InformGloucestershire

Gloucestershire Economic Evidence Base - 2023

Produced by Gloucestershire County Council and GFirst LEP

Preface

The data in this document was downloaded and analysed during the summer of 2023, it was the latest data available at this time. However subsequently additional data has and will be released and previous data will be revised, this document will not capture these changes.

Where possible comparisons have been made between Gloucestershire and England and Wales, however in some instances data is not available for England and Wales so instead figures for the UK or England have been used for comparison purposes.

Gloucestershire is also benchmarked against geographic and statistical neighbours and county and unitary authorities across the country, for some measures data maybe missing for some areas meaning they are not included in the analysis.

The districts have been benchmarked against other district and unitary authorities across the country, for some measures data maybe missing for some areas meaning they are not included in the analysis.

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Abbreviations

- AONB – Area of Outstanding Natural Beauty
- GVA – Gross Value Added
- LE- Life Expectancy
- LQ – Location Quotient
- LSOA – Lower Super Output Area
- NEET – Not in Education, Employment or Training
- OA – Output Area
- ONS – Office for National Statistics

Glossary

- Active enterprise - businesses that had either turnover or employment at any time during a period.
- Ageing Society, Health & Nutrition (Innovate UK sector) - Projects related to improving Nutrition, General Health and the well being of an ageing population.
- AI & Data Economy (Innovate UK sector) - Projects Related to the collection, commercialisation and management of Data and the use of Artificial Intelligence.
- Attainment 8 - measures the achievement of a pupil across 8 qualifications including mathematics (double weighted) and English (double weighted), 3 further qualifications that count in the English Baccalaureate (EBacc) measure and 3 further qualifications that can be GCSE qualifications (including EBacc subjects) or any other non-GCSE qualifications on the DfE approved list. Each individual grade a pupil achieves is assigned a point score, which is then used to calculate a pupil's Attainment 8 score. Schools and Local Authorities are then measured by comparing their average Attainment 8 score per pupil.
- Business - used to represent an enterprise. An enterprise can be defined as the smallest combination of legal units (based on Value Added Tax (VAT) and/or Pay As You Earn (PAYE) records) that is an organisational unit producing goods or services, which benefits from a certain degree of autonomy in decision-making. An enterprise carries out one or more activities at one or more locations. An enterprise may also be a sole legal unit.
- Business birth - new business registrations (identified through registration of the administrative units, that is, VAT and PAYE) are referred to as business births.
- Business death - businesses that have ceased to trade (identified through de-registration of the administrative units) are referred to as business deaths.
- Business survival - a business is deemed to have survived if it was born in year t or has survived to year t, and it is active in terms of employment and/or turnover in any part of t+1.
- Clean Growth & Infrastructure (Innovate UK sector) - Projects related to sustainable Energy and Infrastructure development.

- Dependency ratio - relates the number of children (0-15 years old) and older persons (65 years or over) to the working-age population (16-64 years old).
- Economic activity - people are economically active if, they are:
  - in employment (an employee or self-employed)
  - unemployed, but looking for work and could start within two weeks
  - unemployed, but waiting to start a job that had been offered and accepted

  It is a measure of whether or not a person was an active participant in the labour market during this period.
- Economic inactivity – people who are not involved in the labour market, they are neither working or actively seeking employment.
- Geographical neighbours - local authorities that border Gloucestershire.
- Global (Innovate UK sector) - Projects conducted with International Partners.
- Green jobs - employment in an activity that contributes to protecting or restoring the environment, including those that mitigate or adapt to climate change.
- Gross Value Added - the measure of the value of goods and services produced in an area, industry or sector, which can be used to measure the value of the economy through economic output.
- Hard to fill vacancy - a vacancy which is difficult to fill. Difficulties experienced include, but are not limited to, lack of applicants, applicants who lack the proper qualifications, competition and undesirable hours
- High growth businesses - measures all businesses with an average growth in employment of greater than 20%, per annum, over a three-year period. The size threshold used to identify these businesses is that they have 10 or more employees.
- Internal migration – residential moves between local authorities in the UK.
- Innovation Lending (Innovate UK sector) - Projects funded with a repayable Loan as opposed to a Grant.
- Job density – the number of jobs per resident of working age.
- Location quotient - a ratio to compare the share of local employment in an industry, to the share of employment in that industry across England and Wales.

- Manufacturing, Materials & Mobility (Innovate UK sector) - Project related to the manufacturing and Motor industries and the materials used by them.
- Micro/small (Innovate UK enterprise size) – An enterprise which is either micro or small, and can not be distinguished because of reporting issues.
- Other floorspace- floorspace that does not fall into the retail, office or industrial categories, e.g Education, Health, Hotels etc.
- Productivity - 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.
- Responsive (Innovate UK sector) - Projects that come from Open competitions or proposals that are in response to urgent requests or needs.
- Self-employment - a person who is self-employed works for themself independently and may or may not have employees working for them.
- Skills shortage vacancy - a vacancy that is hard to fill due to a lack of skills, qualifications or experience among applicants.
- Statistical neighbours - local authorities which may not be close to one another geographically but share similar characteristics meaning they are useful to compare to one another.
- Strategy (Innovate UK sector) - Projects from programs centred on Key strategies not specific to any one technology such as Women in Innovation.
- Working age – 16-64 years

Executive Summary

1. Geography and infrastructure

Geography and infrastructure play a significant role in economic development. Quality places retain and attract skilled and talented people. Combining this with effective networks, access to resources and opportunities makes an area even more attractive to businesses inclined to exploit intellectual capital.

Gloucestershire is a predominantly rural county, with 87.8% of the county's area being classed as rural and 30.5% of the population living in rural areas[1]. In addition, just over half of the county is designated as an Area of Natural Beauty (AONB)[2], this can be seen as a barrier to growth, as it places constraints on development in rural areas. However, this environmental quality makes Gloucestershire an attractive area for businesses and residents to locate and attracts large numbers of visitors.

In general, Gloucestershire is not very deprived, sitting in the least deprived 20% of authorities in England. However, there are pockets of deprivation, 7.6% of Gloucestershire residents live in areas amongst the most deprived 20% in England[3]. Living in areas of deprivation can have a significant impact on the life chances, with Gloucestershire residents living in the most deprived 20% of the country being almost five times as likely to be claiming unemployment benefits as those living in the least deprived 20%[4].

The rural nature of the county means accessibility is a key issue. Almost 20% of Gloucestershire's population live in areas amongst the 20% most deprived nationally in terms of Barriers to Housing and Services[5]. The average journey time to key services using public transport, drive and active travel is also longer than the regional and national average[6].

Access to good quality internet and mobile coverage is also important to support economic growth. Gloucestershire has lower levels of superfast broadband, full fibre services and gigabit capability than the national average. The situation in terms of mobile coverage is more positive. All of Gloucestershire's six districts

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[1] Rural/Urban Classification, 2011, DEFRA

[2] Natural England

[3] Indices of Deprivation, 2019, MHCLG and Mid 2020 Population Estimates, ONS

[4] Claimant Count – February 2023, ONS

[5] Indices of Deprivation, 2019, MHCLG

[6] Journey Time Statistics 2019, DfT

exceed the national average for 4G coverage, while all districts apart from Cotswold exceed the national average for 5G coverage[7].

Since 2016 the number of dwellings in the county has increased by 6.8% this was slightly lower than the rate of growth seen across the region (7.2%) but higher than the rate of growth seen nationally (5.2%)[8].

Housing affordability has become a more prominent issue in recent years. In 2022 someone earning a median sum in Gloucestershire required 8.9 times their earnings to purchase a median priced property, higher than the England average (8.2) but lower than the regional average (9.4). Within Gloucestershire there is considerable variation, housing is most affordable in Gloucester, with an affordability ratio of 7.7 and it is least affordable in Cotswold where a worker would require 13.9 times their earnings to purchase a property. Given that mortgage lenders tend to favour mortgages that are no more than 4.5 times an individual's salary, Gloucestershire's income to house price ratio may make it difficult for first time buyers to get on the property market which could make it hard to attract and retain young people to the county[9].

House prices are driven by several factors including the presence of holiday homes. In Gloucestershire around 0.4% of the total dwelling stock were second addresses used as holiday homes, this was higher than the national average (0.3%) but lower than the regional average (0.8%). Cotswold had the greatest proportion of holiday homes in the county at 1.6% which put it in the top 10% of district and unitary authorities across England and Wales[10].

2. People

Between 2011-2021 Gloucestershire's population increased by 8.1%, this was greater than the rate of growth seen across the South West (7.8%) and England and Wales (6.3%). The population growth across the county has not been even. Tewkesbury saw the highest rate of growth (15.8%) in the county and had the 8th highest rate of growth out of the 331 district and unitary authorities across England and Wales. Conversely Cheltenham saw the lowest rate of growth, with a rate of 2.7%, putting it in the bottom 25% of authorities in the country[11]. This uneven growth will have had implications for the delivery and demand for services.

[7] Connected Nations, Ofcom

[8] Live tables on dwelling stock, MHCLG

[9] Median House Prices to Median Workplace Earnings, ONS

[10] 2021 Census, ONS

[11] 2011 and 2021 Census, ONS

Gloucestershire's population growth is largely driven by internal migration, which is people moving into the county from other parts of the country. Since 2014 there has been an excess of 3,000 more people moving into the county each year than leaving. The only age group to have a net internal migration loss in Gloucestershire was 15-19 year olds, all other age groups saw more people moving into the county than leaving it. The greatest gains were amongst those aged 30-39[12].

Gloucestershire has an older population than nationally, with those aged 65+ accounting for 21.7% of the population, higher than the national average of 18.7%[13]. Projections also suggest this trend will continue and as a result Gloucestershire's working-age population is projected to decrease from 60.7% in 2018 to 55.7% in 2043. This changing population structure has implications for Gloucestershire's economy. Gloucestershire's dependency ratio is projected to increase, by 2043 for every 100 people of working age, there will be 80 people reliant on them this compares to 65 in 2018, placing greater pressure on the working age population[14].

A healthy population is essential for a prosperous economy. Generally, Gloucestershire's population is healthier than the national average. It has higher life expectancies[15], lower levels of self-reported poor health, disability and unpaid carers[16] than England and Wales. However, it is worth reflecting that increasing the retirement age may also bring new challenges to the workplace. Evidence suggests that in Gloucestershire healthy life expectancy, which is the average number of years an individual would expect to live in good health stands at 67 years for males and 66 years for females, therefore an older workforce may mean the workplace needs to adapt to better accommodate those with greater health needs.

3. Employment and skills

Gloucestershire's labour market compares well to other areas. The employment rate stood at 80.7%, up from 76.4% during the peak of the pandemic and significantly higher than the national average (75.7%). The corresponding unemployment rates have also declined and are lower than the national average. However, in line with the national and regional picture there are concerns about an increase in economic inactivity, with 17.3% of the 16-64 year old population falling into this group, up from 15.2% pre pandemic[17]. Levels of economic inactivity are still lower in the county than England and Wales, but this increase is

[12] Mid year Population Estimates, ONS

[13] Mid 2021 Population Estimates, ONS

[14] 2018 based Sub-national Population Projections, ONS

[15] National life tables – life expectancy in the UK: 2018-2020, ONS

[16] 2021 Census, ONS

[17] APS, ONS

still of concern particularly when looked at alongside the aging population as it reduces the county's labour force.

Self employment on its own is not a definitive indicator of a high degree of entrepreneurship in an area. However, alongside a high rate of business births it can suggest a strong entrepreneurial spirit in an area. Levels of self-employment in Gloucestershire are higher than the national average[18]. However, in recent years self employment rates across the county have been on a downward trend[19].

In 2023 3.3% of Gloucestershire's 16-17 year old population were classed as Not in Education, Employment or Training (NEET) or not known, this was lower than the South West and national average. However, Gloucestershire does have a higher proportion of 16–17-year-olds with Special Educational Needs (10.7%) who are NEET/unknown than England and Wales (9.6%). This suggests more support might be needed to help those with more complex needs[20].

Overall young people in Gloucestershire do well in education. Attainment 8 the key measure of attainment at the end of secondary school, is higher in Gloucestershire than the South West and England and Wales[21]. In addition, 95.4% of students who finished KS4 or Level 2 qualifications in Gloucestershire's mainstream state-funded schools progressed to a sustained education, employment or apprenticeship destination, higher than the proportion for the South West and England and Wales[22].

Gloucestershire also has a well qualified 16-64 year old population with those holding Level 4+ qualifications accounting for 38.3% of the population, above the national average of 37.0% and the regional average of 35.9%[23]. The high skill level of the population is reflected in the occupation structure. Managerial, professional, and associate professional occupations feature highly in Gloucestershire with these three groups accounting for 46.6% of employment in the county, slightly higher than the regional and national averages of 44.7% and 46.2%[24]. There is some evidence of a skills mismatch, with around 39.5% of people employed in Level 3 jobs (associated with a period of post-compulsory education but not normally to degree level), holding a Level 4+ qualification, suggesting there are more highly qualified people than there are jobs for them. This is not unique to Gloucestershire but also reflected at a national level[25].

[18] 2021 Census, ONS

[19] APS, ONS

[20] Explore Education Statistics, DFE

[21] PHOF, OHID

[22] Explore Education Statistics, DFE

[23] 2021 Census, ONS

[24] *Ibid.*

[25] *Ibid.*

Economic projections provide an indication of future economic growth and predict potential changes in employment. Looking over the medium term (2021-2031) the occupations projected to see the greatest growth are Professional occupations; Managers, directors and senior officials; and Caring, leisure and other service occupations. During the same period four occupations are projected to see a decline in employment these are: Sales and customer service occupations; Skilled trades; Process, plant and machine operatives; and Elementary occupations. This suggests there will be a greater shift to a high skilled economy in the coming years, similar trends are also projected to take over the longer period 2021-2050[26].

Economic projections also suggest replacement demand, which is the number of openings created by people leaving the labour market on a temporary or permanent basis, will play a significant role in Gloucestershire's economy. It is estimated that Gloucestershire's economy will require 182,708 new workers between 2021 and 2031 with 92% resulting from replacement demand. A similar situation is observed when looking at the longer period 2021-2050, with Gloucestershire's economy projected to require 531,696 new workers, with 98% resulting from replacement demand. Over both time periods the impact of replacement demand is greater in Gloucestershire than the South West and UK and results in a demand in all occupations, even those that are projected to see a decline in overall numbers[27]. This highlights the continuing need to replace higher skill levels of experienced workers leaving the labour market.

Over the last five years, the number of jobs in Gloucestershire increased by 1.8% this was below the rate of growth seen across the South West and England and Wales. Looking more recently between 2020 and 2021 the number of jobs in Gloucestershire declined, while increasing across the South West and England and Wales. It is unclear whether this is an emerging trend or a temporary blip, but it is something to consider going forward[28].

Economic projections suggest that over the medium term (2021-2031) job growth in Gloucestershire will be broadly in line with the national average but lower than the regional average. However, over the longer period (2021-2050) job growth in Gloucestershire is projected to be lower than the South West and UK[29].

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 there is one job for every resident of working age. In 2021 Gloucestershire had a job density of 0.87 which was in line with the regional average and marginally higher than the national average. Across the county job density figures varied from 1.03 in

[26] Oxford Economics

[27] *Ibid.*

[28] Job Density, ONS

[29] Oxford Economics

Cotswold suggesting there are more jobs than working age residents, to 0.59 in the Forest of Dean[30].

Looking forward the changing population structure may have implications for job density. By 2035 the number of jobs in the county are projected to exceed the number of working age people[31] posing a challenge for delivering future growth. It is worth noting this does not take into account increases to the retirement age or the potential impact of automation and AI.

Gloucestershire has a diverse local economy, not overly reliant on any one large company or sector for employment. In 2021 the Wholesale and retail trade (15.0%) was the largest employer in the county, followed by Human health and social work (14.0%) and Manufacturing (10.4%). The county also had strengths in the energy sector represented by Electricity, gas, steam and air conditioning supply; Agriculture, forestry and fishing; and Accommodation and food service activities, reflecting the importance of tourism[32].

Given the importance of Manufacturing to the county it is important to note it saw a decline in employment between 2016 and 2021[33] and this is projected to continue up to 2050, this will see the sector go from being the third largest employer in 2021 to the 8th largest in 2050. A number of other sectors in the county are also forecast to see declining employment in both the medium term (2021-2031) and longer term (2021-2050) these include: Mining and quarrying; Electricity, gas, steam and air conditioning supply; Agriculture, forestry and fishing; Water supply, sewerage, waste management etc; Public administration and defence; and Financial and insurance activities. Conversely nine sectors are forecast to see growing employment over both the medium and long term, they include; Arts, entertainment and recreation; Accommodation and food service activities; Information and communication; Administrative and support service activities; Professional, scientific and technical activities; Construction; Human health and social work activities; Other service activities; and Real estate[34].

Job posting data[35] highlights recruitment issues. There has been a significant increase in job postings since March 2021 and this has affected all broad occupation groups. Job postings have consistently outnumbered claimants of unemployment benefits but this difference increased in the last year peaking in June 2023 when there were 3.4 vacancies per claimant and exceeding the national average of 1.8, suggesting recruitment might be a challenge in the county[36].

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[30] Job Density, ONS

[31] Oxford Economics.

[32] BRES, ONS

[33] *Ibid.*

[34] Oxford Economics,

[35] Lightcast

[36] Lightcast and Claimant Count, ONS

Recruitment challenges are also highlighted by the Employer Skill Survey which found Gloucestershire has a higher proportion of employers reporting Hard to Fill Vacancies (10%) than nationally (8%), particularly in sectors such as Transport and Storage where the workforce is aging (23% compared to 8% nationally). These recruitment issues do not appear to be driven by skill shortages, with Skill Shortage Vacancies being in line with the national average (6%), instead they seem to be driven by a shortage of available workers[37].

The demand for green jobs which are those that have a direct and positive impact on the environment, is expected to grow at a local and national level in the coming years, suggesting it should be an area of focus[38].

4. Business and enterprise

Supporting local businesses is about ensuring the conditions for them to thrive, innovate and become more productive which helps the economy grow.

Business floorspace in Gloucestershire is predominantly industrial, with 61.8% of total space dedicated to industrial use compared to 57.6% in England and 56.9% in the South West. This reflects the county's relative specialisation in Manufacturing. Between 2016-2022 business floorspace in Gloucestershire increased by 0.8%, this was higher than England and Wales (0.5%) but lower than the South West (1.9%). The growth in business floorspace was largely driven by growth in industrial and other floorspace. Conversely, office floorspace declined reflecting the trend seen at regional and national level, while retail floorspace saw minimal growth[39].

In 2021 new businesses accounted for a lower proportion of total businesses in Gloucestershire than the South West and England and Wales. Gloucestershire also fared relatively badly compared to other parts of the county, sitting in the bottom 20% of county and unitary authorities in England and Wales in terms of business start-ups. However, business deaths accounted for a lower proportion of total enterprises in Gloucestershire than England and Wales and compared relatively well to other areas with Gloucestershire sitting in the bottom 40% of authorities across England and Wales for this measure[40].

Gloucestershire has strong business survival rates exceeding the regional and national average for 1 year, 3 year and 5 year survival rates, suggesting its business base is strong and has the right conditions to support them. However, data for the last year shows 1 year and 3 year survival rates fell in

[37] Employers Skills Survey, 2019, DfE

[38] Local Green Jobs, LGA

[39] NDR Business Floorspace

[40] Business Demography, ONS

Gloucestershire, something which was not reflected at a regional and national level[41].

It is also worth noting that in 2021 the number of business deaths in Gloucestershire outnumbered business births by 175, for the first time since 2010. This contrasted with the situation at regional and national level where there were more births than deaths[42]. It is unclear whether this is a temporary anomaly or the start of a new trend, but if it continues it will result in a decline in Gloucestershire's overall business base[43].

High growth businesses are much valued by local economies as they are enterprises which generate strong employment growth. In 2021 4.0% of active enterprises employing more than 10 people in Gloucestershire were classed as high growth enterprises, which was in line with the regional and national average. However, since 2016 the number of high growth businesses in Gloucestershire has fallen by 26.5%, the number of high growth businesses also fell at a regional and national level but to a lesser extent[44]. This suggests this is more of an issue in Gloucestershire than other parts of the county.

Gloucestershire’s business profile is fairly similar to the regional and national average, with the majority of enterprises (88.8%) being micro (employing less than 10 people). Large enterprises (employing 250+ people) account for only 0.4% of total enterprises in the county, in line with the figures for the South West and England and Wales. Between 2020-2022 the number of micro enterprises in Gloucestershire fell by 2%, this decline was not observed at a regional or national level[45], which suggests the conditions for them might not be as favorable in Gloucestershire as elsewhere.

The sector profile of businesses in Gloucestershire generally reflects the national average, with Professional, scientific and technical activities accounting for the largest proportion of enterprises followed by Construction and Wholesale and retail trade. However, Gloucestershire does have an over-representation of enterprises in Public administration and defence; Electricity, gas, steam and air conditioning supply; Agriculture, forestry and fishing; and Manufacturing when compared to the national average[46]. These sectors are generally those where the county has higher than average employment.

The legal status of businesses in Gloucestershire also differs slightly from the picture seen across and England and Wales. The county has a higher proportion of enterprises classed as Sole proprietors and partnerships than the national

[41] *Ibid.*

[42] *Ibid.*

[43] *Ibid.*

[44] *Ibid.*

[45] UK Business Counts, ONS

[46] *Ibid.*

average. In addition, it stands out as having a high proportion of Non-profit body or mutual associations, exceeding the regional and national average and sitting in the top 20% of county and unitary authorities across England and Wales for this measure[47].

Productivity is defined as the amount of goods and services that a worker produces in that same period. The Office for National Statistics preferred measure of productivity is GVA per hour worked. In 2021, Gloucestershire's GVA per hour worked was £37.39, above the South West average (£34.48) but below the England average (£38.91). Between 2016-2021 GVA per hour worked increased by 17.8% in Gloucestershire, this was higher than the growth seen across the South West (12.8%) and England (14.2%)[48].

Gross Value Added (GVA) is the measure of the value of goods and services produced in an area or sector, which can be used to measure the value of the economy through economic output. Gloucestershire's GVA increased by 18.9% between 2016-2021, this was greater than the growth seen across the South West (14.2%) and England and Wales (14.4%)[49].

The three largest contributors to Gloucestershire's GVA were Manufacturing (14.9%), Wholesale and retail trade (13.8%) and Real estate activities (12.9%). This differs slightly from the picture seen at national level where Real estate is the largest sector (12.8%) followed by Wholesale and retail (10.6%) and Manufacturing in at third (9.7%), this demonstrates the importance of Manufacturing to the county[50].

Between 2016-2021 the Wholesale and retail trade saw the greatest growth in GVA, with an increase of 47.3%. This was followed by Agriculture, forestry and fishing, mining and quarrying and Human health and social work activities. Four sectors, namely Accomodation and food service activities; Transportation and Storage; Activities of households; and Other service activities saw a decline in GVA, this was also reflected at a regional and national level[51].

Economic projections suggest that over the medium term (2021-2031) Gloucestershire's GVA will increase by 16.7% this is slightly lower than the regional (18.2%) and national average (18.4%). Over the longer period (2021-2050) Gloucestershire's GVA is projected to increase by 48.1%, lower than the growth projected at a regional (52.0%) and national level (56.0%)[52].

Looking over the 10 years 2021-2031 the three-sectors projected to see the greatest growth in GVA in Gloucestershire are Accommodation and food service

[47] *Ibid.*

[48] Subregional productivity, ONS

[49] Regional gross value added (balanced) by industry, ONS

[50] *Ibid.*

[51] *Ibid.*

[52] Oxford Economics

activities; Administrative and support service activities; and Arts, entertainment and recreation. Mining and quarrying is the only sector projected to see a decline in GVA during this period. Looking over the longer period 2021-2050 the three sectors projected to see the greatest growth in GVA in Gloucestershire are Information and communication; Administrative and support service activities; and Accommodation and food service activities. Mining and quarrying is once again the only sector forecast to see a decline in GVA[53].

Exports play a significant role in Gloucestershire's economy. In 2021 the total value of goods and services exported from Gloucestershire was £10.5 billion. Goods make up the majority of exports from the county (82%), with services accounting for the remaining 18%, this reflects the role of Manufacturing in the county. Between 2016-2021, Gloucestershire saw a 50.3% increase in the value of goods exported, far higher than the increase seen across the South west (15.3%) and England and Wales (8.5%). Conversely the value of services exported from the county fell by 24.2%, this reflected a decline seen across the South West (14.2%), however nationally the value of services exported increased by 22.4%[54].

Innovate UK is the UK's national innovation agency that provides funding and support for businesses to innovate and grow. Innovate UK has received a total of 205 applications for projects from Gloucestershire businesses and organisations between 1st April 2016 and 31st March 2021. The total value of Innovate UK funding over the period was £59,672,976, supporting total project investment of £122,639,629 including match funding from recipients. These investments are targeted at unlocking future private sector innovation activity and investment [55].

Overall Gloucestershire has a prosperous and resilient economy. It has a diverse industrial base, not overly reliant on any one large company or sector for employment or GVA. Business survival rates are high, and the county has strengths in exporting. However, there are challenges particularly around recruitment which are likely to become a greater issue in the coming years.

[53] *Ibid.*

[54] International trade in UK nations, regions and cities, ONS

[55] Innovate UK, 13th April 2022 Extract

Cheltenham Summary

1. Geography and infrastructure

Cheltenham is a predominantly urban district, with less than 1% of its population living in areas classed as rural[56]. It is the largest town in the county and as such is one of the two major employment centres.

In general Cheltenham is not a very deprived district, it sits in the second least deprived 20% of local authorities across England. However, there are pockets of deprivation within the district, and it stands out as an area with a high degree of polarity Around 10% of residents live in areas amongst the most deprived 20% nationally, conversely over 40% of residents live in areas amongst the least deprived 20% nationally[57].

The district has good accessibility both in terms of physical accessibility and digital accessibility. Average journey times to 8 key services using public transport are the best in the county and sees the district sit amongst the 20% most accessible districts and unitary authorities in England[58]. It has high levels of superfast broadband, full fibre coverage, gigabit capability as well as 4G and 5G mobile coverage with 90% of areas having 5G coverage[59].

Between 2016 and 2022, Cheltenham's housing stock grew by 4.7%, this was lower than the growth seen at a county, regional or national level and put it in the bottom 40% of authorities across England[60].

Housing affordability has become a particular issue at a national, regional and local level in recent years. In 2022, someone earning a median sum in Cheltenham required 8.9 times their earnings to purchase a median priced property. This was in line with the county average (8.9), higher than the England average (8.2) but lower than the regional average (9.4). Between 2016-2022 Cheltenham has seen a lower growth in the ratio of house prices to earnings than Gloucestershire, South West, England and Wales and all other districts in the county[61]. This is interesting when looked at conjunction with data around

[56] Rural/Urban Classification, 2011, DEFRA

[57] Indices of Deprivation, 2019, MHCLG and Mid 2020 Population Estimates, ONS

[58] Journey Time Statistics 2019, DfT

[59] Connected Nations, Ofcom

[60] Live tables on dwelling stock, MHCLG

[61] Median House Prices to Median Workplace Earnings, ONS

housing stock, as it suggests this is not due to an over-supply of housing but potentially changes in demand.

Cheltenham's housing market differs sightly from other districts. Levels of home ownership are lower in Cheltenham while levels of private renting are higher[62]. Alongside this, median monthly rents in the district exceeds the county, regional and national average, particularly when looking at larger 4+ bedroomed properties[63].

2. People

Between 2011-2021 Cheltenham's population increased by 2.7%, this was lower than the rate of growth seen across Gloucestershire (8.1%), the South West (7.8%) and England and Wales (6.3%). In addition, its population growth put it in the bottom 25% of district and unitary authorities in England and Wales[64].

Looking at the structure of the population, Cheltenham has a higher proportion of people aged 16-64 than the county and national average, but a lower proportion of people aged 0-15. When looking at those aged 65+, the district has a higher proportion of this age group than England and Wales, but a lower proportion than Gloucestershire as a whole[65]. Reflecting the trend seen at a county and national level, Cheltenham's population is ageing and projections suggest this trend will continue. Cheltenham's working-age population is projected to decrease from 63.1% in 2018 to 58.2% in 2043, however when compared to the county and other districts, Cheltenham is projected to have a larger proportion of people of working age than all areas except Gloucester[66].

This changing population structure has implications for Cheltenham's economy. Cheltenham's dependency ratio is projected to increase by 2043, for every 100 people of working age, there will be 72 people reliant on them this compares to 58 in 2018, placing greater pressure on the working age population[67].

A healthy population is essential for a prosperous economy. Generally, Cheltenham's population is healthier than the national average. It has similar life expectancies[68], lower levels of self-reported poor health, disability, and unpaid carers than England and Wales. In addition, along with Cotswold it has the lowest levels of unpaid carers in the county[69].

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[62] 2021 Census, ONS

[63] Private rental market summary statistics in England, ONS

[64] 2011 and 2021 Census, ONS

[65] Mid 2021 Population Estimates, ONS

[66] 2018 based Sub-national Population Projections, ONS

[67] *Ibid.*

[68] National life tables – life expectancy in the UK: 2018-2020, ONS

[69] 2021 Census, ONS

3. Employment and skills

Cheltenham's labour market compares relatively well to other areas. The employment rate is higher than the regional and national average, but lower than the county average. The corresponding unemployment rate is in line with the regional average, better than the figure for England and Wales, but worse than the Gloucestershire average. Economic inactivity rates, which are becoming an increasing concern at a regional, national and local level, are lower than those seen across the South West and England and Wales but higher than the county average[70].

Overall young people in Cheltenham do well in education. Attainment 8, the key measure of attainment at the end of secondary school, is the highest in the county, exceeding the national average and puts the district in the top 20% of authorities across England[71]. In addition, 94.2% of students who finished KS4 or Level 2 qualifications in Cheltenham mainstream state-funded schools progressed to a sustained education, employment or apprenticeship destination, this was in line with the national average but lower than the county average[72].

Cheltenham also has a well qualified 16-64 year old population with those holding Level 4+ qualifications accounting for 46.7% of the population. This is above the national average of 37.0%, the regional average of 35.9% and the county average of 38.3% and puts the district in the top 20% of authorities across England and Wales in terms of its qualification levels[73]. The high skill level of the population is reflected in the occupation structure. Managerial, professional, and associate professional occupations feature highly in Cheltenham with these three groups accounting for 51.1% of employment in the district, higher than the county regional and national averages of 46.6%, 44.7% and 46.2%[74].

Economic projections provide an indication of future economic growth and predict potential changes in employment. Looking over the medium term (2021-2031) the occupations projected to see the greatest growth are Managers, directors and senior officials; Professional occupations; and Associate professional and technical occupations. During the same period two occupations are projected to see a decline in employment, these are: Sales and customer service occupations and Elementary occupations[75]. This suggests there will be a greater shift to a high skilled economy in the coming years, similar trends are also projected to take over the longer period 2021-2050.

[70] *Ibid.*

[71] PHOF, OHID

[72] Explore Education Statistics, DFE

[73] 2021 Census, ONS

[74] *Ibid.*

[75] Oxford Economics

Economic projections also suggest replacement demand, which is the number of openings created by people leaving the labour market on a temporary or permanent basis will play a significant role in Cheltenham's economy. It is estimated that Cheltenham's economy will require 43,628 new workers between 2021 and 2031 with 91% resulting from replacement demand. A similar situation is observed when looking at the longer period 2021-2050, with Cheltenham's economy projected to require 114,735 new workers, with 96% resulting from replacement demand. Over both time periods the impact of replacement demand is lower in Cheltenham than Gloucestershire but greater than the South West and UK and results in a demand in all occupations, even those that are projected to see a decline in overall numbers[76]. This highlights the continuing need to replace higher skill levels of experienced workers leaving the labour market.

Cheltenham has the second largest number of jobs in the county, behind Gloucester. This reflects its importance as the second largest urban centre in the county. Over the last five years, the number of jobs in Cheltenham increased by 8.8% this was significantly higher than the rate of growth seen across Gloucestershire, the South West and England and Wales, as well as all other districts in the county except Glouctester. It also compared well to other parts of the country, sitting in the top 20% of district and unitary authorities in England and Wales in terms of job growth. Looking more recently between 2020 and 2021 the number of jobs in Cheltenham declined, reflecting the trend seen at a county level but contrasting with the situation seen in Gloucester, the South West and England and Wales, which saw an increase in jobs. It is unclear whether this is an emerging trend or a temporary blip, but it is something to consider going forward[77].

Economic projections suggest that over the medium term (2021-2031) job growth in Cheltenham will be slightly higher than the county and national average but lower than the regional average. Over the longer period (2021-2050) job growth in Cheltenham is projected to be the highest in the county, exceeding the county average but lower than the South West and UK[78].

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 there is one jo for every resident of working age. In 2021 Cheltenham had a job density of 0.98 which was higher than the county, regional and national average and all districts except Cotswold. Cheltenham also has one of the highest job density figures in the country, sitting in the top 20% of district and unitary authorities across England and Wales in terms of this measure[79].

[76] *Ibid.*

[77] Job Density, ONS

[78] Oxford Economics

[79] Job Density, ONS

Looking forward the changing population structure may have implications for job density, by 2021 the number of jobs in the county were projected to exceed the number of working age people[80] posing a challenge for delivering future growth. While this did not happen due to the fall in jobs between 2020-2021, it is likely to happen in the coming years. It is worth noting this does not take into account increases to the retirement age or the potential impact of automation and AI.

Cheltenham has a diverse local economy, not overly reliant on any one large company or sector for employment. In 2021 the Human health and social work activities sector and the Wholesale and retail trade were the two largest sectors. The district also had strengths in the tourism sector represented by Accommodation and food service activities; Education; Information and communication; and Professional scientific and technical activities[81].

A number of sectors in the district are forecast to see declining employment in both the medium term (2021-2031) and longer term (2021-2050) these mainly include sectors relating to primary and secondary industries including: Mining and quarrying; Electricity, gas, steam and air conditioning supply; Agriculture, forestry and fishing; Water supply, sewerage, waste management; and Manufacturing, as well as Transport and storage. Conversely eight sectors are forecast to see growing employment over both the medium and long term, they include; Arts, entertainment and recreation; Accommodation and food service activities; Information and communication; Professional, scientific and technical activities; Construction; Human health and social work activities; Other service activities; and Real estate[82].

Job posting data highlights recruitment issues. There has been a significant increase in job postings since March 2021. Job postings have consistently outnumbered claimants of unemployment benefits but this difference increased in the last year peaking in June 2023 when there were 5.0 vacancies per claimant, this was higher than the county, regional and national average and all districts in the county, suggesting recruitment may be an issue in the district[83].

The demand for green jobs, which are those that have a direct and positive impact on the environment, is expected to grow at a local and national level in the coming years, suggesting it should be an area of focus[84]. Evidence from job postings suggests Cheltenham has seen the smallest proportion of green jobs advertised, which could mean it is lagging behind other parts of the county, or there is less demand in the district than elsewhere[85].

[80] Oxford Economics.

[81] BRES, ONS

[82] Oxford Economics

[83] Lightcast and Claimant Count, ONS

[84] Local Green Jobs, LGA

[85] Lightcast

4. Business and enterprise

Supporting local businesses is about ensuring the conditions for them to thrive, innovate and become more productive which helps the economy grow.

Business floorspace in Cheltenham is more mixed than other parts of the county, with the district having a higher proportion of retail and office floorspace, than Gloucestershire, South West and England and Wales and all other districts in the county. Conversely it has a lower proportion of industrial floorspace. Between 2016-2022 business floorspace in Cheltenham decreased by -6.1%, this contrasted with the situation at county, regional and national level which all saw an increase in business floorspace. The decline in business floorspace was driven by a decline in office, industrial and retail floorspace, other floorspace was the only floorspace to increase in the district and exceeded the growth seen at a county, regional and national level[86].

In 2021 new businesses accounted for higher proportion of total businesses in Cheltenham than Gloucestershire but a lower proportion than the South West and England and Wales. However, the number of new businesses started in Cheltenham fell between 2016-2021. This suggests while start-up rates are less of an issue in the district than the county there are still concerns around business start-ups. In addition, business deaths accounted for a higher proportion of total enterprises in Cheltenham than Gloucestershire, the South West and England and Wales[87].

One year survival rates were also a concern in Cheltenham, with 91.8% of businesses born in 2020 surviving 1 year, lower than the county, regional and national average, as well as all other districts in the county. Cheltenham also compared badly to other parts of the country sitting in the bottom 20% of district and unitary authorities across England and Wales in terms of 1 year survival rates. Cheltenham's three and five year survival rates were higher than the national average but lower than the county average. Looking at change over time Cheltenham has followed the picture seen at county level with 1 year survival rates falling, something which was not reflected at a regional and national level. However, three year survival rates have increased in the district reflecting the trend seen at regional and national level but in opposition to the picture seen across the county[88].

It is also worth noting that in 2020 and 2021 the number of business deaths in Cheltenham outnumbered business births, this contrasted with the situation at regional and national level where there were more births than deaths[89]. It is

[86] NDR Business Floorspace

[87] Business Demography, ONS

[88] *Ibid.*

[89] *Ibid.*

unclear whether this is a temporary anomaly or the start of a new trend, but if it continues it will result in a decline in Cheltenham's overall business base.

High growth businesses are valued by local economies as they are enterprises which generate strong employment growth. In 2021 4.2% of active enterprises employing more than 10 people in Cheltenham were classed as high growth enterprises, which was broadly in line with the county, regional and national average. However, since 2016 the number of high growth businesses in Cheltenham has fallen by 37.5%, the number of high growth businesses also fell at a county, regional and national level but to a lesser extent[90]. This suggests this is more of an issue in Cheltenham than other parts of the country.

Cheltenham's business profile differs slightly to the county, regional and national average. While the majority of enterprises (88.3%) are micro (employing less than 10 people), large enterprises (employing 250+ people) account for a slightly higher proportion (0.6%) of total enterprises, than across the county (0.4%), region (0.3%) and country (0.4%). Between 2020-2022 the number of micro enterprises in Cheltenham fell, this reflected the decline seen across the county but was not observed at a regional or national level[91], which suggests the conditions for them might not be as favorable in Cheltenham as elsewhere.

The sector profile of businesses in Cheltenham generally reflects the county and national average, with the top three sectors being Professional, scientific and technical activities; Wholesale and retail trade; and Construction. However, Cheltenham does have an over-representation of enterprises in Information and communication; Financial and insurance activities; Professional, scientific and technical activities; Real estate; Education and Human health and social work activities when compared to the county, regional and national average as well as all other districts in the county[92]. These sectors are generally those where the district has higher than average employment.

The legal status of companies in Cheltenham also differs slightly from the picture seen across Gloucestershire, the South West and England and Wales. The district has a higher proportion of enterprises classed as Companies than the county, regional, country and all other districts in the county. In addition, it stands out as having a high proportion of Non-profit body or mutual associations, exceeding the county, regional and national average and sitting in the top 10% of district and unitary authorities across England and Wales for this measure[93].

Productivity is defined as the amount of goods and services that a worker produces in that same period. The Office for National Statistics preferred measure of productivity is GVA per hour worked. In 2021, Cheltenham's GVA per

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[90] *Ibid.*

[91] UK Business Counts, ONS

[92] *Ibid.*

[93] *Ibid.*

hour worked was £34.17, this was broadly in line with the South West average but below the Gloucestershire and England averages. Between 2016-2021 GVA per hour worked increased by 20.0% in Cheltenham, this was higher than the growth seen across the county, South West and England[94].

Gross Value Added (GVA) is the measure of the value of goods and services produced in an area or sector, which can be used to measure the value of the economy through economic output. Cheltenham's GVA was the second highest in the county behind Cotswold. Cheltenham's GVA increased by 15.9% between 2016-2021, this was lower than the growth seen across the county, but higher than the growth seen across the South West and England and Wales[95].

The three largest contributors to Cheltenham's GVA were Human health and social work activities (16.2%); Real estate activities (14.6%) and Public administration and defence (14.1%) This differs from the picture seen at county, regional and national level where the three largest sectors are Real estate; Wholesale and retail trade; and Manufacturing[96].

Between 2016-2021 the Agriculture, mining, electricity, gas, water and waste sector saw the greatest growth in GVA, although it is worth noting this sector make a small contribution to Cheltenham's economy. This was followed by Human, health and social work activities and Information and communication. Six sectors, namely Construction; Financial and insurance activities; Professional, scientific and technical activities; Arts, entertainment and recreation; Activities of households; and Other service activities saw a decline in GVA[97].

Economic projections suggest that over the medium term (2021-2031) Cheltenham's GVA will increase by 15.3%, this is the second lowest growth in the county behind Gloucester and is lower than the county, regional and national average. Over the longer period (2021-2050) Cheltenham's GVA is projected to increase by 42.7%, this is the second lowest growth in the county behind Stroud and is lower than the growth projected at a county, regional and national level[98].

Looking over the 10 years 2021-2031 the three-sectors projected to see the greatest growth in GVA in Cheltenham are Accommodation and food service activities; Administrative and support service activities; and Information and communication. Mining and quarrying is the only sector projected to see a decline in GVA during this period. Looking over the longer period 2021-2050 the three sectors projected to see the greatest growth in GVA in Cheltenham are Information and communication; Administrative and support service activities;

[94] Subregional Productivity, ONS

[95] Regional gross value added (balanced) by industry, ONS

[96] *Ibid.*

[97] *Ibid.*

[98] Oxford Economics

and Accommodation and food service activities. Mining and quarrying is once again the only sector forecast to see a decline in GVA[99].

Innovate UK is the UK's national innovation agency that provides funding and support for businesses to innovate and grow. Innovate UK has received a total of 34 applications for projects from Cheltenham businesses and organisations between 1st April 2016 and 31st March 2021, this was lower than the number received by Stroud, Cotswold, Tewkesbury, but higher than those from Gloucester and the Forest of Dean[100].

Overall Cheltenham has a prosperous and resilient economy. It compares well to other areas in terms of employment, unemployment and economic inactivity. It has a diverse industrial base, not overly reliant on any one large company or sector for employment or GVA. However, there are concerns around the strength of its business base and challenges particularly around recruitment which are likely to become a greater issue in the coming years.

[99] *Ibid.*

[100] Innovate UK

Cotswold Summary

1. Geography and infrastructure

Cotswold is a predominantly rural district, with more than 80% of its population living in areas classed as rural. This makes it the 8th most rural district out of 331 district and unitary authorities across England and Wales[101]. The majority of the district also falls into the Cotswold AONB[102], which places constraint on development, but also makes the area attractive to residents and tourists.

In general Cotswold is not a very deprived district, it sits in the least deprived 20% of local authorities across England and none of its residents live in areas classed amongst the most deprived 20% nationally[103].

The district generally has poor physical accessibility. Average journey times to 8 key services using public transport are the second worst in the county and sees the district sit amongst the 20% least accessible districts and unitary authorities in England[104]. The situation when looking at digital accessibility is mixed, the district has higher levels of full fibre availability than the county and national average and sits in the top 40% of authorities across England and Wales. Conversely levels of gigabit capability are below the county and national average. In terms of mobile connectivity, 4G and 5G coverage are the lowest in the county and the levels of 5G coverage put the district in the bottom 20% of district and unitary authorities across the country[105].

Between 2016 and 2022, Cotswold's housing stock grew by 8.1%, this was higher than the growth seen at a county, regional or national level and all districts except Tewkesbury and put it in the top 20% of authorities across England[106].

