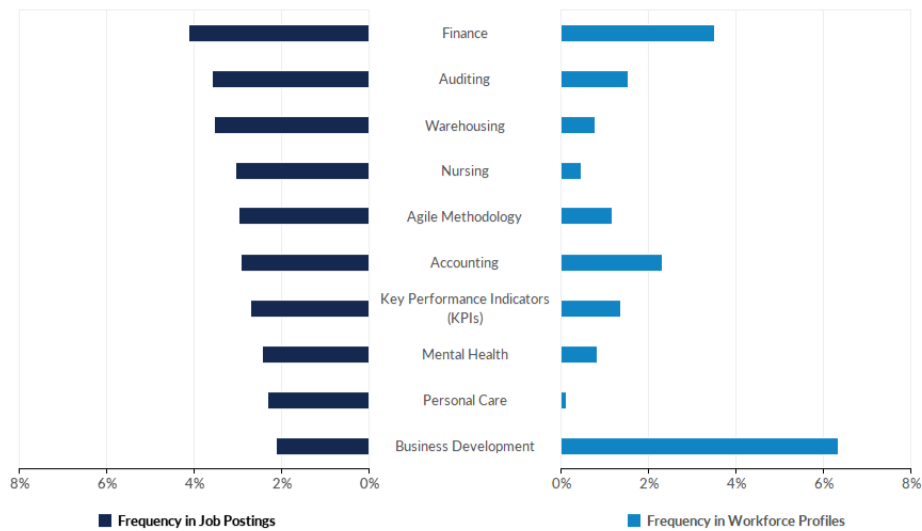




The following provides insight into the supply and demand of relevant skills by comparing the frequency of skills present in job postings against skills present in today's workforce. Along with Emsi's job posting analytics, this comparison leverages Emsi's dataset of more than 100M online resumés and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

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

#### Top Hard Skills



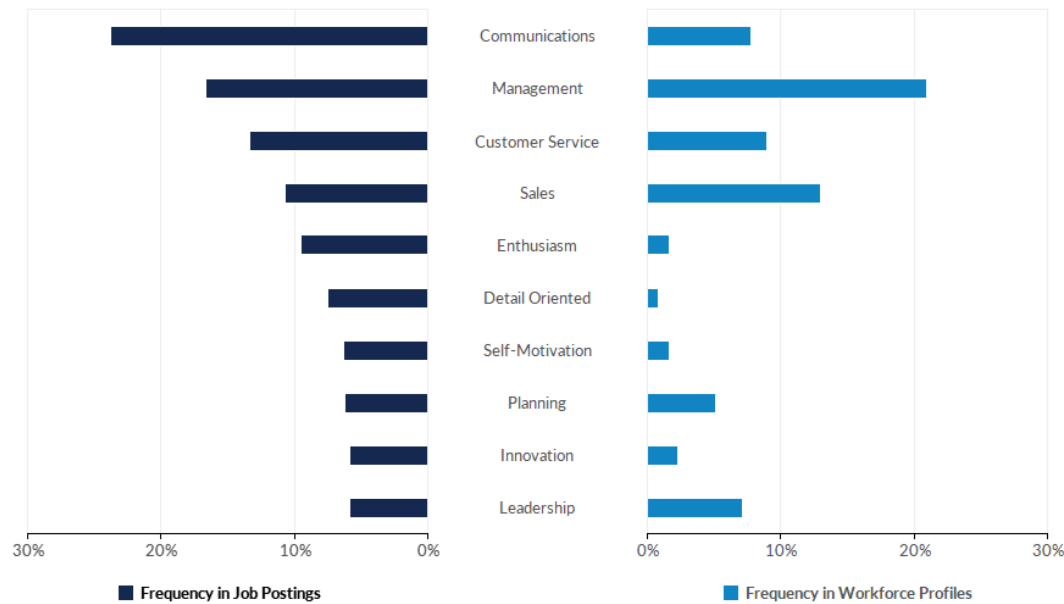
Analysis of online job postings enables us to examine the picture of current local labour demand in detail without the technical limitations of national surveys. However, a key caveat is that lower skilled jobs tend to be significantly under-represented in the data as they are much less likely to be advertised online.

The five most significant hard-skills (skills that a person has either been taught or learnt) within the Gloucestershire LEP region were during the period between January and October 2020 using Emsi job postings data. Significance is measured by considering the relative concentrations of hard-skills in the Gloucestershire LEP/CA region compared to other areas of the UK. In the Gloucestershire LEP, the most significant hard skill between August 2020 and June 2021 was Finance. The other hard skills within the top five most significant in the Gloucestershire LEP region were Auditing, Warehousing, Nursing and Agile Methodology.

#### Top Hard Skills

Skill	Frequency in Postings	Postings with Skill / Total Postings (Aug 2020 - Jun 2021)	Frequency in Profiles	Profiles with Skill / Total Profiles (2020 - 2022)
Finance	4%	4,752 / 115,182	4%	5,787 / 164,610
Auditing	4%	4,136 / 115,182	2%	2,534 / 164,610
Warehousing	4%	4,064 / 115,182	1%	1,292 / 164,610
Nursing	3%	3,511 / 115,182	0%	754 / 164,610
Agile Methodology	3%	3,419 / 115,182	1%	1,925 / 164,610
Accounting	3%	3,360 / 115,182	2%	3,808 / 164,610
Key Performance Indicators (KPIs)	3%	3,109 / 115,182	1%	2,248 / 164,610
Mental Health	2%	2,818 / 115,182	1%	1,374 / 164,610
Personal Care	2%	2,679 / 115,182	0%	217 / 164,610
Business Development	2%	2,445 / 115,182	6%	10,445 / 164,610

Top Common Skills

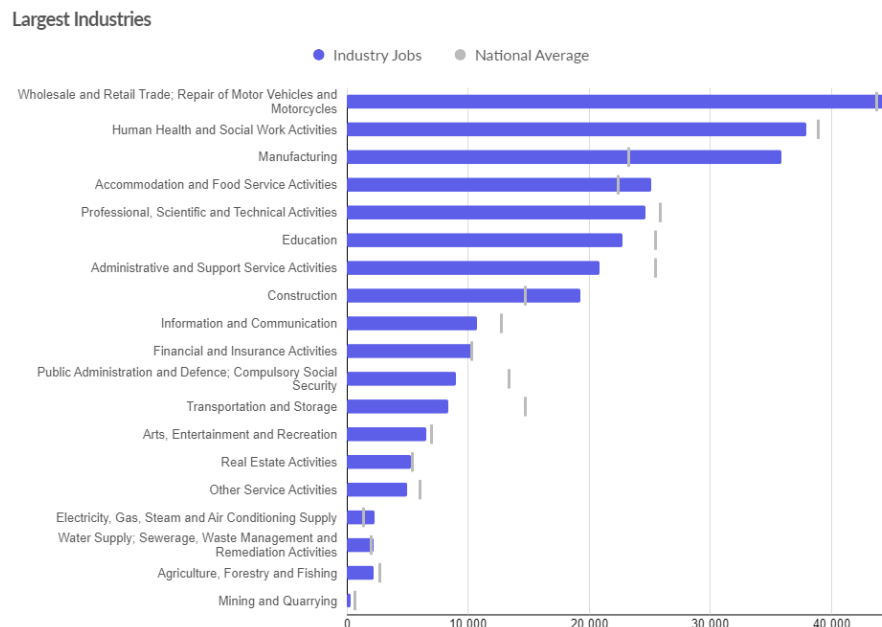


Skills on their own are not enough and will not necessarily lead to improved economic performance; of equal importance is that employer demand for skills is sufficient, that they are the 'right' skills, and that they are used effectively in the workplace. The effective use of skills is critical to maximising productivity and supporting economic growth. The widespread under-use of skills in the UK means that employers are not maximising the productivity of their workforce. This suggests that action is needed both on the supply side, but more importantly on the demand side, in raising employer demand for skills in the labour market and in ensuring these skills are used effectively in the workplace.