Housing affordability has become a particular issue at a national, regional and local level in recent years. In 2022, someone earning a median sum in Cotswold required 13.9 times their earnings to purchase a median priced property. This was higher than the county, regional and national average and put the district amongst the 20% least affordable district and unitary authorities across England

[101] Rural/Urban Classification, 2011, DEFRA

[102] Natural England

[103] Indices of Deprivation, 2019, MHCLG and Mid 2020 Population Estimates, ONS

[104] Journey Time Statistics 2019, DfT

[105] Connected Nations, Ofcom

[106] Live tables on dwelling stock, MHCLG

and Wales[107]. In addition, median monthly rents exceed the county, regional and national average and all other districts in the county, showing housing affordability whether buying or renting is a significant issue[108].

House prices are driven by several factors including the presence of holiday homes. In Cotswold 1.6% of dwelling stock were classed as holiday homes, this was the highest proportion in the county, putting it in the top 10% of district and unitary authorities across England and Wales[109]. In addition, Cotswold also has a significant proportion of under-occupied homes with 80.5% of households classed as under-occupied. This was higher than the county, regional and national average and put the district in the top 20% of authorities nationally in terms of levels of under-occupied housing[110].

2. People

Between 2011-2021 Cotswold's population increased by 9.6%, this was higher than the rate of growth seen across Gloucestershire (8.1%), the South West (7.8%) and England and Wales (6.3%). In addition, its population growth put it in the top 20% of district and unitary authorities in England and Wales[111].

Cotswold has an older population than the other districts in the county, Gloucestershire and England and Wales. Those aged 65+ account for 26.1% of Cotswold's population, higher than the county average of 21.7% and national average of 18.7%[112]. Projections also suggest this trend will continue, and as a result Cotswold's working-age population is projected to decrease from 58.0% in 2018 to 51.5% in 2043. This changing population structure has implications for Cotswold's economy. Cotswold's dependency ratio is projected to increase, by 2043 for every 100 people of working age, there will be 94 people reliant on them, this compares to 72 in 2018. This is the highest projected dependency ratio in the county and far exceeds the national average of 70 dependents per 100 working age residents, showing there be a greater pressure on the working age population in Cotswold than elsewhere[113].

A healthy population is essential for a prosperous economy. Generally, Cotswold's population is healthier than the national average. It has the highest

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[107] Median House Prices to Median Workplace Earnings, ONS

[108] Private rental market summary statistics in England, ONS

[109] 2021 Census, ONS

[110] *Ibid.*

[111] 2011 and 2021 Census, ONS

[112] Mid 2021 Population Estimates, ONS

[113] 2018 based Sub-national Population Projections, ONS

male life expectancy in the county[114] and the lowest levels of self-reported poor health, disability, and unpaid carers[115].

3. Employment and skills

Cotswold's labour market compares relatively well to other areas. The employment rate is higher than the county, regional and national average. The corresponding unemployment rate is lower than in the county, regional and national average and all other districts in the county except Stroud. Economic inactivity rates, which are becoming an increasing concern at a regional, national and local level are lower than those seen across Gloucestershire, the South West and England and Wales. In addition, Cotswold has the lowest proportion of 16-64 year olds who have never worked in the county and is within the lowest 10% of district and unitary authorities across England and Wales for this measure[116].

Self employment on its own is not a definitive indicator of a high degree of entrepreneurship in an area. However, alongside a high rate of business births it can suggest a strong entrepreneurial spirit in an area. Levels of self-employment in Cotswold (24.2%) are higher than the county (17.8%), regional (18.4%), and national average (16.8%) and puts the district in the top 10% across England and Wales in terms of levels of self-employment, suggesting this is a strength for the district[117].

Overall young people in Cotswold do well in education. Attainment 8, the key measure of attainment at the end of secondary school, is the second highest in the county, exceeding the national average and puts the district in the top 20% of authorities across England[118]. In addition, 96.6% of students who finished KS4 or Level 2 qualifications in Cotswold mainstream state-funded schools progressed to a sustained education, employment or apprenticeship destination, this was higher than the county and national average[119]. However, uptake of apprenticeships is lower in Cotswold than other parts of the county, Gloucestershire, South West or England and Wales[120].

Cotswold also has a well qualified 16-64 year old population with those holding Level 4+ qualifications accounting for 42.4% of the population. This is above the national average of 37.0%, the regional average of 35.9% and the county average of 38.3% and puts the district in the top 20% of authorities across

[114] National life tables – life expectancy in the UK: 2018-2020, ONS

[115] 2021 Census, ONS

[116] *Ibid.*

[117] *Ibid.*

[118] PHOF, OHID

[119] Explore Education Statistics, DFE

[120] *Ibid.*

England and Wales in terms of its qualification levels[121]. The high skill level of the population is reflected in the occupation structure. Managerial, professional, and associate professional occupations feature highly in Cotswold with these three groups accounting for 51.6% of employment in the district, higher than the county, regional and national averages of 46.6%, 44.7% and 46.2%[122] and all other districts in the county.

Economic projections provide an indication of future economic growth and predict potential changes in employment. Looking over the medium term (2021-2031) the occupations projected to see the greatest growth are Managers, directors and senior officials; Professional occupations; and Associate professional and technical occupations. During the same period two occupations are projected to see a decline in employment, these are: Sales and customer service occupations and Skilled trades. This suggests there will be a greater shift to a high skilled economy in the coming years, similar trends are also projected to take over the longer period 2021-2050[123].

Economic projections also suggest replacement demand, which is the number of openings created by people leaving the labour market on a temporary or permanent basis will play a significant role in Cotswold's economy. It is estimated that Cotswold's economy will require 29,539 new workers between 2021 and 2031 with 95% resulting from replacement demand. A similar situation is observed when looking at the longer period 2021-2050, with Cotswold's economy projected to require 80,711 new workers, with 98% resulting from replacement demand. Over both time periods the impact of replacement demand is greater in Cotswold than Gloucestershire, the South West and UK and results in a demand in all occupations, even those that are projected to see a decline in overall numbers[124]. This highlights the continuing need to replace higher skill levels of experienced workers leaving the labour market.

Over the last five years, the number of jobs in Cotswold decreased by -1.8% this differed from the picture seen at a county, regional and national level, which saw growth in the number of jobs during the period[125].

Economic projections suggest that over the medium term (2021-2031) job growth in Cotswold will be lower than the county, regional and national average. Over the longer period (2021-2050) job growth in Cotswold is projected to exceed the county average but will be lower than growth expected across the South West and UK[126].

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[121] 2021 Census, ONS

[122] *Ibid.*

[123] Oxford Economics

[124] *Ibid.*

[125] Job Density, ONS

[126] Oxford Economics

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 there is one job for every resident of working age. In 2021 Cotswold had a job density of 1.03, meaning there are more jobs than working age residents. Cotswold's job density was higher than the county, regional and national average and all districts in the county. Cotswold also has one of the highest job density figures in the country, siting in the top 20% of district and unitary authorities across England and Wales in terms of this measure[127].

Looking forward the changing population structure may have implications for job density, between 2021-2050 the number of jobs in the county are projected to exceed the number of working age people[128] posing a challenge for delivering future growth. It is worth noting this does not take into account increases to the retirement age or the potential impact of automation and AI.

Cotswold has a diverse local economy, not overly reliant on any one large company or sector. In 2021 the two largest sectors in terms of employment were the Wholesale and retail trade and Accommodation and food service activities, reflecting the importance of tourism to the district. The district also had strengths in Agriculture, forestry and fishing; Mining and quarrying; and Art's entertainment and recreation[129].

A number of sectors in the district are forecast to see declining employment in both the medium term (2021-2031) and longer term (2021-2050) these mainly include sectors relating to primary and secondary industries including: Mining and quarrying; Electricity, gas, steam and air conditioning supply; Agriculture, forestry and fishing; Water supply, sewerage, waste management; and Manufacturing. Conversely eight sectors are forecast to see growing employment over both the medium and long term, they include; Arts, entertainment and recreation; Accommodation and food service activities; Financial and insurance activities; Information and communication; Professional, scientific and technical activities; Human health and social work activities; Other service activities; and Real estate[130].

Job posting data highlights recruitment issues. There has been a significant increase in job postings since March 2021. Job postings have consistently outnumbered claimants of unemployment benefits but this difference increased in the last year peaking in June 2023 when there were 3.7 vacancies per claimant, this was higher than the county, regional and national average, suggesting recruitment may be an issue in the district[131].

[127] Job Density, ONS
[128] Oxford Economics.
[129] BRES, ONS
[130] Oxford Economics
[131] Lightcast and Claimant Count, ONS

The demand for green jobs which are those that have a direct and positive impact on the environment, is expected to grow at a local and national level in the coming years, suggesting it should be an area of focus[132].

4. Business and enterprise

Supporting local businesses is about ensuring the conditions for them to thrive, innovate and become more productive which helps the economy grow.

Business floorspace in Cotswold is predominantly industrial. Other floorspace accounts for a higher proportion of floorspace in Cotswold, than the other districts, Gloucestershire, South West and England and Wales. Between 2016-2022 business floorspace in Cotswold increased by 2.6%, this was greater than the growth seen at a county, regional and national level. The increase in business floorspace was driven by growth in office, industrial and retail floorspace, other floorspace saw no change[133].

In 2021, new businesses accounted for a lower proportion of total businesses in Cotswold than Gloucestershire, the South West and England and Wales. However, when new businesses are expressed as a rate per 100,000 working age population the start-up rate was the highest in the county and exceeded the county, regional and national average and saw it sit in the top 20% of authorities across the country. This shows that while overall the business base in Cotswold is less dynamic than other areas, residents are more likely to display entrepreneurship which ties in with the high levels of self employment. This is also supported by the fact the number of new businesses started in Cotswold increased between 2016-2021 and saw greater growth than all other districts in the county, Gloucestershire, South West and England and Wales[134].

Cotswold compares well to other areas when looking at business deaths. Cotswold had the second lowest business death rate in the county, behind Stroud and was below the county, regional and national average. It also sat in the bottom 20% of district and unitary authorities across England and Wales for this measure, suggesting this is a strength for the district[135].

It is also worth noting that in 2021 the number of business births in Cotswold outnumbered business deaths, this contrasted with the situation at county level where there were more deaths than births. However, the difference was smaller than that observed at a regional and national level, this means that although the business base in Cotswold is healthier than the county, it is not performing as well as other parts of the country.

[132] Local Green Jobs, LGA

[133] NDR Business Floorspace

[134] Business Demography, ONS

[135] *Ibid.*

One year survival rates in Cotswold were broadly in line with the county, regional and national average. Three year survival rates were higher than the county, regional and national average, while 5 year survival rates were lower than the county average but higher than the regional and national average. This suggests overall survival rates in the district are relatively healthy when compared to other areas. However, one and three year survival rates have fallen in the district reflecting the trend seen at county level, which suggests there are areas for improvement[136].

High growth businesses are much valued by local economies as they are enterprises which generate strong employment growth. In 2021 4.2% of active enterprises employing more than 10 people in Cotswold were classed as high growth enterprises, which was broadly in line with the county, regional and national average. Since 2016 the number of high growth businesses in Cotswold has seen no change, this contrasts with the picture at a county, regional and national level which all saw a decline in high growth businesses. This suggests this is less of an issue in Cotswold than other parts of the county[137].

Cotswold's business profile is fairly similar to the county, regional and national average, with the majority of enterprises (89.3%) being micro (employing less than 10 people). Large enterprises (employing 250+ people) account for only 0.2% of total enterprises in the county, in line with the figures for Gloucestershire, South West and England and Wales[138].

The sector profile of businesses in Cotswold differs slightly from the county and national average. Professional, scientific and technical activities and Wholesale and retail trade are the largest two sectors in Cotswold, followed by Agriculture, forestry and fishing. This differs from the situation across Gloucestershire and England and Wales where the top three sectors are Professional, scientific and technical activities; Construction and Wholesale and retail, and demonstrates the importance of Agriculture, forestry and fishing to the Cotswold economy. Cotswold also has an over-representation of enterprises in Agriculture, forestry and fishing; Professional scientific and technical activities; and Arts, entertainment and recreation when compared to the county, regional and national average[139].

Productivity is defined as the amount of goods and services that a worker produces in that same period. The Office for National Statistics preferred measure of productivity is GVA per hour worked. In 2021, Cotswold's GVA per hour worked was £49.10, this was the second highest in the county, exceeding the county, regional and nation average and put the district in the top 10% of district and unitary authorities in England and Wales in terms of productivity.

[136] *Ibid.*

[137] *Ibid.*

[138] UK Business Counts, ONS

[139] *Ibid.*

Between 2016-2021 GVA per hour worked increased by 22.5% in Cotswold, this was higher than the growth seen across the county, South West and England[140].

Gross Value Added (GVA) is the measure of the value of goods and services produced in an area or sector, which can be used to measure the value of the economy through economic output. Cotswold's GVA was the highest in the county. Cotswold's GVA increased by 20.5% between 2016-2021, this was higher than the growth seen across the county, South West and England and Wales and put the district in the top 20% of authorities nationally in terms of growth in GVA[141].

Cotswold's GVA is heavily reliant on the Financial and insurance activities sector, with this sector accounting for 38.4% of the district's GVA. This was higher than the county, regional and national average and saw the district rank 4th out of 331 district and unitary authorities in England and Wales in terms of the sector's contribution to GVA. Real estate (13.8%) and Wholesale and retail trade (8.0%) were the next largest contributors to Cotswold's GVA[142].

Between 2016-2021 the Financial and insurance activities sector saw the greatest growth in GVA. This was followed by the Agriculture, mining, electricity, gas, water and waste sector. Six sectors, namely Wholesale and trail trade; Transportation and storage; Accommodation and food service activities; Information and communication; Public administration and defence; and Other service activities saw a decline in GVA[143].

Economic projections suggest that over the medium term (2021-2031) Cotswold's GVA will increase by 18.4%, this is the second highest growth in the county behind Tewkesbury and is higher than the county average and in line with the regional and national average. Over the longer period (2021-2050) Cotswold's GVA is projected to increase by 57.0%, this is the highest growth in the county and is higher than the growth projected at a county, regional and national level[144].

Looking over the 10 years 2021-2031 the three-sectors projected to see the greatest growth in GVA in Cotswold are Accommodation and food service activities; Administrative and support service activities; and Arts, entertainment and recreation. Mining and quarrying is the only sector projected to see a decline in GVA during this period. Looking over the longer period 2021-2050 the three sectors projected to see the greatest growth in GVA in Cotswold are Information and communication; Administrative and support service activities; and

[140] Subregional Productivity, ONS

[141] Regional gross value added (balanced) by industry, ONS

[142] *Ibid.*

[143] *Ibid.*

[144] Oxford Economics

Accommodation and food service activities. Mining and quarrying is once again the only sector forecast to see a decline in GVA[145].

Innovate UK is the UK's national innovation agency that provides funding and support for businesses to innovate and grow. Innovate UK has received a total of 47 applications for projects from Cotswold businesses and organisations between 1st April 2016 and 31st March 2021, this was higher than all districts except Stroud. Despite having the second highest number of applications in the county, Cotswold received the 4th highest total investment behind Tewkesbury, Stroud and Cheltenham and the average value of applications was the second lowest in the county[146].

Overall Cotswold has one of the most productive economies in the county. It compares well to other areas in terms of employment, unemployment and economic inactivity. However, it's GVA is reliant on the Financial and insurance sector which does pose a potential risk if there are issues affecting this sector in the future. There are also challenges around recruitment which are likely to become a greater issue in the coming years.

[145] *Ibid.*

[146] Innovate UK

Forest of Dean Summary

1. Geography and infrastructure

The Forest of Dean is a predominantly rural district, with 67% of its population living in areas classed as rural. This makes it the 28th most rural district out of 331 district and unitary authorities across England and Wales[147].

In general, the Forest of Dean is not a very deprived district, and it sits in the middle 20% of local authorities across England for deprivation. However, given that Gloucestershire is not very deprived, the district does not compare as well to other parts of the county, it has the second highest deprivation score, with only Gloucester being more deprived. There are also significant pockets of deprivation with Cinderford West 1 being amongst the 20% most deprived areas nationally[148].

The district generally has poor physical and digital accessibility. Average journey times to 8 key services using public transport are the worst in the county and sees the district sit amongst the 20% least accessible districts and unitary authorities in England[149]. In addition, the district has lower levels of superfast broadband and gigabit capability than Gloucestershire and England and Wales and sits in the bottom 40% of authorities for both of these measures. The situation when looking at mobile coverage is more positive, with levels of 4G and 5G in the district exceeding the national average[150].

Housing affordability has become a particular issue at a national, regional and local level in recent years. In 2022, someone earning a median sum in the Forest of Dean required 8.5 times their earnings to purchase a median priced property. This was higher than the national average but lower than the regional and county average and all districts in the county except Gloucester, suggesting this is less of an issue in the Forest of Dean than elsewhere in the county[151]. This may be one of the reasons the Forest of Dean has one of the highest levels of home ownership in the county and country, with the district sitting in the top 20% of

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[147] Rural/Urban Classification, 2011, DEFRA
[148] Indices of Deprivation, 2019, MHCLG
[149] Journey Time Statistics 2019, DfT
[150] Connected Nations, Ofcom
[151] Median House Prices to Median Workplace Earnings, ONS

district and unitary authorities across England and Wales in terms of home ownership[152].

The cost of private renting is lower in the Forest of Dean than the county, regional and national average and all other districts in the county[153].

2. People

Between 2011-2021 Forest of Dean's population increased by 6.2%, this was lower than the rate of growth seen across Gloucestershire (8.1%) and the South West (7.8%) but in line with the rate of growth seen across England and Wales (6.3%)[154].

Forest of Dean has an older population than all other districts in the county except Cotswold, Gloucestershire and England and Wales. Those aged 65+ account for 25.1% of Forest of Dean's population, higher than the county average of 21.7% and national average of 18.7%[155]. Projections also suggest this trend will continue, and as a result Forest of Dean's working-age population is projected to decrease from 59.1% in 2018 to 53.5% in 2043. This changing population structure has implications for Forest of Dean's economy. Forest of Dean's dependency ratio is projected to increase, by 2043 for every 100 people of working age, there will be 87 people reliant on them this compares to 69 in 2018[156].

A healthy population is essential for a prosperous economy. Life expectancy for females in the Forest of Dean is higher than the national average and in line with the county average, while life expectancy for males is similar to both the county and national average[157]. However, the picture is not as positive when looking at other measures. The Forest of Dean had the highest proportion of residents with poor or very poor health and residents who were unpaid carers in the county, exceeding the county average and being in line with the national average. It also had a higher proportion of residents with disabilities than all other districts in the county, Gloucestershire and England and Wales[158].

3. Employment and skills

The labour market in the Forest of Dean does not compare as well as other parts of the county. The employment rate is the lowest in the county at 73.0% and is

[152] 2021 Census, ONS

[153] Private rental market summary statistics in England, ONS

[154] 2011 and 2021 Census, ONS

[155] Mid 2021 Population Estimates, ONS

[156] 2018 based Sub-national Population Projections, ONS

[157] National life tables – life expectancy in the UK: 2018-2020, ONS

[158] 2021 Census, ONS

lower than the county and regional average, although higher than the figure for England and Wales. The corresponding unemployment rate is lower than the regional and national average but higher than the county average. Economic inactivity rates which are becoming an increasing concern at a regional, national and local level are the highest in the county and are higher than those seen across Gloucestershire and the South West, although they are lower than the national average[159]. It is worth noting that as some of the main reasons for economic inactivity are poor health and caring responsibilities, higher levels of economic inactivity in the Forest of Dean may therefore be due to the poorer levels of health observed in the district.

Overall young people in the Forest of Dean do not do as well in education, as those in other parts of the county. Attainment 8, the key measure of attainment at the end of secondary school, is the lowest in the county and is below the county, regional and national average. It is also in the bottom 40% of authorities across England[160]. In addition, 93.7% of students who finished KS4 or Level 2 qualifications in Forest of Dean mainstream state-funded schools progressed to a sustained education, employment or apprenticeship destination, this was lower than the county and national average and the lowest in the county[161].

The Forest of Dean also has a poorer qualified 16-64 year old population than most other parts of the county with the exception of Gloucester, with those holding Level 4+ qualifications accounting for 30.7% of the population. This is below the national average of 37.0%, the regional average of 35.9% and the county average of 38.3% and puts the district in the bottom 40% of authorities across England and Wales in terms of its qualification levels. Conversely the Forest of Dean has a higher proportion of 16-64 year olds with no qualifications than Gloucestershire, the South West and all other districts in the county except Gloucester[162].

The lower skill level of the population is reflected in the occupation structure. Managerial, professional, and associate professional occupations feature less highly in the Forest of Dean than other parts of the county, with these three groups accounting for 40.6% of employment in the district, lower than the county, regional and national averages of 46.6%, 44.7% and 46.2%and all other districts in the county except Gloucester. The Forest of Dean has a higher proportion of residents employed in Skilled trades than Gloucestershire, South West, England and Wales, and all other districts in Gloucestershire. It also compares well in this measure to other parts of the country, with the district sitting in the top 20% of

[159] 2021 Census, ONS

[160] PHOF, OHID

[161] Explore Education Statistics, DFE

[162] 2021 Census, ONS

district and unitary authorities in England and Wales in terms of the proportion of employment in Skilled trades[163].

Economic projections provide an indication of future economic growth and predict potential changes in employment. Looking over the medium term (2021-2031) the occupations projected to see the greatest growth are Professional occupations; Caring, leisure and other service occupations; and Managers, directors and senior officials. During the same period four occupations are projected to see a decline in employment, these are: Sales and customer service occupations; Elementary occupations; Skilled trades; and Process, plant and machine operatives. This suggests there will be a greater shift to a high skilled economy in the coming years. Similar trends are also projected to take place over the longer period 2021-2050[164].

Economic projections also suggest replacement demand, which is the number of openings created by people leaving the labour market on a temporary or permanent basis, will play a significant role in Forest of Dean's economy. It is estimated that Forest of Dean's economy will require 16,940 new workers between 2021 and 2031 with 99% resulting from replacement demand. A similar situation is observed when looking at the longer period 2021-2050, with Forest of Dean's economy projected to require 48,505 new workers, with 101% resulting from replacement demand. Over both time periods the impact of replacement demand is greater in the Forest of Dean than Gloucestershire, the South West and UK and all other districts in the county and results in a demand in all occupations, even those that are projected to see a decline in overall numbers[165]. This highlights the continuing need to replace higher skill levels of experienced workers leaving the labour market.

The Forest of Dean has the smallest number of jobs in the county, reflecting its smaller population. Over the last five years, the number of jobs in the Forest of Dean has decreased by -3.2%, this differed from the picture seen at a county, regional and national level, which saw growth in the number of jobs during the same period[166].

Economic projections suggest that over the medium term (2021-2031) and longer term (2021-2050) job growth in the Forest of Dean will be lower than the county, regional and national average[167].

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 there is one

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[163] *Ibid.*

[164] Oxford Economics

[165] *Ibid.*

[166] Job Density, ONS

[167] Oxford Economics

job for every resident of working age. In 2021 the Forest of Dean had a job density of 0.59 which was lower than the county, regional and national average and all districts in the county. The Forest of Dean also has one of the lowest job density figures in the country, sitting in the bottom 20% of district and unitary authorities across England and Wales in terms of this measure[168].

Looking forward the changing population structure may have implications for job density. At a county and regional level and in the majority of Gloucestershire's six districts the number of jobs is projected to outnumber the number of working age residents at some point between 2021-2050. This is not the case for the Forest of Dean, with working age residents projected to outnumber jobs beyond 2050[169]. This suggests recruitment issues may be less of a challenge in the future in the Forest of Dean than other parts of the county.

The Forest of Dean has a diverse local economy, not overly reliant on any one large company or sector for employment. In 2021 Manufacturing was the largest sector followed by Wholesale and retail trade and Human health and social work activities. The district also had strengths in Agriculture, forestry and fishing; Water, supply, sewerage and waste management; and Education[170].

Given the importance of Manufacturing to the district it is important to note that this sector is projected to see a decline in employment between 2021-2050. This will see the sector go from being the third largest employer in 2021 to the 8th largest in 2050. A number of other sectors in the district are forecast to see declining employment in both the medium term (2021-2031) and longer term (2021-2050) these mainly include sectors relating to primary and secondary industries including: Mining and quarrying; Electricity, gas, steam and air conditioning supply; Agriculture, forestry and fishing; Water supply, sewerage, waste management; as well as Transport and storage. Conversely nine sectors are forecast to see growing employment over both the medium and long term, they include Arts, entertainment and recreation; Accommodation and food service activities; Construction; Education; Information and communication; Professional, scientific and technical activities; Other service activities; and Real estate[171].

Job posting data highlights recruitment issues at a county, regional and national level. Across all of these areas there has been a significant increase in job postings since March 2021 and job postings have consistently outnumbered claimants of unemployment benefits. However, in the Forest of Dean this appears to have been less of an issue. The number of postings has increased since March 2021, however there are more claimants than vacancies, with the ratio peaking at 1.0 vacancies per claimant in June 2023, considerably lower

[168] Job Density, ONS

[169] Oxford Economics

[170] BRES, ONS

[171] Oxford Economics,

than the county average (3.4), regional average (3.0) and national average (1.8) and all other districts in the county[172]. This suggests while recruitment may be an issue in most of the county, in the Forest of Dean the reverse is true with a shortage of job vacancies.

The demand for green jobs which are those that have a direct and positive impact on the environment, is expected to grow at a local and national level in the coming years, suggesting it should be an area of focus[173].

4. Business and enterprise

Supporting local businesses is about ensuring the conditions for them to thrive, innovate and become more productive which helps the economy grow.

The Forest of Dean has the smallest volume of business floorspace in the county, which reflects the fact it has the smallest number of jobs. Business floorspace is predominantly industrial with 80.1% of floorspace falling into this category, higher than all other districts, the county, region and England and Wales. Conversely it has a lower proportion of in retail and office floorspace. Between 2016-2022 business floorspace in Forest of Dean decreased by -0.8%, this contrasted with the situation at county, regional and national level which all saw an increase in business floorspace. The decline in business floorspace was driven by a decline in industrial and other floorspace, office and retail floorspace increased in the district despite office floorspace declining at a county, regional and national level[174].

In 2021 the Forest of Dean had the smallest number of active enterprises in the county, which ties in with lower number of jobs and industrial floorspace. The district also had the lowest business start-up rate in the county, below the county, regional and national average and sitting in the bottom 20% of district and unitary authorities for this measure. In addition, business deaths accounted for a higher proportion of total enterprises in the Forest of Dean than all other districts in the county, Gloucestershire, the South West and England and Wales and puts the district in the top 20% of district and unitary authorities across England and Wales for this measure. The number of business deaths in the district increased by 92.3% between 2016-2021, this was the highest increase in the county and was far higher than the county, region and national average, suggesting business deaths may be a concern for the district[175].

One year survival rates were higher in the Forest of Dean, than the county, regional and national average. Five year survival rates were the highest in the county and the second highest amongst all district and unitary authorities across

[172] Lightcast and Claimant Count, ONS

[173] Local Green Jobs, LGA

[174] NDR Business Floorspace

[175] Business Demography, ONS

England and Wales. Three-year survival rates were lower than the county and regional average but higher than the national average. However, three year survival rates have decreased in the district reflecting the trend seen at a county level but in opposition to the picture seen at a regional and national level[176].

It is also worth noting that in 2020 and 2021 the number of business deaths in Forest of Dean outnumbered business births, this contrasted with the situation at regional and national level where there were more births than deaths[177]. It is unclear whether this is a temporary anomaly or the start of a new trend, but if it continues it will result in a decline in Forest of Dean's overall business base[178].

High growth businesses are much valued by local economies as they are enterprises which generate strong employment growth. In 2021 3.2% of active enterprises employing more than 10 people in the Forest of Dean were classed as high growth enterprises, which was lower than most districts in the county, the county, regional and national average and puts the district in the bottom 40% of district and unitary authorities in England and Wales. In addition, since 2016 the number of high growth businesses in the Forest of Dean has fallen by 33.3%, the number of high growth businesses also fell at a county, regional and national level but to a lesser extent[179]. This suggests this is more of an issue in the Forest of Dean than other parts of the country.

Forest of Dean's business profile differs slightly to the county, regional and national average. Micro enterprises (employing less than 10 people), account for a larger proportion of total enterprises (91.1%) in the Forest of Dean than in other areas with the district sitting in the top 20% of district and unitary authorities across England and Wales in terms of its micro enterprises. Conversely no enterprises in the Forest of Dean are classed as large enterprises (employing 250+ people), this differs from the situation at county and national level where 0.4% of enterprises are large enterprises and puts it in the bottom 10% of district and unitary authorities across England and Wales in terms of the proportion of large enterprises[180].

The sector profile of businesses in the Forest of Dean differs slightly from the county and national average. The three largest sectors in the district in terms of the number of businesses are Construction; Agriculture, forestry and fishing; and Wholesale and retail trade. This differs from the situation at county level and England and Wales where the top three sectors are Professional, scientific and technical activities; Construction and Wholesale and retail, and demonstrates the importance of Agriculture, forestry and fishing to the Forest of Dean's economy. The Forest of Dean also has an over-representation of enterprises in Agriculture,

[176] *Ibid.*
[177] *Ibid.*
[178] *Ibid.*
[179] *Ibid.*
[180] UK Business Counts, ONS

forestry and fishing; Manufacturing; Construction; and Public administration and defence when compared to the county, regional and national average[181]. These sectors are generally those where the district has higher than average employment.

The legal status of companies in the Forest of Dean also differs slightly from the picture seen across Gloucestershire, the South West and England and Wales. The district has a lower proportion of enterprises classed as Companies than the county, regional, country and all other districts in the county. Conversely it has a higher proportion of Sole proprietors exceeding the county, regional and national average and sitting in the top 20% of district and unitary authorities across England and Wales for this measure[182].

Data around the turnover of businesses also shows the Forest of Dean has a higher proportion of enterprises with low turnover (£0-99,000) than the county, region and England and Wales and puts the district in the top 20% of district and unitary authorities across England and Wales for this measure[183]. This is unsurprising given the district has a higher proportion of micro companies and sole proprietors than other parts of the country.

Productivity is defined as the amount of goods and services that a worker produces in that same period. The Office for National Statistics preferred measure of productivity is GVA per hour worked. In 2021, Forest of Dean’s GVA per hour worked was £51.97, this was the highest in the county, exceeding the county, regional and national average and put the district in the top 10% of district and unitary authorities in England and Wales in terms of productivity. Between 2016-2021 GVA per hour worked increased by 53.5% in Forest of Dean, this was higher than the growth seen in all other districts in the county, Gloucestershire, South West and England[184].

Gross Value Added (GVA) is the measure of the value of goods and services produced in an area or sector, which can be used to measure the value of the economy through economic output. Forest of Dean’s GVA was the smallest in the county. However, Forest of Dean’s GVA increased by 61.1% between 2016-2021, this was higher than the growth seen across the county, South West and England and Wales and meant the district had the 2nd highest growth in GVA out of 331 district and unitary authorities across England and Wales[185].

Forest of Dean’s GVA is heavily reliant on the Wholesale and retail trade, with this sector accounting for 47.6% of the districts GVA. This was higher than the county, regional and national average and saw the district rank 1st out of 331

[181] *Ibid.*

[182] *Ibid.*

[183] *Ibid.*

[184] Subregional Productivity, ONS

[185] Regional gross value added (balanced) by industry, ONS

district and unitary authorities in England and Wales in terms of the sectors contribution to GVA. Real estate (11.7%) and Manufacturing (11.3%) were the next largest contributors to Forest of Dean's GVA[186].

Between 2016-2021 the Wholesale and retail trade saw the greatest growth in GVA. This was followed by Construction and Education. Six sectors, namely Transportation and storage; Financial and insurance activities; Professional, scientific and technical activities; Public administration and defence; Arts, entertainment and recreation; and Other service activities saw a decline in GVA[187].

Economic projections suggest that over the medium term (2021-2031) Forest of Dean's GVA will increase by 15.8% this is lower than the county, regional and national average. Over the longer period (2021-2050) Forest of Dean's GVA is projected to increase by 43.3%, which is also lower than the growth projected at a county, regional and national level[188].

Looking over the 10 years 2021-2031 the three-sectors projected to see the greatest growth in GVA in the Forest of Dean are Accommodation and food service activities; Administrative and support service activities; and Arts, entertainment and recreation. Mining and quarrying is the only sector projected to see a decline in GVA during this period. Looking over the longer period 2021-2050 the three sectors projected to see the greatest growth in GVA in Forest of Dean are Information and communication; Administrative and support service activities; and Accommodation and food service activities. Mining and quarrying is once again the only sector forecast to see a decline in GVA[189].

Innovate UK is the UK's national innovation agency that provides funding and support for businesses to innovate and grow. Innovate UK has received a total of 18 applications for projects from Forest of Dean businesses and organisations between 1st April 2016 and 31st March 2021, this was lower than all districts except Gloucester. The Forest of Dean also had the lowest average value of investments of all districts in the county, suggesting this maybe an area for improvement[190].

Overall, the Forest of Dean's economic performance is mixed. It has the most productive economy in the county. However, it does not compare well to other parts of the county in terms of employment and economic inactivity. It's working age population has lower levels of qualifications and poorer health outcomes than other parts of the county and educational attainment at the end of Key Stage 4 is also lower. It's GVA is also heavily reliant on the Wholesale and retail

[186] *Ibid.*
[187] *Ibid.*
[188] Oxford Economics
[189] *Ibid.*
[190] Innovate UK

trade sector which does pose a potential risk if there are issues affecting this sector in the future. There are also concerns around the strength of its business base. However, recruitment challenges which are affecting much of the county are less of an issue in the Forest of Dean than elsewhere.

Gloucester Summary

1. Geography and infrastructure

Gloucester is an urban district, with 0% of its population living in areas classed as rural[191]. It is the only city in the county and as such is the largest employment centre.

In general, Gloucester is not a very deprived district, it sits in the middle 20% of local authorities across England for deprivation. However, given that Gloucestershire is not very deprived, the district does not compare as well to other parts of the county, and has the highest deprivation score. There are also significant pockets of deprivation with 25% of the population living in areas amongst the most deprived 20% nationally[192].

The district has good accessibility both in terms of physical accessibility and digital accessibility. Average journey times to 8 key services using public transport are the second best in the county and are better than the county, regional and national average[193]. It has high levels of superfast broadband and gigabit capability, sitting in the top 20% of authorities across the country for this measure. However, it has the lowest levels of full fibre services in the county and sits in the bottom 40% of authorities nationally. Levels of 4G and 5G coverage are high with 100% of areas predicted to have good outdoor 4G coverage from at least one operator and more than 90% of areas having 5G coverage, better than any other district in the county[194].

Housing affordability has become a particular issue at a national, regional and local level in recent years. In 2022, someone earning a median sum in Gloucester required 7.7 times their earnings to purchase a median priced property. This was lower than the county, regional and national average and put the district in the bottom 40% of authorities nationally in terms of housing affordability. This suggests housing affordability is less of an issue in Gloucester than elsewhere. However, it is worth noting that between 2016-2022, Gloucester saw the greatest growth in the ratio between house prices and earnings in the

[191] Rural/Urban Classification, 2011, DEFRA

[192] Indices of Deprivation, 2019, MHCLG and Mid 2020 Population Estimates, ONS

[193] Journey Time Statistics 2019, DfT

[194] Connected Nations, Ofcom

county, and exceeded the county, regional and national average[195]. If this continues Gloucester may lose its comparative advantage in housing affordability.

2. People

Between 2011-2021 Gloucester's population increased by 8.8%, this was higher than the rate of growth seen across Gloucestershire (8.1%), the South West (7.8%) and England and Wales (6.3%)[196].

Looking at the structure of the population, Gloucester has a higher proportion of people aged 0-15 and 16-64 than all other districts in the county, the county and national average. Conversely the district has a lower proportion of people aged 65+ than Gloucestershire and England and Wales[197]. Reflecting the trend seen at a county and national level Gloucester's population is ageing and projections suggest this trend will continue. Gloucester's working-age population is projected to decrease from 63.2% in 2018 to 59.2% in 2043, however when compared to the county and other districts, Gloucester is projected to have a larger proportion of people of working age than all other areas[198].

This changing population structure has implications for Gloucester's economy. Gloucester's dependency ratio is projected to increase, by 2043 for every 100 people of working age, there will be 69 people reliant on them this compares to 58 in 2018. While this is a substantial increase, Gloucester's dependency ratio is projected to be lower than all other districts in the county suggesting it is less of an issue than elsewhere[199].

A healthy population is essential for a prosperous economy. Life expectancy in Gloucester is the lowest in the county for both males and females[200]. In addition, the district has a lower proportion of residents reporting good or very good health than the county and all other districts, although it is in line with the national average.[201] This suggests health issues may be more of a problem in Gloucester than other parts of the county.

3. Employment and skills

The labour market in the Gloucester does not compare as well as other parts of the county. The employment rate is the second lowest in the county and is lower

[195] Median House Prices to Median Workplace Earnings, ONS

[196] 2011 and 2021 Census, ONS

[197] Mid 2021 Population Estimates, ONS

[198] 2018 based Sub-national Population Projections, ONS

[199] *Ibid.*

[200] National life tables – life expectancy in the UK: 2018-2020, ONS

[201] 2021 Census, ONS

than the county average, although higher than the figure for the South West and England and Wales. The corresponding unemployment rate is lower than the national average but is the highest in the county and is higher than the county and regional average. Economic inactivity rates which are becoming an increasing concern at a regional, national and local level are higher than the county average, although they are lower than the regional and national average. Additionally, Gloucester has the highest proportion of 16-64 year olds who have never worked in the county and exceeds the county and regional average for this measure[202].

Self employment on its own is not a definitive indicator of a high degree of entrepreneurship in an area. However, alongside a high rate of business births it can suggest a strong entrepreneurial spirit in an area. Levels of self-employment in Gloucester (12.1%) are lower than the county (17.8%), regional (18.4%), and national average (16.8%) and puts the district in the bottom 10% across England and Wales in terms of levels of self-employment, suggesting this is a weakness for the district[203].

Overall young people in Gloucester do not do as well in education, as those in other parts of the county. Attainment 8, the key measure of attainment at the end of secondary school, is the second lowest in the county and is below the county and regional average[204]. In addition, 94.8% of students who finished KS4 or Level 2 qualifications in Gloucester mainstream state-funded schools progressed to a sustained education, employment or apprenticeship destination, this was lower than the county average but slightly higher than the national average. However, uptake of apprenticeships is higher in Gloucester than other parts of the county, Gloucestershire, South West or England and Wales[205].

Gloucester has a poorer qualified 16-64 year old population than all other parts of the county, with those holding Level 4+ qualifications accounting for 30.0% of the population. This is below the national average of 37.0%, the regional average of 35.9% and the county average of 38.3% and puts the district in the bottom 40% of authorities across England and Wales in terms of its qualification levels. Conversely, Gloucester has a higher proportion of 16-64 year olds with no qualifications than Gloucestershire, the South West and all other districts in the county[206].

The lower skill level of the population is reflected in the occupation structure. Managerial, professional, and associate professional occupations feature less highly in Gloucester than other parts of the county, with these three groups accounting for 38.2% of employment in the district, lower than the county

[202] *Ibid.*

[203] *Ibid.*

[204] PHOF, OHID

[205] Explore Education Statistics, DFE

[206] 2021 Census, ONS

regional and national averages of 46.6%, 44.7% and 46.2%and all other districts in the county. Gloucester has a higher proportion of residents employed in Process, plant and machine operative and Caring, leisure, and other service occupations than Gloucestershire, South West, England and Wales and all other districts in Gloucestershire. It also compares well in this measure to other parts of the country, with the district sitting in the top 40% of district and unitary authorities in England and Wales in terms of the proportion of employment in these occupations[207].

Economic projections provide an indication of future economic growth and predict potential changes in employment. Looking over the medium term (2021-2031) the occupations projected to see the greatest growth are Professional occupations; Caring, leisure and other service occupations; and Managers, directors and senior officials. During the same period four occupations are projected to see a decline in employment, these are: Sales and customer service occupations; Skilled trades; Elementary occupations; and Process, Plant and machine operatives. This suggests there will be a greater shift to a high skilled economy in the coming years, similar trends are also projected to take over the longer period 2021-2050[208].

Economic projections also suggest replacement demand, which is the number of openings created by people leaving the labour market on a temporary or permanent basis will play a significant role in Gloucester's economy. It is estimated that Gloucester's economy will require 42,940 new workers between 2021 and 2031 with 97% resulting from replacement demand. A similar situation is observed when looking at the longer period 2021-2050, with Gloucester's economy projected to require 114,784 new workers, with 99% resulting from replacement demand. Over both time periods the impact of replacement demand is greater in Gloucester than Gloucestershire, the South West and UK and results in a demand in all occupations, even those that are projected to see a decline in overall numbers[209]. This highlights the continuing need to replace higher skill levels of experienced workers leaving the labour market.

Gloucester has the largest number of jobs in the county. This reflects its importance as the largest urban centre in the county. Over the last five years, the number of jobs in Gloucester increased by 11.9%, this was significantly higher than the rate of growth seen across Gloucestershire, the South West and England and Wales, as well as all other districts in the county. It also compared well to other parts of the country, sitting in the top 20% of district and unitary authorities in England and Wales in terms of job growth. Looking more recently

[207] *Ibid.*

[208] Oxford Economics

[209] *Ibid.*

between 2020 and 2021 the number of jobs in Gloucester increased, unlike all other parts of the county which saw a decline in the number of jobs[210].

Economic projections suggest that over the medium term (2021-2031) and longer term (2021-2050) job growth in Gloucester will be lower than the county, regional and national average and over the medium term it is projected to be the lowest in the county[211].

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 there is one jo for every resident of working age. In 2021 Gloucester had a job density of 0.89 which was higher than the county, regional and national average, but lower than three other districts in the county[212].

Looking forward the changing population structure may have implications for job density, by 2044 the number of jobs in the county were projected to exceed the number of working age people[213], posing a challenge for delivering future growth. It is worth noting this does not take into account increases to the retirement age or the potential impact of automation and AI.

Gloucester has a diverse local economy, not overly reliant on any one large company or sector for employment. In 2021 the Human health and social work activities sector and the Wholesale and retail trade were the two largest sectors. The district also had strengths in Electricity, gas, stream and air conditioning supply and Public administration and defence[214].

A number of sectors in the district are forecast to see declining employment in both the medium term (2021-2031) and longer term (2021-2050) these mainly include sectors relating to primary and secondary industries including: Agriculture, forestry and fishing; Water supply, sewerage, waste management; and Manufacturing, as well as Transport and storage. Conversely six sectors are forecast to see growing employment over both the medium and long term, they include Arts, entertainment and recreation; Accommodation and food service activities; Information and communication; Professional, scientific and technical activities; Human health and social work activities; and Other service activities[215].

Job posting data highlights recruitment issues. There has been a significant increase in job postings since March 2021. Job postings have consistently outnumbered claimants of unemployment benefits but this difference increased in the last year peaking in June 2023 when there were 4.0 vacancies per

[210] Job Density, ONS

[211] Oxford Economics

[212] Job Density, ONS

[213] Oxford Economics.

[214] BRES

[215] Oxford Economics

claimant, this was higher than the county, regional and national average and all districts in the county except Cheltenham, suggesting recruitment may be an issue in the district[216].

The demand for green jobs, which are those that have a direct and positive impact on the environment, is expected to grow at a local and national level in the coming years, suggesting it should be an area of focus[217].

4. Business and enterprise

Supporting local businesses is about ensuring the conditions for them to thrive, innovate and become more productive which helps the economy grow.

Gloucester has the largest volume of business floorspace in the county, which reflects the fact it is the largest urban centre. Business floorspace in Gloucester is more mixed than other parts of the county, with the district having a higher proportion of retail and office floorspace, than Gloucestershire, South West and England and Wales and all other districts in the county except Cheltenham. Conversely it has a lower proportion of industrial floorspace. Between 2016-2022 business floorspace in Gloucester decreased by -1.6%, this contrasted with the situation at county, regional and national level which all saw an increase in business floorspace. The decline in business floorspace was driven by a decline in office, industrial and retail floorspace, other floorspace was the only floorspace to increase in the district and exceeded the growth seen at a county, regional and national level[218].

In 2021 Gloucester had the smallest proportion of active enterprises per 10,000 working age residents in the county, this was below the county, regional and national average and sat in the bottom 20% of district and unitary authorities across England and Wales for this measure[219].

The picture when looking at business births and deaths is mixed. New start ups account for a higher proportion of total enterprises in Gloucester than all other districts in the county, Gloucestershire, South West and England and Wales. However, the business death rate is the second highest in the county, exceeding the county, regional and national average and puts the district in the top 20% of district and unitary authorities across England and Wales in terms of business deaths. The district has also seen higher growth in business deaths between 2016-2021 than most other areas[220]. These factors suggest there is a lot of turnover in Gloucester's business base relative to other areas.

[216] Lightcast and Claimant Count, ONS
[217] Local Green Jobs, LGA
[218] NDR Business Floorspace
[219] Business Demography, ONS
[220] *Ibid.*

It is also worth noting that in 2021 the number of business births in Gloucester outnumbered business deaths, this contrasted with the situation at county level where there were more deaths than births. However, the difference was smaller than that observed at a regional and national level, this means that although the business base in Gloucester is healthier than the county, it is not performing as well as other parts of the country[221].

One year survival rates were higher in Gloucester, than other districts in the county, Gloucestershire, South West and England and Wales and saw the district sit in the top 20% of district and unitary authorities across England and Wales for this measure. However, three year and five year survival rates were the lowest in the county. In addition, three year survival rates have decreased in the district reflecting the trend seen at a county level but in opposition to the picture seen at a regional and national level[222].

High growth businesses are much valued by local economies as they are enterprises which generate strong employment growth. In 2021 4.6% of active enterprises employing more than 10 people in Gloucester were classed as high growth enterprises, which was higher than all districts in the county, the county, regional and national average and puts the district in the top 20% of district and unitary authorities in England and Wales. In addition, since 2016 the number of high growth businesses in Gloucester has increased, this differs from the picture seen at a county, regional and national level which saw a fall in high growth businesses. This suggests high growth businesses are doing better in Gloucester than other parts of the county and country[223].

Gloucester's business profile differs slightly to the county, regional and national average. While the majority of enterprises (86.0%) are micro (employing less than 10 people), small, medium and large enterprises account for a slightly higher proportion of total enterprises, than across the county, region and country[224].

The sector profile of businesses in Gloucester differs slightly from the county and national average. The three largest sectors in the district in terms of the number of businesses are Construction; Wholesale and retail trade; and Professional, scientific and technical activities. This differs from the situation at county level and England and Wales where the largest sector is Professional, scientific and technical activities followed by Construction and Wholesale and retail. Gloucester also has an over-representation of enterprises in Manufacturing; Construction; Accommodation and food service activities; and Human health and social work activities when compared to the county, regional and national average[225]. These

[221] *Ibid.*
[222] *Ibid.*
[223] *Ibid.*
[224] UK Business Counts, ONS
[225] *Ibid.*

sectors are generally those where the district has higher than average employment.

The legal status of companies in Gloucester also differs slightly from the picture seen across Gloucestershire, the South West and England and Wales. The district has a higher proportion of enterprises classed as Companies than the county, regional, country. In addition, it stands out as having a high proportion of Non-profit body or mutual associations, exceeding the county, regional and national average and sitting in the top 10% of district and unitary authorities across England and Wales for this measure[226].

Data around the turnover of businesses also shows Gloucester has a higher proportion of enterprises with high turnover, in the bands £1,000,000 to £9,999,000 and £10,000,000+ than the county, region and England and Wales and puts the district in the top 20% of district and unitary authorities across England and Wales for these measures[227]. This is unsurprising given the district has a higher proportion of larger companies than other parts of the country.

Productivity is defined as the amount of goods and services that a worker produces in that same period. The Office for National Statistics preferred measure of productivity is GVA per hour worked. In 2021, Gloucester's GVA per hour worked was £30.17 this was the lowest in the county, and was below the county, regional and national average. Between 2016-2021 GVA per hour worked decreased by 0.8% in Gloucester. Gloucester was the only district in the county to see a decline in productivity and differed from the picture seen in Gloucestershire, South West and England which all saw a growth in GVA per hour worked[228].

Gross Value Added (GVA) is the measure of the value of goods and services produced in an area or sector, which can be used to measure the value of the economy through economic output. Gloucester's GVA was the third highest in the county behind Cotswold and Cheltenham. Gloucester's GVA increased by 8.2% between 2016-2021, this was the smallest growth in the county and lower than the growth seen at a county, regional and national level[229].

The three largest contributors to Gloucester's GVA were Human health and social work activities (15.4%); Real estate activities (10.4%) and Wholesale and retail trade (10.3%). This differs slightly from the picture seen at county, regional and national level where the three largest sectors are Real estate; Wholesale and retail trade; and Manufacturing[230].

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[226] Ibid.

[227] Ibid.

[228] Subregional Productivity, ONS

[229] Regional gross value added (balanced) by industry, ONS

[230] *Ibid.*

Between 2016-2021 the Construction sector saw the greatest growth in GVA. This was followed by Human, health and social work activities and Public administration and defence. Seven sectors, namely Transportation and storage; Accommodation and food service activities; Financial and insurance activities; Professional, scientific and technical activities; Arts, entertainment and recreation; Activities of households; and Other service activities saw a decline in GVA[231].

Economic projections suggest that over the medium term (2021-2031) Gloucester's GVA will increase by 14.6% this is the lowest growth in the county and is lower than the county, regional and national average. Over the longer period (2021-2050) Gloucester's GVA is projected to increase by 46.5%, this is lower than the growth projected at a county, regional and national level but higher than the growth projected in the Stroud, Cheltenham and the Forest of Dean[232].

Looking over the 10 years 2021-2031 the three-sectors projected to see the greatest growth in GVA in Gloucester are Accommodation and food service activities; Administrative and support service activities; and Information and communication. Mining and quarrying is the only sector projected to see a decline in GVA during this period. Looking over the longer period 2021-2050 the three sectors projected to see the greatest growth in GVA in Gloucester are Information and communication; Administrative and support service activities; and Accommodation and food service activities. Mining and quarrying is once again the only sector forecast to see a decline in GVA[233].

Innovate UK is the UK's national innovation agency that provides funding and support for businesses to innovate and grow. Innovate UK has received a total of 12 applications for projects from Gloucester businesses and organisations between 1st April 2016 and 31st March 2021, this was the lowest number and total value of applications in the county. However, the average value of applications was higher than Cotswold and the Forest of Dean[234].

Overall, Gloucester's economic performance is mixed. It has the least productive economy in the county and does not compare well to other parts of the county in terms of unemployment. It's working age population has lower levels of qualifications and poorer health outcomes than other parts of the county and educational attainment at the end of Key Stage 4 is also lower. However it does have a higher number of jobs than any other part of the county and a higher proportion of high growth and high turnover businesses.

[231] *Ibid.*

[232] Oxford Economics

[233] *Ibid.*

[234] Innovate UK

Stroud Summary

1. Geography and infrastructure

Stroud district is classed as Urban with Significant Rural. This means that around 29% of its population live in rural areas, which is higher than the national average but in line with the county and regional average[235].

In general Stroud is not a very deprived district, it sits in the least deprived 20% of local authorities across England and none of its residents live in areas classed amongst the most deprived 20% nationally[236].

Physical accessibility is fairly average. Average journey times to 8 key services using public transport are worse than the national average, but broadly in line with the county and regional average[237]. The situation when looking at digital accessibility is fairly poor. Stroud has lower levels of superfast broadband, full fibre and gigabit capability than Gloucestershire and England and Wales and sits in the bottom 40% of authorities for all of these measures. The situation when looking at mobile coverage is more positive, with levels of 4G and 5G in the district exceeding the national average, although it is worth noting that only Cotswold has lower levels of 4G coverage than Stroud[238].

Housing affordability has become a particular issue at a national, regional and local level in recent years. In 2022, someone earning a median sum in stroud required 9.6 times their earnings to purchase a median priced property. This was higher than the county, regional and national average and all districts except Cotswold. In addition, between 2016-2022, Stroud saw the second greatest growth in the ratio between house prices and earnings in the county, and exceeded the county, regional and national average[239], suggesting housing affordability is becoming an increasing issue in the district.

2. People

Between 2011-2021 Stroud's population increased by 7.4%, this was lower than the rate of growth seen across Gloucestershire (8.1%) and the South West

[235] Rural/Urban Classification, 2011, DEFRA

[236] Indices of Deprivation, 2019, MHCLG and Mid 2020 Population Estimates, ONS

[237] Journey Time Statistics 2019, DfT

[238] Connected Nations, Ofcom

[239] Median House Prices to Median Workplace Earnings, ONS

(7.8%) but higher than the rate of growth seen across England and Wales (6.3%)[240].

Looking at the structure of the population, Stroud has a lower proportion of people aged 0-15 and 16-64 than the county and national average. Conversely the district has a higher proportion of people aged 65+ than Gloucestershire and England and Wales, but a lower proportion than Cotswold and the Forest of Dean[241]. Reflecting the trend seen at a county and national level Stroud's population is ageing and projections suggest this trend will continue. Stroud's working-age population is projected to decrease from 59.7% in 2018 to 54.9% in 2043.This changing population structure has implications for Stroud's economy. Stroud's dependency ratio is projected to increase, by 2043 for every 100 people of working age, there will be 82 people reliant on them this compares to 67 in 2018[242].

A healthy population is essential for a prosperous economy. Generally, Stroud's population is healthier than the national average. It has similar life expectancies[243] and lower levels of self-reported poor health, disability, and unpaid carers than England and Wales[244].

3. Employment and skills

Stroud's labour market compares relatively well to other areas. The employment rate is higher than the county, regional and national average and the district sits in the top 10% of district and unitary authorities across England and Wales for its employment rate. Although it is worth noting that Stroud has the highest levels of part-time working in the county. The corresponding unemployment rate is lower than in county, regional and national average and all other districts in the county. Economic inactivity rates which are becoming an increasing concern at a regional, national and local level are lower than those seen across Gloucestershire, the South West and England and Wales. In addition, the district sits in the bottom 10% of district and unitary authorities across England and Wales for its economic inactivity rate[245].

Overall young people in Stroud do well in education. Attainment 8 the key measure of attainment at the end of secondary school, exceeds the county and national average and puts the district in the top 20% of authorities across England[246]. In addition, 97.2% of students who finished KS4 or Level 2

[240] 2011 and 2021 Census, ONS

[241] Mid 2021 Population Estimates, ONS

[242] 2018 based Sub-national Population Projections, ONS

[243] National life tables – life expectancy in the UK: 2018-2020, ONS

[244] 2021 Census, ONS

[245] *Ibid.*

[246] PHOF, OHID

qualifications in Stroud mainstream state-funded schools progressed to a sustained education, employment or apprenticeship destination, this was higher than the county and national average and all other districts in the county[247].

Stroud also has a well qualified 16-64 year old population with those holding Level 4+ qualifications accounting for 41.1% of the population. This is above the national average of 37.0%, the regional average of 35.9% and the county average of 38.3% and puts the district in the top 40% of authorities across England and Wales in terms of its qualification levels[248]. The high skill level of the population is reflected in the occupation structure. Managerial, professional, and associate professional occupations feature highly in Stroud with these three groups accounting for 49.7% of employment in the district, higher than the county regional and national averages of 46.6%, 44.7% and 46.2%[249].

Economic projections provide an indication of future economic growth and predict potential changes in employment. Looking over the medium term (2021-2031) the occupations projected to see the greatest growth are Managers, directors and senior officials; Caring, leisure and other service occupations; and Professional occupations. During the same period three occupations are projected to see a decline in employment, these are: Sales and customer service occupations; Process, plant and machine operatives; and Skilled trades. This suggests there will be a greater shift to a high skilled economy in the coming years, similar trends are also projected to take over the longer period 2021-2050[250].

Economic projections also suggest replacement demand, which is the number of openings created by people leaving the labour market on a temporary or permanent basis, will play a significant role in Stroud's economy. It is estimated that Stroud's economy will require 31,258 new workers between 2021 and 2031 with 93% resulting from replacement demand. A similar situation is observed when looking at the longer period 2021-2050, with Stroud's economy projected to require 81,717 new workers, with 100% resulting from replacement demand. Over both time periods the impact of replacement demand is greater in Stroud than Gloucestershire, the South West and UK and results in a demand in all occupations, even those that are projected to see a decline in overall numbers[251]. This highlights the continuing need to replace higher skill levels of experienced workers leaving the labour market.

Over the last five years, the number of jobs in Stroud decreased by -8.2% this was the greatest decline observed in the county and differed from the picture

[247] Explore Education Statistics, DFE

[248] 2021 Census, ONS

[249] *Ibid.*

[250] Oxford Economics

[251] Oxford Economics

seen at a county, regional and national level, which saw growth in the number of jobs during the period[252].

Economic projections suggest that over the medium term (2021-2031) job growth in Stroud will be higher than the county and national average but lower than the regional average. Over the longer period (2021-2050) job growth in Stroud is projected to be the lowest in the county and below the county, regional and national average[253].

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 there is one job for every resident of working age. In 2021 Stroud had a job density of 0.78, which was lower than the county, regional and national average and all districts in the county except the Forest of Dean[254].

Looking forward the changing population structure may have implications for job density. At a county and regional level and in the majority of Gloucestershire's six districts the number of jobs is projected to outnumber the number of working age residents at some point between 2021-2050. This is not the case for Stroud, with working age residents projected to outnumber jobs beyond 2050. This suggests recruitment issues may be less of a challenge in the future in the Stroud than other parts of the county[255].

Stroud has a diverse local economy, not overly reliant on any one large company or sector. In 2021 the largest sectors in terms of employment were the Manufacturing; Wholesale and retail trade; and Human health and social work activities. The district also had strengths in Electricity, gas, steam and air conditioning supply; Agriculture, forestry and fishing; Construction; and Water supply, sewerage, waste management and remediation activities[256].

Given the importance of Manufacturing to the district it is important to note it saw a decline in employment between 2016 and 2021[257] and this is projected to continue up to 2050, this will see the sector go from being the third largest employer in 2021 to the 7th largest in 2050. A number of other sectors in the district are forecast to see declining employment in both the medium term (2021-2031) and longer term (2021-2050) these mainly include sectors relating to primary and secondary industries including: Mining and quarrying; Electricity, gas, steam and air conditioning supply; Agriculture, forestry and fishing; Water supply, sewerage, waste management; as well as Transportation and storage.

[252] Job Density, ONS
[253] Oxford Economics
[254] Job Density, ONS
[255] Oxford Economics
[256] BRES, ONS
[257] *Ibid.*

Conversely eight sectors are forecast to see growing employment over both the medium and long term, they include Arts, entertainment and recreation; Accommodation and food service activities; Construction; Education; Information and communication; Professional, scientific and technical activities; Human health and social work activities; and Other service activities[258].

Job posting data highlights recruitment issues. There has been a significant increase in job postings since March 2021. Job postings have consistently outnumbered claimants of unemployment benefits but this difference increased in the last year peaking in June 2023 when there were 3.1 vacancies per claimant, this was higher than the regional and national average but lower than the county average[259].

The demand for green jobs which are those that have a direct and positive impact on the environment, is expected to grow at a local and national level in the coming years, suggesting it should be an area of focus[260]. Evidence from job postings suggests Stroud has seen one of the largest proportions of green jobs advertised in the county, which could mean it is ahead of other parts of the county, or there is more demand in the district than elsewhere[261].

4. Business and enterprise

Supporting local businesses is about ensuring the conditions for them to thrive, innovate and become more productive which helps the economy grow.

Business floorspace is predominantly industrial with 75.4% of floorspace falling into this category, higher than, the county, region and England and Wales. Conversely it has a lower proportion of in retail and office floorspace. Between 2016-2022 business floorspace in Stroud increased by 5.6%, this was greater than the increase in floorspace seen in all other districts in the county, Gloucestershire, South West and England and Wales. The growth in business floorspace was driven by an increase in office, industrial and other floorspace, retail floorspace decreased in the district, despite growing slightly across Gloucestershire and the South West[262].

Stroud had the second lowest business start-up rate in the county, below the county, regional and national average and sitting in the bottom 20% of district and unitary authorities for this measure. However, business deaths accounted for a smaller proportion of total enterprises in Stroud than all other districts in the county, Gloucestershire, the South West and England and Wales and puts the

[258] Oxford Economics,

[259] Lightcast and Claimant Count, ONS

[260] Local Green Jobs, LGA

[261] Lightcast

[262] NDR Business Floorspace

district in the bottom 20% of district and unitary authorities across England and Wales for this measure[263].

It is also worth noting that in 2021 the number of business births in Stroud outnumbered business deaths, this contrasted with the situation at county level where there were more deaths than births. However, the difference was smaller than that observed at a regional and national level, this means that although the business base in Stroud is healthier than the county, it is not performing as well as other parts of the country[264].

One year, three year and five year survival rates were higher in Stroud, than Gloucestershire, South West and England and Wales. In addition, Stroud saw an increase in three year survival rates, reflecting the trend seen at a regional and county level but in opposition to the picture seen at county level[265].

High growth businesses are much valued by local economies as they are enterprises which generate strong employment growth. In 2021 4.2% of active enterprises employing more than 10 people in Stroud were classed as high growth enterprises, which was higher than the county, regional and national average. However, since 2016 the number of high growth businesses in Stroud has fallen by 28.6%, the number of high growth businesses also fell at a county, regional and national level but to a lesser extent[266]. This suggests this is more of an issue in Stroud than other parts of the country.

Stroud's business profile is fairly similar to the county, regional and national average, with the majority of enterprises (89.7%) being micro (employing less than 10 people). Large enterprises (employing 250+ people) account for only 0.3% of total enterprises in the county, in line with the figures for Gloucestershire, the South West and England and Wales[267].

The sector profile of businesses in Stroud generally reflects the county and national average, with the top three sectors being Professional, scientific and technical activities; Wholesale and retail trade; and Construction. However, Stroud does have an over-representation of enterprises in Agriculture, forestry and fishing; Electricity, gas, steam and air conditioning supply; Manufacturing; and Professional, scientific and technical activities when compared to the county, regional and national average. These sectors are generally those where the district has higher than average employment[268].

Data around the turnover of businesses also shows Stroud has a higher proportion of enterprises with low turnover, (£0-99,000) than the county, region

[263] Business Demography, ONS
[264] *Ibid.*
[265] *Ibid.*
[266] *Ibid.*
[267] UK Business Counts, ONS
[268] *Ibid.*

and England and Wales and puts the district in the top 20% of district and unitary authorities across England and Wales for this measure[269].

Productivity is defined as the amount of goods and services that a worker produces in that same period. The Office for National Statistics preferred measure of productivity is GVA per hour worked. In 2021, Stroud's GVA per hour worked was £31.92 this was the second lowest in the county, and was below the county, regional and national average. Between 2016-2021 GVA per hour worked increased by 21.0% in Stroud, higher than the rate of growth seen at a county, regional and national level[270].

Gross Value Added (GVA) is the measure of the value of goods and services produced in an area or sector, which can be used to measure the value of the economy through economic output. Stroud's GVA was the second lowest in the county above the Forest of Dean. Stroud's GVA increased by 13.4% between 2016-2021, this was lower than the growth seen at a county, regional and national level[271].

Stroud's GVA is heavily reliant on the Manufacturing sector, with this sector accounting for 30.0% of the districts GVA. This was higher than the county, regional and national average and saw the district rank 14th out of 331 district and unitary authorities in England and Wales in terms of the sectors contribution to GVA. Real estate (14.4%) and Wholesale and retail trade (10.2%) were the next largest contributors to Stroud's GVA[272].

Between 2016-2021 the Agriculture, mining, electricity, gas, water and waste sector saw the greatest growth in GVA. This was followed by Information and communication and Wholesale and retail trade. Six sectors, namely Construction; Accommodation and food service activities; Financial and insurance activities; Administrative and support service activities; Other service activities; and Activities of households saw a decline in GVA[273].

Economic projections suggest that over the medium term (2021-2031) Stroud's GVA will increase by 16.4% this is in line with the county average and lower than the regional and national average. Over the longer period (2021-2050) Stroud's GVA is projected to increase by 42.6%, this is lower than the growth projected in all other districts in the county and at a county, regional and national level[274].

Looking over the 10 years 2021-2031 the three-sectors projected to see the greatest growth in GVA in Stroud are Accommodation and food service activities; Administrative and support service activities; and Information and

[269] *Ibid.*

[270] Subregional Productivity, ONS

[271] Regional gross value added (balanced) by industry, ONS

[272] *Ibid.*

[273] *Ibid.*

[274] Oxford Economics

communication. Mining and quarrying is the only sector projected to see a decline in GVA during this period. Looking over the longer period 2021-2050 the three sectors projected to see the greatest growth in GVA in Stroud are Information and communication; Administrative and support service activities; and Accommodation and food service activities. Mining and quarrying is once again the only sector forecast to see a decline in GVA[275].

Innovate UK is the UK's national innovation agency that provides funding and support for businesses to innovate and grow. Innovate UK has received a total of 53 applications for projects from Stroud businesses and organisations between 1st April 2016 and 31st March 2021, this was the highest number of applications in the county. However, the total and average value of applications was the second highest in the county behind Tewkesbury[276].

Overall, Stroud's economic performance is mixed. It has the second least productive economy in the county. It's GVA is also heavily reliant on the Manufacturing sector which does pose a potential risk if there are issues affecting this sector in the future. However, it does compare well to other parts of the county in terms of employment, unemployment and economic inactivity.

[275] *Ibid.*

[276] Innovate UK

Tewkesbury Summary

1. Geography and infrastructure

Tewkesbury is classed as Largely Rural. This means that around 31% of its population live in rural areas, which is higher than the national average but in line with the county and regional average[277].

In general Tewkesbury is not a very deprived district, it sits in the least deprived 20% of local authorities across England. However, it does have pockets of deprivation with the area Tewkesbury South 3 being classed amongst the most deprived 20% nationally[278].

Physical accessibility is fairly average. Average journey times to 8 key services using public transport are worse than the national average, but broadly in line with the county and regional average[279]. The situation when looking at digital accessibility is mixed. Tewkesbury has lower levels of superfast broadband than Gloucestershire and England and Wales and sits in the bottom 20% of authorities for all of these measures. Levels of full fibre and gigabit capabilty was lower than the national average but higher than the county average. The situation when looking at mobile coverage is more positive, with levels of 4G and 5G in the district exceeding the national average[280].

Between 2016 and 2022, Tewkesbury's housing stock grew by 11.1%, this was higher than the growth seen at a county, regional or national level and all districts in the county and put it in the top 20% of authorities across England[281].

Housing affordability has become a particular issue at a national, regional and local level in recent years. In 2022, someone earning a median sum in Tewkesbury required 8.7 times their earnings to purchase a median priced property. This was higher than the county and national average but lower than the regional average[282].

[277] Rural/Urban Classification, 2011, DEFRA

[278] Indices of Deprivation, 2019

[279] Journey Time Statistics 2019, DfT

[280] Connected Nations, Ofcom

[281] Live tables on dwelling stock, MHCLG

[282] Median House Prices to Median Workplace Earnings, ONS

2. People

Between 2011-2021 Tewkesbury's population increased by 15.8%, this was higher than the rate of growth seen across Gloucestershire (8.1%), the South West (7.8%) and England and Wales (6.3%). In addition, its population growth meant it had the 8th highest population growth out of 331 district and unitary authorities in England and Wales[283].

Looking at the structure of the population, Tewkesbury has the highest proportion of 0-15 year olds in the county, exceeding the county average and sitting in line with the figure for England and Wales. The district has a lower proportion of people aged 16-64 than Gloucestershire and England and Wales, but a higher proportion of people aged 65+[284]. Reflecting the trend seen at a county and national level Tewkesbury's population is ageing and projections suggest this trend will continue. Tewkesbury's working-age population is projected to decrease from 59.3% in 2018 to 55.9% in 2043. This changing population structure has implications for Tewkesbury's economy. Tewkesbury's dependency ratio is projected to increase, by 2043 for every 100 people of working age, there will be 81 people reliant on them this compares to 69 in 2018[285].

A healthy population is essential for a prosperous economy. Generally, Tewkesbury's population is healthier than the national average. It has the highest female life expectancy in the county[286]. In addition, the proportion of residents reporting poor health or very poor health, disabilities or being an unpaid carer is lower than the figures for England and Wales[287].

3. Employment and skills

Tewkesbury's labour market compares relatively well to other areas. The employment rate is the highest in the county, exceeds the county, regional and national average and the district sits in the top 10% of district and unitary authorities across England and Wales for its employment rate. Tewkesbury also has the highest levels of full-time working in the county. The corresponding unemployment rate is lower than the county, regional and national average. Economic inactivity rates which are becoming an increasing concern at a regional, national and local level are lower than those seen across Gloucestershire, the South West and England and Wales and all other districts in the county. In addition, the district sits in the bottom 10% of district and unitary authorities across England and Wales for its economic inactivity rate[288].

[283] 2011 and 2021 Census, ONS

[284] Mid 2021 Population Estimates, ONS

[285] 2018 based Sub-national Population Projections, ONS

[286] National life tables – life expectancy in the UK: 2018-2020, ONS

[287] 2021 Census, ONS

[288] *Ibid.*

Overall young people in Tewkesbury do well in education. Attainment 8, the key measure of attainment at the end of secondary school, exceeds the county and national average and puts the district in the top 20% of authorities across England[289]. In addition, 95.2% of students who finished KS4 or Level 2 qualifications in Tewkesbury mainstream state-funded schools progressed to a sustained education, employment or apprenticeship destination, this was higher than the county and national average[290].

Tewkesbury also has a well qualified 16-64 year old population with those holding Level 4+ qualifications accounting for 39.2% of the population. This is above the national average of 37.0%, the regional average of 35.9% and the county average of 38.3% and puts the district in the top 40% of authorities across England and Wales in terms of its qualification levels[291]. The high skill level of the population is reflected in the occupation structure. Managerial, professional, and associate professional occupations feature highly in Tewkesbury with these three groups accounting for 48.6% of employment in the district, higher than the county regional and national averages of 46.6%, 44.7% and 46.2%[292].

Economic projections provide an indication of future economic growth and predict potential changes in employment. Looking over the medium term (2021-2031) the occupations projected to see the greatest growth are Professional occupations, Managers, directors and senior officials; and Caring, leisure and other service occupations. During the same period two occupations are projected to see a decline in employment, these are: Process, plant and machine operatives and Skilled trades. This suggests there will be a greater shift to a high skilled economy in the coming years, similar trends are also projected to take over the longer period 2021-2050[293].

Economic projections also suggest replacement demand, which is the number of openings created by people leaving the labour market on a temporary or permanent basis will play a significant role in Tewkesbury's economy, but less so than in other areas. It is estimated that Tewkesbury's economy will require 36,215 new workers between 2021 and 2031 with 87% resulting from replacement demand. A similar situation is observed when looking at the longer period 2021-2050, with Tewkesbury's economy projected to require 91,244 new workers, with 96% resulting from replacement demand. Over the shorter time period (2021-2031) the impact of replacement demand is less in Tewkesbury than Gloucestershire, the South West and UK. Over the longer period (2021-2050) the impact of replacement is lower in Tewkesbury than Gloucestershire but higher than the South West and the UK. Across all time periods replacement

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289 PHOF, OHID

290 Explore Education Statistics, DFE

291 2021 Census, ONS

292 *Ibid.*

293 Oxford Economics

demand in Tewkesbury results in a demand in all occupations, even those that are projected to see a decline in overall numbers[294]. This highlights the continuing need to replace higher skill levels of experienced workers leaving the labour market.

Over the last five years, the number of jobs in Tewkesbury decreased by -3.7% this differed from the picture seen at a county, regional and national level, which saw growth in the number of jobs during the period[295].

Economic projections suggest that over the medium term (2021-2031) job growth in Tewkesbury will be higher than the county, regional and national average and higher than all other districts in the county. Over the longer period (2021-2050) job growth in Tewkesbury is projected to be the second highest in the county, exceeding the county average but lower than the South West and UK[296].

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 there is one job for every resident of working age. In 2021 Tewkesbury had a job density of 0.93 which was higher than the county, regional and national average and all districts except Cotswold and Cheltenham[297].

Looking forward the changing population structure may have implications for job density, by 2022 the number of jobs in the county were projected to exceed the number of working age people[298] posing a challenge for delivering future growth. It is worth noting this does not take into account increases to the retirement age or the potential impact of automation and AI.

Tewkesbury has a diverse local economy, not overly reliant on any one large company or sector for employment. In 2021 the Manufacturing sector was the largest sector in the district followed by Wholesale and retail trade and the Human health and social work activities sector. The district also had strengths in Agriculture, forestry and fishing and Water supply, sewerage, waste management etc[299].

Given the importance of Manufacturing to the district it is important to note the sector is projected to see declining employment between 2021-2050. This will see the sector go from being the third largest employer in 2021 to the 5th largest in 2050. A number of other sectors in the district are forecast to see declining employment in both the medium term (2021-2031) and longer term (2021-2050) these mainly include sectors relating to primary and secondary industries

[294] *Ibid.*

[295] Job Density, ONS

[296] Oxford Economics

[297] Job Density, ONS

[298] Oxford Economics.

[299] BRES, ONS

including: Mining and quarrying; Electricity, gas, steam and air conditioning supply; Agriculture, forestry and fishing; and Water supply, sewerage, waste management. Conversely eleven sectors are forecast to see growing employment over both the medium and long term, they include Arts, entertainment and recreation; Administrative and support service activities; Accommodation and food service activities; Construction; Education; Information and communication; Professional, scientific and technical activities; Human health and social work activities; Other service activities; Real estate; and Wholesale and retail trade[300].

Job posting data highlights recruitment issues. There has been a significant increase in job postings since March 2021. Job postings have consistently outnumbered claimants of unemployment benefits but this difference increased in the last year peaking in June 2023 when there were 1.8 vacancies per claimant, this was higher than the national average but lower than the county and regional average, suggesting while recruitment is an issue in the district it might be less so than in other parts of the county[301].

The demand for green jobs which are those that have a direct and positive impact on the environment, is expected to grow at a local and national level in the coming years, suggesting it should be an area of focus[302]. Evidence from job postings suggests Tewkesbury has seen one of the largest proportions of green jobs advertised in the county, which could mean it is ahead of other parts of the county, or there is more demand in the district than elsewhere[303].

4. Business and enterprise

Supporting local businesses is about ensuring the conditions for them to thrive, innovate and become more productive which helps the economy grow.

Business floorspace is predominantly industrial with 76.4% of floorspace falling into this category, higher than, the county, region and England and Wales. Conversely it has a lower proportion of in retail and office floorspace. Between 2016-2022 business floorspace in Tewkesbury increased by 5.4%, this was greater than the increase in floorspace seen in all other districts in the county except Stroud, Gloucestershire, South West and England and Wales. The growth in business floorspace was driven by an increase in retail, office and industrial floorspace, other floorspace decreased in the district, despite growing across Gloucestershire, the South West and England and Wales[304].

[300] Oxford Economics,

[301] Lightcast and Claimant Count, ONS

[302] Local Green Jobs, LGA

[303] Lightcast

[304] NDR Business Floorspace

Tewkesbury had a lower business start-up rate than the county, regional and national average. However, business deaths accounted for a smaller proportion of total enterprises in Tewkesbury than Gloucestershire, the South West and England and Wales.

It is also worth noting that in 2021 the number of business births in Tewkesbury outnumbered business deaths and by a higher margin than all other districts in the county. This contrasted with the situation at county level where there were more deaths than births. However, the difference was smaller than that observed at a regional and national level, this means that although the business base in Tewkesbury is healthier than the county, it is not performing as well as other parts of the country[305].

The picture when looking at survival rates is mixed. One year survival rates are lower than the average for Gloucestershire and the South West but are higher than the national average. The district has also followed the picture seen at county level with 1 year survival rates falling, something which was not reflected at a regional and national level. However, three year survival rates are the highest in the county, exceed the average for Gloucestershire, South West and England and Wales and put the district in the top 20% of district and unitary authorities across England and Wales. The district has also seen an increase in three year survival rates, despite the county overall seeing a decline. Tewkesbury also does well in terms of five year survival rates, having the second highest rate in the county behind the Forest of Dean, exceeding the county, regional and national average and having the fourth highest five year survival rate in the country[306].

High growth businesses are much valued by local economies as they are enterprises which generate strong employment growth. In 2021 3.0% of active enterprises employing more than 10 people in Tewkesbury were classed as high growth enterprises, which was lower than all other districts in the county, the Gloucestershire, regional and national average. Since 2016 the number of high growth businesses in Tewkesbury has fallen by 62.5%. The number of high growth businesses also fell at a county, regional and national level but to a lesser extent, and the district sat in the bottom 10% of authorities across England and Wales in terms of change in high growth businesses. This suggests this is more of an issue in Tewkesbury than other parts of the country[307].

Tewkesbury's business profile differs slightly to the county, regional and national average. While the majority of enterprises (87.8%) are micro (employing less than 10 people), small, medium and large enterprises account for a slightly

[305] Business Demography, ONS
[306] *Ibid.*
[307] *Ibid.*

higher proportion of total enterprises, than across the county, region and country[308].

The sector profile of businesses in Tewkesbury generally reflects the county and national average, with the top three sectors being Professional, scientific and technical activities; Wholesale and retail trade; and Construction. However, Tewkesbury does have an over-representation of enterprises in Agriculture, forestry and fishing; Manufacturing; and Construction when compared to the county, regional and national average. These sectors are generally those where the district has higher than average employment[309].

Data around the turnover of businesses also shows Tewkesbury has a higher proportion of enterprises with high turnover, in the bands £1,000,000 to £9,999,000 and £10,000,000+ than the county, region and England and Wales and puts the district in the top 20% of district and unitary authorities across England and Wales for these measures[310]. This is unsurprising given the district has a higher proportion of larger companies than other parts of the country.

Productivity is defined as the amount of goods and services that a worker produces in that same period. The Office for National Statistics preferred measure of productivity is GVA per hour worked. In 2021, Tewkesbury's GVA per hour worked was £38.22 this was higher than the county and regional average but below the national average. Between 2016-2021 GVA per hour worked increased by 9.8% in Tewkesbury, lower than the rate of growth seen at a county, regional and national level and in all districts except Gloucester[311].

Gross Value Added (GVA) is the measure of the value of goods and services produced in an area or sector, which can be used to measure the value of the economy through economic output. Tewkesbury's GVA was the fourth highest in the county. Tewkesbury's GVA increased by 15.1% between 2016-2021, this was lower than the growth seen at a county, regional and national level[312].

Tewkesbury's GVA is heavily reliant on the Manufacturing sector, with this sector accounting for 32.7% of the districts GVA. This was higher than the county, regional and national average and saw the district rank 11th out of 331 district and unitary authorities in England and Wales in terms of the sectors contribution to GVA. Real estate (12.3%) and Construction (8.9%) were the next largest contributors to Tewkesbury's GVA[313].

Between 2016-2021 the Administrative and support service activities saw the greatest growth in GVA. This was followed by Education and Information and

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308 UK Business Counts, ONS

309 *Ibid.*

310 *Ibid.*

311 Subregional Productivity, ONS

312 Regional gross value added (balanced) by industry, ONS

313 *Ibid.*

communication. Three sectors, namely Accommodation and food service activities; Financial and insurance activities; and Public administration and defence saw a decline in GVA[314].

Economic projections suggest that over the medium term (2021-2031) Tewkesbury's GVA will increase by 18.8% this is the highest projected growth in the county and is higher than the county, regional and national average and lower than the regional and national average. Over the longer period (2021-2050) Tewkesbury's GVA is projected to increase by 51.7%, this is higher than the growth projected at a county level but lower than the growth projected at a national and regional level[315].

Looking over the 10 years 2021-2031 the three-sectors projected to see the greatest growth in GVA in Tewkesbury are Accommodation and food service activities; Administrative and support service activities; and Information and communication. Mining and quarrying is the only sector projected to see a decline in GVA during this period. Looking over the longer period 2021-2050 the three sectors projected to see the greatest growth in GVA in Tewkesbury are Information and communication; Administrative and support service activities; and Accommodation and food service activities. Mining and quarrying is once again the only sector forecast to see a decline in GVA[316].

Innovate UK is the UK's national innovation agency that provides funding and support for businesses to innovate and grow. Innovate UK has received a total of 41 applications for projects from Tewkesbury businesses and organisations between 1st April 2016 and 31st March 2021, this was the third highest number of applications in the county. However, the total and average value of applications was the highest in the county, with 60% of Gloucestershire total funding being allocated to Tewkesbury businesses[317].

In summary Tewkesbury is an area that has seen significant growth in recent years. It has a prosperous and resilient economy. It compares well to other areas in terms of employment, unemployment and economic inactivity. Its business base also appears stronger than some other parts of the county. However, it's GVA is heavily reliant on the Manufacturing sector which does pose a potential risk if there are issues affecting this sector in the future. There are also challenges around recruitment which are likely to become a greater issue in the coming years.

[314] *Ibid.*

[315] Oxford Economics

[316] *Ibid.*

[317] Innovate UK

Main Document

Global economic setting

The global recovery from the COVID-19 pandemic and Russia’s invasion of Ukraine is slowing amid widening divergences among economic sectors and regions.

The World Health Organization (WHO) announced in May 2023 that it no longer considers COVID-19 to be a “global health emergency.” Supply chains have largely recovered, and shipping costs and suppliers’ delivery times are back to pre-pandemic levels. But forces that hindered growth in 2022 persist. Inflation remains high and continues to erode household purchasing power. Policy tightening by central banks in response to inflation has raised the cost of borrowing, constraining economic growth.

Global growth is projected to fall from 3.5 percent in 2022 to 3.0 percent in both 2023 and 2024. The forecast for 2023–24 remains well below the historical (2000–19) annual average of 3.8 percent. It is also below the historical average across broad income groups, in overall GDP as well as per capita GDP terms. Advanced economies continue to drive the decline in growth from 2022 to 2023, with weaker manufacturing, as well as idiosyncratic factors, offsetting stronger services activity[318].

[318] World Economic Outlook Update, July 2023, IMF

Section 1: Geography and infrastructure

Section summary

Geography and infrastructure play a significant role in economic development. Quality places retain and attract skilled and talented people. Combining this with effective networks, access to resources and opportunities makes an area even more attractive to businesses inclined to exploit intellectual capital.

Gloucestershire is a predominantly rural county, with 87.8% of the county's area being classed as rural and 30.5% of the population living in rural areas[319]. In addition, just over half of the county is designated as an Area of Natural Beauty (AONB)[320], this can be seen as a barrier to growth, as it places constraints on development in rural areas. However, this environmental quality makes Gloucestershire an attractive area for businesses and residents to locate and attracts large numbers of visitors.

In general, Gloucestershire is not very deprived, sitting in the least deprived 20% of authorities in England. However, there are pockets of deprivation, 7.6% of Gloucestershire residents live in areas amongst the most deprived 20% in England[321]. Living in areas of deprivation can have a significant impact on the life chances, with Gloucestershire residents living in the most deprived 20% of the country being almost five times as likely to be claiming unemployment benefits as those living in the least deprived 20%[322].

The rural nature of the county means accessibility is a key issue. Almost 20% of Gloucestershire's population live in areas amongst the 20% most deprived nationally in terms of Barriers to Housing and Services[323]. The average journey time to key services using public transport, drive and active travel is also longer than the regional and national average[324].

Access to good quality internet and mobile coverage is also important to support economic growth. Gloucestershire has lower levels of superfast broadband, full fibre services and gigabit capability than the national average. The situation in terms of mobile coverage is more positive. All of Gloucestershire's six districts exceed the national average for 4G coverage, while all districts apart from Cotswold exceed the national average for 5G coverage[325].

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[319] Rural/Urban Classification, 2011, DEFRA

[320] Natural England

[321] Indices of Deprivation, 2019, MHCLG and Mid 2020 Population Estimates, ONS

[322] Claimant Count – February 2023, ONS

[323] Indices of Deprivation, 2019, MHCLG

[324] Journey Time Statistics 2019, DfT

[325] Connected Nations, Ofcom

Since 2016 the number of dwellings in the county has increased by 6.8% this was slightly lower than the rate of growth seen across the region (7.2%) but higher than the rate of growth seen nationally (5.2%)[326].

Housing affordability has become a more prominent issue in recent years. In 2022 someone earning a median sum in Gloucestershire required 8.9 times their earnings to purchase a median priced property, higher than the England average (8.2) but lower than the regional average (9.4). Within Gloucestershire there is considerable variation, housing is most affordable in Gloucester, with an affordability ratio of 7.7 and it is least affordable in Cotswold where a worker would require 13.9 times their earnings to purchase a property. Given that mortgage lenders tend to favour mortgages that are no more than 4.5 times an individual's salary, Gloucestershire's income to house price ratio may make it difficult for first time buyers to get on the property market which could make it hard to attract and retain young people to the county[327].

House prices are driven by several factors including the presence of holiday homes. In Gloucestershire around 0.4% of the total dwelling stock were second addresses used as holiday homes, this was higher than the national average (0.3%) but lower than the regional average (0.8%). Cotswold had the greatest proportion of holiday homes in the county at 1.6% which put it in the top 10% of district and unitary authorities across England and Wales[328].

1. Location

Geography plays a significant role in economic development. Quality places retain and attract skilled and talented people. Combining this with effective networks, access to resources and opportunities makes an area even more attractive to businesses inclined to exploit intellectual capital.

Gloucestershire is the northernmost county in the South West region. It shares its southern boundary with three unitary neighbours - South Gloucestershire, Swindon and Wiltshire. The county borders Oxfordshire to the east, Warwickshire, Worcestershire and Herefordshire to the north and the Welsh county of Monmouthshire to the west.

The development of the county has been strongly influenced by connectivity to the Midlands and South West via the M5 corridor and to London, the South East and Wales via the M4 corridor. While the M5 and M4 provide connectivity to surrounding areas they also act as a natural barrier for residents impacting the

[326] Live tables on dwelling stock, MHCLG
[327] Median House Prices to Median Workplace Earnings, ONS
[328] 2021 Census, ONS

community identity of the surrounding areas. The River Severn which runs through the county, provides a similar barrier.