Top Common Skills

Skill	Frequency in Postings	Postings with Skill / Total Postings (Aug 2020 - Jun 2021)	Frequency in Profiles	Profiles with Skill / Total Profiles (2020 - 2022)
Communications	24%	27,376 / 115,182	8%	12,724 / 164,610
Management	17%	19,151 / 115,182	21%	34,441 / 164,610
Customer Service	13%	15,382 / 115,182	9%	14,725 / 164,610
Sales	11%	12,365 / 115,182	13%	21,332 / 164,610
Enthusiasm	10%	10,983 / 115,182	2%	2,721 / 164,610
Detail Oriented	8%	8,659 / 115,182	1%	1,388 / 164,610
Self-Motivation	6%	7,222 / 115,182	2%	2,761 / 164,610
Planning	6%	7,196 / 115,182	5%	8,443 / 164,610
Innovation	6%	6,787 / 115,182	2%	3,832 / 164,610
Leadership	6%	6,776 / 115,182	7%	11,797 / 164,610

# Vacancies by Largest Occupation

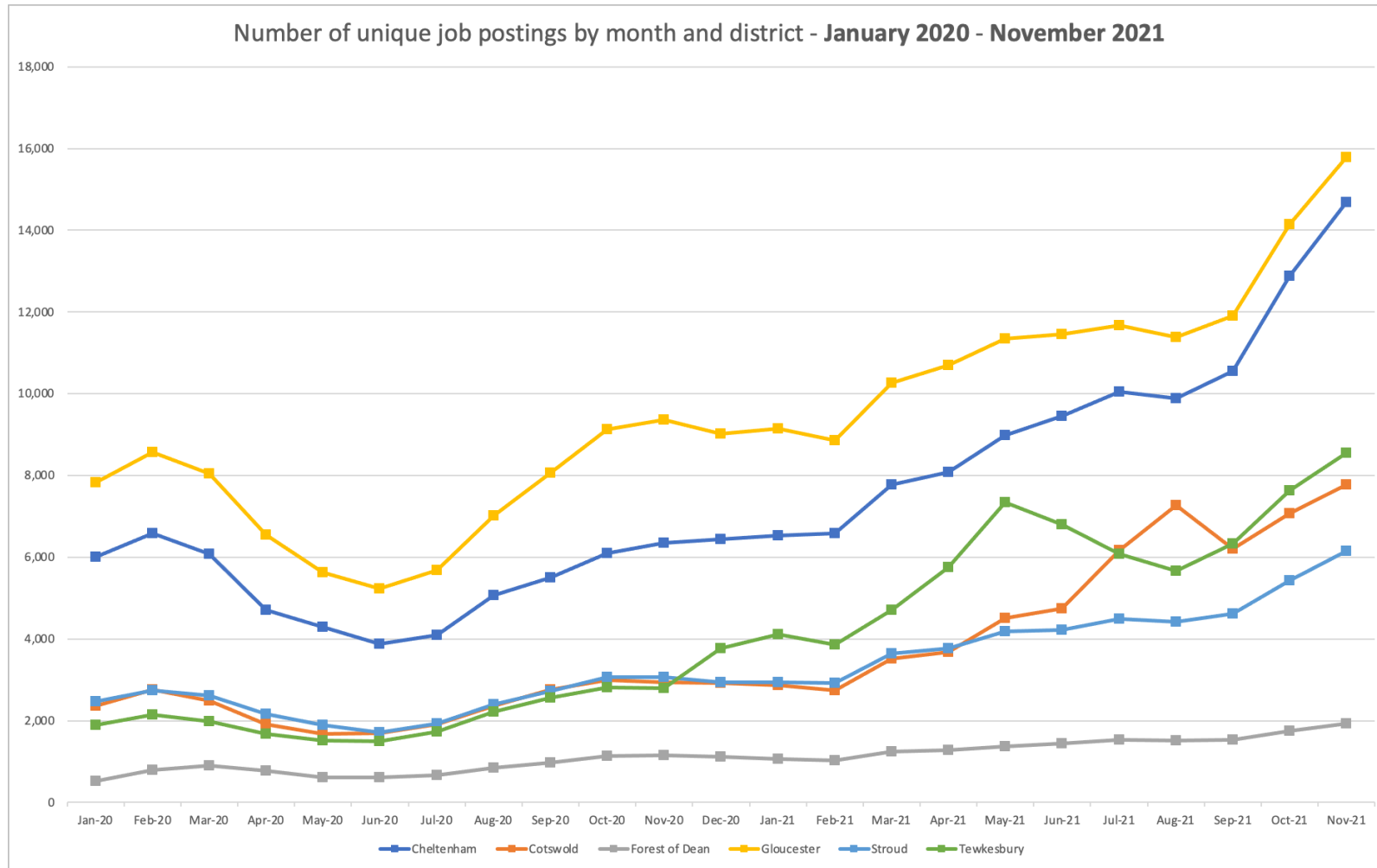


Jobs in Gloucestershire have grown by 8,651 over the last 5 years and are projected to grown by 4,455 over the next five years<sup>35</sup>.

Skills shortage vacancies have stayed relatively low over the past couple of years and altogether the skills supply and skills demand appear to be broadly in balance, an apparent 'match' between demand and supply at the aggregate level does not hold for all industries and data suggests a mismatch between the supply and demand. Skills mismatches typically occur because of market failures (information failures, imperfect information and externalities) that are related to learner demand and an inadequate supply of training. However, mapping skills demand and supply and assessing any skills mismatches is plagued by definitional and measurement issues. Wage differentials and relative wage growth at industry or occupational level is often used as a measure of skills mismatches in an economy. Here we have used EMSI Economic Modelling alongside the Employer Skills Survey to show Employer reported recruitment difficulties related to skills shortages and skill gaps within their existing workforce.

<sup>35</sup> EMSI Economic Modelling 2019 – Economy Overview

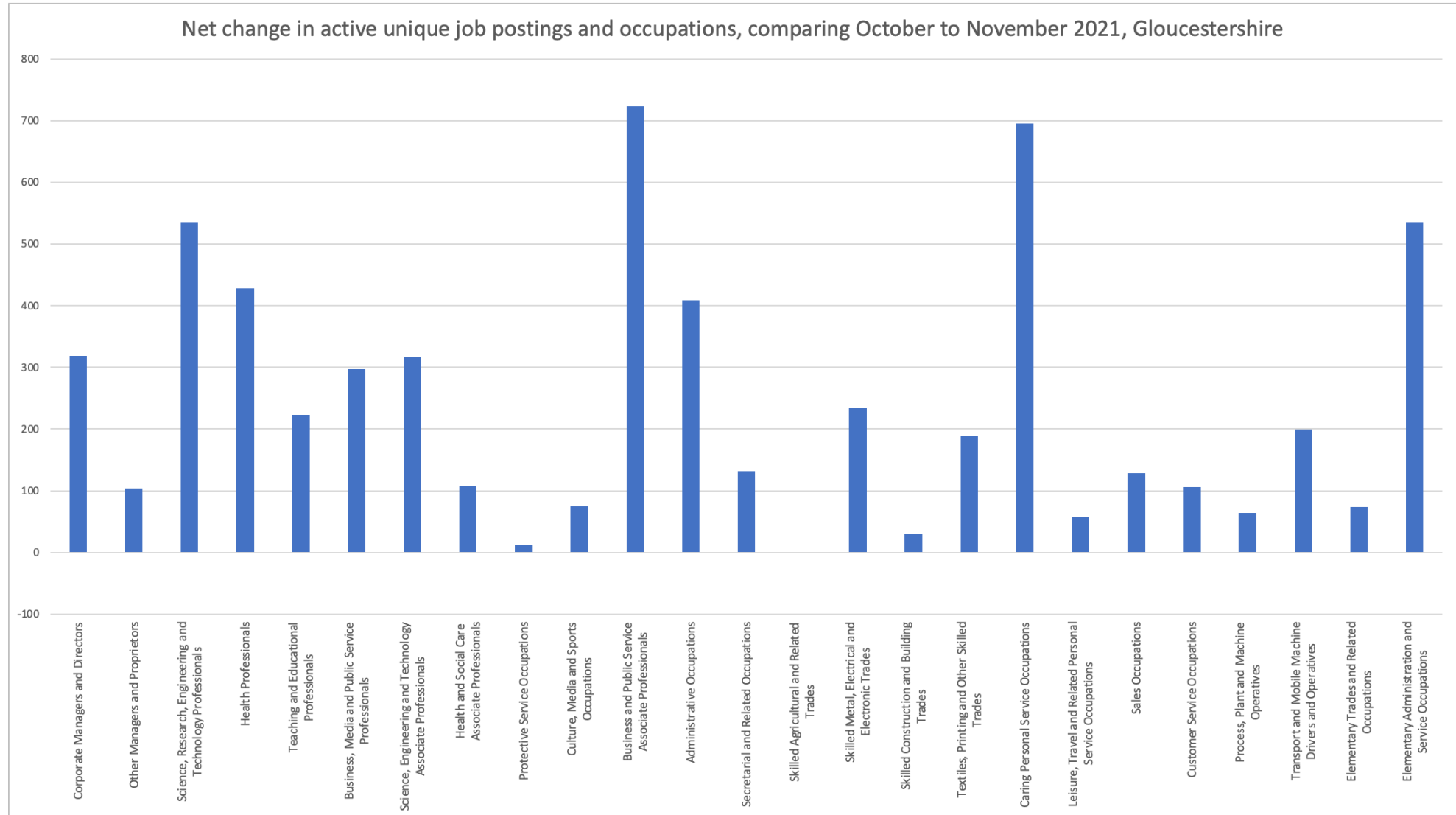
The below shows total jobs by district from **January 2020 to November 2021**, with most districts displaying a similar trend over the past few months and all seeing an increase when compared to October 2021.