2. Rural/Urban

The Office for National Statistics (ONS) has classified Gloucestershire as "Urban with significant rural". This means that between 26% and 49% of the county's population lives in rural settlements and large market towns. However, there are considerable differences between districts. This is illustrated in Figure 1 which shows Gloucestershire's districts fall into:

- Urban with City and Town (less than 26% of the population live in rural settlements and large market towns)
- Urban with Significant Rural (between 26% and 49% of the population live in rural areas and large market towns)
- Largely Rural (between 50% and 79% of the population live in rural areas and large market towns)
- Mainly Rural (more than 80% of the population live in rural areas and large market towns)

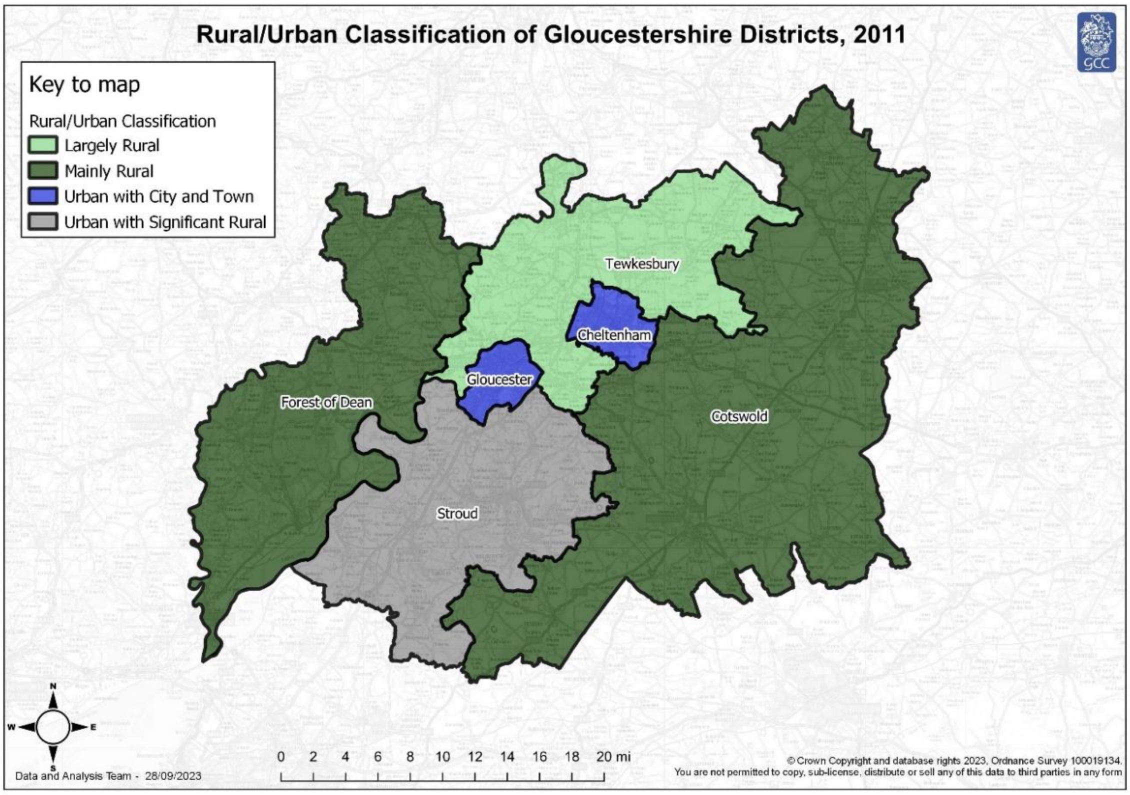

Figure 1: Rural/urban classification of local authorities in Gloucestershire, 2011[329]

[329] Rural Urban Classification, 2011, ONS

A more detailed view of variations within the county is shown in Figure 2. This is based on the classification of Output Area[330] geography into an Urban or Rural category and further splitting the Rural category into Town and Fringe and Village, Hamlet and Isolated Dwelling.

The majority of the county (87.8% of the total area) comprises Output Areas that are classified as Rural[331]. Not unsurprisingly all the Output Areas in Gloucester have been classified as Urban, as have the majority of Output Areas in Cheltenham, the remaining districts are made up of a combination of Urban, Town and Fringe and Village, Hamlet and Isolated Dwellings.

Despite the majority of Gloucestershire's total area falling into Output Areas that are classified as Rural, only 30.6% of the county's population reside in Output Areas that fall into this category. Gloucestershire's Urban Output Areas accommodate the majority (69.4%) of the county's total population[332].

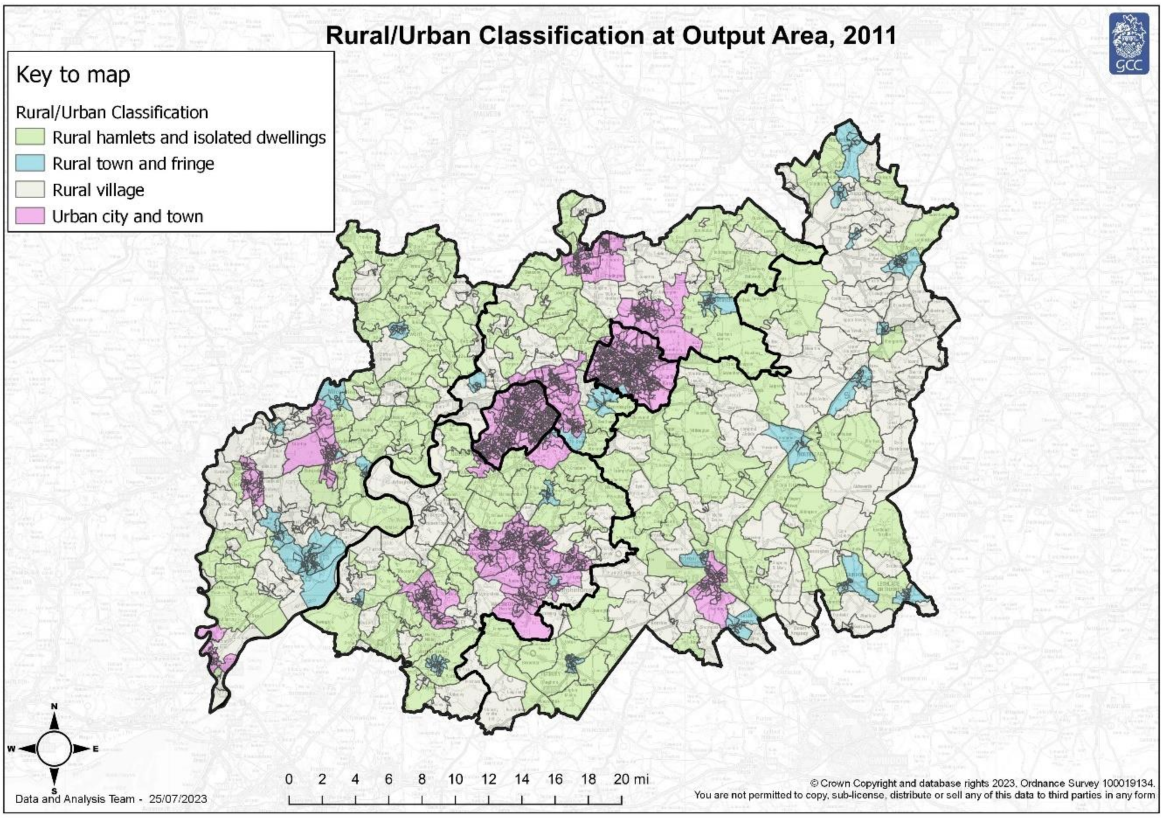

Figure 2: Rural/urban classification of Output Areas, 2011[333]

[330] Small area containing around 305 people (average of 132 households)

[331] Standard Area Measurements, ONS and Rural Urban Classification, 2011, ONS

[332] Mid 2020 Population Estimates, ONS and Rural Urban Classification, 2011, ONS

[333] Rural Urban Classification, 2011, ONS

Gloucestershire has a significantly higher proportion of its population living in rural areas than the national average (18.4%) but a similar proportion to the South West (30.9%). When compared to its geographic and statistical neighbours[334] its proportion of rural residents is similar, ranking mid place when compared to both cohorts.

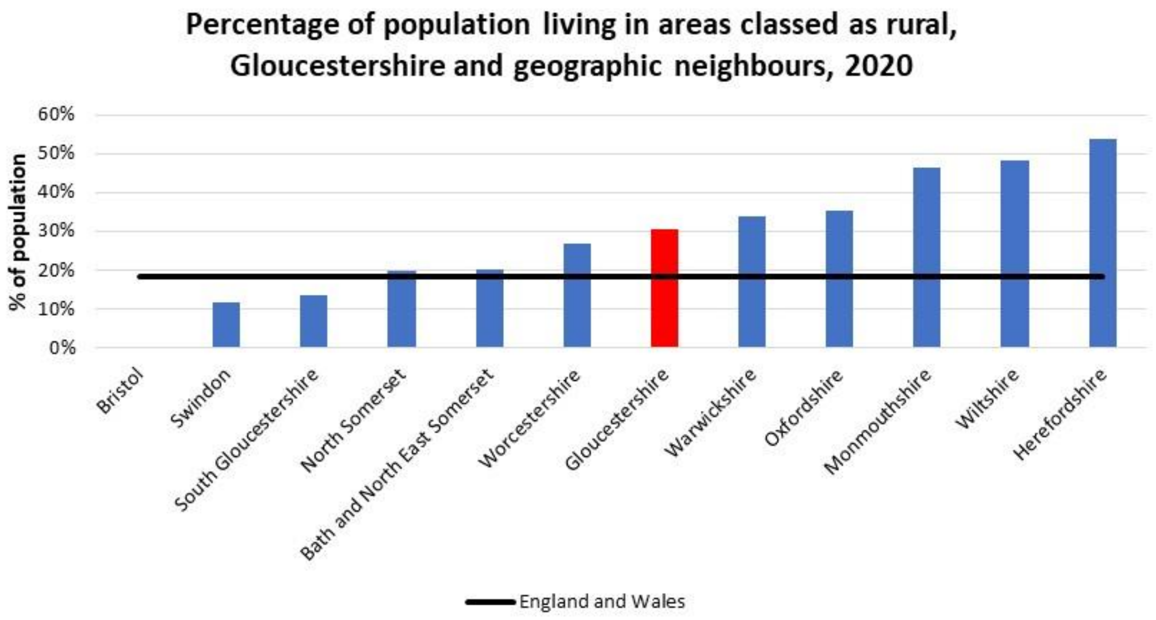

Figure 3: Percentage of population living in areas classed as rural, Gloucestershire and geographic neighbours, 2020[335]

[334] Statistical neighbours are local authorities which may not be close to one another geographically but share similar characteristics meaning they are useful to compare to one another.
[335] *Ibid.*

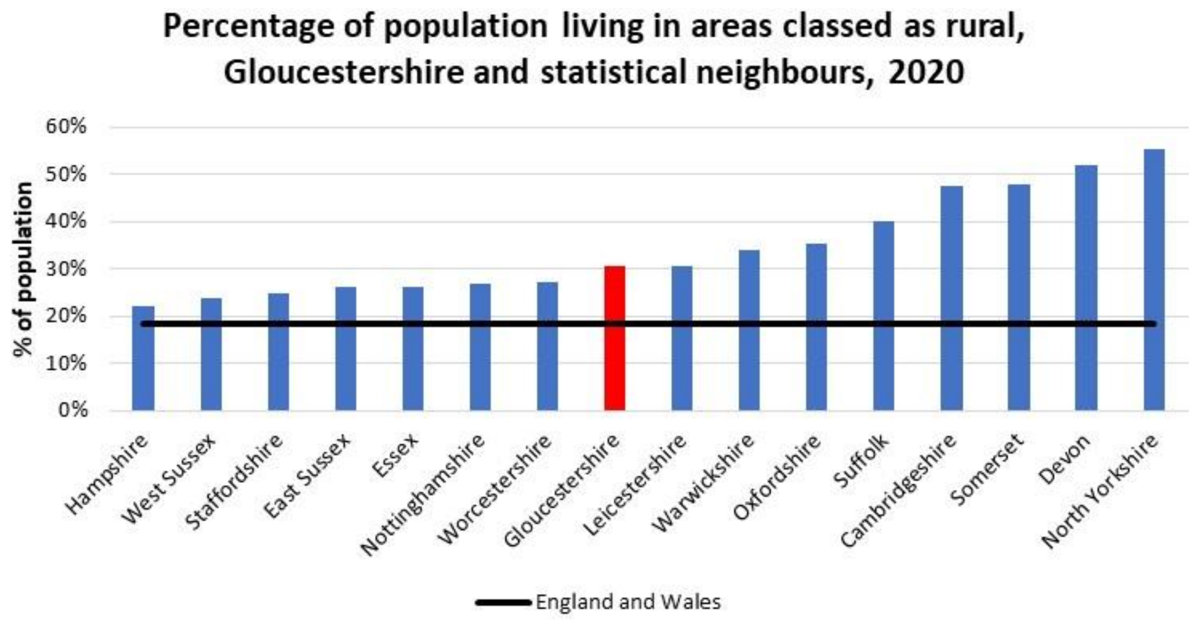

Figure 4: Percentage of population living in areas classed as rural, Gloucestershire and statistical neighbours, 2020[336]

At district level over 80% of Cotswold's population lives in rural areas, this makes it the 8th most rural district out of 331 district and unitary authorities across England and Wales. The Forest of Dean had the second highest proportion of residents in the county living in rural areas and ranked 28th out of 331 authorities, which put it in the top 10% of authorities across England and Wales in terms of rurality. Conversely less than 1% of Cheltenham's population and 0% of Gloucester's population live in rural areas, which puts them in the bottom 20% of authorities across England and Wales for this measure.

[336] *Ibid.*

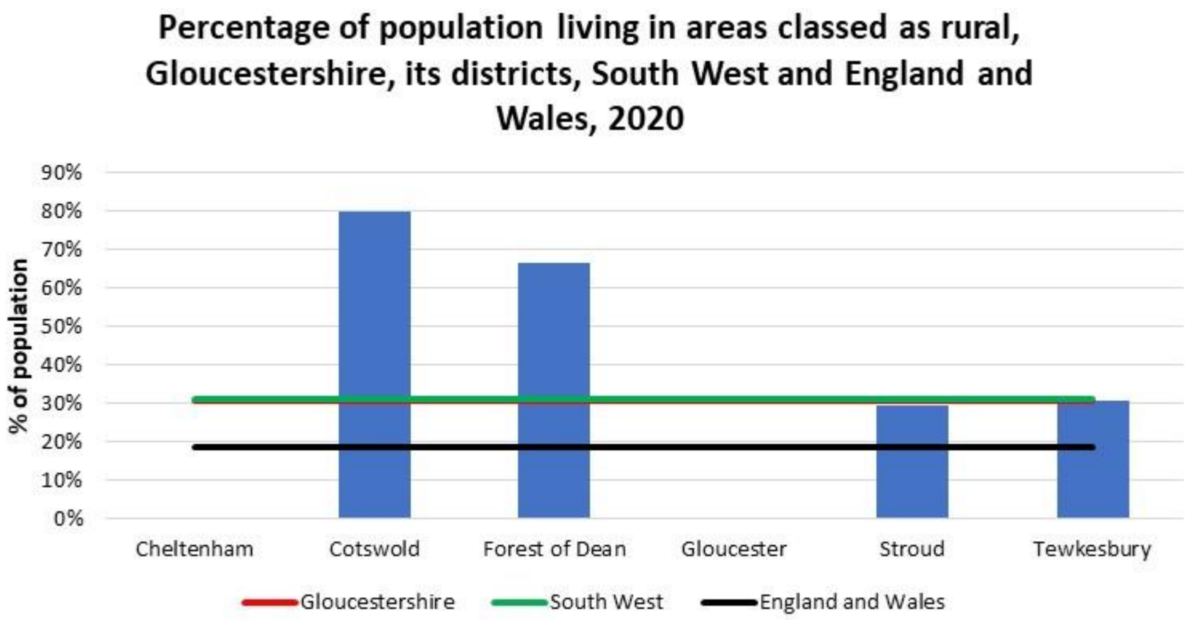

Figure 5: Percentage of population living in areas classed as rural, Gloucestershire, its districts, South West and England and Wales, 2020[337]

Gloucestershire's diverse geography and rural/urban mix provides an environment much valued as a place to live and work.

3. Main towns and market towns

3.1 Main towns

Gloucestershire has two main urban settlements Cheltenham and Gloucester, which are the main business, commercial, educational, service and cultural centres in the county.

3.1.1 Gloucester

Gloucester, an historic cathedral city, is situated in the central Severn Vale area of the county, adjacent to the River Severn. It is the only city and the main administrative centre in Gloucestershire, as such it provides a significant number of public sector jobs.

Historically, much of the city's success came from its position on the River Severn and the Gloucester and Sharpness canal, which meant it was a major port. Today the city is one of the main employment centres for the county with a diverse industrial base that is home to several engineering firms and a strong service sector including some large insurance companies. The city is also an important retail centre and is home to the county's major hospital Gloucester

[337] *Ibid.*

Royal Hospital and as such has a high proportion of jobs in the health and social care sector.

3.1.2 Cheltenham

Cheltenham is situated on the edge of the Cotswold's, it is one of the two major centres of employment in Gloucestershire. The town gained prominence in the early 18th century, when the accidental discovery of a saline spring, led to Cheltenham becoming a popular spa town resort. Today the town is famous for its regency architecture, its cultural events including festivals of literature and jazz and the Gold Cup the highlight of the National Hunt racing calendar, which attracts hundreds of thousands of visitors to the town each year. Cheltenham has a reputation for the quality of its shopping facilities. It is also one of the main educational centres in the county, its schools have an excellent international reputation (including the famous Cheltenham Ladies' College and Cheltenham College). Gloucestershire College and the University of Gloucestershire also have campuses located in the town.

Notable employers in Cheltenham include Spirax Sarco and GCHQ (Government Communications Headquarters). This has led to the town developing a prominent cyber sector which will expand in the coming years with the development of the National Cyber Innovation Centre.

3.2 Market towns

As well as Cheltenham and Gloucester, there are a number of market towns within the county. These towns play a significant role in the local economy both as employment hubs and as providers of services to resident communities and outlying rural areas. The larger market towns in the county include Cirencester, Coleford, Lydney, Stroud and Tewkesbury.

3.2.1 Cirencester

Cirencester, also known as the 'Capital of the Cotswolds' is the main administrative and service centre in Cotswold district. It is located in the east of the county, close to the border with Wiltshire and on the edge of the Cotswold's AONB (Area of Outstanding Natural Beauty).

The town has been an important settlement since the Roman era, when Corinium as it was then known - was a major city second only in importance to London. Today Cirencester is a popular tourist, craft and retail centre.

The town also fulfils important educational functions. It is home to a number of secondary schools, Cirencester College and the Royal Agricultural University which provides land-based foundation, undergraduate and postgraduate degree programmes.

3.2.2 Coleford

Coleford is the Forest of Dean's administrative centre. The town is located in the West of the county, 4 miles east of the Welsh border. It falls between the Wye Valley AONB on the west and the statutory boundary to the Royal Forest of Dean on the east. The town has a strong industrial heritage, it was once a mining centre, it also had strong links with the steel and iron industries. Today Coleford is a leisure and tourism destination. It is also home to Suntory's production facility for Ribena and Lucozade, which is a major employer in the area.

Coleford has a relatively small population, however it also serves the communities of Mikwall, Mile End and Coalway. This enables it to support a wide range of services and shopping facilities and makes it the second largest retail centre in the Forest of Dean.

3.2.3 Lydney

Lydney, the largest retail and service centre in the Forest of Dean, is located in the south west of the county on the banks of the River Severn. The town has good transport links, it is situated on the main rail route between the South West and the Midlands and stands on the main Gloucester to Chepstow road (A48).

Historically, the town was a port for the Forest of Dean area. It also acted as an agricultural market town and developed manufacturing skills to serve the surrounding countryside. Today Lydney is a busy industrial centre, with a wide range of business activities made possible by its easy access to motorways and the Severn Bridge. Lydney has a wide catchment area, which includes several large settlements such as Aylburton and Bream.

3.2.4 Stroud

Stroud is the largest market town and main administrative centre in Stroud district. It is situated to the south of Gloucester, below the western escarpment of the Cotswold hills at the meeting point of the five valleys. The town is easily accessible with the Gloucester-London main railway line running through it and junction 13 of the M5 lying five miles to the west of the town centre.

During the late 18th and early 19th centuries Stroud was a national centre for the cloth industry. The town now has a diverse industrial base and is home to a wide range of businesses including renewable energy provider Ecotricity. Stroud serves as the main shopping centre for the surrounding villages and smaller market towns including Amberley, Dursley, Nailsworth, Painswick and Woodchester. It has a strong identity and presence, which enabled it to become one of the first fair-trade towns in the country and establish its own local currency, the Stroud Pound, which aims to encourage people to spend money with local retailers.

3.2.5 Tewkesbury

Tewkesbury is an historic market town situated on the northern border of the county, between the Cotswolds and the Malvern Hills, at the confluence of the Rivers Avon and Severn. It lies on the A38, the main road between Gloucester and Worcester, and a short distance to the west of the M5 motorway's Junction 9. The town has a wide range of shops, from small independents to national chains. It is also a popular tourist destination, particularly for those interested in historic buildings. There is also a cluster of key employment sites located on the edges of the town by Junction 9 of the M5.

3.2.6 Smaller market towns

Gloucestershire's smaller market towns and key service centres include:

- Bourton on the Water, Chipping Camden, Fairford, Lechlade on Thames, Moreton in Marsh, Northleach, Stow-on-the-Wold and Tetbury in the Cotswolds
- Cinderford and Newent in the Forest of Dean
- Quedgeley in Gloucester
- Berkeley, Cam, Dursley, Minchinhampton, Nailsworth, Painswick, Stonehouse and Wotton-under Edge in Stroud
- Bishops Cleeve, Churchdown and Winchcombe in Tewkesbury.

4. Areas of Outstanding Natural Beauty (AONB)

Areas of Outstanding Natural Beauty (AONB), along with National Parks, are considered to be the most special landscapes in the country. The primary purpose of the AONB designation is to conserve and enhance the natural beauty of the area. However, a designation means that development in the area is only permitted in ways that enhance the landscape character of the AONB.

Just over half (51%) of the county is designated as an AONB. Figure 6 shows there are three AONBs in Gloucestershire, the Cotswolds, Malvern Hills and Wye Valley, the largest being the Cotswolds.

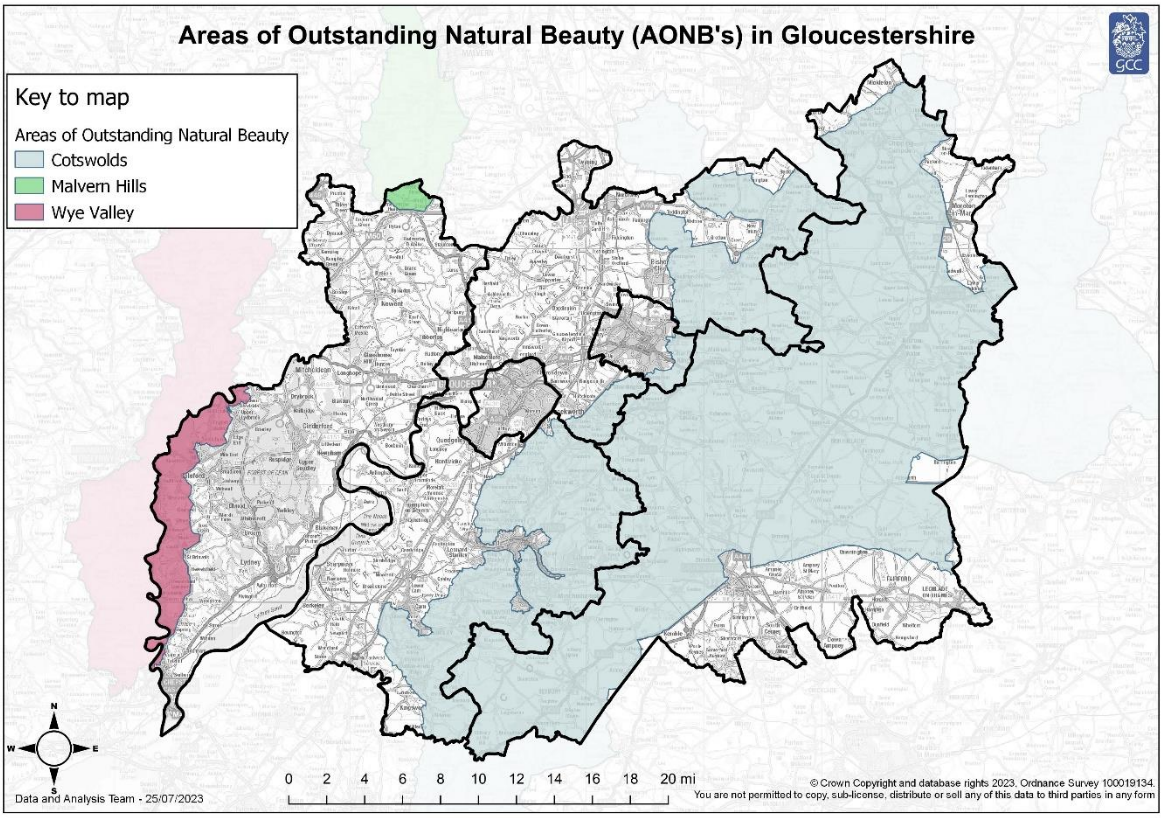

Figure 6: Areas of Outstanding Natural Beauty (AONB's) in Gloucestershire[338]

When compared to other county and unitary authorities across England and Wales, Gloucestershire has the third highest proportion of land falling into Areas of Outstanding Natural Beauty behind West Berkshire and Dorset.

4.1 The Cotswold AONB

The Cotswolds were designated as an AONB in 1966 in recognition of its rich, diverse and high-quality landscape. It stretches from Bath and Wiltshire in the south through Gloucestershire and Oxfordshire to Warwickshire and Worcestershire in the north, covering an area of 204,609 hectares (790 sq. miles). It is the largest AONB in England and Wales, and the third largest protected landscape after the Lake District and Snowdonia.

4.2 The Malvern Hills AONB

The Malvern Hills were designated as an AONB in 1959. They cover an area of 27,195 hectares (105 square miles) including significant parts of Worcestershire and Herefordshire and a small area in northern Gloucestershire.

[338] Natural England

4.3 The Wye Valley AONB

Designated in 1971, the Wye Valley AONB straddles the border between England and Wales, covering an area of 844,33 hectares (326 square miles), which includes parts of Monmouthshire, Herefordshire and western Gloucestershire.

4.4 The Royal Forest of Dean

In addition to the three AONBs, Gloucestershire is also home to the Royal Forest of Dean, which covers an area of 9,064 hectares (35 square miles) and is situated between the Rivers Wye, Leadon and Severn in West Gloucestershire. The Royal Forest of Dean became Britain's first National Forest Park in 1938 and is England's largest oak forest owned by the public estate. This designation recognises the scenic value of the woodland landscape and its importance as a recreational location.

The presence of three AONBs and the Royal Forest of Dean, can be seen as a barrier to economic growth, as it places constraints on development in rural areas. However, this environmental quality makes Gloucestershire an attractive area for businesses and residents to locate. It also attracts large numbers of visitors. Therefore, management of development in rural areas and maintaining the sustainability of the natural environment is a fragile balance that places huge responsibility on the future planning outcomes in Gloucestershire.

5. Deprivation

In general, Gloucestershire is not a very deprived county, ranking 126 out of 151 (where 1 is the most deprived) county and unitary authorities, putting it in the least deprived 20% of authorities across England.

At district level, even the most deprived districts in the county (Gloucester City, and Forest of Dean) are amongst the middle 20% of districts for deprivation out of 317 English authorities. Tewkesbury, Cotswold, and Stroud districts are in the least deprived 20% of districts nationally. Cheltenham is in the second least deprived 20% of districts nationally. However, there are pockets of deprivation, 31 out of 373 small areas in Gloucestershire are amongst the 20% most deprived in England with 7.6% residents of Gloucestershire living in these areas[339].

Figure 7 shows the areas amongst the most deprived 20% in England are mainly located in the urban areas of Gloucester and Cheltenham, with the exceptions of Cinderford West 1 in the Forest of Dean and Tewkesbury South 3 in Tewkesbury.

[339] Indices of Deprivation 2019, MHCLG

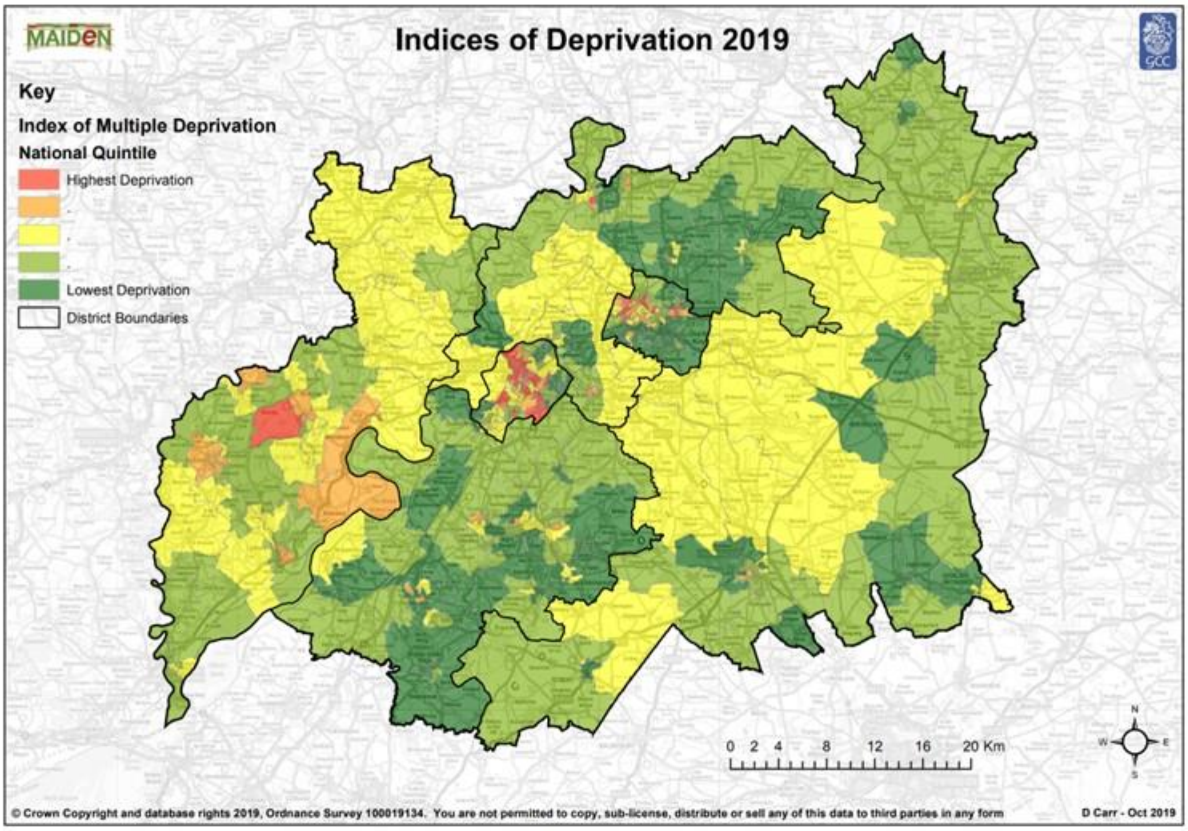

Figure 7: Indices of Deprivation, 2019[340]

Figure 8 shows the proportion of the population in each deprivation quintile for Gloucestershire and each of the six districts in the county. In Gloucester almost 25% of the population (1 in 4) live in areas amongst the most deprived 20% nationally. In contrast in Cotswold and Stroud none of the population live in areas amongst the most deprived 20% nationally. Cheltenham stands out as an area with a degree of polarity, around 10% of residents live in areas amongst the most deprived 20% nationally, conversely over 40% of residents live in areas amongst the least deprived 20% nationally.

[340] *Ibid.*

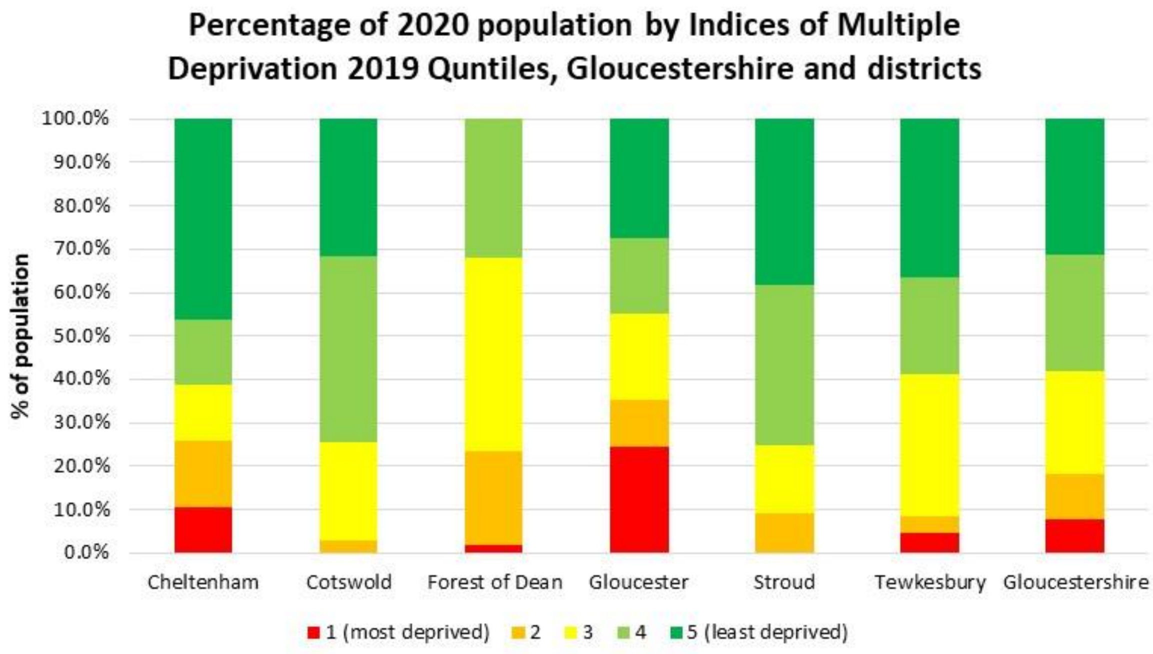

Figure 8: Percentage of 2020 population by Indices of Deprivation 2019 Quintiles, Gloucestershire and districts[341]

Figure 9 highlights the proportion of the population in the most to least deprived quintiles of deprivation for the three indices and seven domains of deprivation which make up the overall indices of multiple deprivation. Gloucestershire's worst performing domain is Barriers to Housing and Services with almost 19% of Gloucestershire's population living in neighbourhoods in the most deprived 20% nationally for this domain.

[341] Mid 2020 Population Estimates, ONS and Indices of Deprivation 2019, MHCLG

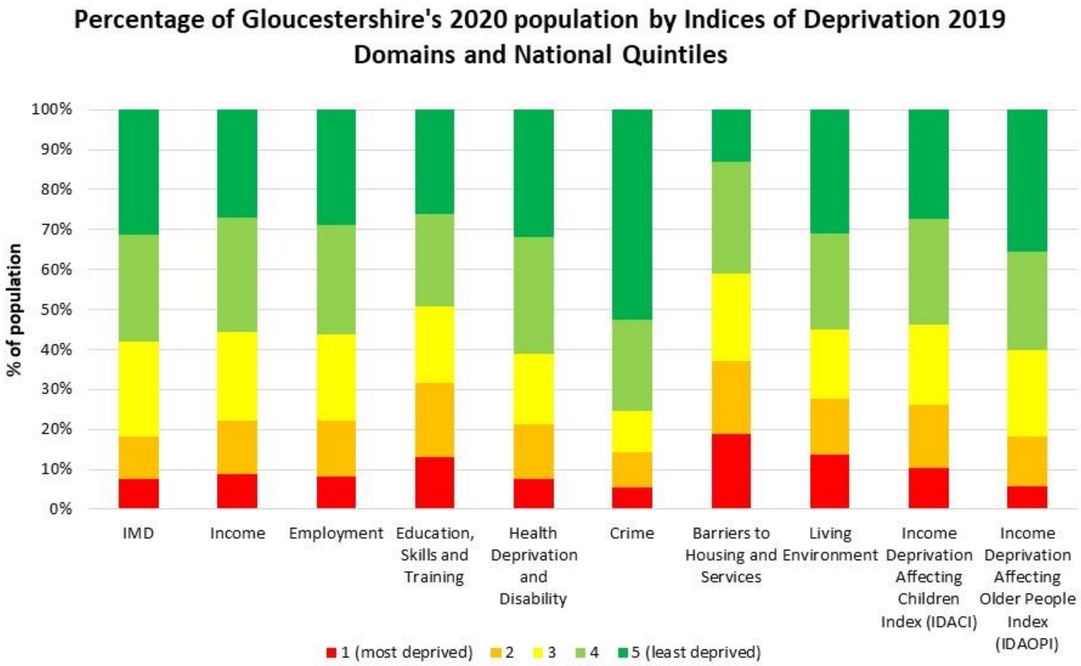

Figure 9: Percentage of Gloucestershire's 2020 population by Indices of Deprivation 2019 Domains and National Quintiles[342]

Living in areas of deprivation can have a significant impact on the life chances of residents. Gloucestershire residents living in areas amongst the 20% most deprived nationally are:

- three times as likely to have a still birth[343]
- almost twice as likely to be obese in year six[344]
- more than five times as likely to be victims of any crime[345]
- more than six times more likely to become a victim of violent crime[346]
- more than five times more likely to experience anti-social behaviour incidents[347]
- almost five times as likely to be claiming unemployment benefits[348]
- almost nine times more likely to have children in care[349]

[342] *Ibid.*

[343] ONS births, 2017-2021

[344] NCMP 5 year Pooled Analysis (2016/17-2021/22, excluding 2020/21)

[345] Gloucestershire Constabulary data analysed by the Data and Analysis Team, GCC based on data from 01/04/21 to 28/02/2023

[346] *Ibid.*

[347] *Ibid.*

[348] Claimant Count – February 2023, ONS

[349] Data and Analysis Team, GCC

than residents living in areas amongst the least deprived 20% nationally.

6. Accessibility

Generally, people living in rural settlements have lower overall levels of accessibility to key services compared with people living in urban settlements. This lack of accessibility can exacerbate the impact of deprivation, making it harder for people to access opportunities.

Given a relatively high proportion of the population of Gloucestershire live in areas amongst the 20% most deprived in terms of Barriers to Housing and Services it is unsurprising that accessibility is a major issue in the area. Figure 10 shows modelled average journey time using public transport/walk to access 8 key services[350]. The average journey time using public transport in Gloucestershire stands at 22.8 minutes, higher than the regional average of 21.8 minutes and the England average of 17.9 minutes.

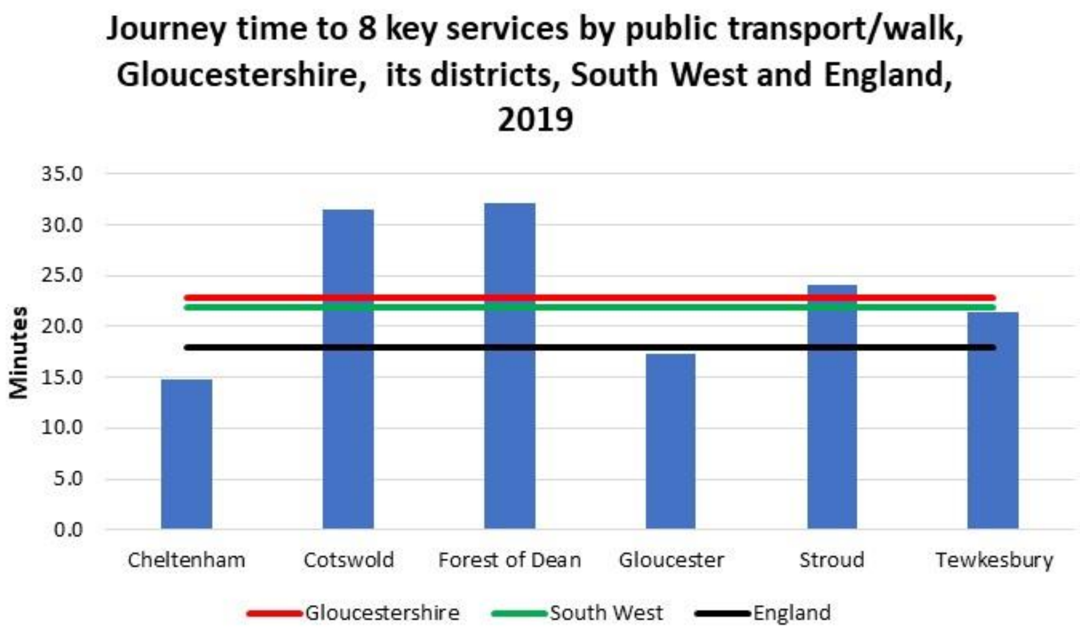

Figure 10: Journey time to 8 key services by public transport/walk, Gloucestershire, its districts, South West and England, 2019[351]

Figure 11 and Figure 12 show Gloucestershire also has higher average journey times than the majority of its geographical[352] and statistical neighbours. In addition, it sits in the bottom 20% of county and unitary authorities across England in terms of accessibility via public transport.

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[350] employment centres (small, medium and large), primary schools, secondary schools, further education, GPs, hospitals, food stores and town centres

[351] Journey time statistics, 2019, DfT

[352] Data is not available for Monmouthshire

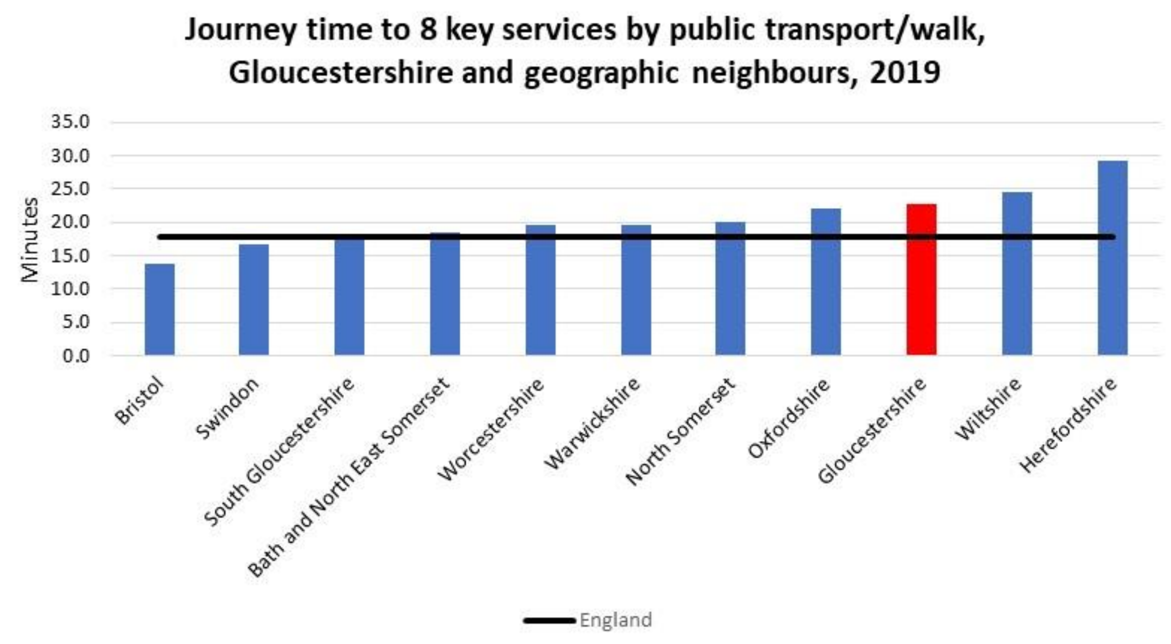

Figure 11: Journey time to 8 key services by public transport/walk, Gloucestershire and geographic neighbours, 2019[353]

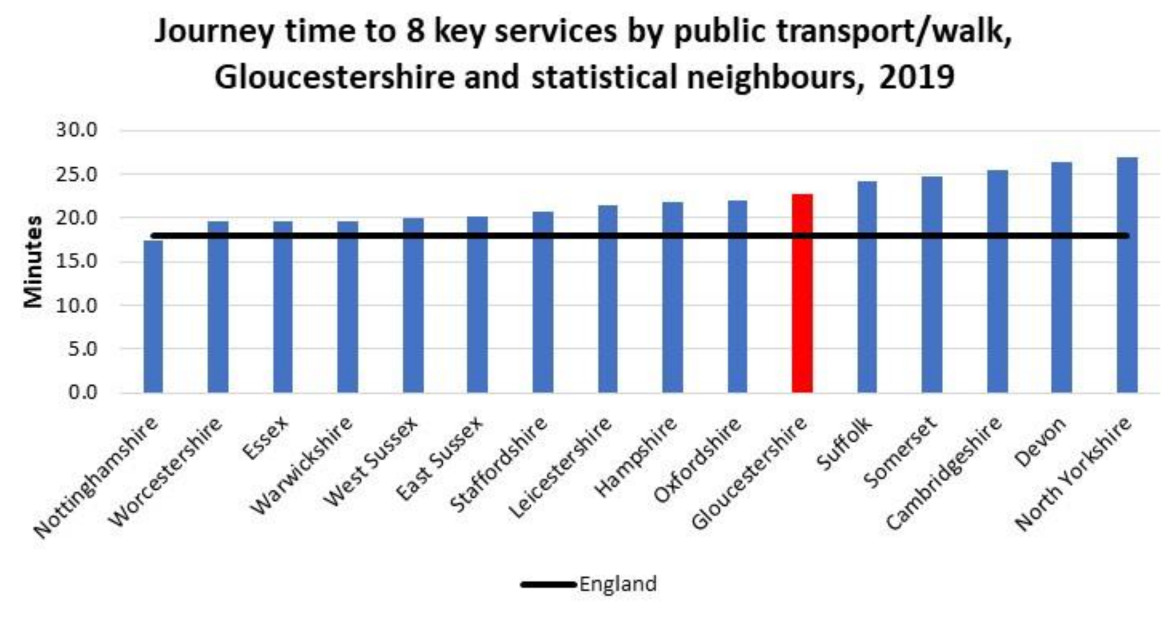

Figure 12: Journey time to 8 key services by public transport/walk, Gloucestershire and statistical neighbours, 2019[354]

At district level accessibility via public transport is best in Cheltenham which sits in the top 20% of district and unitary authorities across England, this was followed by Gloucester. Conversely accessibility was worst in the Forest of Dean

[353] *Ibid.*

[354] *Ibid.*

followed by Cotswold which both sit in the bottom 20% of authorities across England. Similar results are observed when looking at accessibility via active travel and drive.

The County Council carries out its own journey time modelling using software (TRACC). This modelling provides more timely and granular results than those produced nationally. More detail about this work and the key findings will be shared in the Economic Strategy which will be published in the coming months.

7. Digital

7.1 Broadband

Broadband has become an important element in supporting economic growth. It allows businesses to make efficiencies in production, by lowering costs (for data storage, advertising, or working with suppliers) and enables innovation (reaching new customers online or employing big data analytics). This could potentially translate into higher wages, and possibly higher levels of employment. This flexibility may increase labour force participation, which could in turn raise employment. Broadband may also lower the barriers to starting a business.

Across Gloucestershire around 95.1% of premises have access to superfast broadband (download speeds of at least 30 Mbit/s), this was lower than the national average.

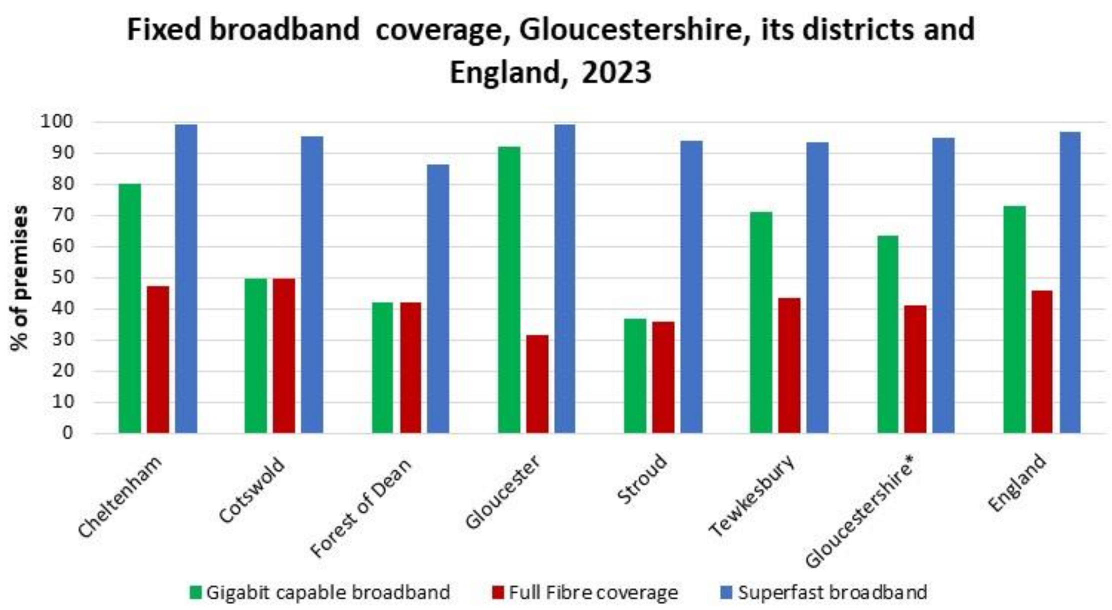

Figure 13: Fixed broadband coverage, Gloucestershire, its districts and England, 2023[355]

[355] Connected Nations, Ofcom Spring 2023 Update

When compared to other areas, Gloucestershire does not compare particularly well, it sits in the bottom half of its geographic and statistical neighbours and in the bottom 20% of all county and unitary authorities across England and Wales.

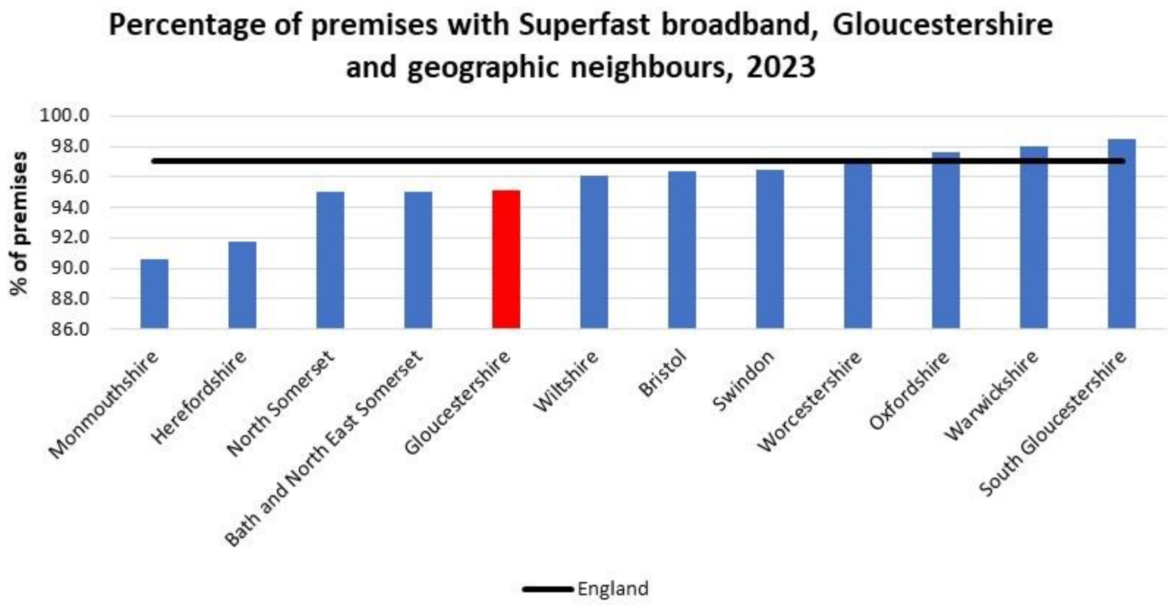

Figure 14: Percentage of premises with Superfast broadband, Gloucestershire and geographic neighbours, 2023[356]

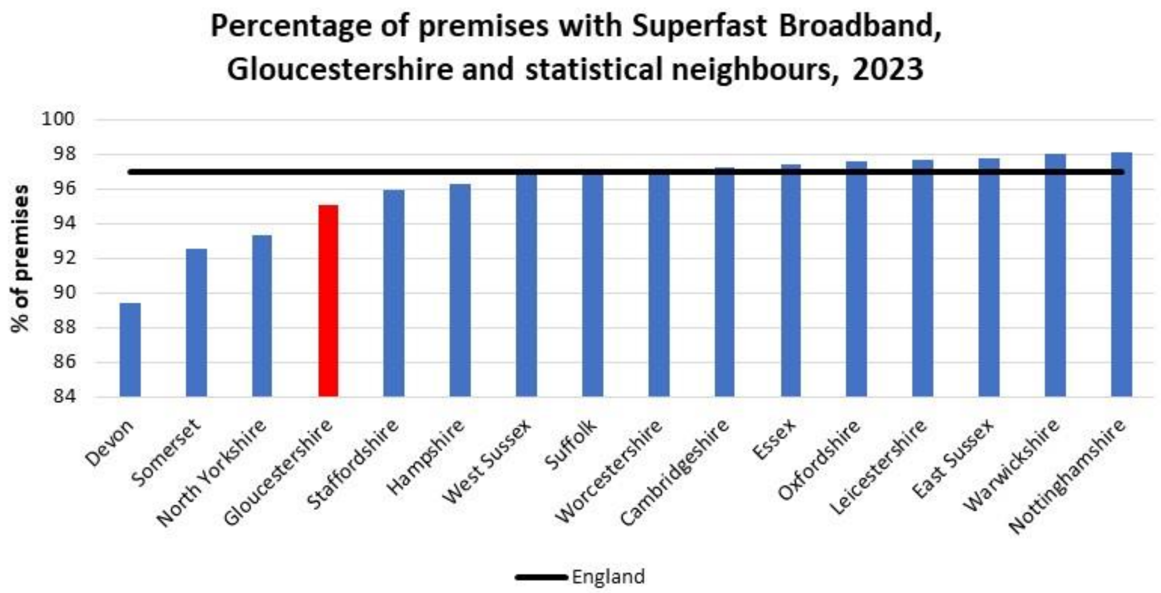

Figure 15: Percentage of premises with Superfast broadband, Gloucestershire and statistical neighbours, 2023[357]

[356] *Ibid.*

[357] *Ibid.*

Figure 13 shows at district level the availability of superfast broadband is lowest in the Forest of Dean (86.5% of premises) which sits in the bottom 10% of district and unitary authorities across England and Wales. It is worth noting that availability of superfast broadband in Stroud and Tewkesbury is considerably higher than the Forest of Dean, but they still sit in the bottom 20% of authorities across England and Wales. Conversely Cheltenham and Gloucester sit in the top 20% of authorities nationally with more than 99% of premises having access to superfast broadband.

Broadband data is also available at small area level. Figure 14 shows that although all districts within Gloucestershire have more than 80% of premises being able to access superfast broadband, there are pockets of the county where less than 20% of premises have access to superfast broadband. These areas are predominantly located around Newent and Cinderford in the Forest of Dean. However, they also include the area to the south of Berkeley in Stroud and to the south of Brockworth in Tewkesbury.

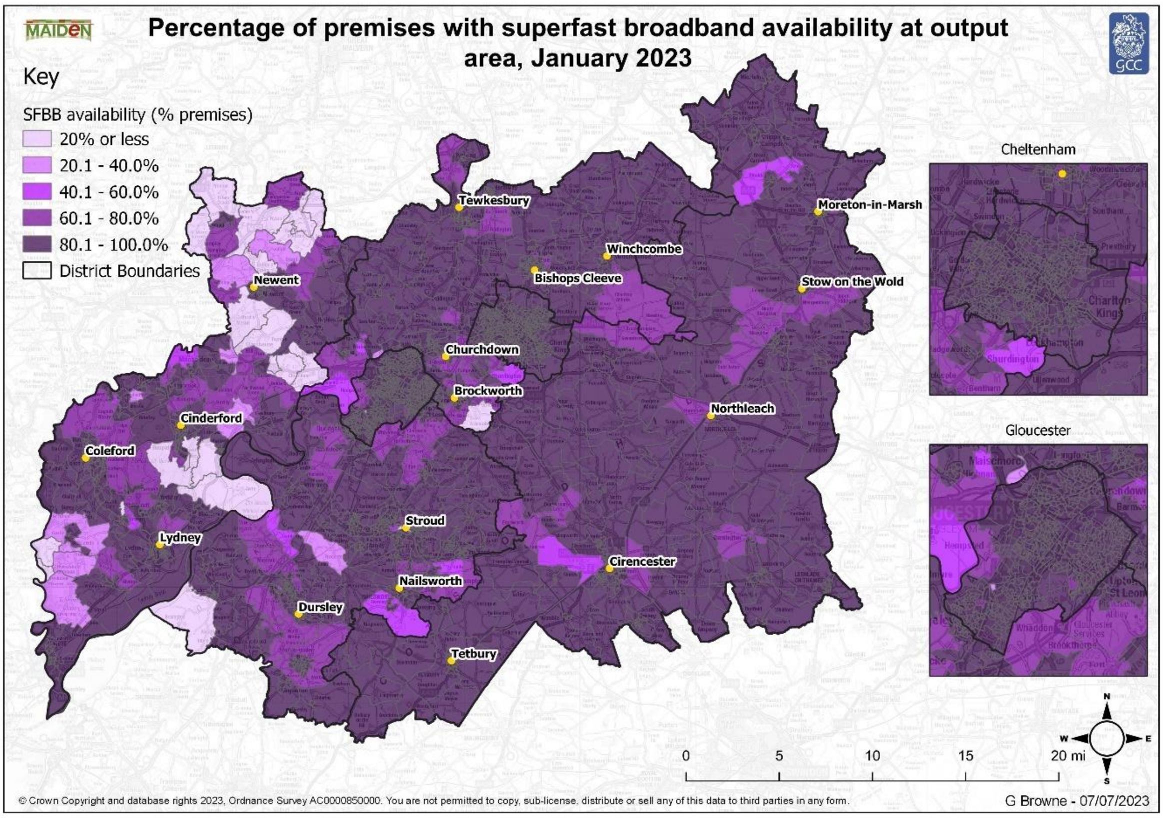

Figure 16: Percentage of premises with superfast broadband availability at output area, January 2023[358]

Around 41% of premises in Gloucestershire have access to full fibre services, Figure 13 shows this is lower than the national average of 46%. However, it does

[358] *Ibid.*

mean the county is in line with its geographic and statistical neighbours and puts it in the middle 20% when compared to county and unitary authorities across England and Wales.

At district level the availability of full fibre services is lowest in Gloucester (31.6%) followed by Stroud (35.9%) with both districts sitting in the bottom 40% of authorities across England and Wales. Cheltenham and Cotswold have the greatest availability of full fibre services, exceeding the national and county average and sitting in the top 40% of authorities across England and Wales.

The Government has an ambition to get gigabit broadband to at least 85% of premises by 2025 and over 99% by 2030. Figure 13 shows currently 63.3% of premises in Gloucestershire have gigabit capability, this is below the national average of 73%. When compared to other areas it is in line with the average for Gloucestershire's statistical and geographic neighbours but in the bottom 40% of authorities across England and Wales.

At district level the availability of gigabit capability is lowest in Stroud (36.8%) followed by the Forest of Dean (42.1%) with both districts sitting in the bottom 20% of district and unitary authorities across England and Wales. Gigabit capability is highest in Gloucester with 91.9% of premises having gigabit capability, putting it in the top 10% of authorities across England and Wales and meaning the district has already met the government's 2025 target.

Figure 17 shows gigabit capability at small area level. Availability of this technology is lowest in parts of the north and east of the Forest of Dean, the east of Cotswold and central Stroud around Stroud and Nailsworth.

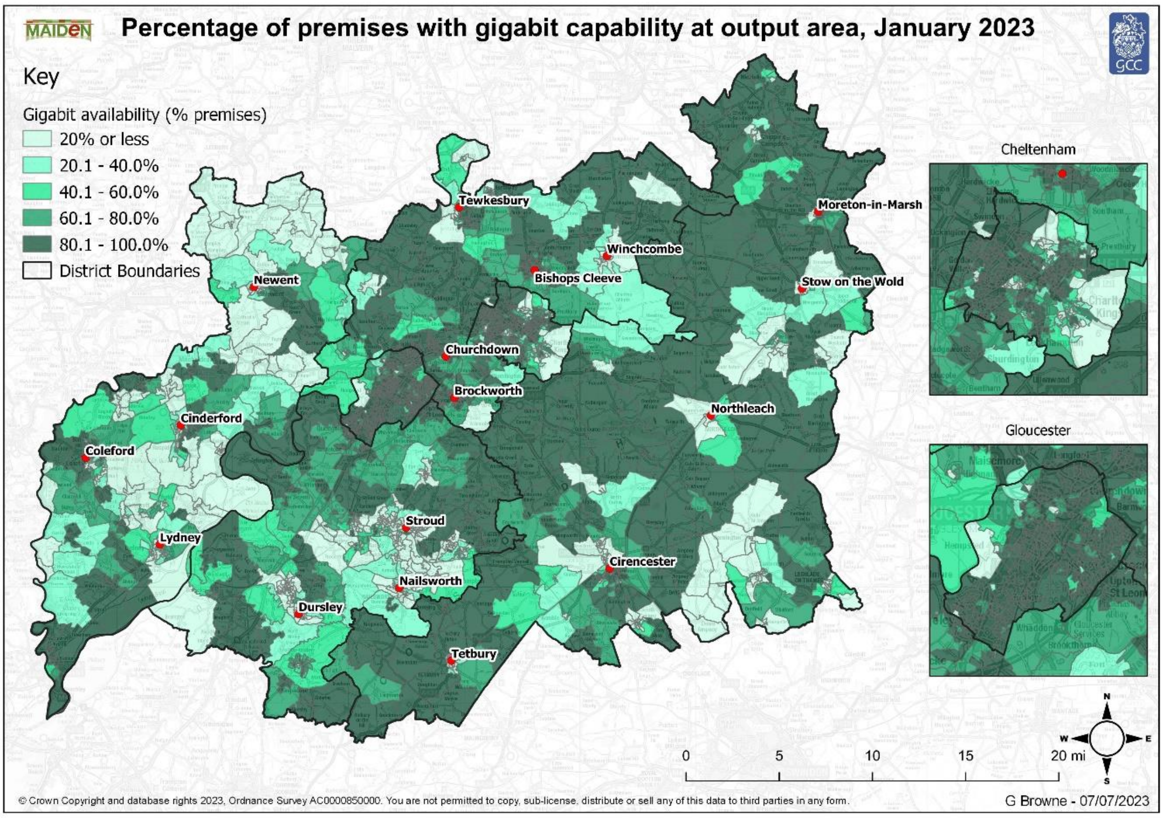

Figure 17: Percentage of premises with gigabit capability at output area, January 2023[359]

Since 2019 there have been continued improvements in the availability of both superfast broadband and full fibre coverage in all areas, reflecting the investment in this technology. Improvements in the availability of superfast broadband largely occurred between 2019 and 2020. Since then, there have only been moderate improvements reflecting the fact it is now available for the majority of the county.

Figure 18 shows improvements in the availability in full fibre coverage have been spread fairly evenly across the 4-year period. Interestingly Cheltenham saw a sharp increase in the availability of full fibre coverage between 2021 and 2023, resulting in it moving from one of the areas with the lowest levels of fibre coverage in 2021 to the second highest in 2023.

[359] *Ibid.*

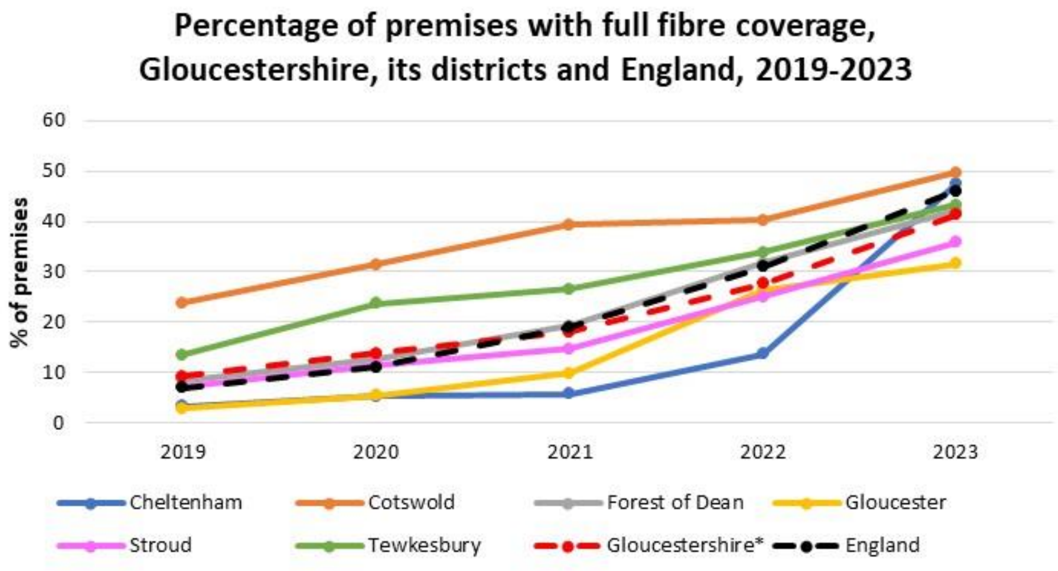

Figure 18: Percentage of premises with full fibre coverage, Gloucestershire, its districts and England, 2019-2023[360]

Figure 19 shows time series data for gigabit capability does not go back to 2019, however since 2021 when data first became available there has been expansion in all areas, particularly in Gloucester.

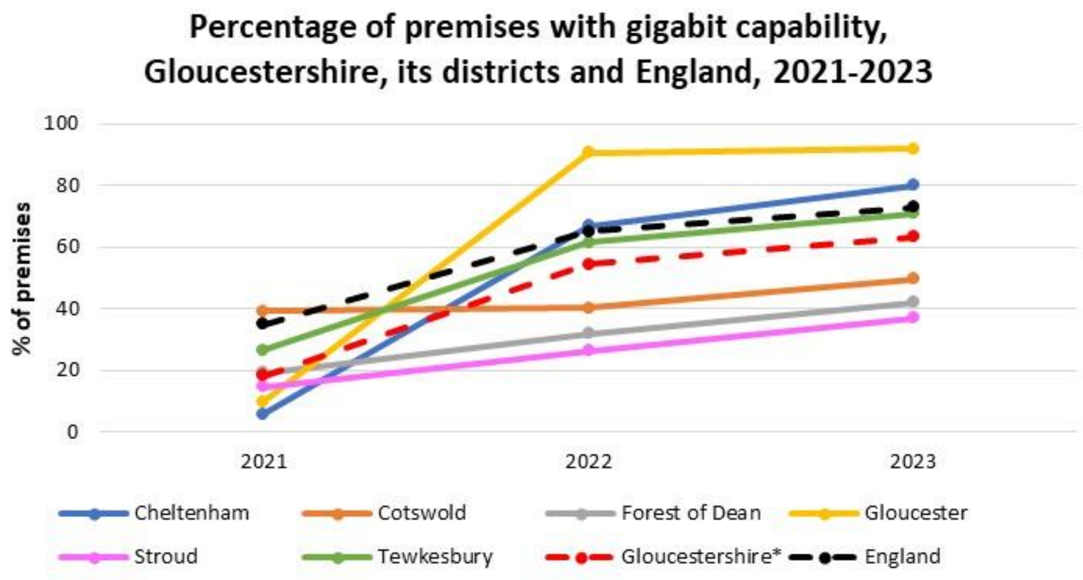

Figure 19: Percentage of premises with gigabit capability, Gloucestershire, its districts and England, 2019-2023[361]

It is worth noting that the data used in this document is provided by Ofcom, the telecoms regulator, which provides an official source of broadband data across

[360] *Ibid.*

[361]*Ibid.*

the UK. Data is also available from thinkbroadband[1] data provided through this source is reported by the Fastershire Project and is included by the County Council as part of its corporate reporting process. The two sources differ slightly as they use a different methodology. Ofcom's data is sourced by broadband providers while thinkbroadband relies on consumers carrying on speedtests using their speedtest tool. Generally, thinkbroadband's coverage figures tend to be a few percentage points higher than Ofcom's estimates. Thinkbroadband's coverage figures tend to be reflect live conditions while Ofcom's estimates are provided on an annual basis.

7.2 Mobile connectivity

Mobile connectivity is becoming increasingly important, allowing people to work on the move and make greater use of new technology.

The Government targets for mobile include a target of 95% UK geographic coverage for 4G. In addition, in April 2023 the Government published the Wireless Infrastructure Strategy where it announced a new ambition for the UK to have nationwide coverage of standalone 5G to all populated areas by 2030.

Data around mobile coverage is not available at county level; however it is available at district level. Figure 20 shows that availability of 4G was greatest in Gloucester with 100% of the area predicted to have good outdoor 4G coverage from at least one operator, this fell to 99.1% of the area in Cotswold and Stroud. All Gloucestershire districts appear to exceed the national average (99%) and already meet the UK's target for 4G, although it is worth noting there may be small not spots within districts.

5G is newer technology so coverage is not as advanced as 4G. Across England 44% of the area has high confidence in 5G from at least one operator. Within Gloucestershire 5G availability is highest in Gloucester and Cheltenham with over 90% of these areas having coverage. This puts Gloucester in the top 20% of authorities across England and Wales and Cheltenham in the top 40%. The Forest of Dean, Stroud and Tewkesbury exceed the national average but have less availability than Gloucester and Cheltenham. 5G availability is lowest in Cotswold with 13.6% of the area having 5G, putting the district in the bottom 20% of district and unitary authorities across the country.

[1] Broadband Coverage and Speed Test Statistics for Gloucestershire (thinkbroadband.com)

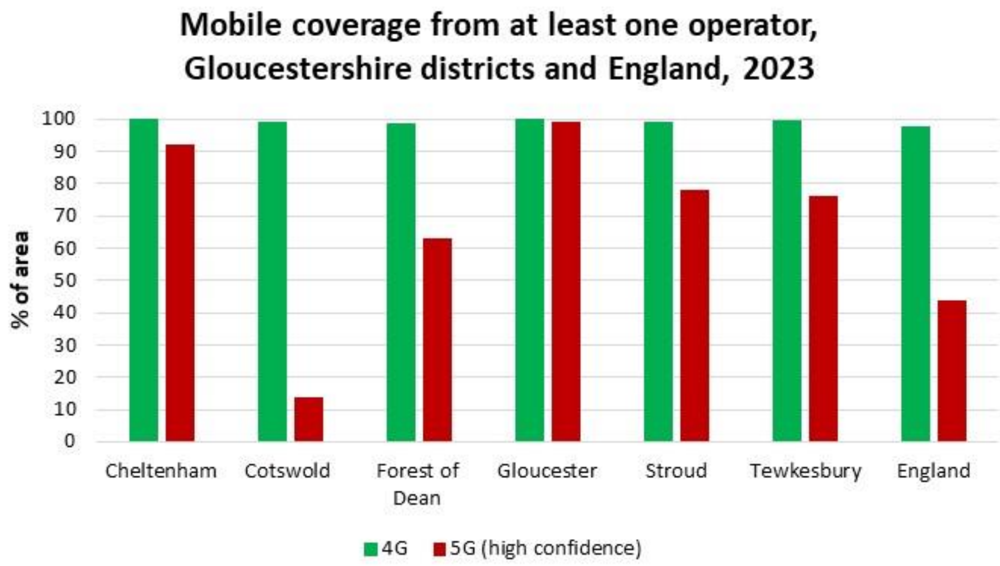

Figure 20: Mobile coverage from at least one operator, Gloucestershire districts and England, 2023[362]

8. Housing

Housing is often viewed as a gauge of the state of the economy, with house prices being used as an indication of confidence in the economy. However, the relationship is more complex, the type and quality of housing can have a significant impact on the health and wealth of places. An area's ability to attract and retain people and provide support for those who need it relies on good housing and attractive and inclusive neighbourhoods. Housing shortages can also pose a threat to an area's economic success, it can restrict labour market mobility, raise business costs and exacerbate inequality – constraining economic growth[363].

8.1 Housing stock

In 2022 there were 300,998 dwellings in Gloucestershire (including vacant). The largest number of dwellings was in Gloucester and the smallest number was in the Forest of Dean, reflecting the picture seen in the distribution of the population referenced in section 8.

[362] *Ibid.*

[363] Housing and economic development, moving forwards together, Centre for Cities

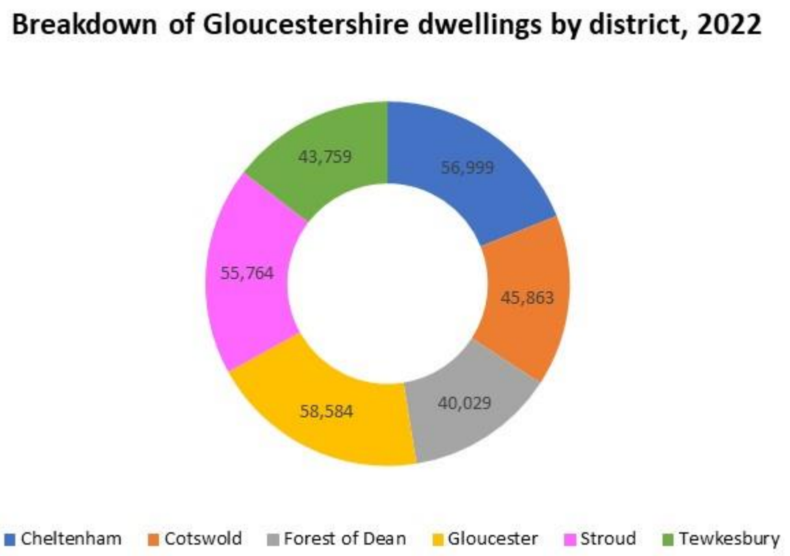

Figure 21: Breakdown of Gloucestershire dwellings by district, 2022[364]

Figure 22 shows since 2016 the number of dwellings in the county has increased by 6.8%. This was slightly lower than the rate of growth seen across the region (7.2%) but higher than the rate of growth seen nationally (5.2%).

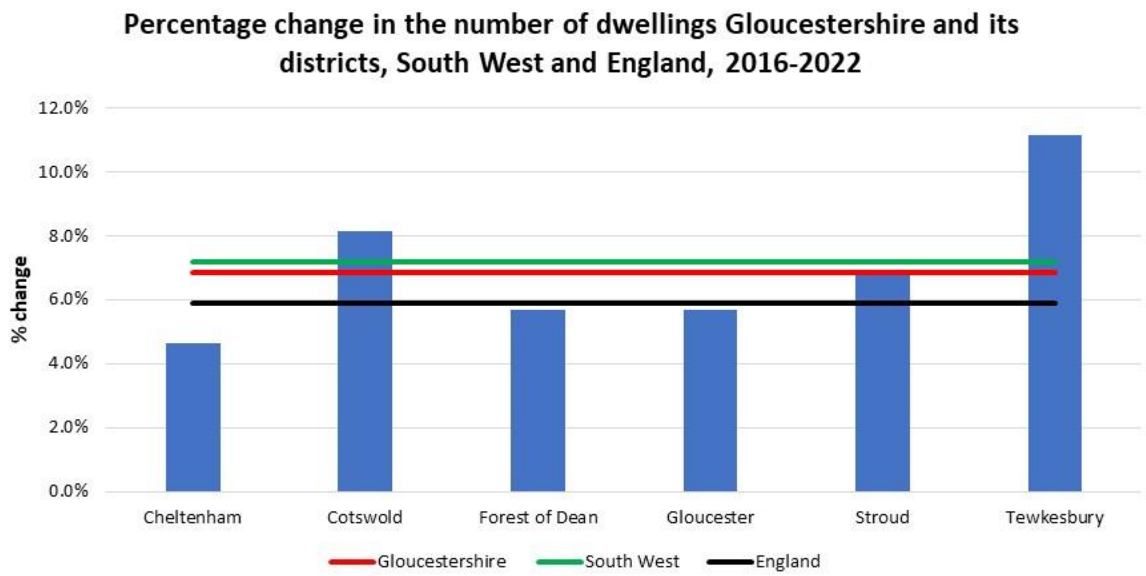

Figure 22: Percentage change in the number of dwellings, Gloucestershire and its districts, South West and England, 2016-2022[365]

[364] Live tables on dwelling stock, DLUHC

[365] *Ibid.*

When compared to other areas Gloucestershire sits in the middle of its geographic neighbours[366] and in the top 50% of its statistical neighbours in terms of housing growth. It also sits in the top 40% of county and unitary authorities across England, showing its growth in housing compares fairly well to other areas.

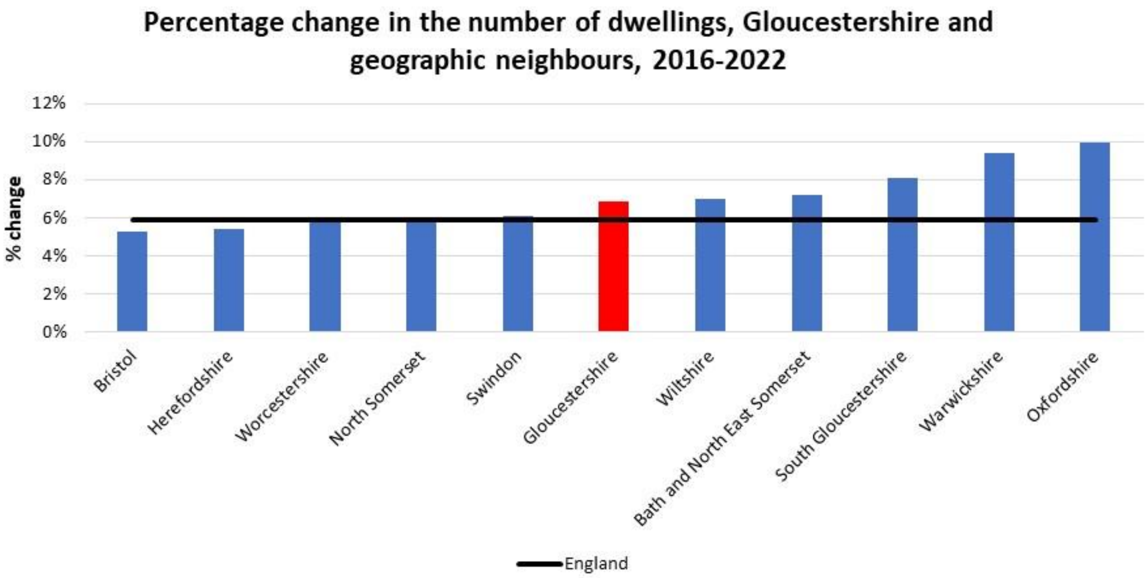

Figure 23: Percentage change in the number of dwellings, Gloucestershire and geographic neighbours, 2016-2022[367]

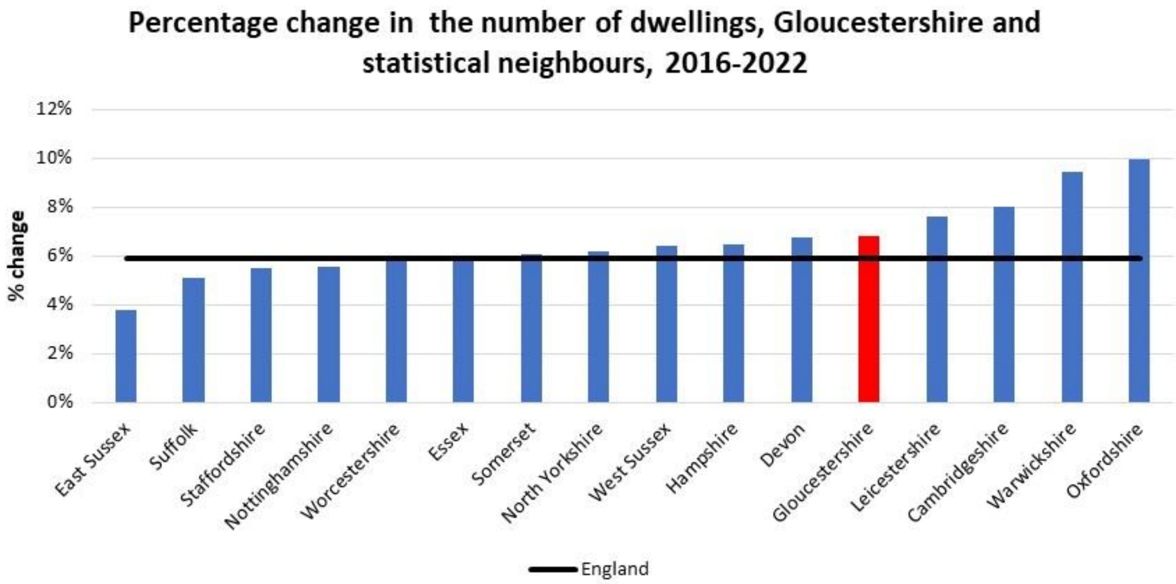

Figure 24: Percentage change in the number of dwellings, Gloucestershire and statistical neighbours, 2016-2022[368]

366 Data is not available for Monmouthshire

367 Live tables on dwelling stock, DLUHC

368 Live tables on dwelling stock, DLUHC

Figure 22 shows at district level there is considerable variation. Tewkesbury saw the greatest growth in dwelling stock with a growth of 11.1%, exceeding the county, regional and national average and putting it in the top 10% of district and unitary authorities in England. Conversely Cheltenham saw the lowest growth at 4.7%, below the county, regional and national averages and putting it in the bottom 40% of authorities across England. This pattern reflects growth seen in total population.

8.2 New dwellings

Around 7.3% of total dwellings in Gloucestershire have been built since 2015-16. This was higher than the national average of 6.2% and compares relatively well to other areas, sitting in the middle of its geographic neighbours[369] and in the top 50% of its statistical neighbours. Gloucestershire also sits in the top 40% of county and unitary authorities across England, showing it is seeing greater housing growth than many areas.

Figure 25 shows Tewkesbury has the highest proportion of new dwelling stock, with 12.0% of total dwellings having been built since 2015-16, conversely Cheltenham had the lowest at 5.3%. This saw Tewkesbury sit in the top 10% of authorities across England while Cheltenham was in the bottom 40%.

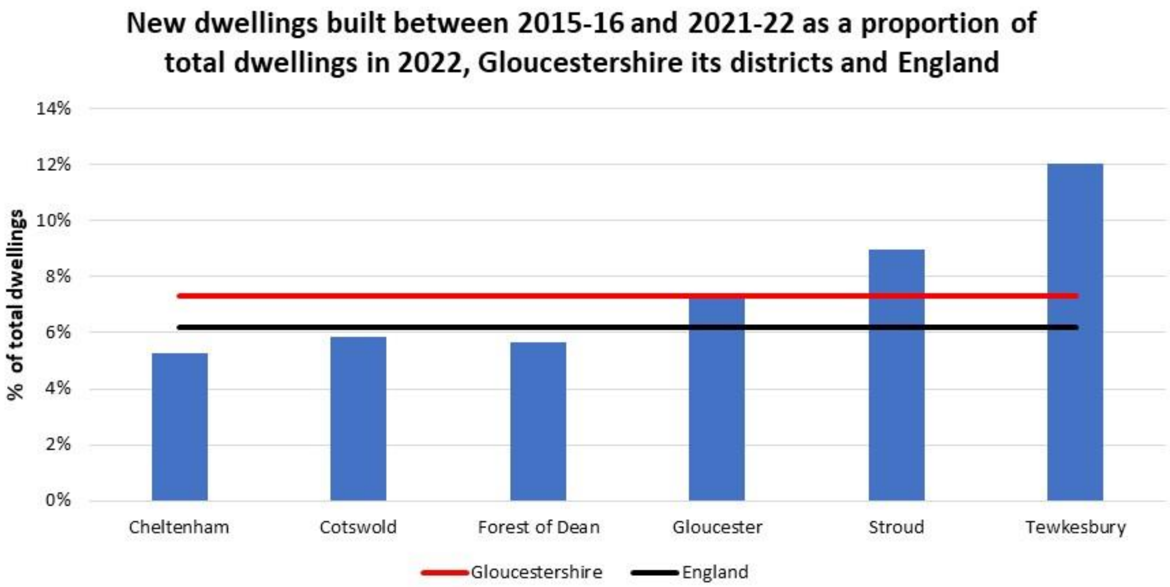

Figure 25: New dwellings built between 2015-2016 and 2021-22 as a proportion of total dwellings in 2022, Gloucestershire and its districts and England[370]

[369] Data is not available for Monmouthshire

[370] Live tables on dwelling stock, DLUHC

8.3 Housing tenure

An area’s housing profile can have a significant impact on the local economy. In 2021, 67.8% of dwellings in Gloucestershire were owner occupied, this is higher than the levels recorded at regional and national level but broadly in line with the county's geographic and statistical neighbours.

Figure 26 illustrates that within Gloucestershire, levels of home ownership were at their highest in Stroud (72.7%) and the Forest of Dean (72.6%) which were both in the top 20% of district and unitary authorities across England and Wales in terms of levels of home ownership. The lowest levels of home ownership were recorded in the urban areas of Gloucester and Cheltenham, closely followed by Cotswold district which may be indicative of the high price of housing within this area.

Levels of private renting were lower in Gloucestershire, than in the South West and England. However, the level of private renting in Cheltenham and Gloucester districts exceeded the regional and national figures. Compared to the national average, the amount of socially rented housing in Gloucestershire was relatively low but close to the South West average. Within Gloucestershire there was very little difference in the levels of social housing, with the lowest figure of 12.2% recorded in Cheltenham district and the highest figure of 15.4% recorded in Cotswold.

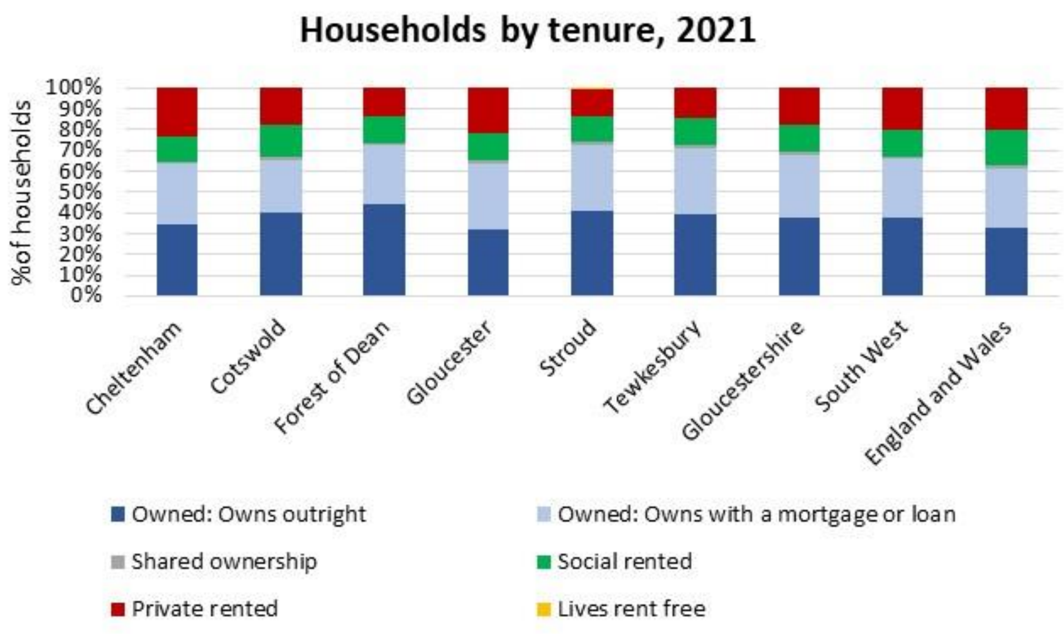

Figure 26: Households by tenure, 2021[371]

Between 2011 and 2021, levels of home ownership have been falling and there has been an increase in private renting. Studies suggest this is because high house prices have made it harder for young people to enter the property market,

[371] 2021 Census, ONS

and they have therefore had to move into the private renting sector. This situation has been reflected across the county with the proportion of owner-occupied households falling by 1.6 percentage points, and levels of private renting increasing by 2.2 percentage points. Interestingly while overall levels of home ownership have fallen, the proportion of homes in Gloucestershire owned outright has increased from 35.5% in 2011 to 38.0% in 2021. Conversely the proportion of homes owned with a mortgage or loan has fallen from 33.9% in 2011 to 29.9% in 2021. This change was not unique to Gloucestershire and was also reflected at a regional and national level[372].