**Please note** - a data quality issue has been identified which means previously some jobs outside of the county have been included in the Gloucestershire figures. This issue does not appear to have affected the overall trends but does mean previously circulated numbers may have overestimated the number of job postings in the county.

The graph below shows the net change in the number of job postings by top level occupation (two-digit SOC), comparing **October to November 2021**.

Almost all occupations have seen an increase in November when compared to October, with some large increases seen in **Business and Public Service Associate Professionals (723)** and **Caring Personal Service Occupations (695)**.



The following are for the month of **November 2021 only** and highlight the top companies posting jobs, occupations, job titles and the most frequent hard and common skills listed in job postings.

- **Top companies** posting jobs in November include: **Gloucestershire Hospitals NHS Foundation Trust, NHS, Gloucestershire Education Department, Gloucestershire Health and Care NHS Foundation Trust and Barchester** – **please note** that employment agencies have not been included in top companies posting, employment agencies do however form part of the total jobs posted in the report.
- **Top posted occupations** in November include: **Care workers and home carers, Programmers and software development professionals Nurses, Sales accounts and business development managers, and Elementary Storage Occupations.**
- **Top posted job titles** in November include: **Support Workers, Care Assistants, Warehouse Operatives, Health Care Assistants and Registered Nurses.**
- **Top hard skills** listed in job postings in November include: **Finance, Auditing, Agile Methodology, Warehousing and Accounting.**
- **Top common skills** listed in job postings in November include: **Communications, Management, Customer Service, Sales and Enthusiasm.**<sup>37</sup>

---

<sup>37</sup> EMSI Job Postings – Gfirst LEP Employment Bulletin

# Sectors – Employment (2020)

Top 3 sectors:



Health: 38,000 in employment or 12.4%

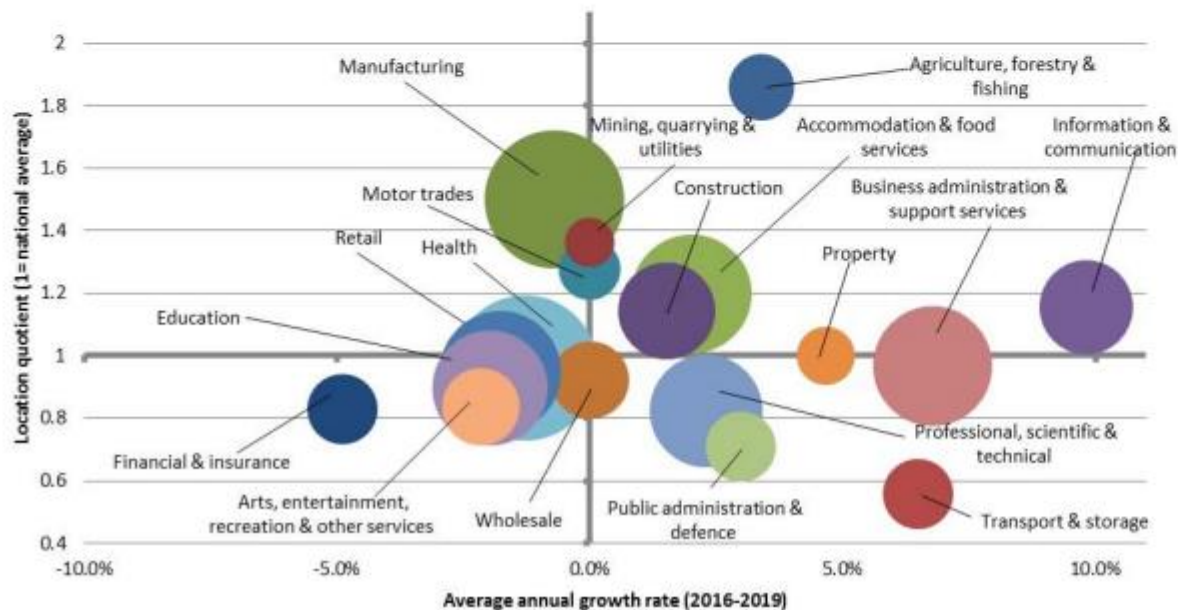


Manufacturing: 35,000 in employment or 11.4%



Retail: 27,000 in employment or 8.8%

**Broad industrial sectors in terms of size, growth and specialism**



Notes:

Information is taken from a business survey, meaning it captures where people work rather than where they live. This means people who work in Gloucestershire but live outside of the county will be included but those who live in Gloucestershire but work elsewhere will be excluded.

Figures are based on employment, employment includes employees plus the number of working owners who receive drawings or a share of the profits.

<sup>38</sup> <https://glostext.gloucestershire.gov.uk/documents/s78122/Economic%20Dashboard%20January%202022%20v1.pdf>

### Top Occupations by Postings with Location Quotient and Exposure Index

This occupation table provides an indication of which occupations are important to your selected region and how affected they could be from the pandemic and economic situation resulting from it. It is ordered by [Location Quotient](#), a measure of comparative advantage your selected region has versus the nation. It also contains Emsi's [Exposure Index](#), which reflects how affected an occupation or industry has been in relation to the pandemic, the subsequent lockdown and economic impacts of these.

SOC	Name	Job Postings (Dec 2019)	Job Postings (Dec 2021)	% Change (Dec 2019 - Dec 2021)	LQ (2022)	Exposure Index
6145	Care Workers and Home Carers	824	1,709	+107.4%	1.01	5
2231	Nurses	1,132	1,609	+42.1%	0.96	3
3545	Sales Accounts and Business Development Managers	681	1,442	+111.7%	1.04	14
2136	Programmers and Software Development Professionals	963	1,389	+44.2%	1.02	8
5434	Chefs	690	1,116	+61.7%	1.02	40
9260	Elementary Storage Occupations	412	1,094	+165.5%	0.81	13
4159	Other Administrative Occupations n.e.c.	490	1,054	+115.1%	0.93	13
8212	Van Drivers	444	940	+111.7%	1.02	16
4122	Book-keepers, Payroll Managers and Wages Clerks	637	919	+44.3%	0.88	12
9272	Kitchen and Catering Assistants	381	909	+138.6%	1.15	33