8.4 Occupancy

Occupancy ratings provides a measure of whether a household's accommodation is overcrowded or under-occupied in terms of bedrooms.

In 2021, 75.8% of Gloucestershire households were under-occupied meaning they had more bedrooms than required. This was higher than the regional and national averages of 73.6% and 69.2% respectively. When compared to other areas Gloucestershire was broadly in line with its geographic and statistical neighbours but sat in the top 40% of authorities across England and Wales in terms of levels of under-occupied households.

At district level there was considerable variation. Figure 27 shows levels of under-occupancy were highest in Cotswold (80.5%) and Tewkesbury (79.6%). Both districts exceeded the county, regional and national average and sat in the top 20% of district and unitary authorities across England and Wales in terms of levels of under-occupied housing. Conversely Gloucester sat in the bottom 40% of authorities across England and Wales with 69.6% of households being under-occupied.

[372] 2011 Census, ONS and 2021 Census, ONS

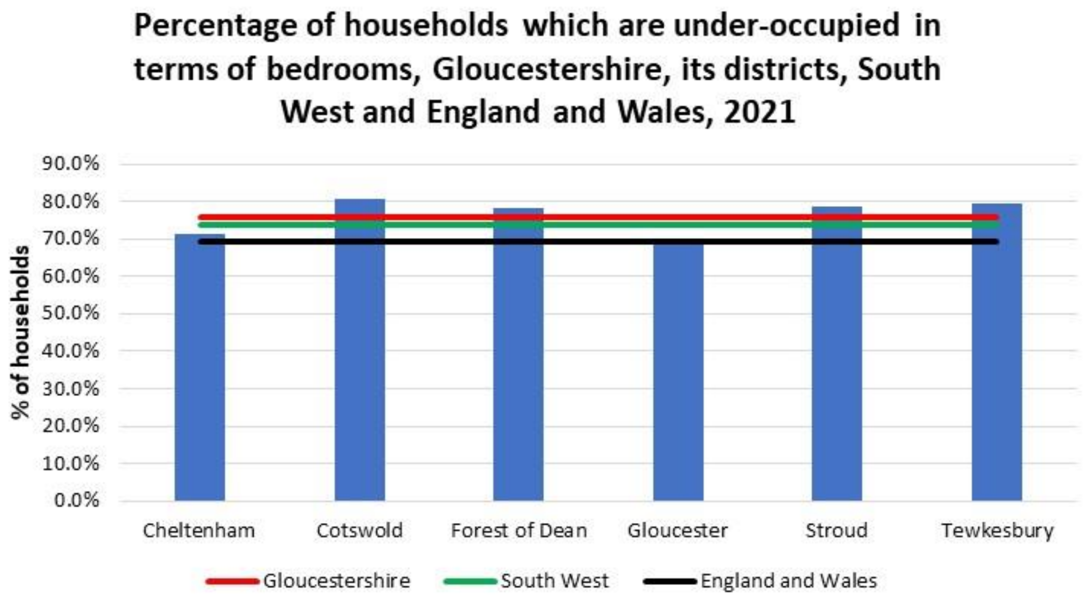

Figure 27: Percentage of households which are under-occupied in terms of bedrooms, Gloucestershire, its districts, South West and England and Wales, 2021[373]

Since 2011 Gloucestershire, the South West and England and Wales have all seen a growth in the proportion of households which are under-occupied, but the growth has been greater in Gloucestershire than at a national or regional level.

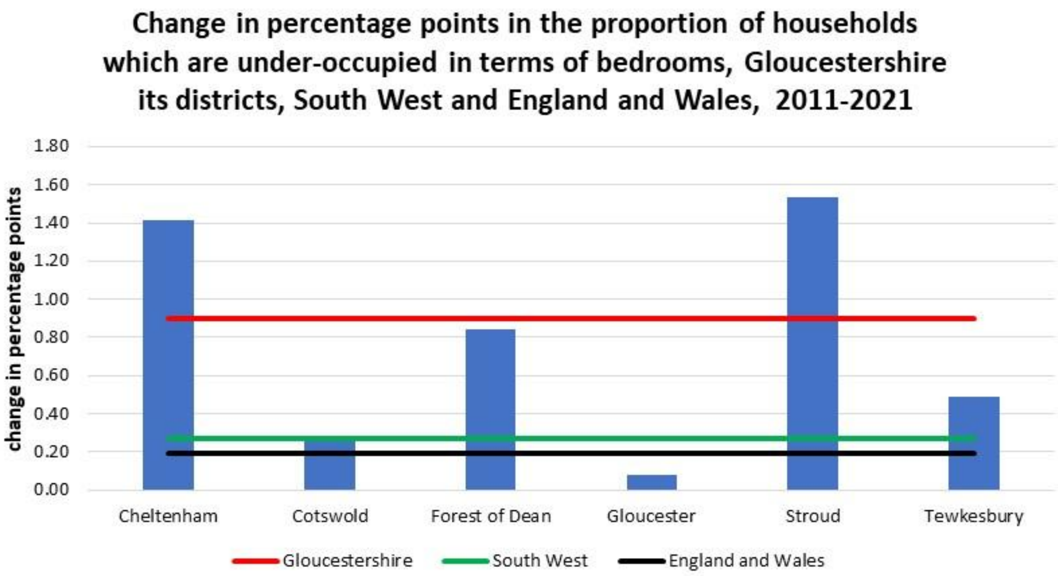

Figure 28: Change in percentage points in the proportion of households which are under-occupied in terms of bedrooms, Gloucestershire, its districts, South West and England and Wales, 2011-2021[374]

[373] 2021 Census, ONS

[374] 2011 Census and 2021 Census, ONS

Gloucestershire has also seen a greater growth in under-occupied housing than many of its geographic and statistical neighbours. Figure 29 and Figure 30 show that unlike Gloucestershire, many of the county's geographic and statistical neighbours have actually seen a decline in under-occupied housing.

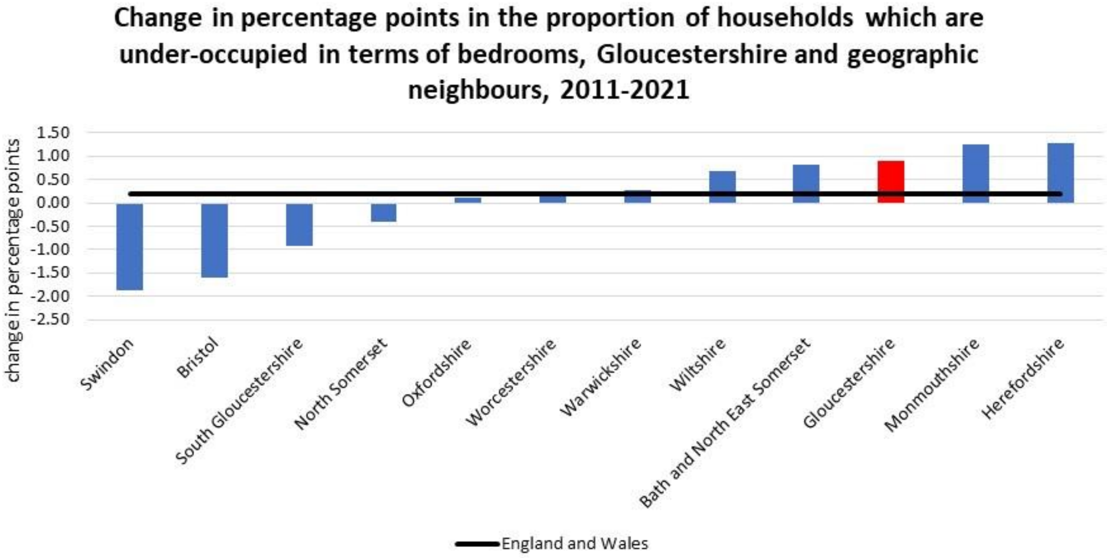

Figure 29: Change in percentage points in the proportion of households which are under-occupied in terms of bedrooms, Gloucestershire and geographic neighbours, 2011-2021[375]

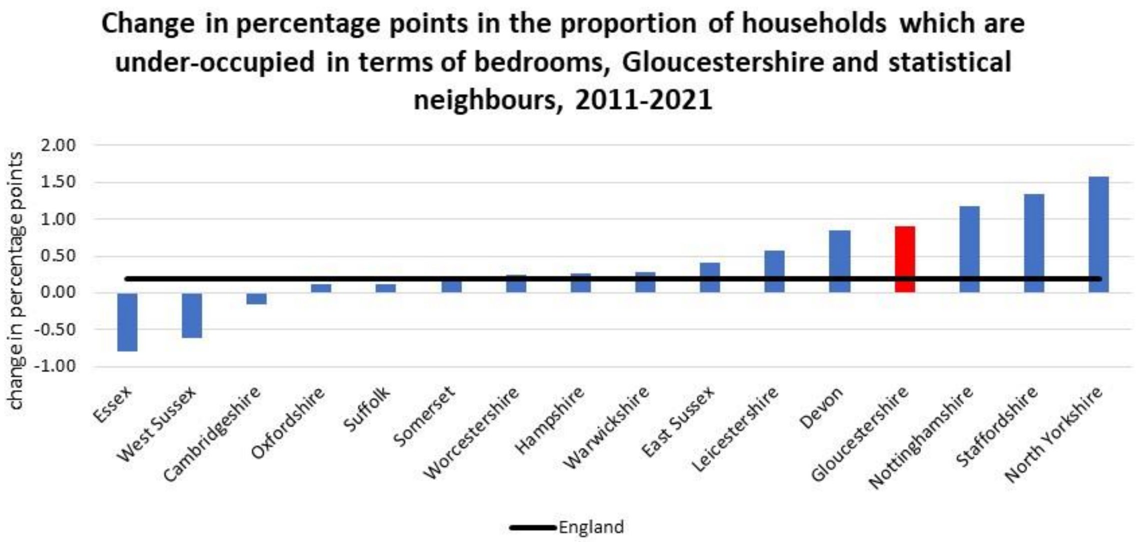

Figure 30: Change in percentage points in the proportion of households which are under-occupied in terms of bedrooms, Gloucestershire and statistical neighbours, 2011-2021[376]

[375] *Ibid.*

[376] *Ibid.*

Figure 28 shows that within the county, growth in underoccupancy has been greatest in Stroud and Cheltenham, although it has increased in all districts in the county.

8.5 Housing affordability

8.5.1 House prices

In 2022 the median house price in Gloucestershire was £290,000, this was higher than the national average (£270,000) but lower than the regional average (£295,000). When compared to its statistical and geographical neighbours, Gloucestershire is fairly average sitting in the middle of both comparator groups. It was also average when compared to county and unitary authorities across England and Wales, sitting in the middle 20% of authorities.

Within Gloucestershire there is considerable variation in house prices. Figure 31 shows housing is cheapest in Gloucester with an average house price of £233,000. Conversely it is most expensive in Cotswold (£411,000) where it far exceeds the county, regional and national average. Cotswold district is also in the top 40% of district and unitary authorities in England and Wales in terms of house prices.

Figure 31: Median house prices, Gloucestershire its districts, South West and England and Wales, 2022[377]

Between 2016 and 2022 house prices increased at a county, regional and national level. The increase in Gloucestershire (£67,500) exceeded the increase

[377] Median house prices for administrative geographies: HPSSA dataset 9, ONS

at a national level (£55,000) but was lower than the increase across the South West (£70,000). When compared to its statistical and geographical neighbours, the increase in house prices in Gloucestershire was average, with the county sitting in the middle of both comparator groups. However, it sat in the top 40% of county and unitary authorities across England and Wales.

Figure 32 shows at district level Stroud and Cotswold saw the greatest growth in house prices, while Gloucester saw the lowest growth.

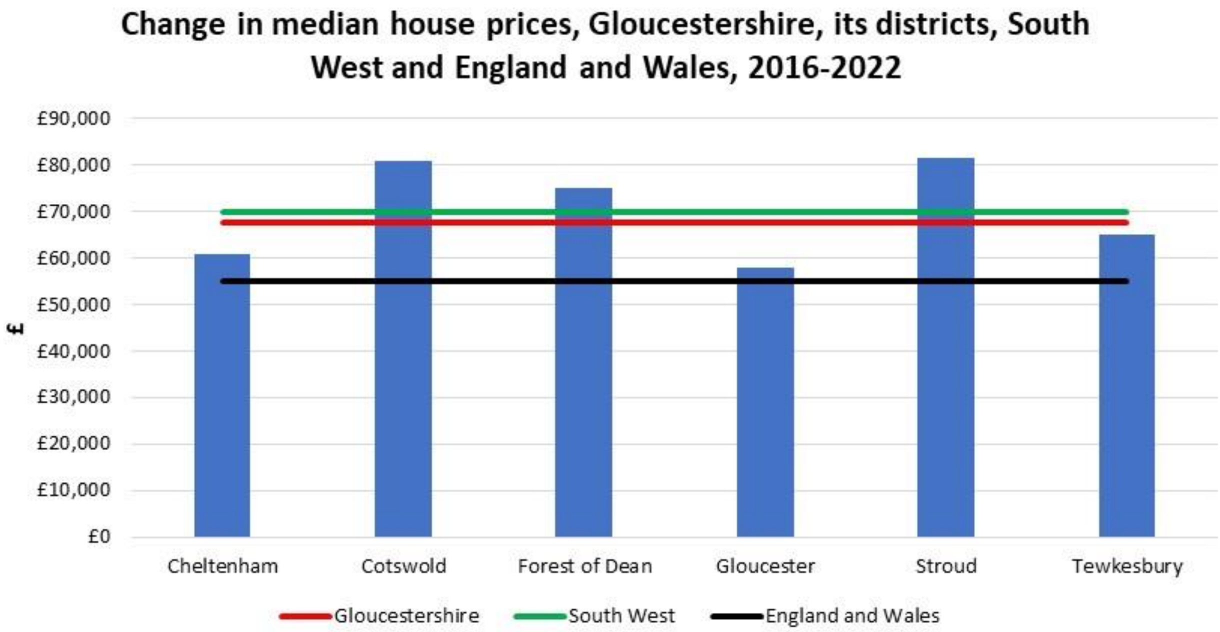

Figure 32: Change in median house prices, Gloucestershire, its districts, South West and England and Wales, 2016-2022[378]

Between 2021 and 2022, house prices have fallen at a county and national level, while increasing across the South West. At district level house prices fell in Cheltenham and the Forest of Dean, there was no change in Tewkesbury and there was an increase in Cotswold, Stroud and Gloucester.

8.5.2 House price ratios

In areas where house prices are high, housing affordability is often an issue. The most common indicator of housing affordability is the ratio between median workplace earnings and median quartile house prices. This allows an assessment of whether people working in the area with average incomes can afford average housing.

In 2022, someone earning a median income in Gloucestershire, required 8.9 times their earnings to purchase a median priced property. This was higher than the England average (8.2), but lower than the regional average (9.4).

[378] *Ibid.*

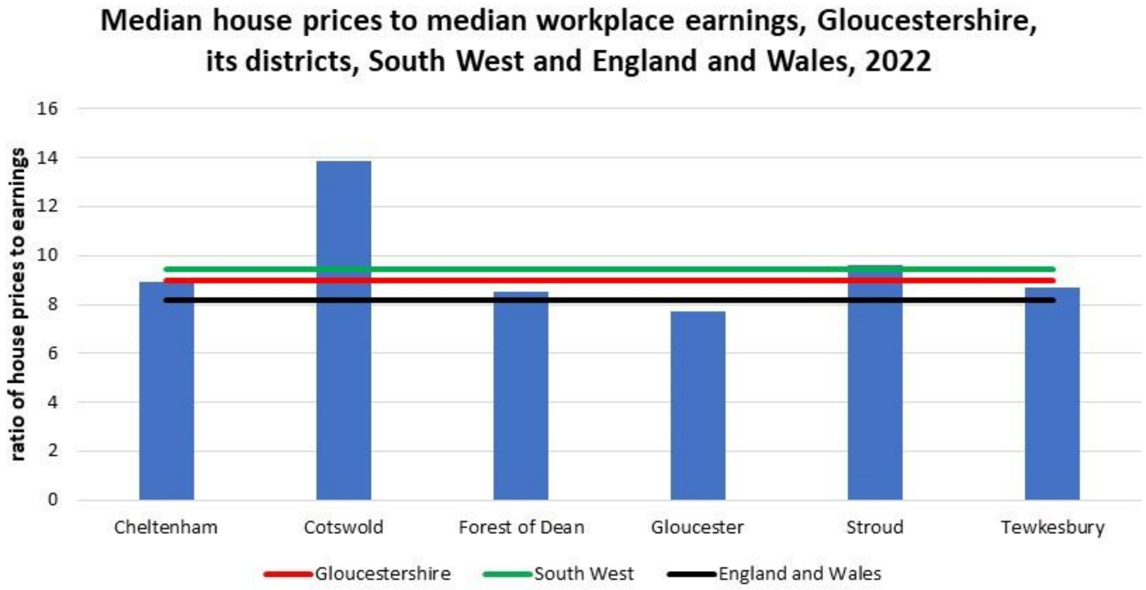

Figure 33: Median house prices to median workplace earnings, Gloucestershire, its districts, South West and England and Wales, 2022[379]

When compared to its statistical and geographical neighbours, Gloucestershire compared relatively well. Figure 34 and Figure 35 shows housing in the county is slightly more affordable than many of its neighbours. It was also average when compared to all county and unitary authorities across England and Wales, sitting in the middle 20% of authorities.

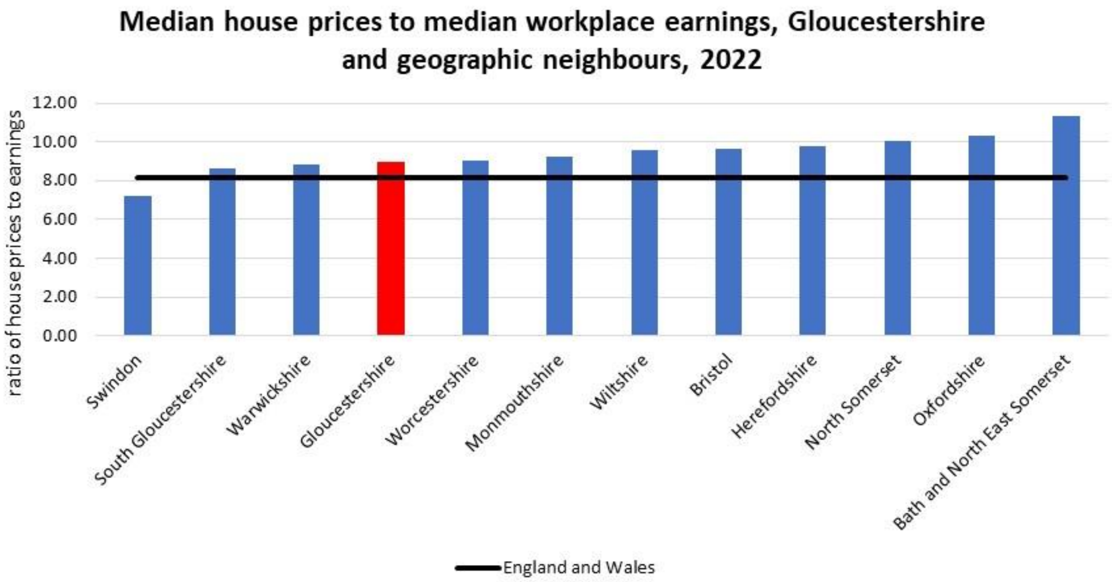

Figure 34: Median house prices to median workplace earnings, Gloucestershire and geographic neighbours, 2022[380]

[379] House price to workplace-based earnings ratio, ONS

[380] *Ibid.*

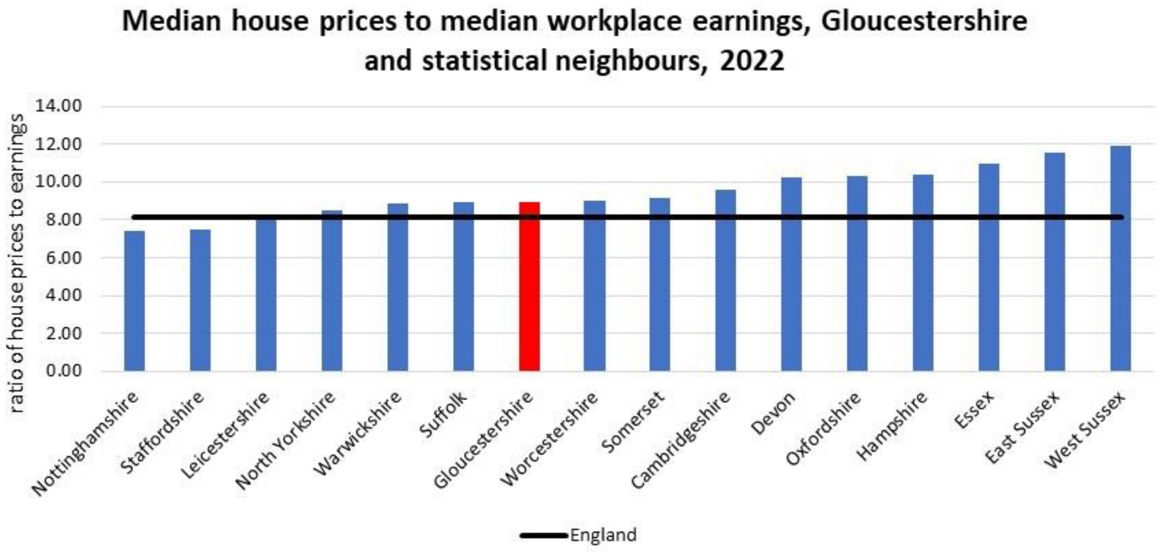

Figure 35: Median house prices to median workplace earnings, Gloucestershire and statistical neighbours, 2022[381]

Within Gloucestershire there is considerable variation in housing affordability. Figure 33 shows housing is most affordable in Gloucester, with an affordability ratio of 7.7, which was below the county, regional and national average and puts the district in the bottom 40% of district and unitary authorities across England and Wales. Unsurprisingly, housing is least affordable in Cotswold district where a worker would require 13.9 times their earnings to purchase a property. This puts the district amongst the 20% least affordable districts across England and Wales in terms of housing.

Given that mortgage lenders, tend to favour mortgages that are no more than 4.5 times an individual's salary, Gloucestershire's income to house price ratio, may make it difficult for first time buyers to get on the property market, potentially resulting in the out migration of young people.

Between 2016 and 2022, housing affordability became an increasing issue, with the ratio between earnings and house prices increasing at a county, regional and national level. Figure 36 shows the increase in Gloucestershire (0.89) exceeded the increase at a national level (0.57) but was in line with the increase across the South West (0.88).

At district level, Gloucester and Stroud saw the greatest growth in the ratio between earnings and house prices, while Cheltenham saw the lowest growth.

[381] *Ibid.*

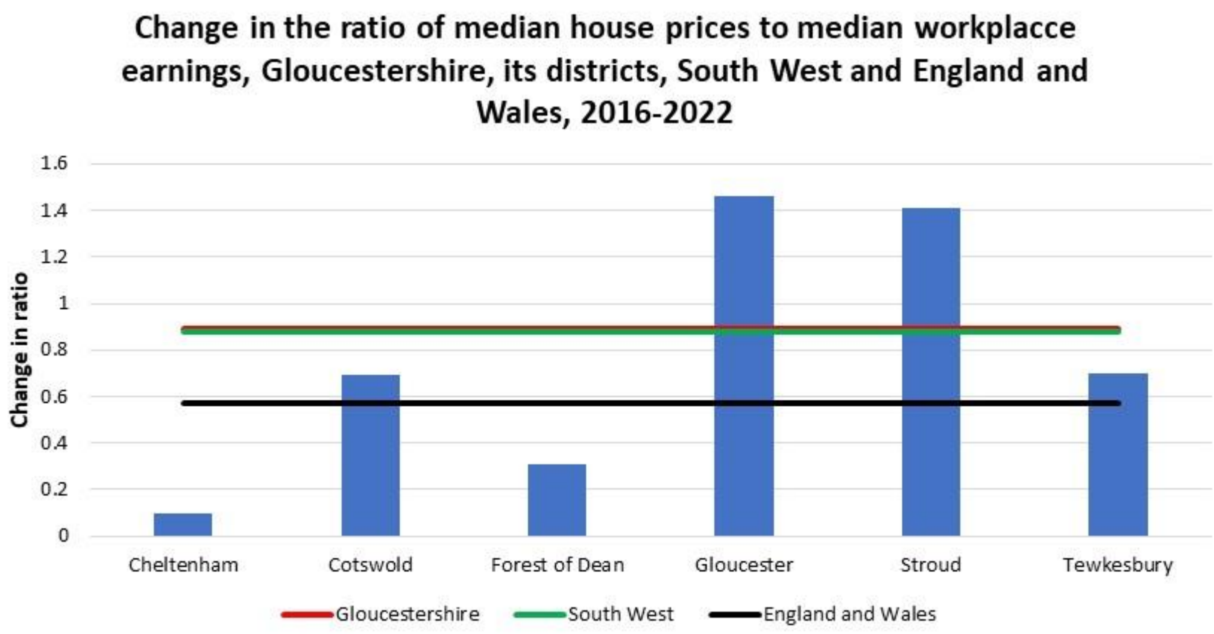

Figure 36: Change in the ratio of median house prices to median workplace earnings, Gloucestershire, its districts, South West and England and Wales, 2016-2022[382]

Between 2021 and 2022, the ratio between earnings and house prices has fallen, this fall is something that has occurred across the county as well as the South West and England and Wales. It is unclear whether this is a temporary blip or the start of a longer term trend.

8.5.3 Private renting

Given the increase in private renting, it is also important to understand how the cost of private renting in Gloucestershire compares to other areas.

Median private rents across all property types stood at £815 in Gloucestershire in the period April 2022 to March 2023, which was broadly in line with the regional and national average of £825. Gloucestershire also sits in the middle of its geographic and statistical neighbours and all county and unitary authorities across England and Wales.

At district level median rents are highest in Cotswold (£950) and Cheltenham (£875) where they exceed the county, regional and national averages. They are lowest in the Forest of Dean (£750).

When looking at rents by property type, Gloucestershire has lower rents or is in line with the county and national average for all property types except 3 bedroom properties, where average rents in Gloucestershire stand at £995, compared to £975 across the South West and £900 across England.

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[382] *Ibid.*

Figure 37: Median monthly rent by property size, Gloucestershire, its districts, South West and England and Wales, April 2022 to March 2023[383]

8.6 Holiday homes

The impact of second homes on local communities is complex. There are concerns that where there is a high proportion of holiday homes it can reduce housing supply and increase house prices, making them unaffordable for local people. Conversely holiday homes may boost local economies and the tourism trade.

The Census 2021 asked people who usually reside in England and Wales whether they stayed at another address for at least 30 days a year. If they answered yes, they were asked the location of this property and its purpose including whether it was a holiday home.

In 2021, there were around 1,135 holiday homes in the county, accounting for around 0.4% of the dwelling stock. This was lower than the regional average of 0.8% but higher than the national average of 0.3%.

[383] Private rental market summary statistics in England, ONS

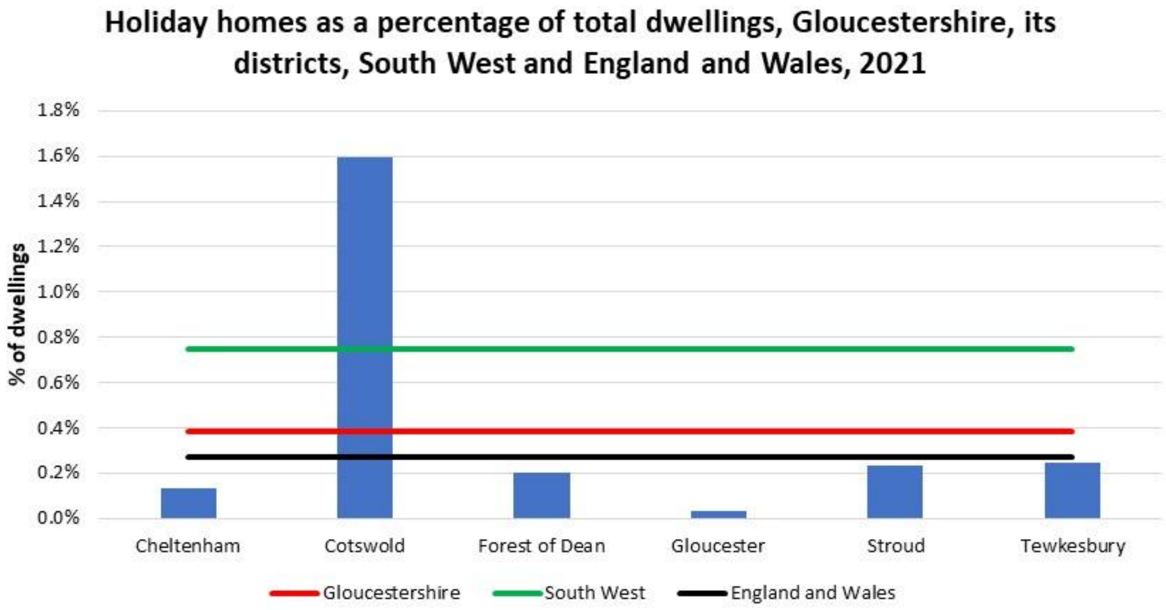

Figure 38: Holiday homes as a percentage of total dwellings, Gloucestershire, its districts, South West and England and Wales, 2021[384]

When compared to other areas, Gloucestershire has a higher proportion of holiday homes than all geographic neighbours but sits in the middle of its statistical neighbours. When compared to all county and unitary authorities across England and Wales it is in the top 20% of authorities in terms of its proportion of holiday homes.

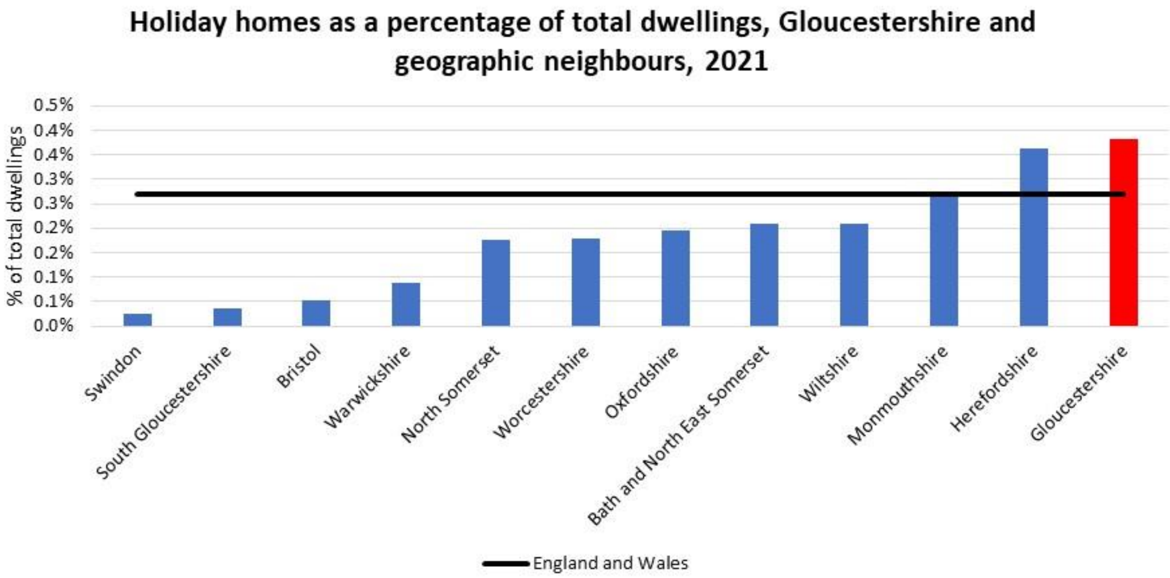

Figure 39: Holiday homes as a percentage of total dwellings, Gloucestershire and geographic neighbours, 2021[385]

384 2021 Census, ONS

385 *Ibid.*

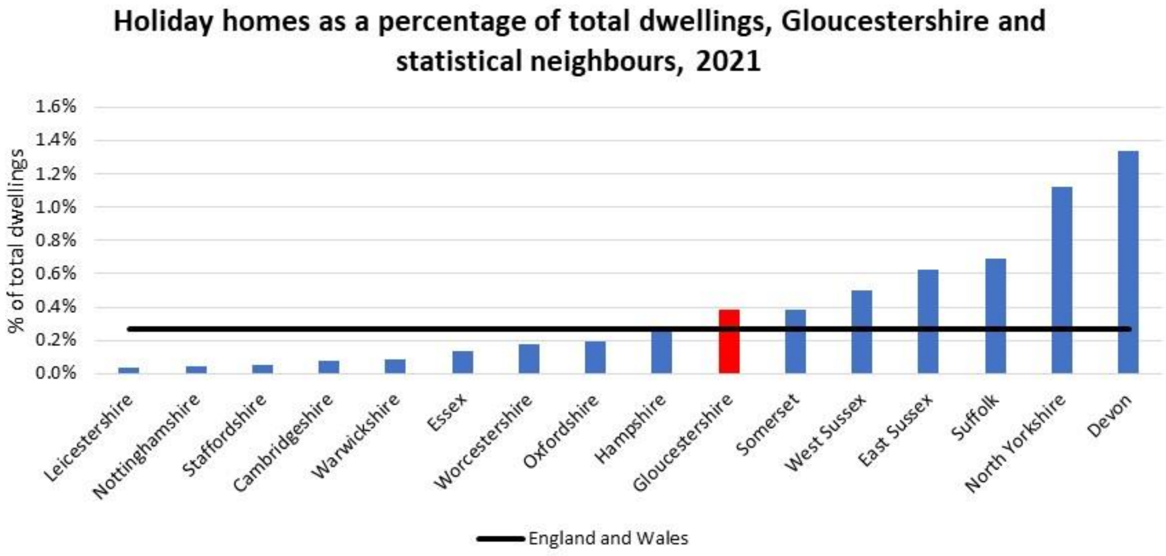

Figure 40: Holiday homes as a percentage of total dwellings, Gloucestershire and statistical neighbours, 2021[386]

Figure 38 shows Gloucestershire's above average proportion of holiday homes is driven by Cotswold. In Cotswold 1.6% of dwellings were holiday homes, significantly higher than the county, national and regional average and putting it in the top 10% of district and unitary authorities across England and Wales. Gloucester has the lowest proportion of holiday homes with 0.03% of dwellings falling into this category, this puts it in the middle 20% of authorities across England and Wales.

[386] *Ibid.*

Section 2: People

Section summary

Between 2011-2021 Gloucestershire's population increased by 8.1%, this was greater than the rate of growth seen across the South West (7.8%) and England and Wales (6.3%). The population growth across the county has not been even. Tewkesbury saw the highest rate of growth (15.8%) in the county and had the 8th highest rate of growth out of the 331 district and unitary authorities across England and Wales. Conversely Cheltenham saw the lowest rate of growth, with a rate of 2.7%, putting it in the bottom 25% of authorities in the country[387]. This uneven growth will have had implications for the delivery and demand for services.

Gloucestershire's population growth is largely driven by internal migration, which is people moving into the county from other parts of the country. Since 2014 there has been an excess of 3,000 more people moving into the county each year than leaving. The only age group to have a net internal migration loss in Gloucestershire was 15-19 year olds, all other age groups saw more people moving into the county than leaving it. The greatest gains were amongst those aged 30-39[388].

Gloucestershire has an older population than nationally, with those aged 65+ accounting for 21.7% of the population, higher than the national average of 18.7%[389]. Projections also suggest this trend will continue and as a result Gloucestershire's working-age population is projected to decrease from 60.7% in 2018 to 55.7% in 2043. This changing population structure has implications for Gloucestershire's economy. Gloucestershire's dependency ratio is projected to increase, by 2043 for every 100 people of working age, there will be 80 people reliant on them this compares to 65 in 2018, placing greater pressure on the working age population[390].

A healthy population is essential for a prosperous economy. Generally, Gloucestershire's population is healthier than the national average. It has higher life expectancies[391], lower levels of self-reported poor health, disability and unpaid carers[392] than England and Wales. However, it is worth reflecting that increasing the retirement age may also bring new challenges to the workplace. Evidence suggests that in Gloucestershire healthy life expectancy, which is the average number of years an individual would expect to live in good health stands

[387] 2011 and 2021 Census, ONS

[388] Mid year Population Estimates, ONS

[389] Mid 2021 Population Estimates, ONS

[390] 2018 based Sub-national Population Projections, ONS

[391] National life tables – life expectancy in the UK: 2018-2020, ONS

[392] 2021 Census, ONS

at 67 years for males and 66 years for females, therefore an older workforce may mean the workplace needs to adapt to better accommodate those with greater health needs.

9. Population

The inclusion of demographic analysis when examining the economy of Gloucestershire is important because it provides insight into the current and potential labour force and its relationship to economic growth.

9.1 Current population structure

9.1.1 Total population

On March 21st, 2021, the population of Gloucestershire was 645,076[393]. Gloucestershire's population accounted for 11.3% of the population of the South West and 1.1% of the population of England and Wales.

Of Gloucestershire's population, there was 329,832 women and 315,244 men, a split of 51.1% to 48.9%.

Out of Gloucestershire's districts, Gloucester had the largest population with approximately 132,416 people (18.8% of the county's population) and Forest of Dean had the smallest population with 87,004 people (13.5% of the county's population), see Figure 41.

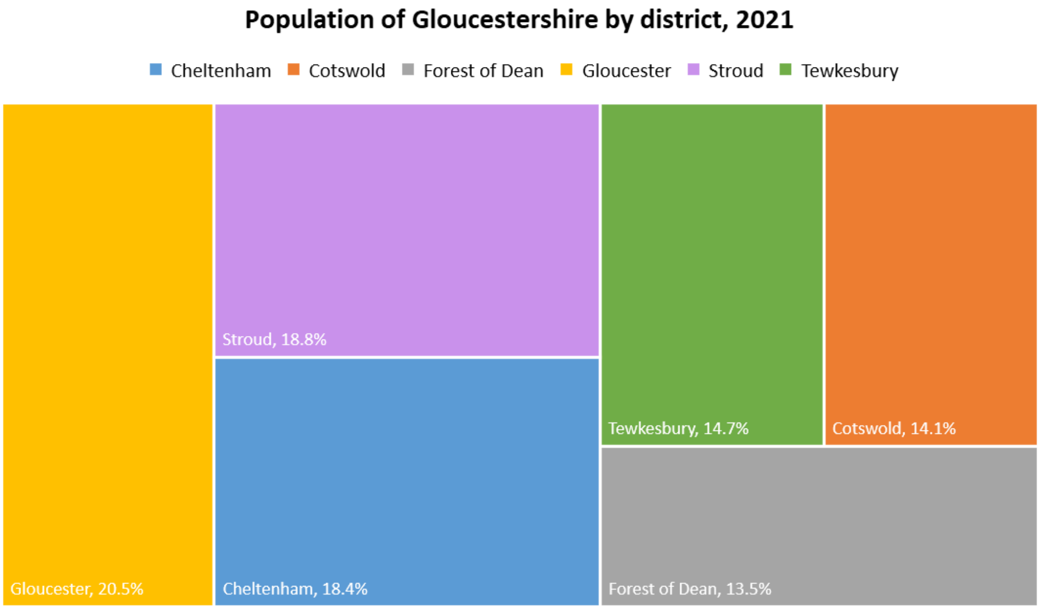

Figure 41: Population of Gloucestershire by district, 2021[394]

[393] 2021 Census, ONS
[394] *Ibid.*

9.1.2 *Population pyramid*

Population pyramids, as presented in Figure 42, provide an illustration of the composition of the population by 5-year age groups as well as the sex distribution. A comparison is made between Gloucestershire, the South West and England and Wales.

In 2021, Gloucestershire had a smaller proportion of people in the age groups 0-4 and 40-44 and a higher proportion of people in all the age groups over 50-54 for both males and females, when compared to England and Wales. There is more of a mixed picture when comparing to the South West; generally, Gloucestershire has a bigger proportion of people in the 0-4 to 10-14 age groups and 35-39 to 60-64 age groups. In contrast, there is a smaller proportion of the population in the 15-19 to 25-29 and 65+ age groups compared to the South West.

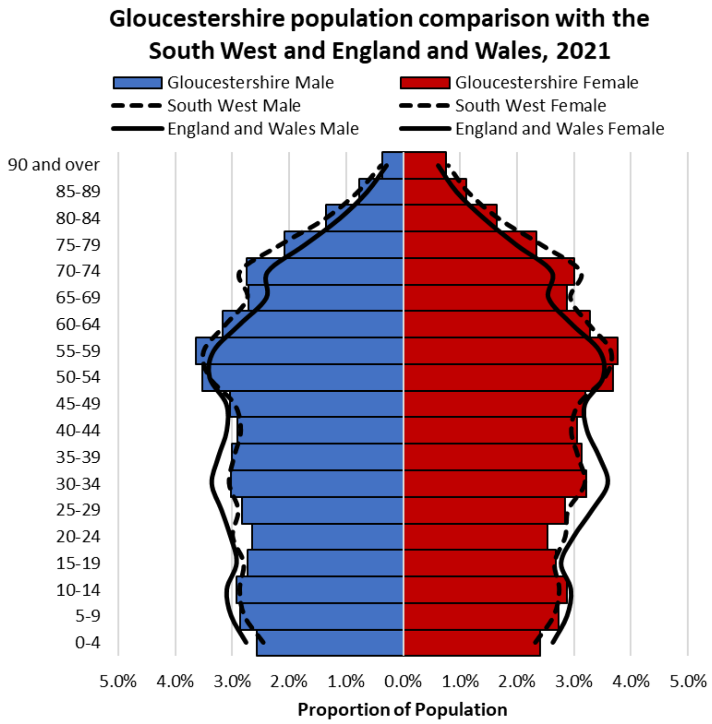

Figure 42: Gloucestershire population comparison with the South West and England and Wales, 2021[395]

In Figure 43 all the districts show signs of an ageing population whereby the age groups at the top of the pyramid are already wider than the middle and base and are continuing to widen. However, the urban districts Cheltenham and Gloucester show that their population ageing is less advanced as there is a lower proportion of the population in the 65+ age groups than the Gloucestershire average. Furthermore, Cheltenham and Gloucester have a noticeably higher proportion of the population in

395 *Ibid.*

the 20-24 to 35-39 age groups than Gloucestershire overall whilst the opposite can be said for Cotswold, Forest of Dean and Stroud, and to some extent Tewkesbury.

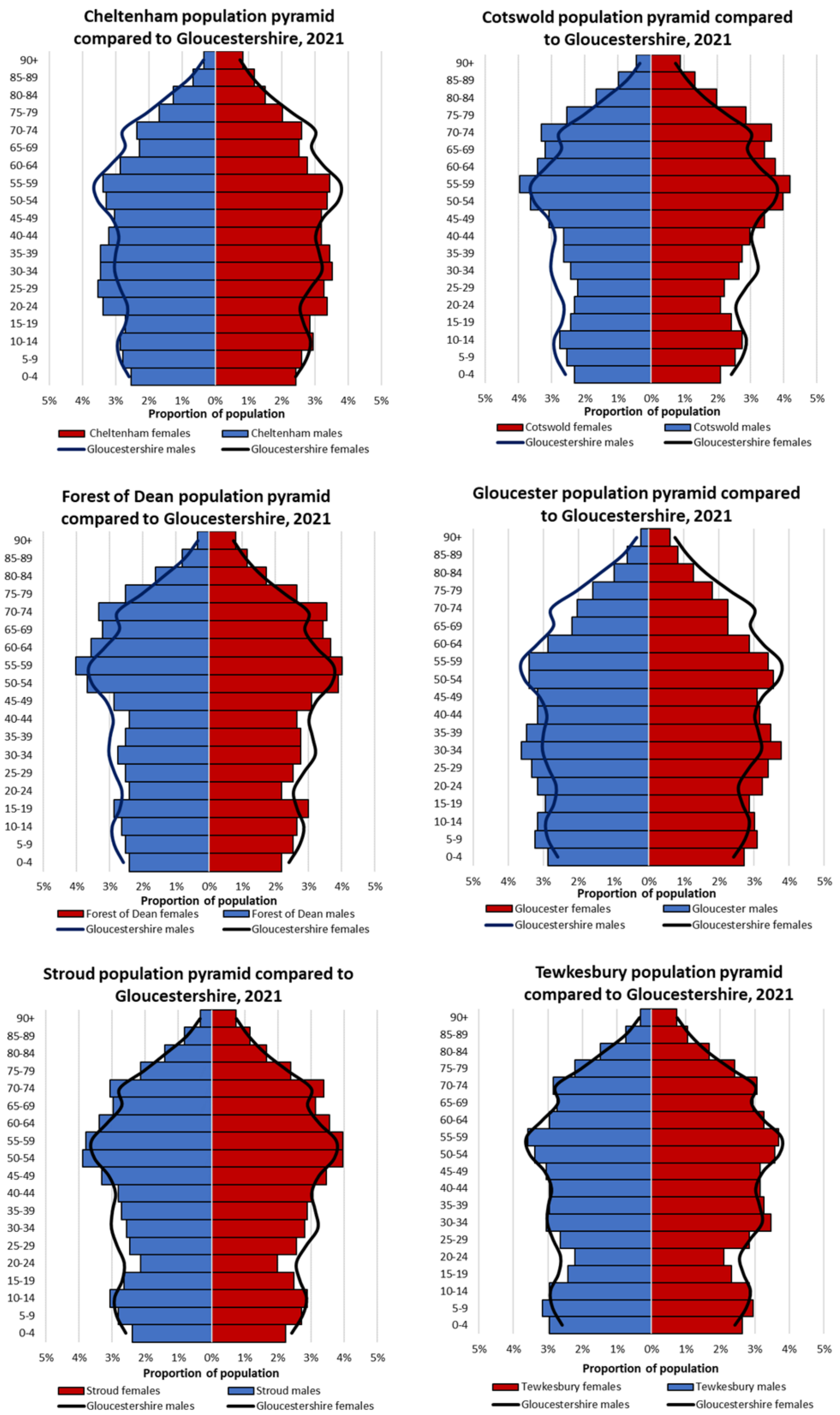

Figure 43: District population pyramids compared to Gloucestershire, 2021[396]

[396] Census 2021, ONS

9.1.3 Broad age groups

Gloucestershire's population can also be analysed by broad age group, and this is shown in Figure 44. The graph indicates that 60.8% of Gloucestershire's population was aged 16-64 in 2021, this was in line with the South West (60.7%) but lower than England and Wales (62.9%). In contrast, 17.5% of Gloucestershire's population was aged 0-15 and 21.7% was aged 65+. The South West has a smaller proportion of the population aged 0-15 and a bigger proportion of the population aged 65+ compared to Gloucestershire, the opposite is true for England and Wales.

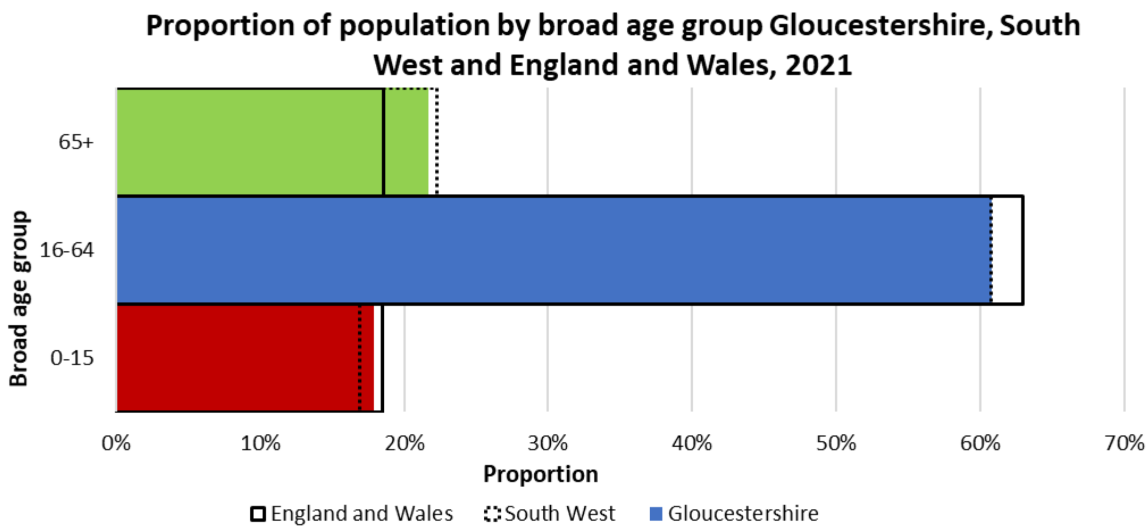

Figure 44: Proportion of the population by broad age group Gloucestershire, South West and England and Wales, 2021[397]

Compared to Gloucestershire's geographic neighbours, the county is placed in the bottom half at 8th highest for its 0-15 population proportion and in the middle of the ranking for the 16-64 and 65+ age groups. Also, compared to the county's statistical neighbours, Gloucestershire is placed in the middle for the 0-15 population proportion, in the top 50% at 6th for the population aged 16-64 and bottom 50% at 10th for the 65+ population proportion. Therefore, highlighting that Gloucestershire is not unique in its population composition and large proportion of 65+ year olds when comparing to its geographic and statistical neighbours.

Overall, Gloucestershire's 0-15 population proportion is placed in the bottom 40% of all county and unitary authorities in England and Wales, the 16-64 population proportion is also in the bottom 40% whilst the 65+ population proportion is placed in the top 40% of the authorities.

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[397] *Ibid.*

Table 1: District population by broad age group in Gloucestershire, its districts, South West and England and Wales, 2021[398]

Proportion of population	0-15	16-64	65+
Cheltenham	17.2%	63.6%	19.3%
Cotswold	16.0%	58.0%	26.1%
Forest of Dean	16.0%	58.9%	25.1%
Gloucester	19.2%	64.1%	16.7%
Stroud	17.3%	59.4%	23.3%
Tewkesbury	18.5%	59.3%	22.2%
Gloucestershire	**17.5%**	**60.8%**	**21.7%**
South West	16.9%	60.7%	22.3%
England and Wales	18.5%	62.9%	18.6%

According to the 2021 Census, out of Gloucestershire's districts, Gloucester had the highest proportion of 16-64 year olds accounting for 64.1% of its population and Cotswold had the lowest proportion of 16-64 year olds at 58.0%, as shown in Table 1. In comparison to the 331 district and unitary authorities in England and Wales, Gloucester is ranked in the top 40% at 70th for its 16-64 population proportion size, whilst Cotswold is in the bottom quintile for its 16-64 population proportion at 290th.

For the 0-15 age group, Gloucester also had the highest proportion with 19.2% and Cotswold the lowest proportion with 16.0% of the population. Compared to all district and unitary authorities, Gloucester is placed in the top 40% at 95th largest 0-15 population proportion and Cotswold is placed in the lowest 20% at 285th.

Furthermore, Cotswold had the highest proportion of the population aged 65+ accounting for 26.1% of the total population and Gloucester had the smallest proportion accounting for 16.7% of the population. Compared to all authorities in England and Wales, Cotswold is just within the top 20% for largest proportion size at 37th and Gloucester is placed in the lowest 40% at 254th.

398 *Ibid.*

9.1.4 Dependency ratios

Dependency ratios[399] are a measure that indicate the level of support that needs to be provided by the working age (16-64) population to the younger and older population, people aged 0-15 or 65+. A low dependency ratio indicates that there is a sufficient ratio of the working-age population to the dependent population. In contrast, a high dependency ratio indicates there may be more financial burden on the working population to support the dependent population.

In 2021, Gloucestershire had a dependency ratio of 0.64, this means that for every 100 people aged 16-64 there was 64 people dependent on them. The South West has a slightly higher dependency ratio of 0.65 whilst the England and Wales dependency ratio is lower at 0.59, as indicated in Figure 45.

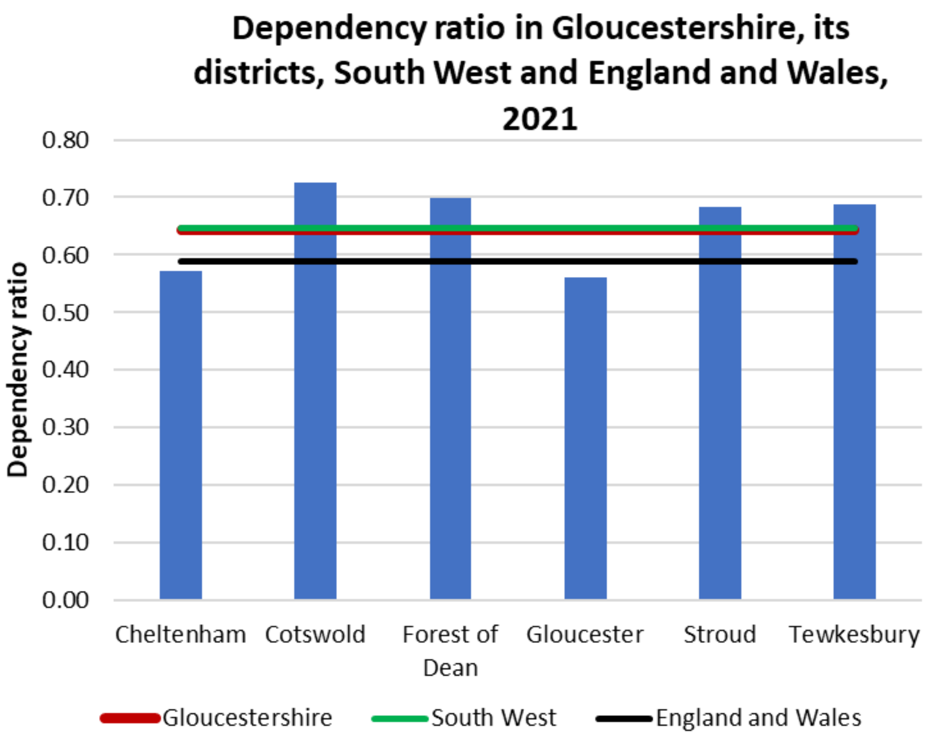

Figure 45: Dependency ratio in Gloucestershire, its districts, South West and England and Wales, 2021[400]

Figure 46 indicates that Gloucestershire has the 6th highest dependency ratio out of its geographical neighbours in England and Wales. However, when compared to its statistical neighbours, Gloucestershire has the 11th highest dependency ratio, putting it in the bottom 50% as shown in Figure 47, indicating that it is

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[399] Dependency ratios only provide a rough indication of the level of support needed to sustain the dependent population, they should be used in conjunction with other analysis and should not be used on their own. As the retirement age increases, the dependency ratio will likely become lower as people remain economically active for longer.

[400] 2021 Census, ONS

currently experiencing less effects of an ageing population than most of its statistical neighbours.

Gloucestershire has the 46th highest dependency ratio out of all 174 county and unitary authorities in England and Wales, this is in the top 30%.

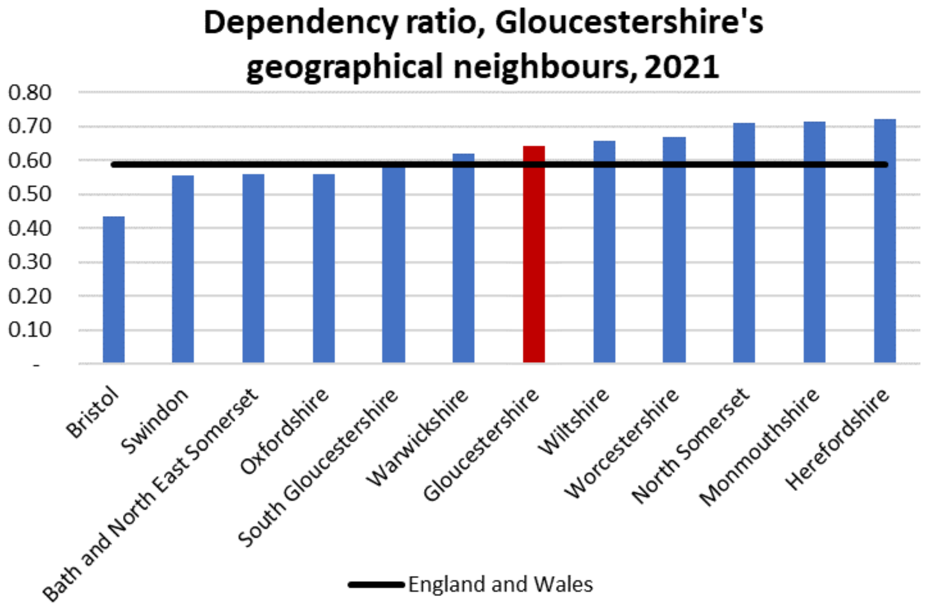

Figure 46: Dependency ratio, Gloucestershire's geographical neighbours, 2021[401]

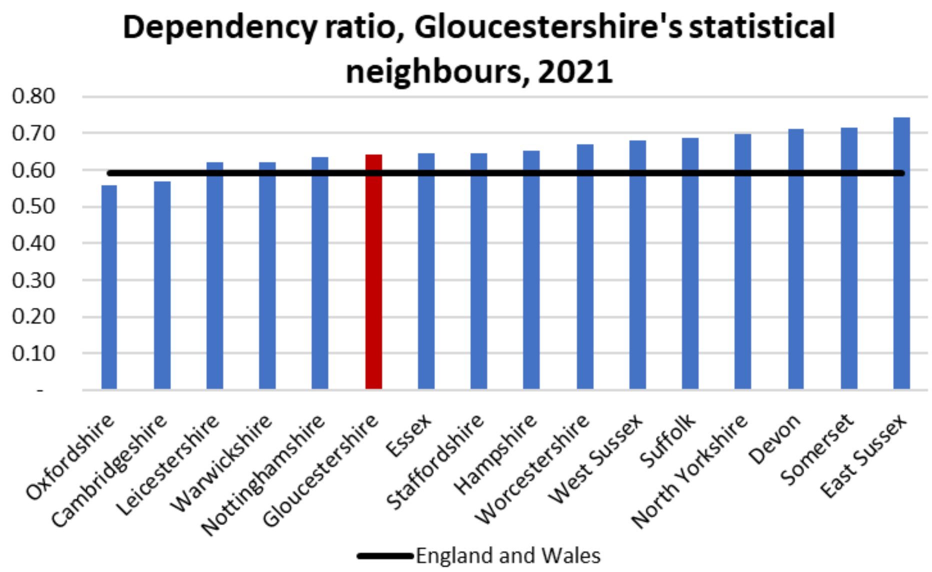

Figure 47: Dependency ratio, Gloucestershire's statistical neighbours,2021[402]

Comparing Gloucestershire's districts, Cotswold has the highest dependency ratio at 0.73, equivalent to 73 dependents per 100 people of working-age, and Gloucester has the lowest at 0.56. In comparison, to the 331 district and unitary

[401] *Ibid.*

[402] *Ibid.*

authorities in England and Wales, Cotswold is ranked in the highest 20% at 42nd and Gloucester just outside of the lowest 20% at 262nd.

9.2 Population change

9.2.1 Total population

Gloucestershire's population on Census Day 2021 increased by 48,092 people (+8.1%) compared with Census Day 2011, as seen in Figure 48, and by 80,517 people (+14.3%) since 2001. The rate of growth between 2011 and 2021 was higher than both the South West (+7.8%) and England and Wales (6.3%). The rate of population growth in Gloucestershire over the last decade has increased compared with the rate between 2001 and 2011, when the population grew by 5.7%. This differs from the picture seen nationally, with population growth in England and Wales decreasing slightly compared with the rate between 2001 and 2011, when the population grew by 7.8%.

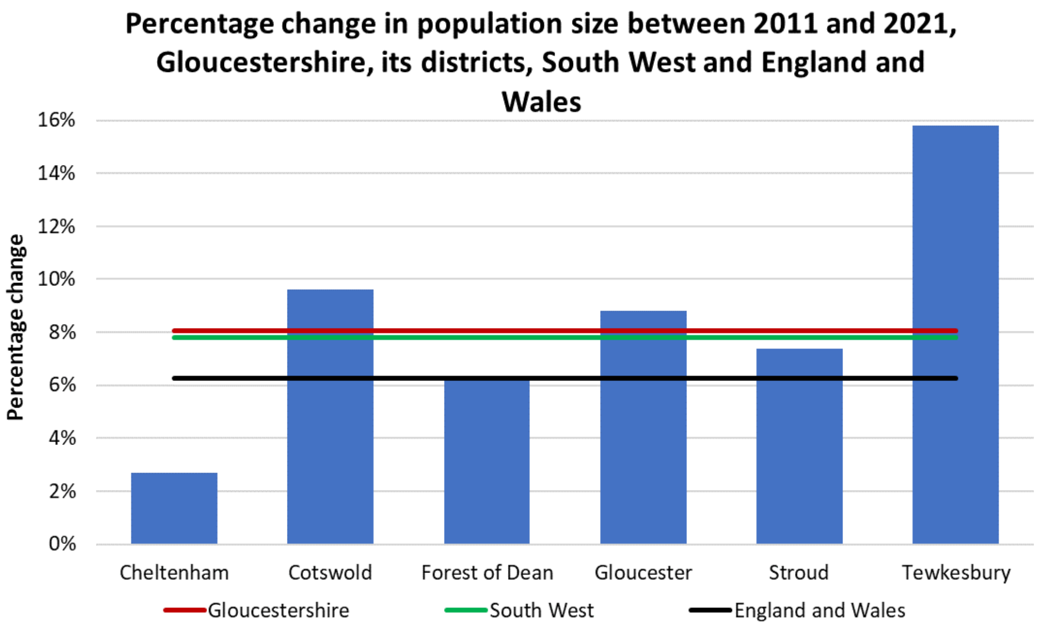

Figure 48: Percentage change in population size between 2011 and 2021, Gloucestershire, its districts, South West and England and Wales[403]

Compared to its geographical neighbours, Gloucestershire's population growth was the 8th highest and 7th highest when compared to its statistical neighbours, in both cases Gloucestershire's growth was near the middle of the rankings. In addition, Gloucestershire had the 50th highest growth rate when compared to all county and unitary authorities in England and Wales, this is within the top 40%.

403 2011 and 2021 Census, ONS

Across Gloucestershire, Tewkesbury had the highest population growth with a 15.8% (12,951 people) increase between 2011 and 2021. In contrast, Cheltenham had the smallest population growth, with a population increase of 2.7% (3,104 people) since 2011 as shown in Figure 49. In comparison to all 331 district and unitary authorities in England and Wales, Tewkesbury had the 8th highest growth between 2011 and 2021 whereas, Cheltenham was placed in the lowest 25% with a ranking of 251st.

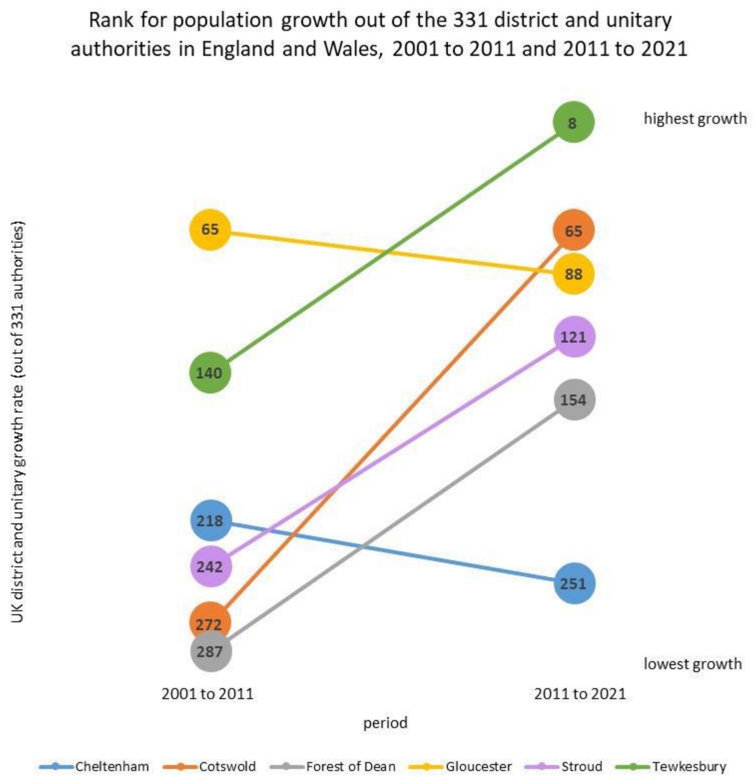

Figure 49: Rank for population growth out of the 331 district and unitary authorities in England and Wales, 2001 to 2011 and 2011 to 2021[404]

9.2.2 Population pyramid

Gloucestershire's population structure change between 2001, 2011 and 2021 is presented in Figure 50. Between 2011 and 2021, Gloucestershire saw a decrease in the proportion of people aged 0-4, 15-24 and 40-49. However, it saw an increase in the proportion of people in the 05-14, 25-39 and all the 50+ age groups, of which the 70-74 age group experienced the greatest growth. Gloucestershire has followed a similar trend to the South West and England and

[404] 2001, 2011 and 2021 Census, ONS

Wales. However, there was a larger percentage increase in the 90+ and 75-79 age groups and larger percentage decreases in the 15-19 and 40-44 age.

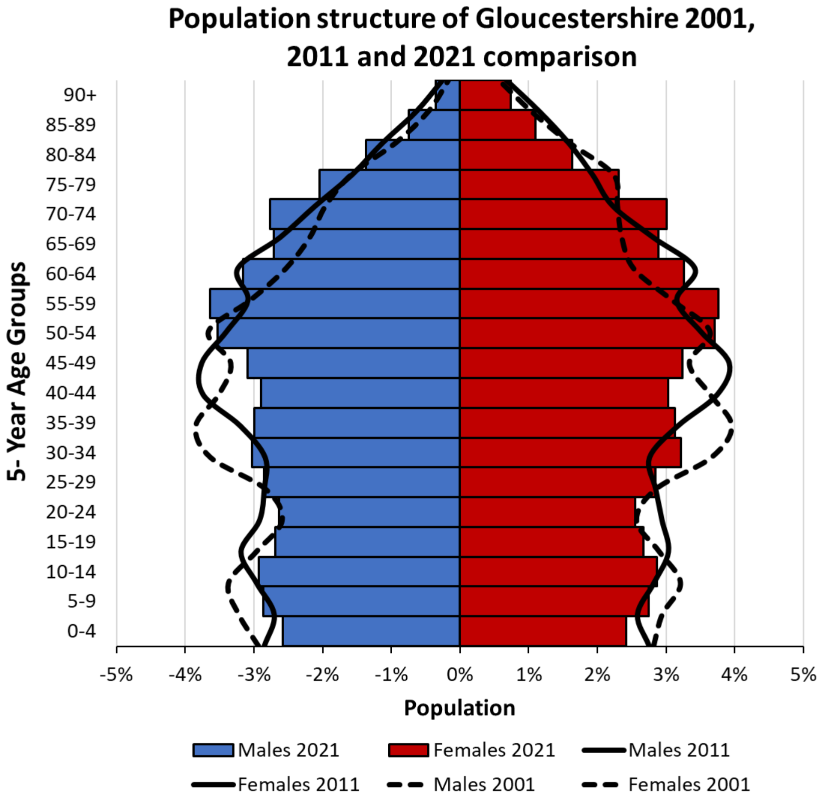

Figure 50: Population structure of Gloucestershire 2001, 2011 and 2021 comparison[405]

Figure 51 indicates the changes in population structure for each of Gloucestershire's districts between 2011 and 2021. One of the key highlights is the reduction in the proportion of young people aged 15-24 year olds in all districts and the widening of most age groups over 65.

[405] *Ibid.*

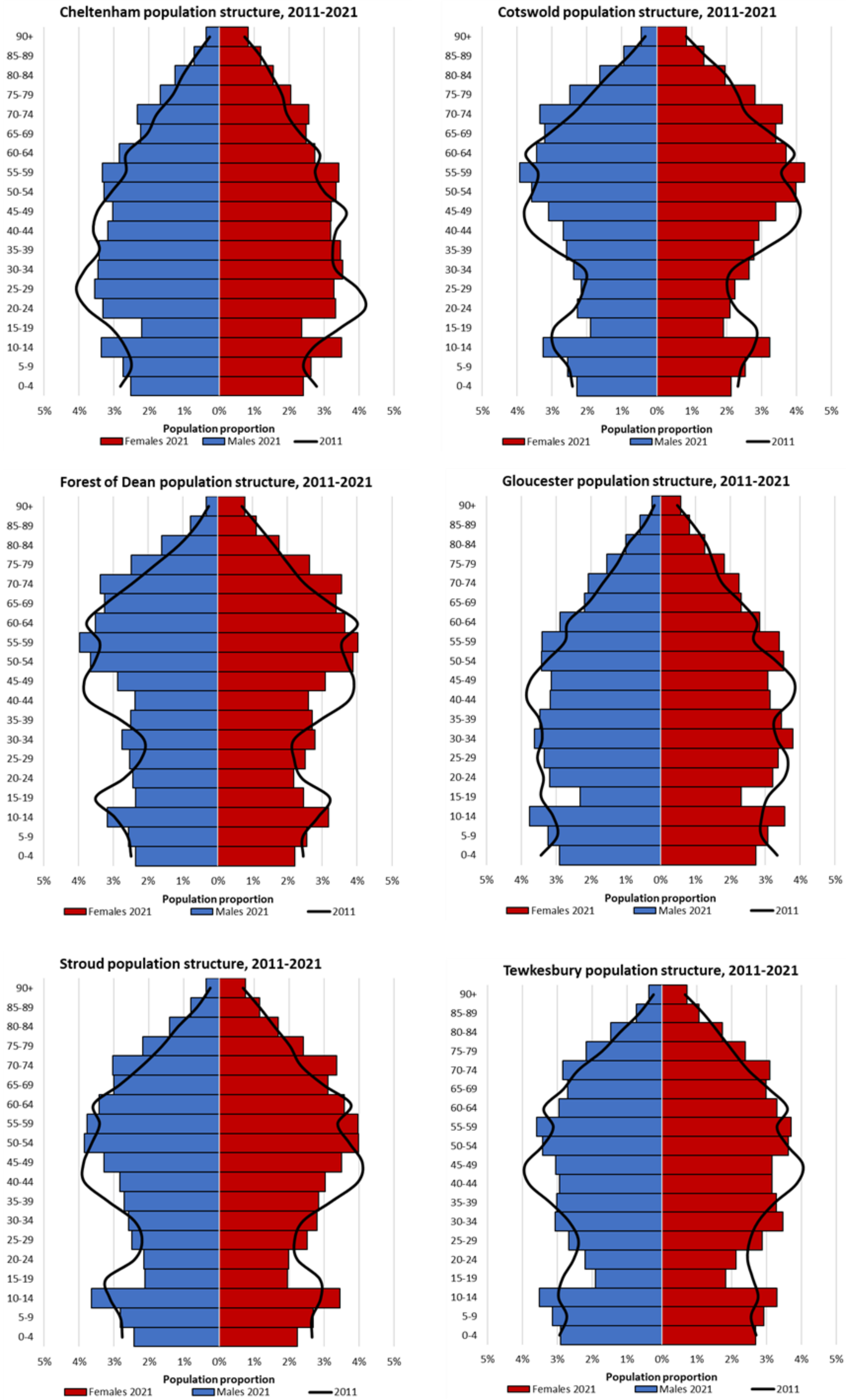

Figure 51: District population pyramids, Gloucestershire, 2011-2021[406]

[406] 2011 and 2021 Census, ONS

9.2.3 *Broad age groups*

Between the 2001, 2011 and 2021 Censuses there have been changes in Gloucestershire's broad age group composition including: an increase in the proportion of older people and decrease in the proportion of young people. These changes are indicated in Figure 52.

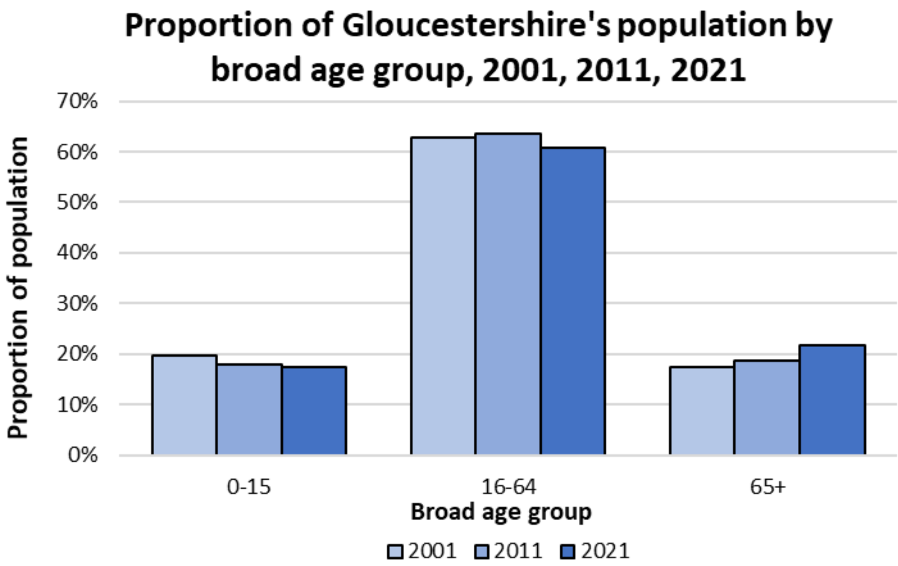

Figure 52: Proportion of Gloucestershire's population by broad age group 2001, 2011, 2021[407]

Between 2011 and 2021, the proportion of Gloucestershire's population aged 16-64 decreased by 2.7 percentage points, from 63.5% of the population to 60.8%. Both the South West and England and Wales working-age population proportions also decreased, by 2.1 and 1.8 percentage points respectively. Also, Gloucestershire's 0-15 population proportion decreased by 0.4 percentage points, from 17.9% to 17.5% of the population. The South West saw a greater decrease by 0.7 percentage points and England and Wales had the same percentage point decrease as Gloucestershire. The 65+ age group increased its share of the population in all comparison areas, by 3.0 percentage points in Gloucestershire (from 18.7% to 21.7%), by 2.7 percentage points in the South West and 2.2 percentage points in England and Wales.

Cheltenham and Tewkesbury are the only districts to have an increase in the proportion of the 0-15 population between 2011 and 2021, by 0.2 and 0.7 percentage points. Forest of Dean had the largest decrease in the proportion of the population aged 0-15 by -1.1 percentage points. In comparison, all the districts saw a decrease in the proportion of the population aged 16-64 with Forest of Dean also experiencing the greatest percentage point decrease (3.3

[407] *Ibid.*

pps). Conversely, all the districts had an increase in the proportion of the population aged 65+ and Forest of Dean had the largest percentage point increase, by 4.4 percentage points.

9.2.4 Dependency ratio change

Between 2011 and 2021, the dependency ratio increased in Gloucestershire, the South West and England and Wales. As the dependency ratio increases the level of support that needs to be provided to the dependent population also increases. This can have significant implications for planning and policy as adjustments need to be made to financially support the changing population structure.

Between 2011 and 2021, the dependency ratio for Gloucestershire increased from 0.51 to 0.57, an increase of 6 people aged 0-15 or 65+ per 100 people aged 16-64. The dependency ratio also increased by 6 people in the South West, from 0.58 to 0.64 however, there was a lower increase in England and Wales where there was 4 additional dependents per 100 people aged 16-64.

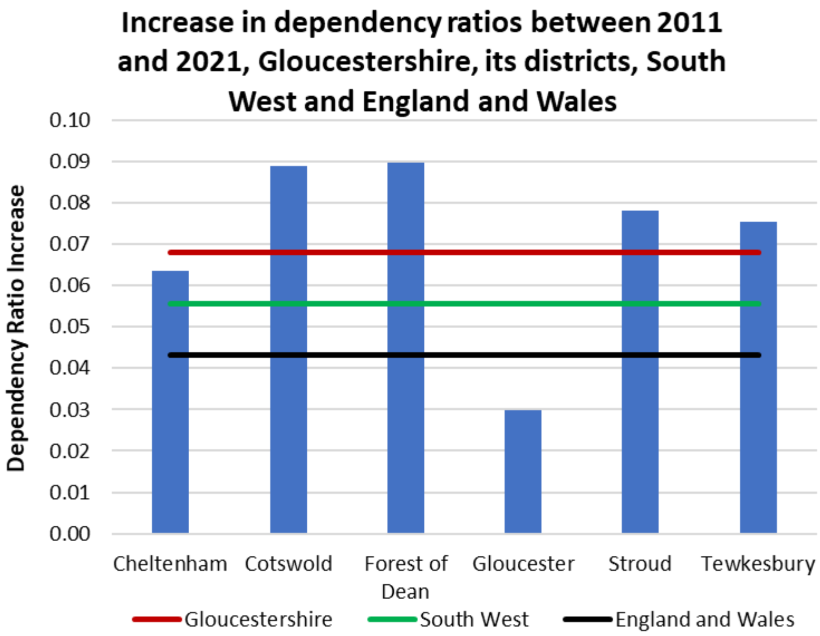

Figure 53: Increase in dependency ratio between 2011 and 2021, Gloucestershire, its districts, South West and England and Wales[408]

Between Gloucestershire's districts, Cotswold and Forest of Dean had the largest increase in the dependency ratio, by 9 additional dependents per 100 people aged 16-64. Gloucester was the only district to have an increase lower than the county increase of 6 dependents, it was also the only district to experience an increase lower than the South West or England and Wales dependency ratio increase.

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[408] 2011 and 2021 Census, ONS

9.3 Components of change- internal migration

Internal migration is the movement of people and their usual address of residence from one area's boundaries to another within the UK. Gloucestershire has a positive net internal migration rate which means more people are moving into the county than out of it. Internal migration also has important impacts on productivity, economic growth, and public services. As most migration is either for study or work, internal flows tend to increase the productive capacity at the destination, while reducing it at the origin. Migration also increases demand for public services at the destination, while reducing it at the origin. Such changes can have profound effects on communities: rural communities may find it impossible to sustain public services once the population drops below a critical level. But the reverse can happen in cases where rapid immigration creates pressure on services such as school education and health.

According to the mid-population 2020 estimates[409], there were 24,876 moves into the county and 21,646 moves out of the county, resulting in 3,230 net moves and a net-migration rate of +5.04 people per 1,000 population.

Out of Gloucestershire's geographical neighbours, 10 authorities (including Gloucestershire) had a net positive inflow of people. Out of these 10 authorities, Gloucestershire had the 2nd highest inflow of people into the county. In comparison, all the authorities that are statistical neighbours had a net inflow of people, and Gloucestershire had the 11th highest inflow of people. Looking at all 174 county and unitary authorities in England and Wales, there was 87 which had a net inflow of people and Gloucestershire had the 19th highest number of net positive-internal migrants.

[409] The ONS has indicated that COVID-19 will have impacted internal migration estimates for the year to mid-2020. Two reasons are provided: uncertainty about the timeliness of administrative data used to estimate migration movements and the impact of the first national lockdown which placed restrictions on people who were planning to move home. More information can be found at: https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/bulletins/annualmidyearpopulationestimates/mid2020#movement-of-people-within-the-uk

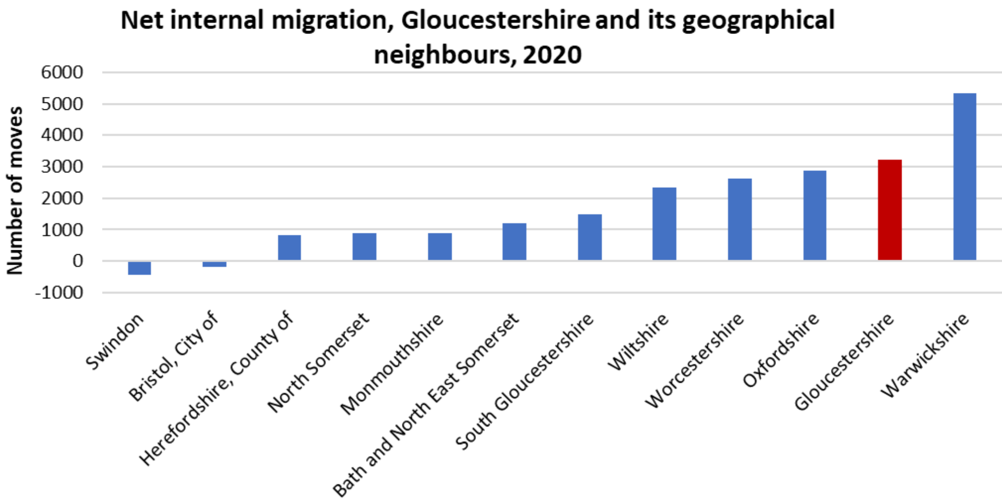

Figure 54: Net internal migration, Gloucestershire and its geographical neighbours, 2020[410]

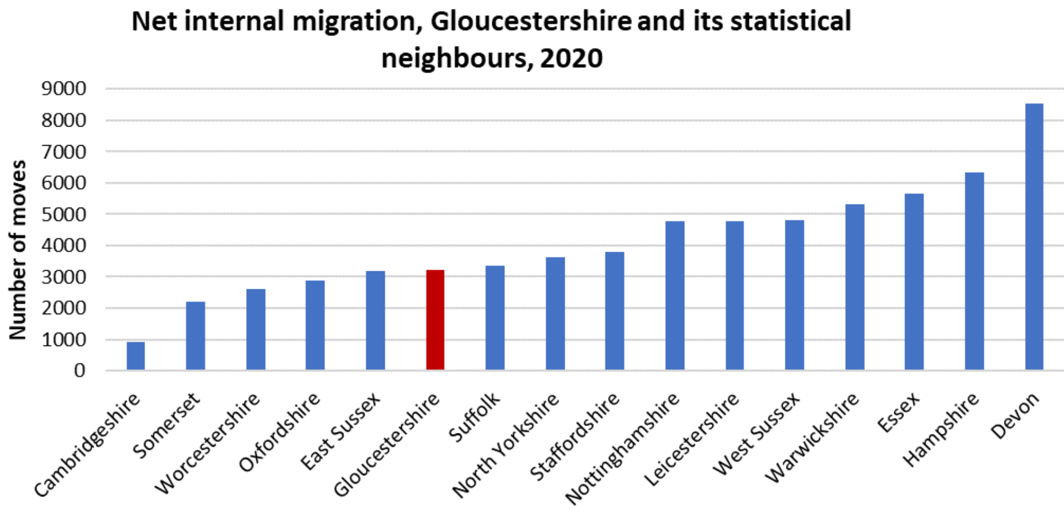

Figure 55: Net internal migration, Gloucestershire and its statistical neighbours, 2020[411]

In 2020, the only age group to have a net internal migration loss in Gloucestershire was people aged 15-19, as shown in Figure 56, this is likely to be due to students leaving the county to study at college or university. There was a net positive internal migration flow for all other age groups, this could suggest that people are returning to the county after university as well as being an attractive place for people aged 30-39, in particular, to move to.

[410] Mid 2020 Population Estimates, ONS
[411] *Ibid.*

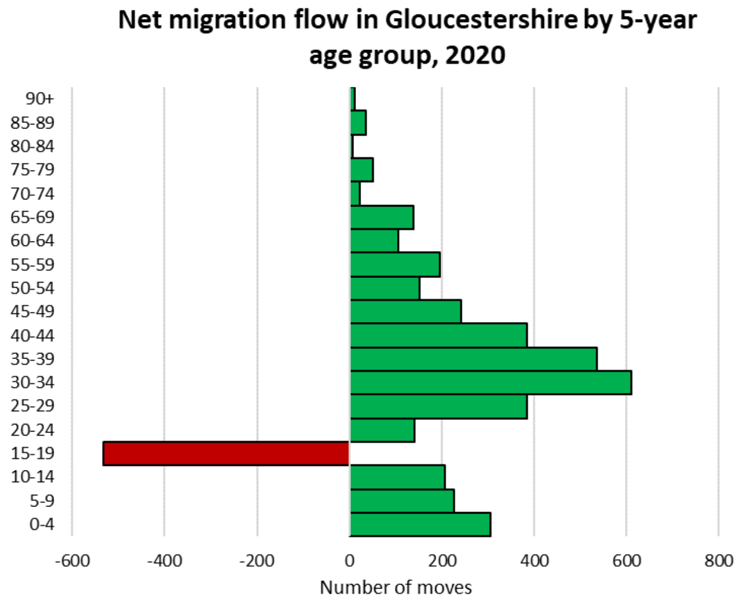

Figure 56: Net-migration flow in Gloucestershire by 5-year age group, 2020[412]

Looking specifically at the 15-19 age group, 8/12 authorities in the geographical neighbour group had a net outflow of 15-19 year olds and out of those eight authorities Gloucestershire had the 5th highest net outflow of people. In addition, 12/16 authorities in the statistical neighbour group had a net outflow of people and of those 12 authorities, Gloucestershire had the lowest net number of 15-19 year olds leaving the authority. These rankings are shown in Figure 57 and Figure 58. Furthermore, out of the 174 county and unitary authorities in England and Wales, 128 had a net outflow of 15-19 year olds and Gloucestershire had the 67th highest net number of people aged 15-19 moving away from the county.