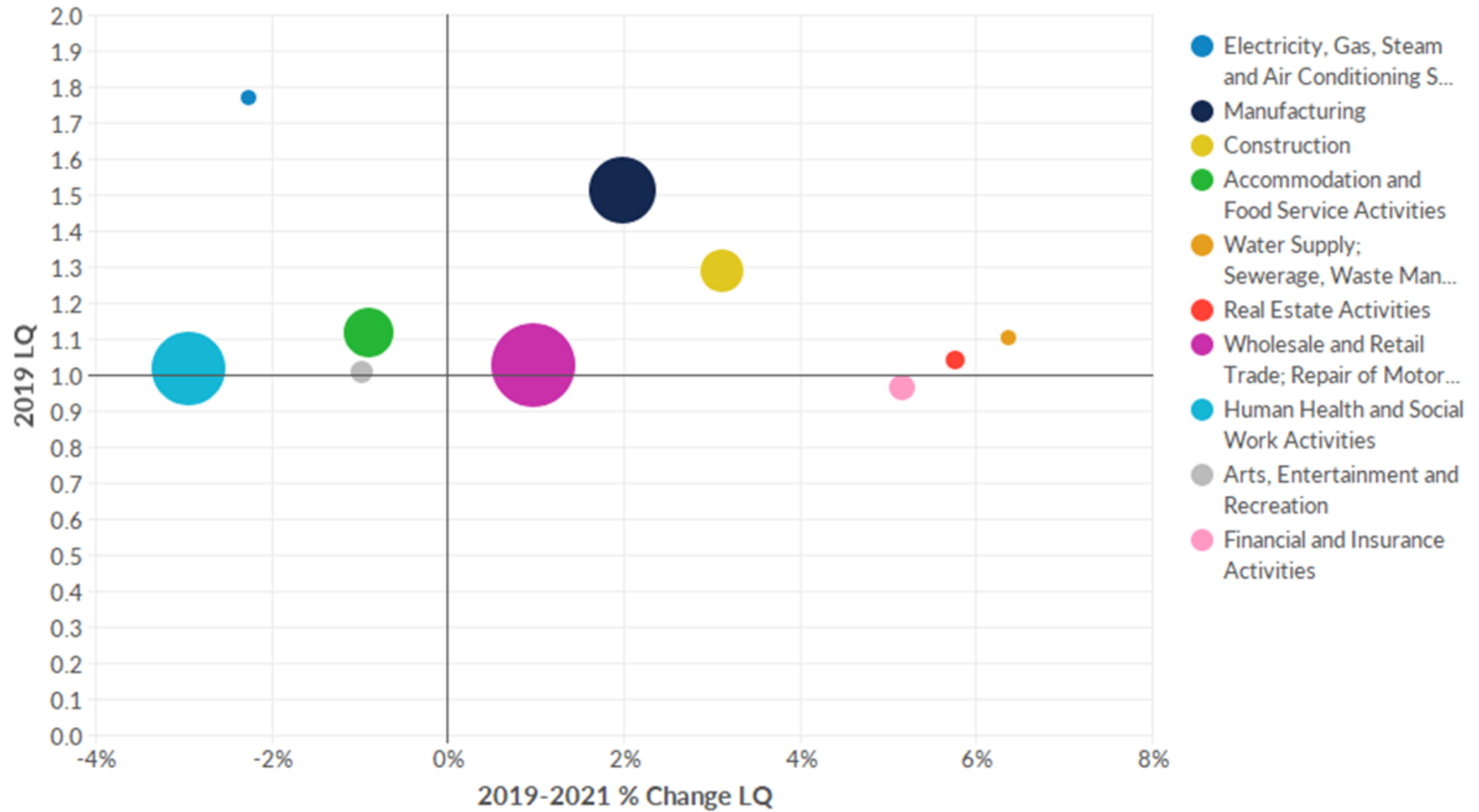


## Industries by Location Quotient with Exposure Index

This industry table provides an indication of which industries are important to your selected region, based on [Location Quotient](#), and [Gross Value Added](#) and how affected they could be from the pandemic and economic situation resulting from it. It is ordered by [Location Quotient](#), a measure of comparative advantage your selected region has versus the nation. It also contains Emsi's [Exposure Index](#), which reflects how affected an occupation or industry has been in relation to the pandemic, the subsequent lockdown and economic impacts of these.

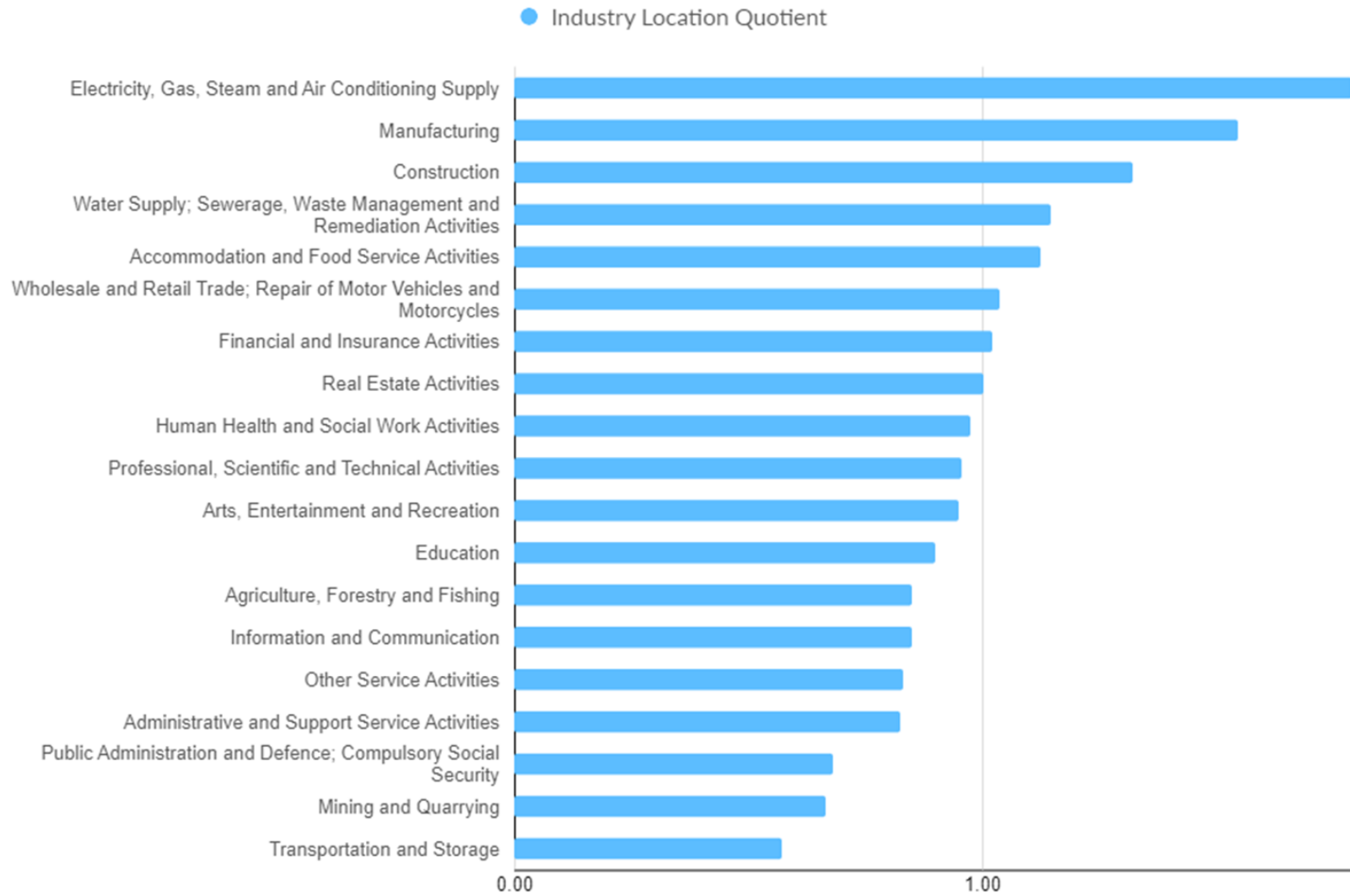
Description	Jobs (2021)	Jobs (2022)	Change (2021 - 2022)	% Change (2021 - 2022)	∨	LQ (2022)	GVA	Exposure Index
Manufacture of Machinery for Metallurgy	230	243	13	+5.7%		68.80	£8,777,047.13	6
Manufacture of Other Taps and Valves	1,741	1,759	18	+1.0%		22.77	£83,015,203.04	6
Manufacture of Electric Domestic Appliances	818	824	6	+0.7%		11.89	£33,713,027.04	11
Manufacture of Military Fighting Vehicles	323	335	12	+3.7%		11.15	£12,103,495.58	7
Copper Production	179	192	13	+7.3%		10.93	£2,798,128.50	10
Manufacture of Man-made Fibres	39	41	2	+5.1%		9.31	£2,774,631.66	3
Manufacture of Other Pumps and Compressors	1,047	1,042	-5	-0.5%		8.67	£36,415,120.80	5
Casting of Other Non-ferrous Metals	174	179	5	+2.9%		8.24	£5,835,130.11	11
Aluminium Production	313	320	7	+2.2%		7.79	£8,250,456.82	10
Manufacture of Ice Cream	400	399	-1	-0.3%		7.56	£14,448,524.43	11

### Highest Industry Location Quotient



<sup>41</sup> EMSI Industry Overview 2021

### Top Industry Location Quotient



<sup>42</sup> EMSI Industry Overview 2021

# GVA and productivity (2019)



GVA of £18.3 billion

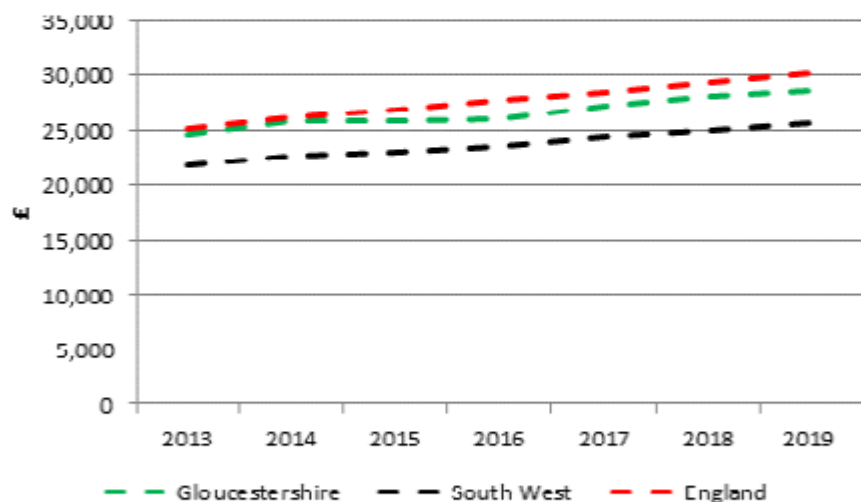


GVA per head £28,642

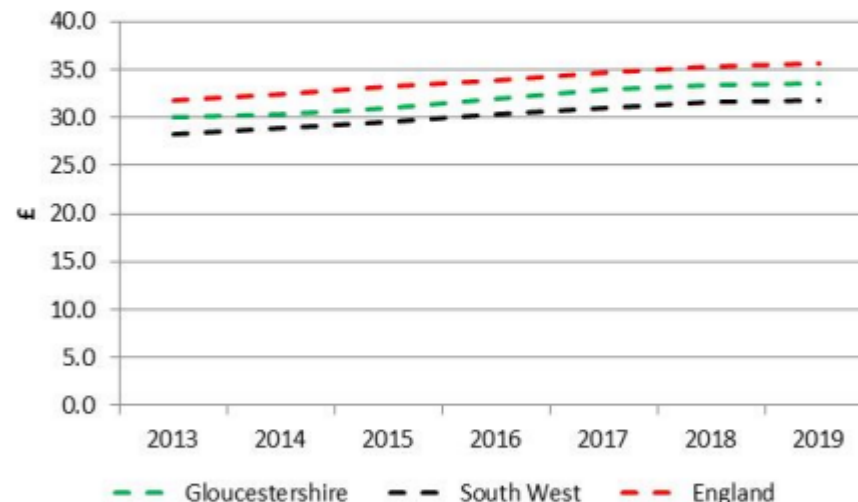


GVA per hour worked  
£33.60

### GVA per head



### GVA per hour worked



#### Notes:

Gross Value Added (GVA) is used to measure the economic value of the goods and services produced in an area.

GVA per head relates economic value to the resident population and can be a useful way of comparing regions of different sizes.

GVA per hour worked divides GVA by the total hours worked by the workforce in the area and is often referred to as productivity.

#Data is subject to revisions

- Productivity is defined as the amount of goods and services that a worker produces in a given period of time. A more productive workforce implies each worker is producing more units of goods and services, i.e. more cars per hour or more phone calls per minute.
- The Office for National Statistics measures productivity by dividing a measure of output by a measure of input. This means it's often expressed as output per worker, output per job or output per hour; with the latter being the more conventional approach.
- Productivity can grow as a result of technological advances or a better educated or more specialised workforce. From a policy perspective, if labour productivity is falling, it could be an indicator that more should be done to improve the delivery of education or job specialisation. Indeed, on a national scale, labour productivity changes are a main driver of economic policy.
- Gross Value Added, the measure of output is derived from surveys of employers. The sample size of the surveys means the results and therefore the estimates of productivity that they feed are most robust at a national level and become less reliable as the areas in question become smaller. This issue restricts the types of analysis that can be carried out and the understanding that can be derived from the data at a local level.

### **Value of Gloucestershire's economic output (GVA)**

The total output of the Gloucestershire economy (GVA) was approximately £18.247 billion in 2019, representing 12.7% of the output of the South West region. The manufacturing sector was the largest sector accounting for £2.794 billion of economic output in Gloucestershire, representing 15.3% of Gloucestershire's total GVA.<sup>43</sup>

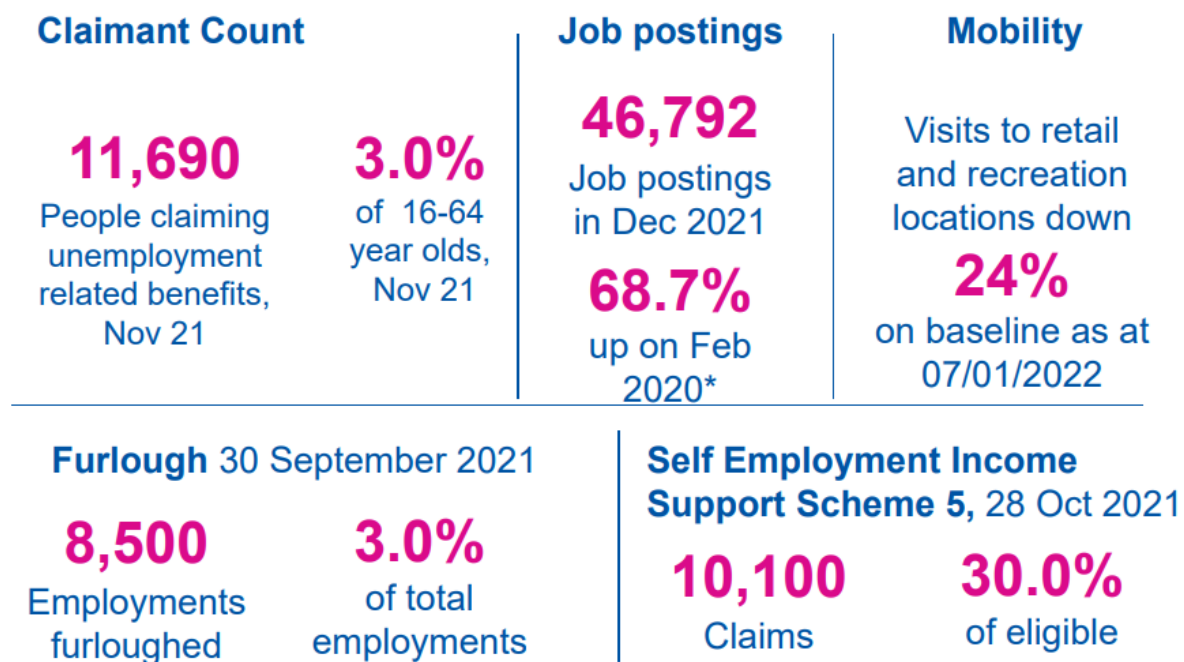
---

<sup>43</sup> Office for National Statistics - Regional gross value added (balanced) by industry: city and enterprise regions (May 2021 release)

# COVID-19 Pandemic Economic Impact

The global Covid-19 pandemic has created more economic turmoil than the great financial crisis of 2008 and led to significant Government interventions to support the economy against strong headwinds. This situation will likely continue deep in 2021, affecting local economies and the labour market. The lockdowns created new economic conditions and constraints that businesses, organisations and institutions had never experienced including prohibitions to travel and social distancing. To support these economic stakeholders, the UK Government and devolved administrations deployed significant interventions including the Coronavirus Jobs Retention Scheme (CJRS), Self-Employment Income Support Scheme (SEISS) and mass non-domestic rates relief. Many of the interventions will likely remain in place for sometime into 2021. At this stage, the rate of recovery is hard to predict; however, using detailed Emsi labour market data, it is possible to see where we have come from and provide an indication of the economic impact of the pandemic to date.

## The Economy – impact of COVID-19

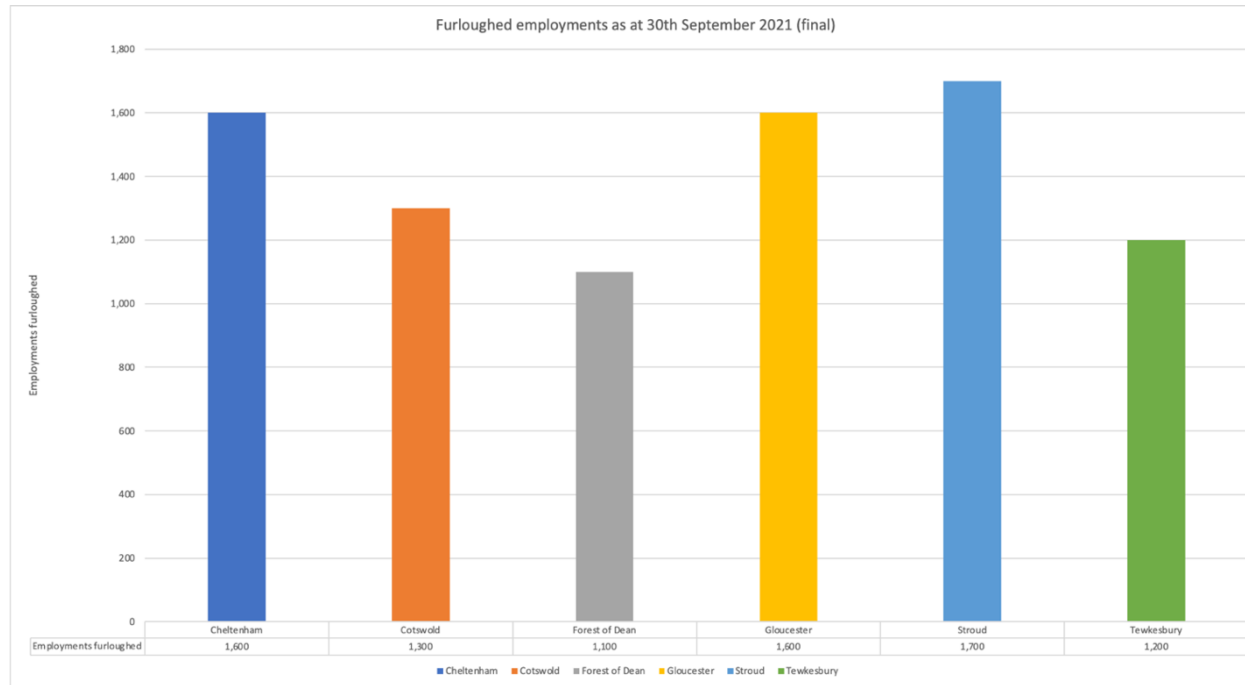


44

<sup>44</sup> <https://glostext.gloucestershire.gov.uk/documents/s78122/Economic%20Dashboard%20January%202022%20v1.pdf>

# Furloughed Workers

Final figures show the total number of **employments furloughed in Gloucestershire** at the end of the scheme on the **30<sup>th</sup> September** were **8,500**.<sup>45</sup>



Furloughed employments as at the 30<sup>th</sup> September 2021

Area	Employments furloughed	Eligible employments	*Take-up-rate
Gloucestershire	8,500	275,700	3%
<b>South West</b>	72,300	2,369,400	3%
<b>England</b>	971,900	23,881,800	4%

<sup>45</sup> HMRC: Coronavirus Job Retention Scheme (CJRS) Statistics: 16 December 2021

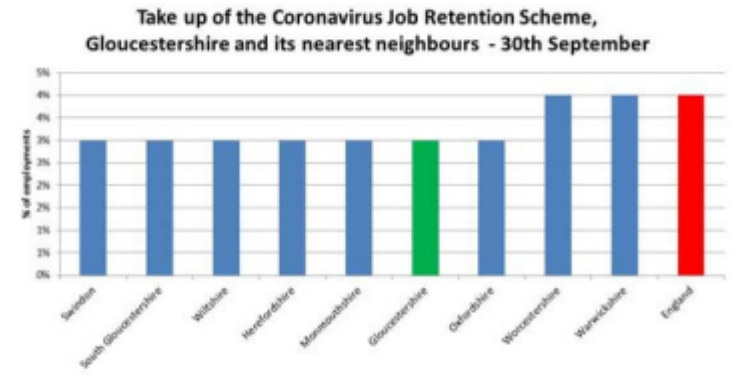
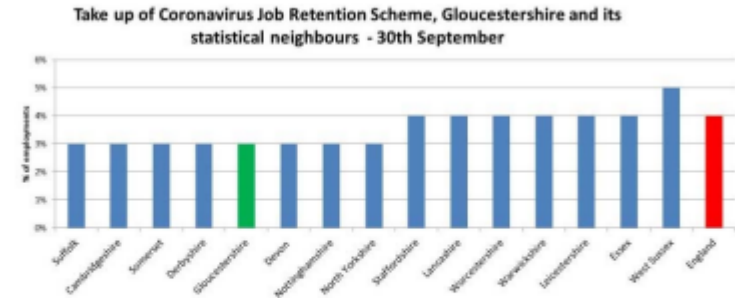
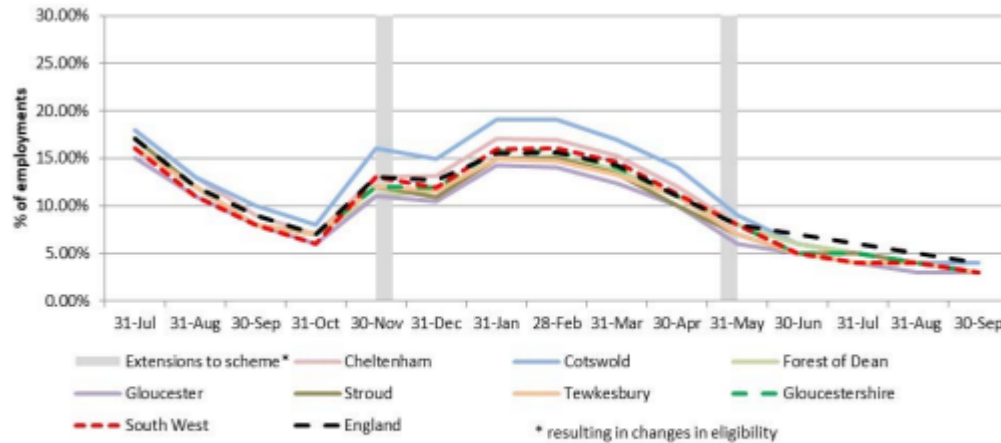
\*Take up rate is the percentage of workers furloughed, as a proportion of those eligible employments

**8,500**  
Employments  
Furloughed as  
at 30/09/21



3% of employments or  
0.3 in 10 as at 30/09/21

Take up rate of Coronavirus Job Retention Scheme, based on all claims received up to 21st November



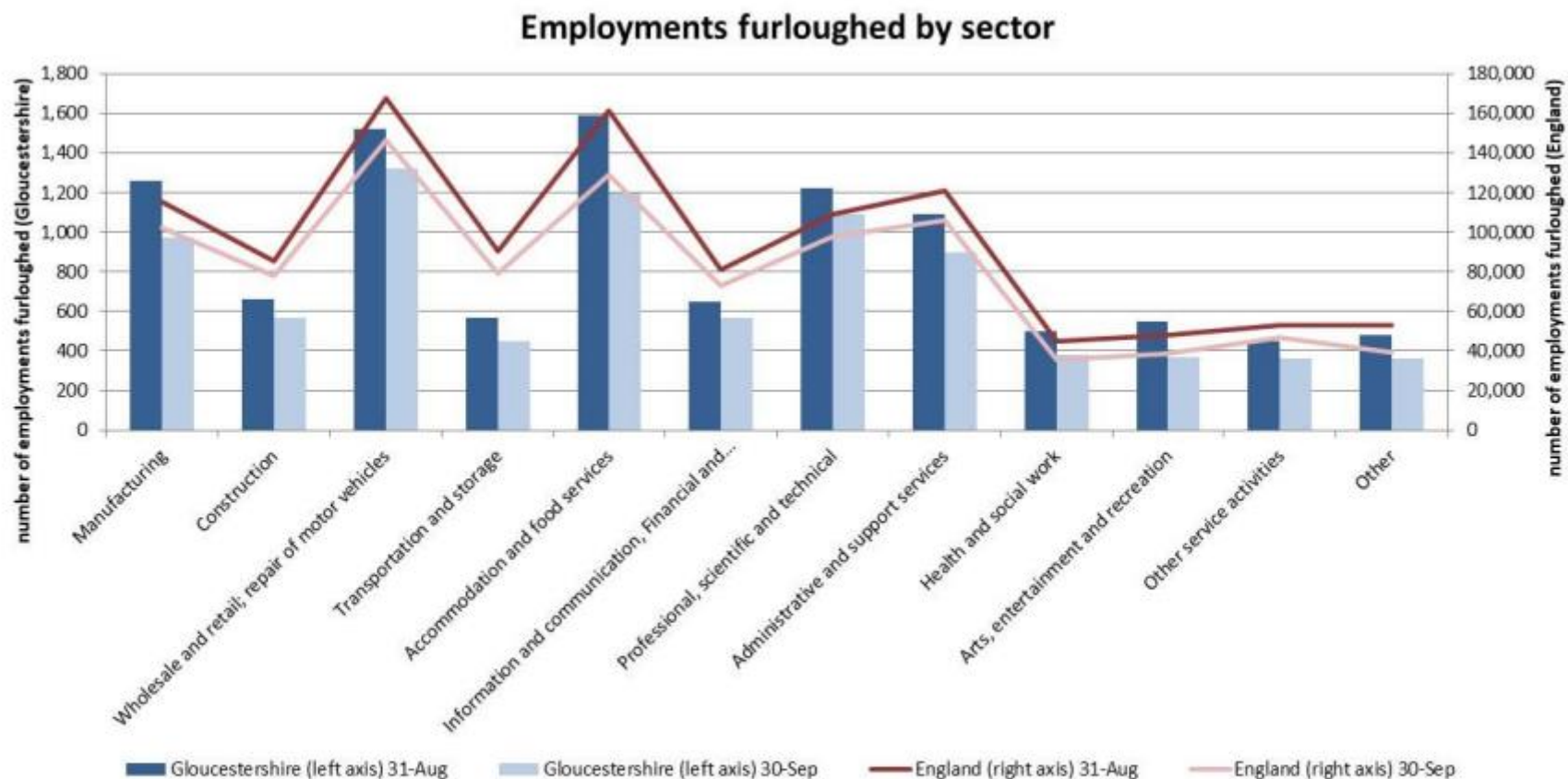
Notes:  
Based on all claims received up to the 21st November

Figures are based on where an individual lives

Extensions to the scheme in Nov and May saw some differences in eligibility.

<sup>46</sup> <https://glostext.gloucestershire.gov.uk/documents/s78122/Economic%20Dashboard%20January%202022%20v1.pdf>





**Notes:**

Based on all claims received up to the 21<sup>st</sup> November

Figures are based on where an individual lives

Due to small numbers some sectors namely agriculture and public sector are no longer captured in the data

<sup>47</sup> <https://glostext.gloucestershire.gov.uk/documents/s78122/Economic%20Dashboard%20January%202022%20v1.pdf>

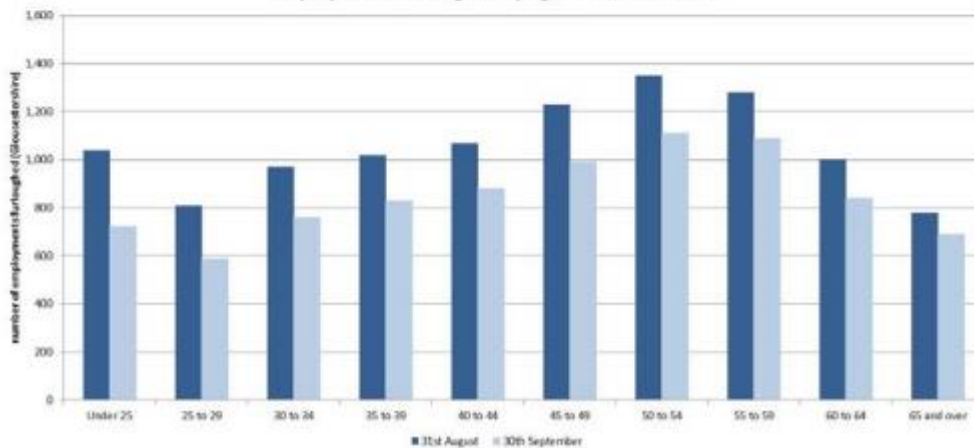
Employments furloughed - Gloucestershire, 30 Sep



Employments furloughed - England, 30 Sep



Employments furloughed by age - Gloucestershire



Notes:

Based on all claims received up to the 21<sup>st</sup> November

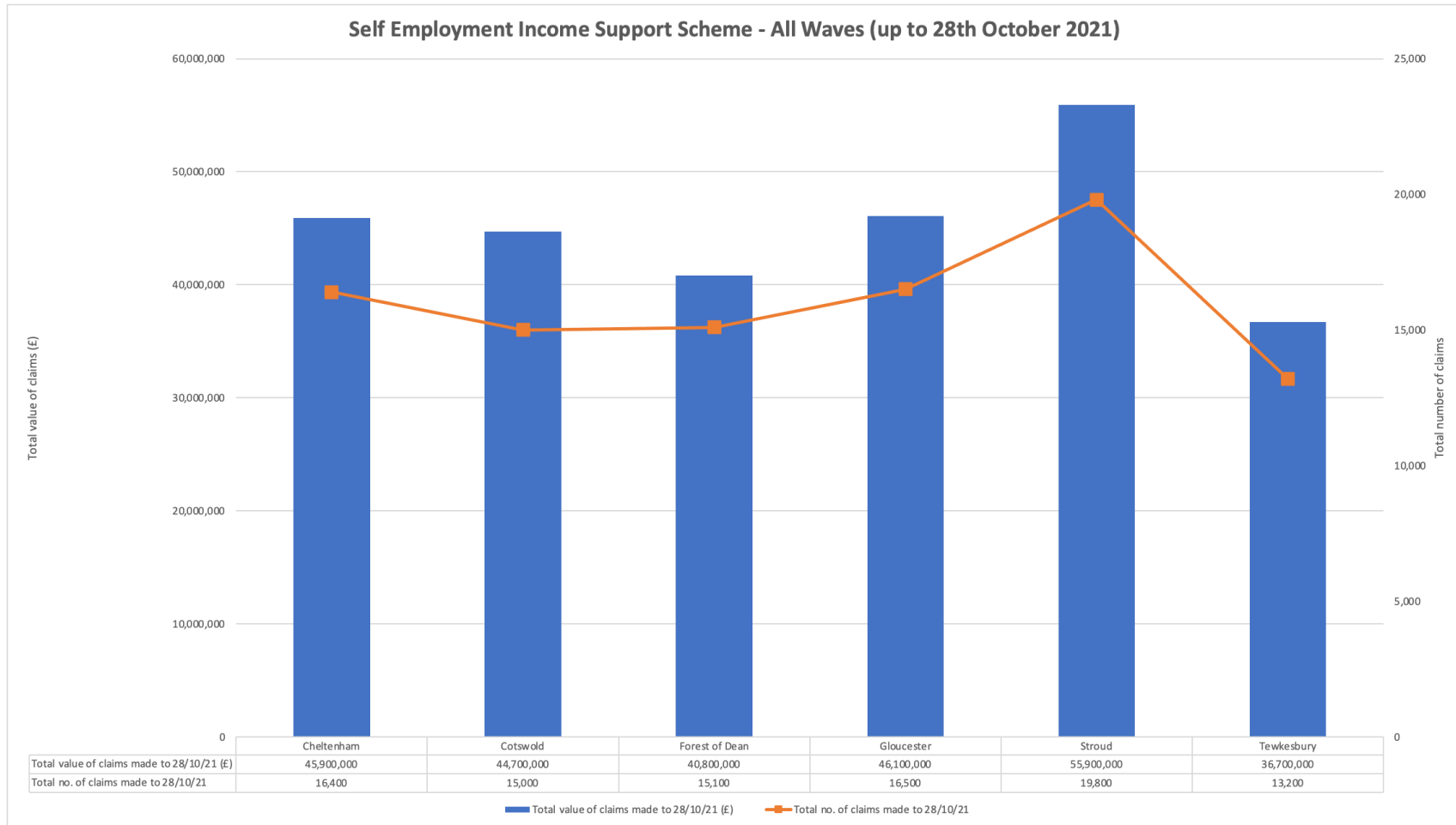
Figures are based on where an individual lives

Age has been calculated as at 1<sup>st</sup> May

<sup>48</sup> <https://glostext.gloucestershire.gov.uk/documents/s78122/Economic%20Dashboard%20January%202022%20v1.pdf>

# Self Employment Income Support Scheme

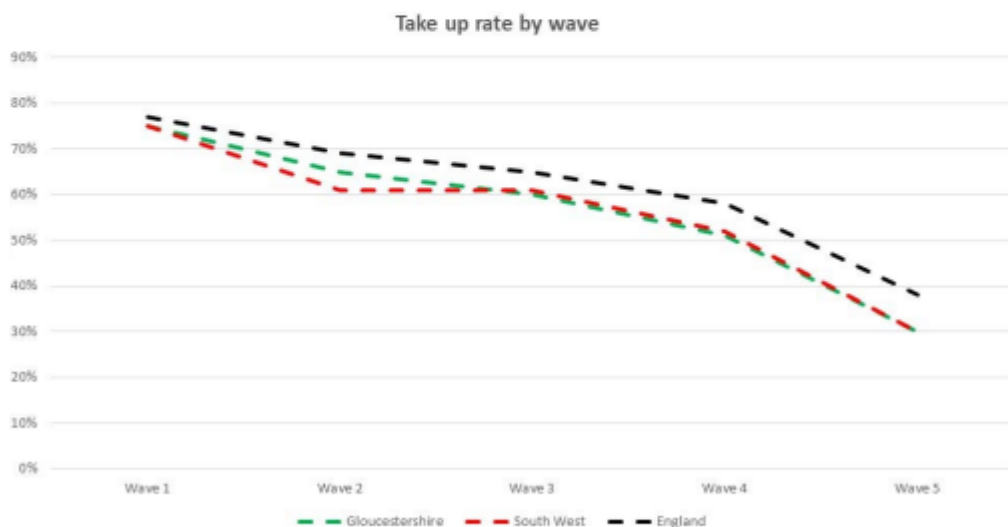
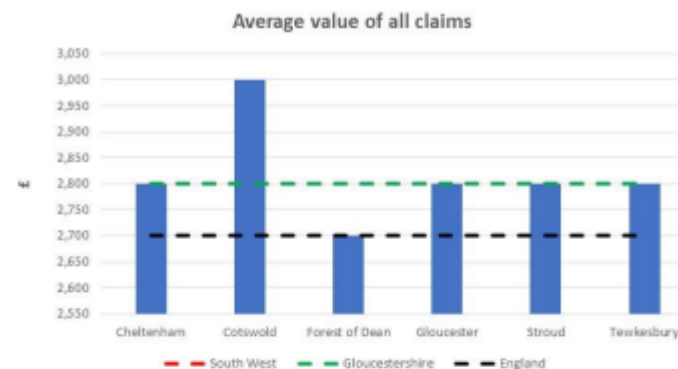
The below graph looks at **Self Employment Income Support Scheme** figures since it was introduced in 2020, which saw an **overall total of 96,000** Gloucestershire claims across **all waves**, totalling **£270.2 million**.<sup>49</sup> The total value of claims made (bars) and total number of claims made (orange line), compares each of Gloucestershire’s six districts; **Stroud** has seen the **largest** share of claims, totalling **£55.9 million** and **Tewkesbury** seeing the **smallest** with **£36.7 million** in claims made.



<sup>49</sup> HMRC: Self-Employment Income Support Scheme (SEISS) Statistics: December 2021

**10,100**  
 Claims made  
 to Wave 5 up  
 to 28/10/21

  
 30% of eligible cohort or  
 3 in 10 as at 28/10/21



**Notes:**

Based on all claims received up to the 7<sup>th</sup> October

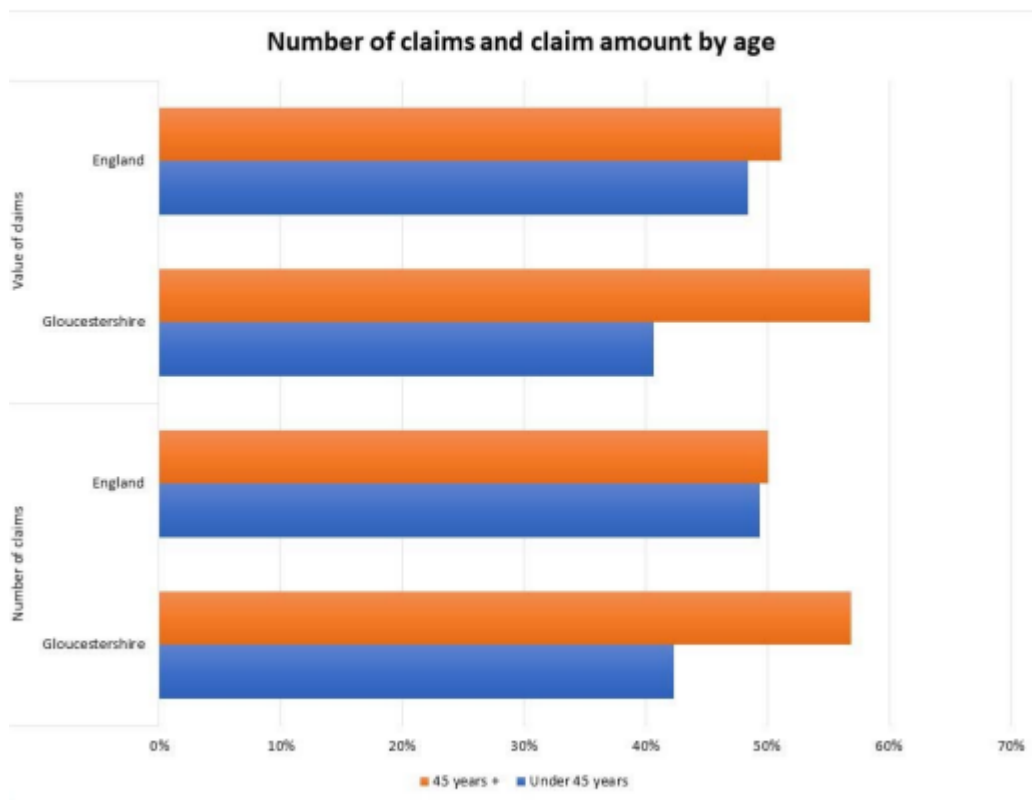
First scheme closed 13/07/20, covered 80% of average trading profits for 3 months

Second scheme opened 17/08/20 covered 70% of average trading profits for 3 months.

Third scheme opened 30/11/20 covered 80% of average trading profits, for 3 months.

Fourth scheme opened 22/04/21 some individuals who could claim previously unable to do so

Fifth scheme opened 29/07/2021. Two levels of grant based on the reduction in turnover experienced



**Notes:**

Based on all claims received up to the 7<sup>th</sup> October

First scheme closed 13/07/20, covered 80% of average trading profits for 3 months

Second scheme opened 17/08/20 covered 70% of average trading profits for 3 months.

Third scheme opened 30/11/20 covered 80% of average trading profits, for 3 months.

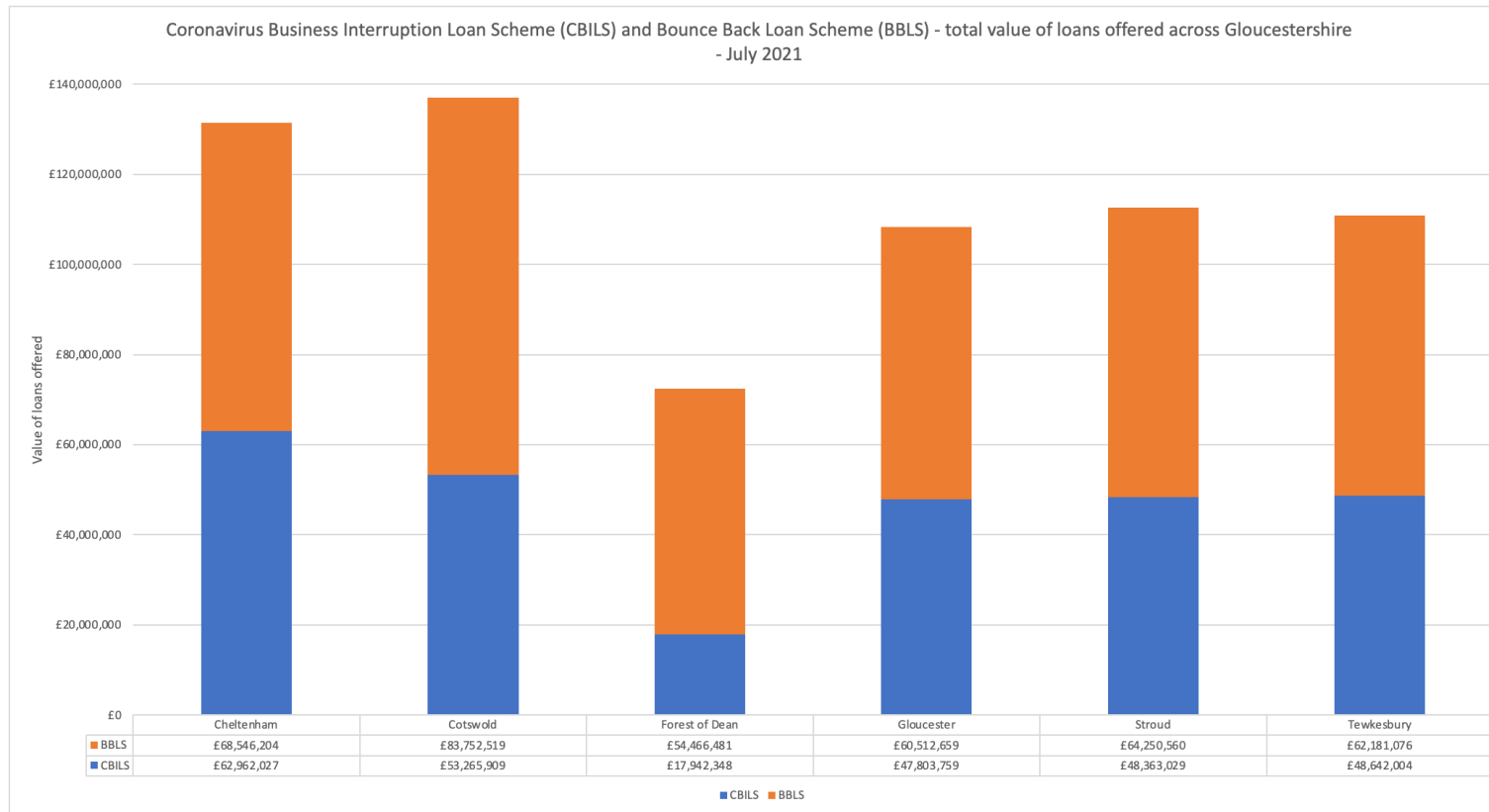
Fourth scheme opened 22/04/21 some individuals who could claim previously unable to do so

Fifth scheme opened 29/07/2021. Two levels of grant based on the reduction in turnover experienced

<sup>50</sup> <https://glostext.gloucestershire.gov.uk/documents/s78122/Economic%20Dashboard%20January%202022%20v1.pdf>

# Coronavirus Business Interruption Loan Scheme (CBILS) and Bounce Back Loan Scheme (BBLs)

Recent figures from the British Business Bank reveal that as of January 2021, the total value of Coronavirus Business Interruption Loans (CBILS) and Bounce Back Loan Scheme (BBLs) offered to Gloucestershire businesses now stands at **£582 million**, which is an increase of around £100 million since the last figures were reported in October. The graph below shows how the loans offered by type are split across the six Gloucestershire districts, as you can see the Forest of Dean is seeing a much larger proportion of Bounce Back Loan Scheme (BBLs) numbers compared to the Coronavirus Business Interruption Loans (CBILS).



Constituency	CBILS		BBLs		Total	
	Number of loans offered	Value of loans offered (£m)	Number of loans offered	Value of loans offered (£m)	Number of loans offered	Value of loans offered (£m)
Cheltenham	181	£62,962,027	2379	£68,546,204	2,560	£131,508,231
Cotswold	229	£53,265,909	2889	£83,752,519	3,118	£137,018,427
Forest of Dean	101	£17,942,348	1992	£54,466,481	2,093	£72,408,829
Gloucester	176	£47,803,759	2131	£60,512,659	2,307	£108,316,418
Stroud	225	£48,363,029	2322	£64,250,560	2,547	£112,613,589
Tewkesbury	216	£48,642,004	2202	£62,181,076	2,418	£110,823,080
<b>Gloucestershire Total</b>	<b>1128</b>	<b>£278,979,076</b>	<b>13915</b>	<b>£393,709,498</b>	<b>15,043</b>	<b>£672,688,575</b>



GFirst LEP,  
University of  
Gloucestershire,  
Oxstalls Lane, Longlevens,  
Gloucester GL2 9HW