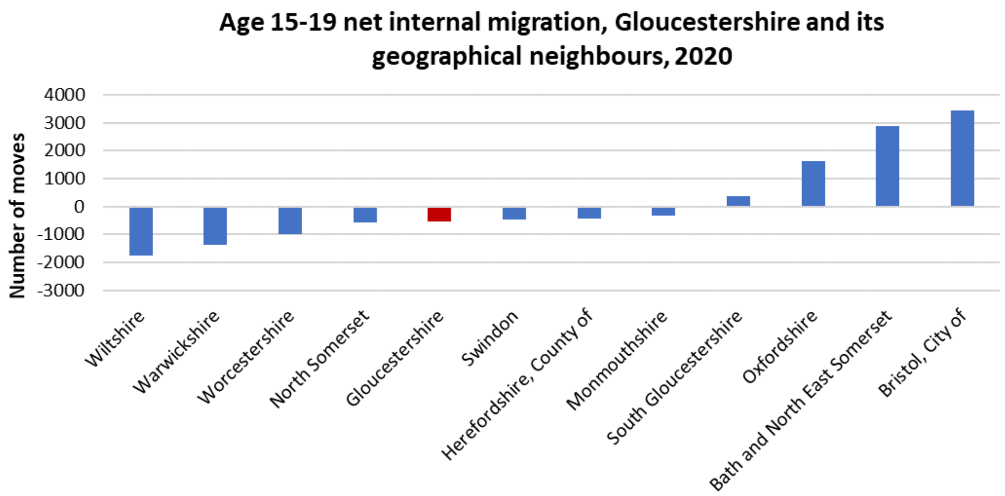

Figure 57: Age 15-19 net internal migration, Gloucestershire and its geographical neighbours, 2020[413]

[412] *Ibid.*

[413] *Ibid.*

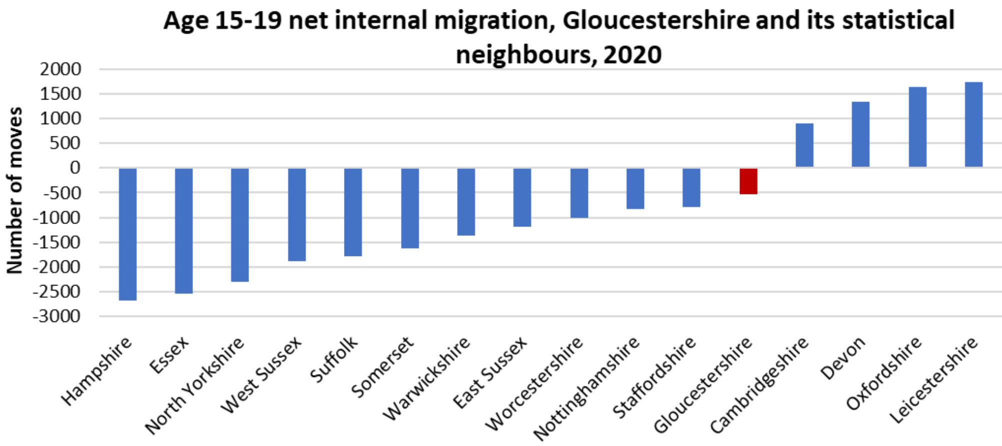

Figure 58: Age 15-19 net internal migration, Gloucestershire and its statistical neighbours, 2020[414]

Net-positive internal migration has increased in recent years. *Figure 59* indicates the number of in and out migration moves as well as the net internal migration moves to Gloucestershire between 2012 and 2020. Since 2012, the number of net internal migration moves has increased with the inflow of people increasing more than the outflow of people from the county, this has resulted in more than 3000 people moving into the county each year since 2014. [415]

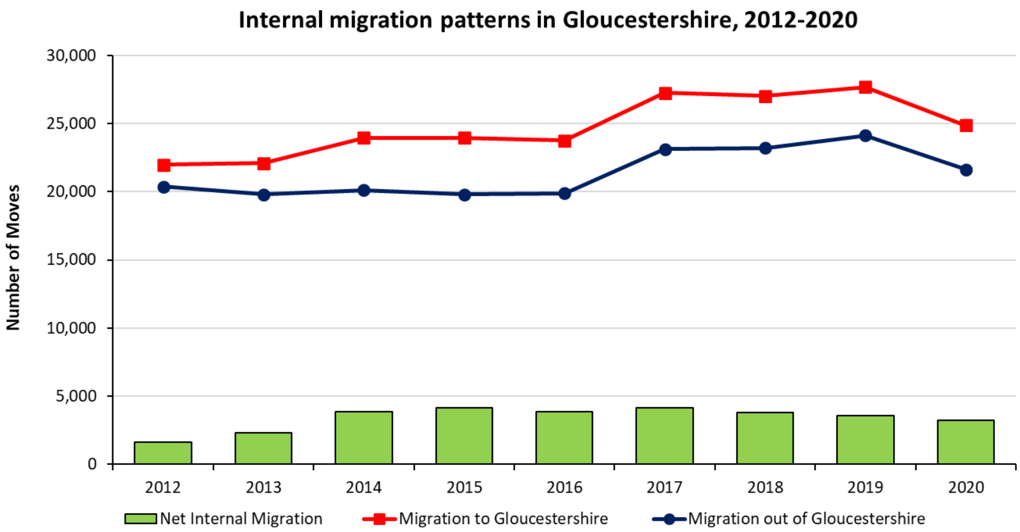

Figure 59: Internal migration patterns in Gloucestershire, 2012-2020[416]

Figure 60 indicates that between 2012-20 a net outflow of internal migrants was only experienced in the 15-19, 20-24 and 25-29 age groups in at least one of the nine years shown in the graph. The 15-19 age group has experienced the greatest loss of people which is expected as students move to college or

[414] *Ibid.*

[415] Internal Migration within Regions and Local Authorities in England and Wales, ONS, and Internal migration: detailed estimates by origin and destination local authorities, age and sex, ONS

[416] Mid 2020 Population Estimates, ONS

university. In general, the age groups to experience the highest net inflow of migrants each year has been the 30-44 age groups. Compared to 2019, the 2020 data indicates that there has been a decrease in the number of migrants moving into the county for all age groups.

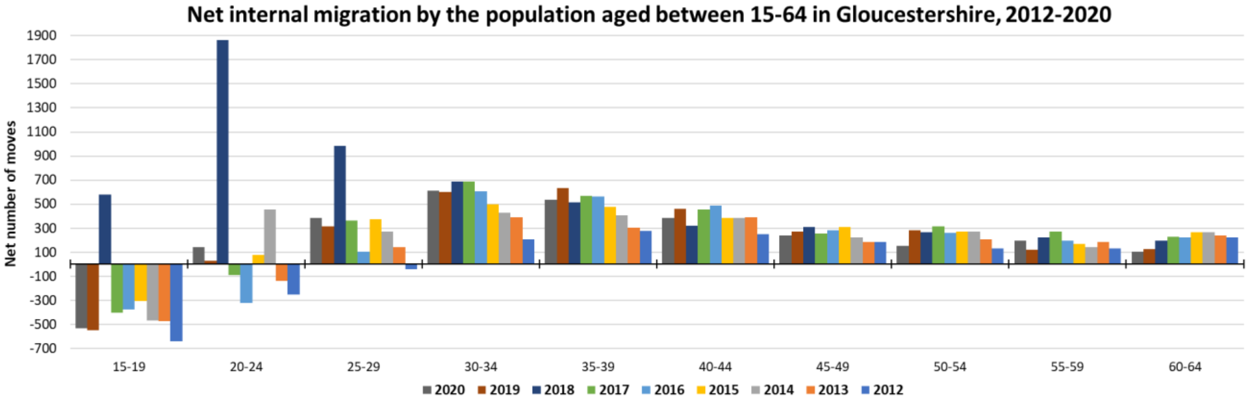

Figure 60: Net internal migration by the population aged between 15-64 in Gloucestershire, 2012-2020[417]

9.4 Population projections[418]

9.4.1 Total population

Gloucestershire's population is projected to increase from 633,558 to 683,849, an increase of 7.9% between 2018 and 2028, and to 738,482 people, an increase of 16.6%, between 2018 and 2043.[419] In comparison, the population in the South West is expected to increase by 6.8% between 2018 and 2028 and 14.1% between 2018 and 2043. England's overall population is projected to grow more slowly with a 5.0% increase between 2018 and 2028, and a 10.3% increase between 2018 and 2043.

[417] Mid 2010-Mid2020 Population estimates, ONS

[418] Population projection data is only available for England and is based on the administrative boundaries in place as of 30th June 2018

[419] 2018 based Sub-national Population Projections, ONS

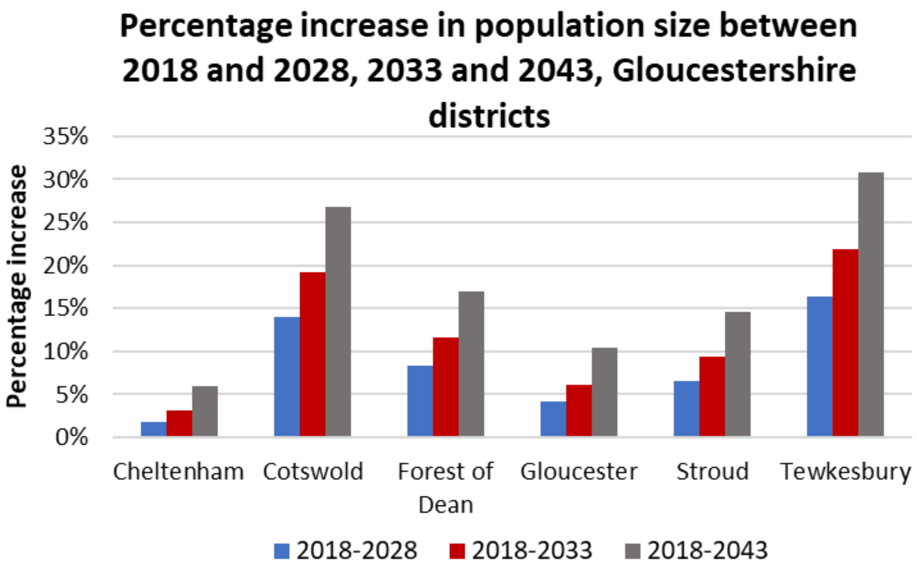

Figure 61: Percentage increase in population size between 2018 and 2028, 2033 and 2043, Gloucestershire districts[420]

Between 2018 and 2028, Cotswold is projected to have the highest population increase by 14.0% and Cheltenham the lowest with a 1.8% increase. Cheltenham is also projected to have the smallest increase between 2018 and 2043 with an increase of 6.0% however, Tewkesbury is projected to have the largest increase by 30.8% between 2018 and 2043 as shown in Figure 61.

9.4.2 Population projection pyramids

Population projections by 5-year age groups can show in more detail how a population structure may change. The pyramids also provide a visual representation of the projected population change such as Figure 62, and can help identify which age groups might experience a significant increase or decrease in the coming years.

Gloucestershire's projected population pyramid, shown in Figure 62, indicates that an increase in 15-19 and 40-44 year olds can be expected up until 2043. It also highlights that the proportion of the population aged 50-64 and 65+ is increasing as the baby boomer generation ages up and reaches retirement age. Of concern is the shrinking proportion of the population aged 16-64, this will have a significant impact on the economy and increase the financial burden of the dependent population on the working-age population.

[420] *Ibid.*

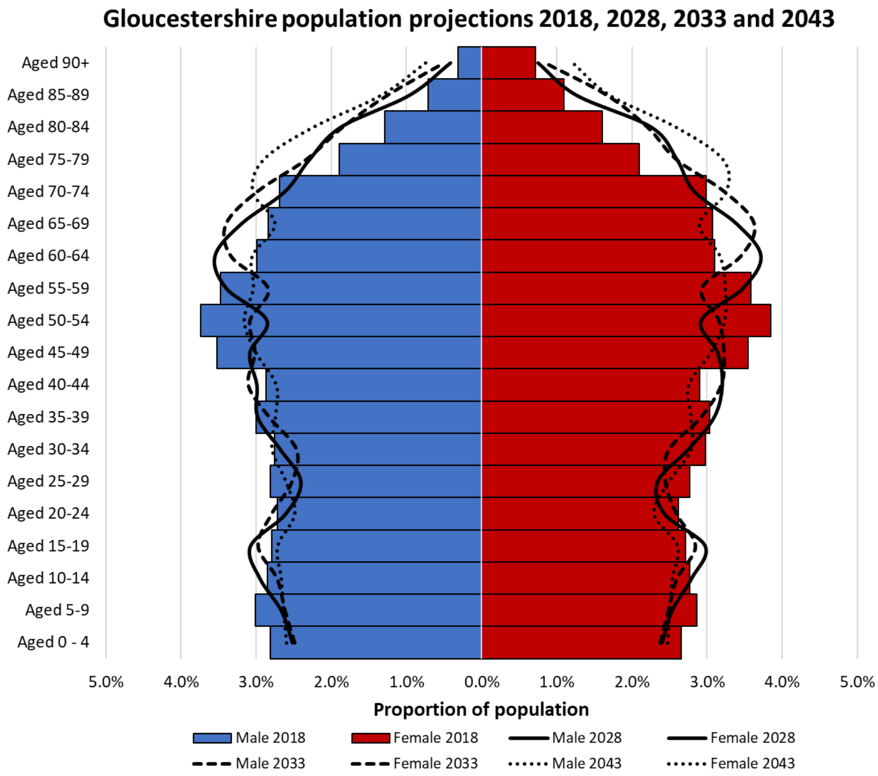

Figure 62: Population projection pyramid for Gloucestershire 2018- 2043[421]

The district population projection pyramids are provided in Figure 63, all the districts show a widening of the top of their population pyramids as their population becomes older. Furthermore, Stroud and Tewkesbury are projected to continue having a noticeably smaller proportion of the population aged 20-24 compared to the other age groups in their population.

[421] *Ibid.*

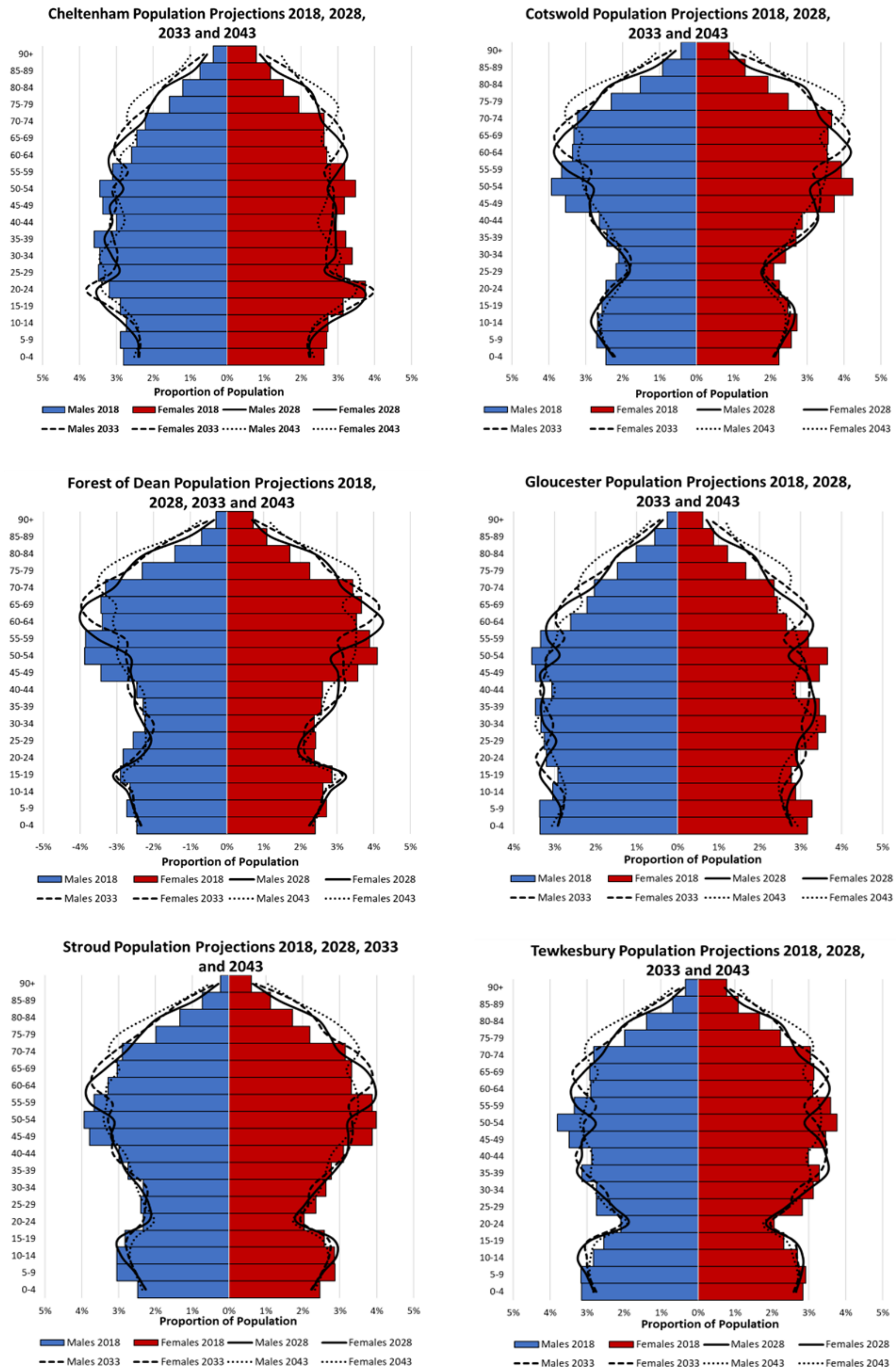

Figure 63: District Population Projection Pyramids 2018-2043[422]

[422] *Ibid.*

9.4.3 *Broad age groups*

Gloucestershire's population is ageing, and this is projected to continue as the proportion of the population aged 65+ increases. One of the main consequences of an ageing population is there will be increasing pressure to financially support Gloucestershire's older population who are mostly economically inactive and rely or partially rely, on a state-pension.

In terms of crude population numbers, all broad age groups are projected to increase between 2018 and 2043. The 0-15 population is projected to increase by 6.5%, 16-64 by 6.9% and the 65+ population by 52.5%.

The uneven growth in population numbers per broad age group has consequences for the population proportions accounted for by each of these age groups. Overall, there is projected to be a decrease in the projected proportion of the population aged 0-15, by 1.5 percentage points (pp) from 18.0% in 2018 to 16.5% in 2043. This compares to a decrease of 1.7pps in the South West, from 17.6% to 15.9% and a 2.0 percentage point decrease in England, from 19.2% to 17.2%. The population in Gloucestershire aged 16-64 is projected to decrease by 5.0 pps from 60.7% to 55.7% which is a lower projected percentage point decrease than the South West decrease of 4.4pps, from 60.4% to 56.0%, and the England percentage point decrease of 3.7, from 62.6% to 58.9%. In contrast, there is projected to be an increase in the proportion of the population aged 65+ in Gloucestershire with a 6.6pp increase from 21.3% to 27.9%, the South West with a 6.2pp increase from 22.0% to 28.2% and England where there is projected to be a 5.7pp increase, from 18.2% to 23.9%. These changes in population proportions will have implications for the economy and its potential growth.

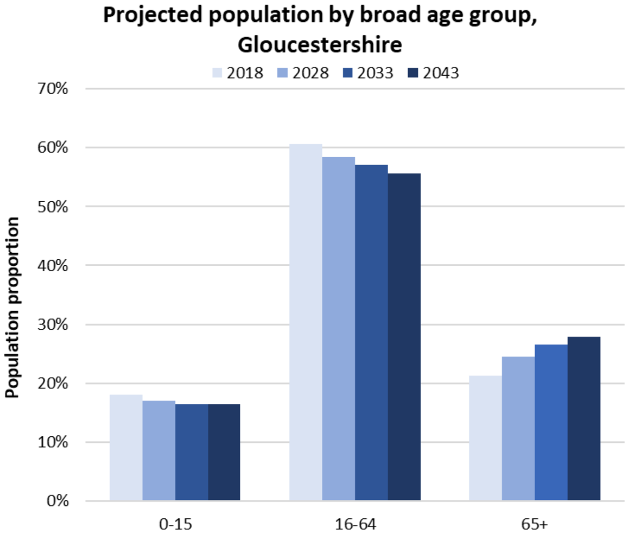

Figure 64: Projected population by broad age group, Gloucestershire, 2018-2043[423]

[423] *Ibid.*

Although Gloucestershire's working-age population number is projected to increase, the proportion of the population who are aged 16-64 is projected to decrease, from 60.7% in 2018 to 58.5% in 2028, 57.1% in 2033 and 55.7% in 2043. The 0-15 population is also projected to decrease between 2018 (18.0% of the population) to 17.1% in 2028, 16.4% in 2033 however, the decrease in proportion is then projected to stabilize and slightly increase to 16.5% by 2043. In contrast, the 65+ population proportion is projected to continuously increase from 21.3% in 2018 to 24.5% in 2028, 26.5% in 2033 and 27.9% in 2043.

Compared to its geographical neighbours, Gloucestershire consistently places in the middle and has the 7th highest proportion of its population aged 16-64 population. Furthermore, compared to its statistical neighbours, Gloucestershire is projected to have the 7th highest 16-64 population proportion which also is placed in the middle. Out of all 151 county and unitary authorities[424] in England, Gloucestershire is placed in the lowest quintile of authorities, placed 121st highest in 2028 and 2033, and 122nd in 2043, for its 16-64 population proportion when ordered from the largest to smallest proportion.

Out of Gloucestershire's districts, for each of the projected years shown in Figure 65, Cotswold consistently has the lowest proportion of 16-64 year old and Gloucester the highest. All the districts are projected to have a lower proportion of 16–64-year-olds as the years progress. In comparison to all 317 district and unitary authorities in England, Cotswold performs in the lowest 20% of districts for all years. Conversely, Gloucester performs in the highest 40% of districts for all the years shown in the graph.

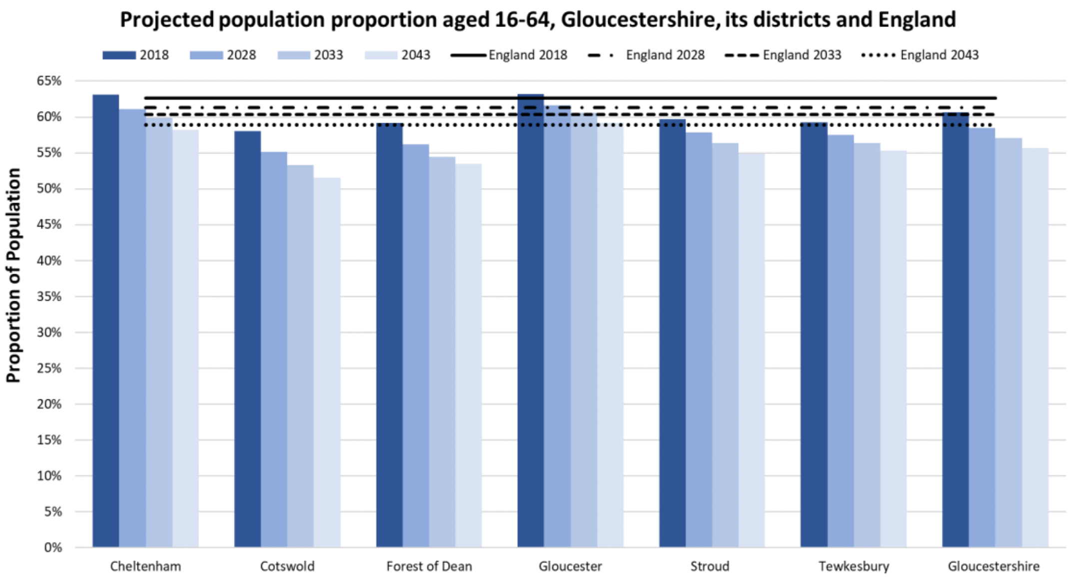

Figure 65: Projected population proportion aged 16-64, Gloucestershire and its districts and England, 2018-2043[425]

[424] As of 30th June 2018

[425] 2018 based Sub-national Population Projections, ONS

The results from the analysis of current and projected population data highlight the need to address the problems of an ageing population, which has been gathering growing attention both in the county and nationally. As the population ages, there will be a smaller proportion of people aged 16-64 to contribute to economic activity in the county.

9.4.4 Dependency ratios

Gloucestershire's dependency ratio is projected to increase, this is being driven by an increase in older people and an increase in the old-age dependency ratio[426]. The youth dependency ratio is projected to stay the same.

Overall, Figure 66 indicates between 2018-2043 the dependency ratio is projected to increase from 0.65 in 2018 to 0.8 in 2043, this means for every 100 people of working age, there will be an additional 15 people reliant on them. Furthermore, for every 100 people of working age, there is projected to be 71 dependents in 2028, 75 dependents in 2033 and 80 dependents in 2043.

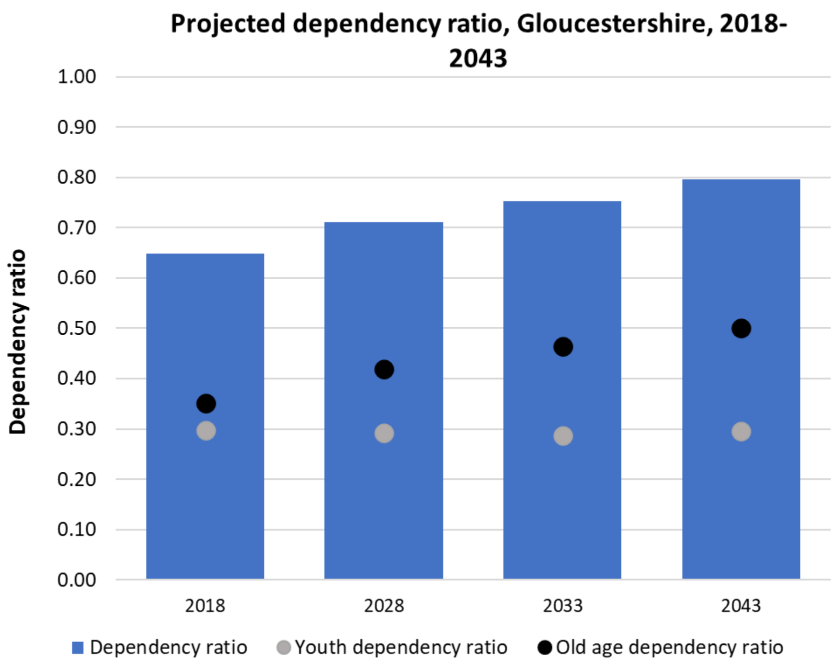

Figure 66: Projected dependency ratio, Gloucestershire, 2018- 2043[427]

Cotswold is projected to have the biggest increase in dependency ratio between 2018 and 2043, by 0.22 from 0.72 to 0.94 and Gloucester the smallest increase by 0.11 from 0.58 to 0.69. The changes in dependency ratio are shown in Figure 67 as well as a comparison to England's dependency ratio.

[426] The old-age dependency ratio is calculated by dividing the number of people aged 65+ by the number of people aged 16-64, the youth dependency ratio is calculated by dividing the number of people aged 0-15 by the number of people aged 16-64

[427] 2018 based Sub-national Population Projections, ONS

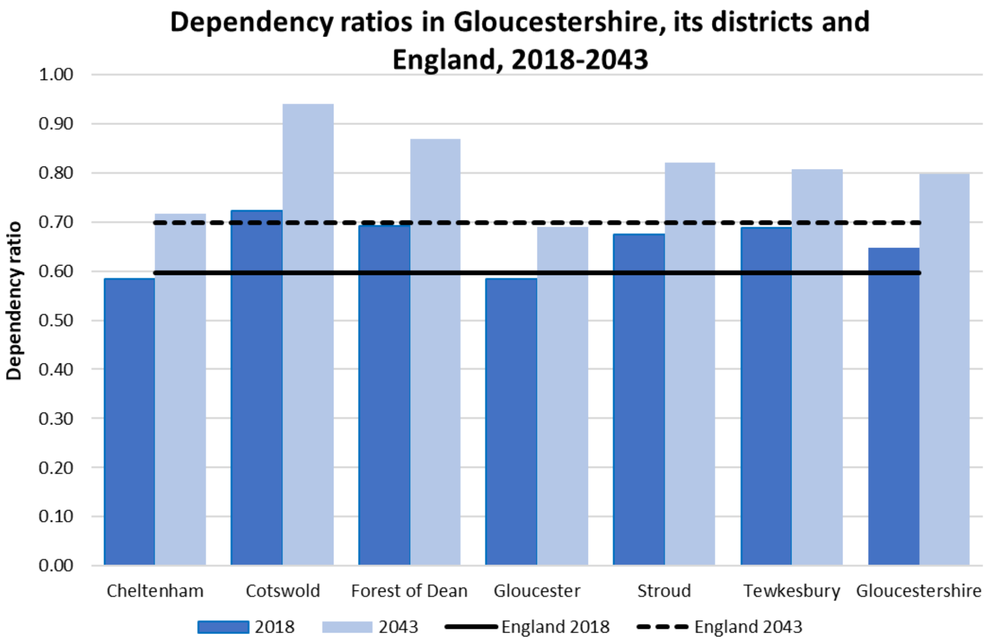

Figure 67: Dependency ratios in Gloucestershire, its districts and England, 2018-43[428]

10. Health

A healthy population is essential for a prosperous economy. Poor health is bad for the economy due to sickness absence, people being prevented from working and the impact of caring responsibilities. Good health, on the other hand, can drive economic success including through increased labour supply, improved productivity, reduced healthcare expenditure, and greater innovation[429].

10.1 Life expectancy

A large driver of population growth in the England and Wales and Gloucestershire is people are living to older ages and have a higher life expectancy (LE). The increase in life expectancy is largely driven by "advances in healthcare and improvements in living and working conditions".[430] However, increases in life expectancy has begun to slow down and this has been compounded by the COVID-19 pandemic.

Life expectancy is one of the key considerations made by government when determining whether the retirement age should increase. The state pension age is currently set at 66 years old for both men and women, it is set to increase to 67 years old between 2026 and 2028, with further increases possible in the future. An increase in the state pension age is likely to increase the size of the

[428] *Ibid.*

[429] Valuing health: why prioritising population health is essential to prosperity, BMA

[430] National life tables – life expectancy in the UK: 2018 to 2020, ONS

labour force, which would help to support the growing proportion of the population who are dependent on the economically active population.

The most recent data, represented in Figure 68, indicates that a Gloucestershire male baby born in 2018-20[431] will live to 80.2 years old and a female baby will live to 83.9 years. Life expectancy is statistically significantly higher for males and females born in Gloucestershire compared to the England[432] life expectancy (79.4 male and 83.1 female) but there was no significant difference to the South West male and female life expectancies.

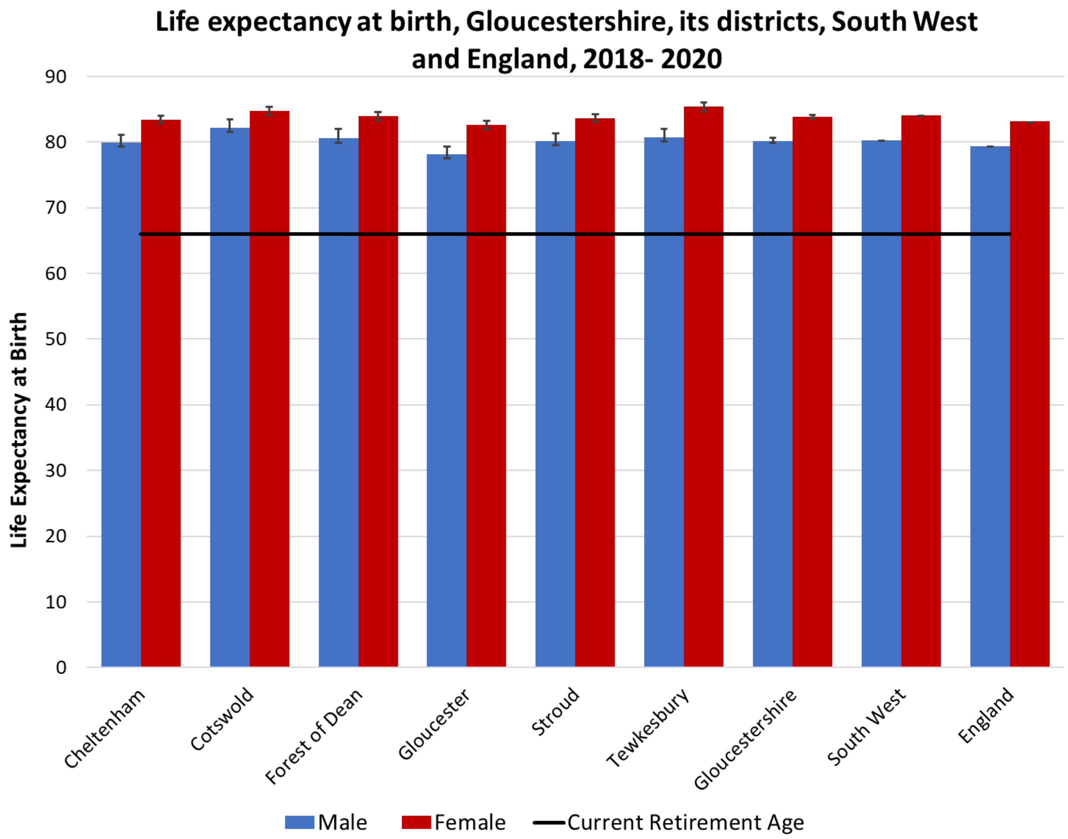

Figure 68: Life expectancy at birth, Gloucestershire, its districts, South West and England, 2018-2020[433]

Analysis provided by the Office for National Statistics indicates that life expectancy has increased in the UK over the past 40 years however, the increase is slowing down[434]. Locally, Figure 69 shows life expectancy at birth in Gloucestershire since 2001-03. Between 2008-2010 and 2018-2020 life expectancy statistically significantly increased by 0.8 years, from 79.4 to 80.2 years for males and by 0.7 years, from 83.2 to 83.9 years for females.

[431] The 2018-20 data includes the higher mortality observed during the COVID-19 pandemic

[432] Life expectancy is calculated for individual countries within the United Kingdom, there is not a life expectancy for England and Wales overall

[433] National life table- life expectancy, ONS

[434] *Ibid.*

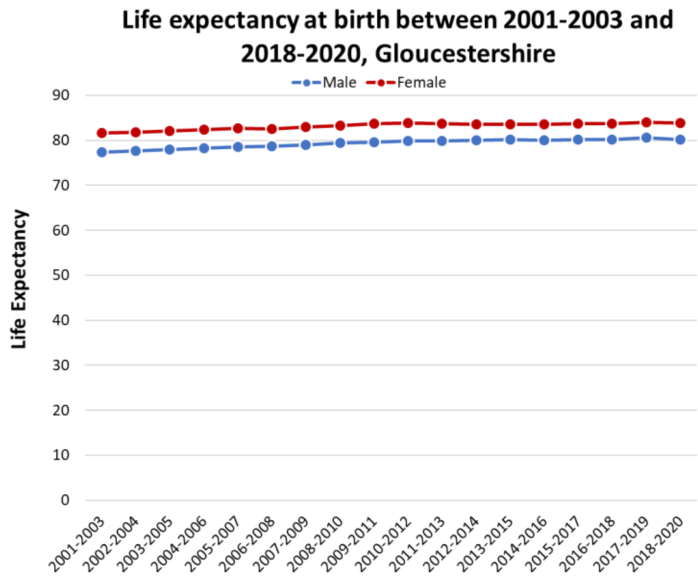

Figure 69: Life expectancy at birth between 2001-2003 and 2018-2020, Gloucestershire[435]

As indicated in Figure 70 and Figure 72, when compared to other areas, Gloucestershire sits in the middle of its geographic neighbours for both male and female life expectancy. It is in the bottom 50% at 11th and 10th highest out of its statistical neighbours for male and females respectively as shown in Figure 71 and Figure 73. The life expectancy at birth of a male was ranked 42nd highest, within the top 30%, out of 172[436] county and unitary authorities in England and Wales. In contrast, the female life expectancy at birth was ranked slightly higher at 48th in 2018-2020.

[435] *Ibid.*

[436] Data is not available for the City of London and Isles of Scilly

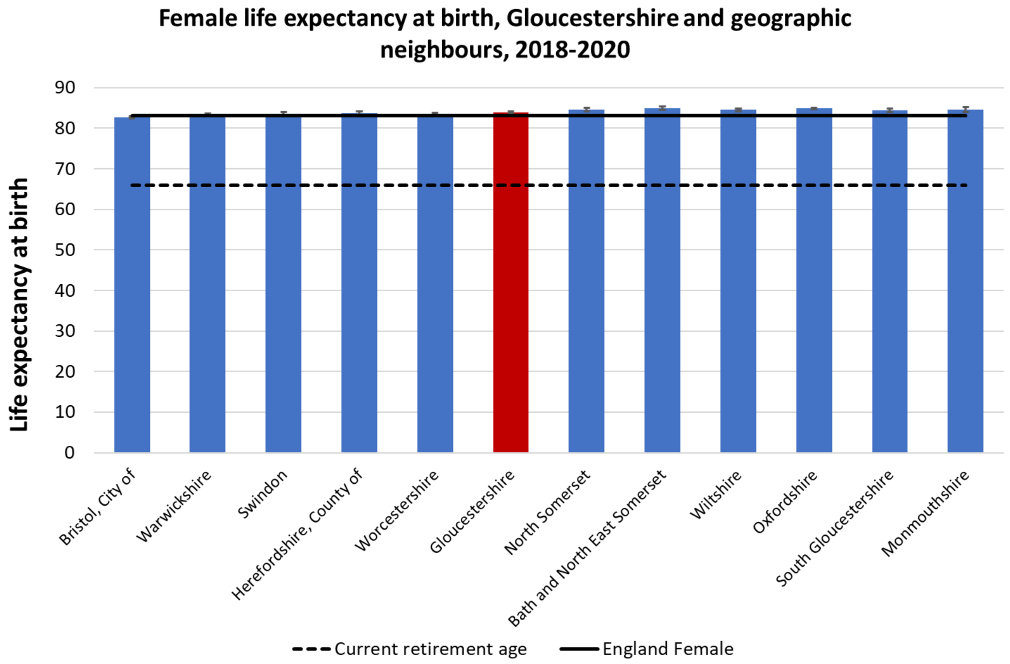

Figure 70: Female life expectancy at birth, Gloucestershire and geographic neighbours, 2018-2020[437]

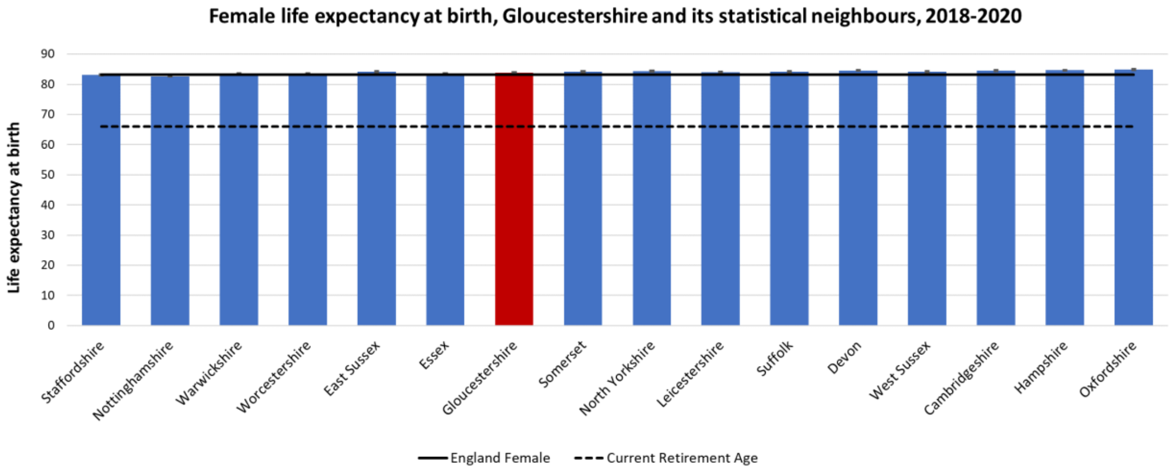

Figure 71: Female life expectancy at birth, Gloucestershire and its statistical neighbours, 2018-2020[438]

[437] *Ibid.*

[438] *Ibid.*

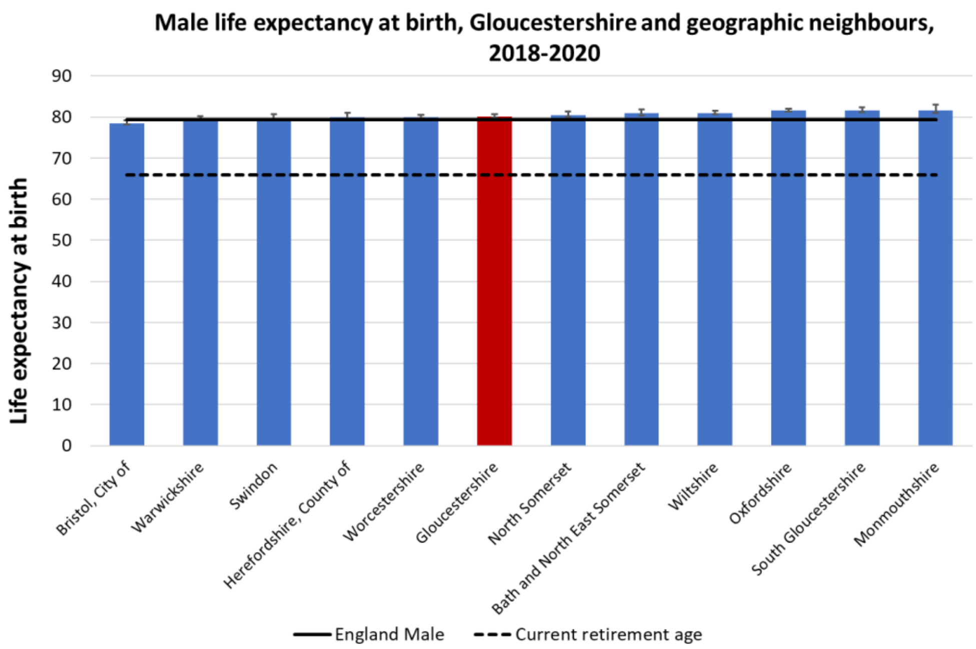

Figure 72: Male life expectancy at birth, Gloucestershire and geographic neighbours[439]

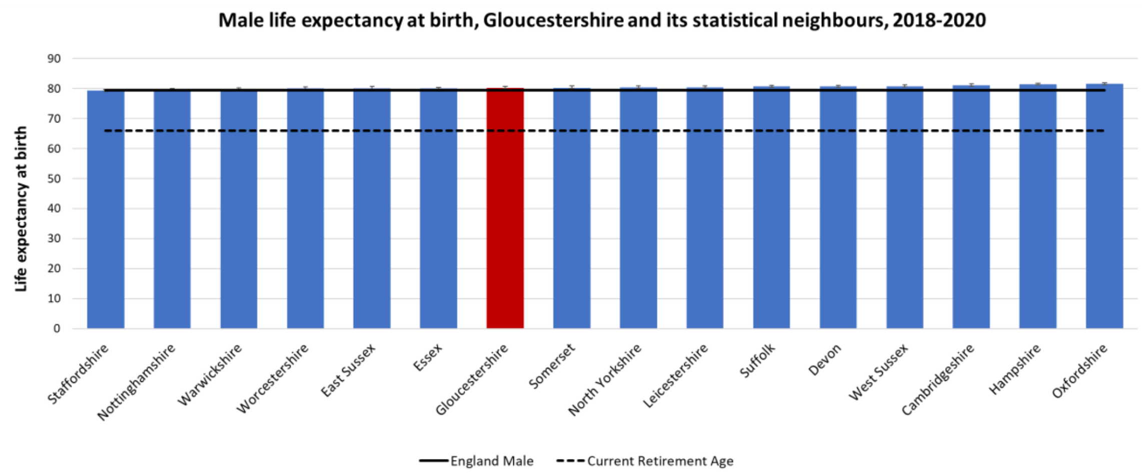

Figure 73: Male life expectancy at birth, Gloucestershire and its statistical neighbours, 2018-2020[440]

Comparing Gloucestershire's districts, in 2018-2020 Cotswold had the highest life expectancy for males at 82.2 years, putting it in the top 10% of district and unitary authorities in England and Wales. Tewkesbury had the highest life expectancy for females at 85.4 years, also putting it in the top 10% of authorities. In contrast, Gloucester had the lowest life expectancy for both males and females at 78.1 years 82.6 years respectively. In all the districts, females had a significantly higher life expectancy than males.

[439] *Ibid.*

[440] *Ibid.*

10.1.1 Healthy life expectancy

Healthy life expectancy is the average number of years a person can expect to live in good health. Figure 74 indicates the healthy life expectancy of female and male residents living in Gloucestershire between 2011-2013 and 2018-2020. In Gloucestershire, a baby born in 2018-2020 is expected to live on average 67.4 years if it is male and 66.4 years if it is female.[441]. Gloucestershire[442] has a higher healthy life expectancy than both the South West (64.7 males, 65.5 females) and England (63.1 males, 63.9 females). As the retirement age increases above the healthy life expectancy, there is potentially going to be an increase in the number of workers who are not in good health which will have an impact on economic productivity.

Since 2011-2013, there has been a significant increase for males, from 63.3 to 67.4 years, as shown by the confidence intervals in Figure 70. However, there has not been a significant increase in the healthy life expectancy of a female.

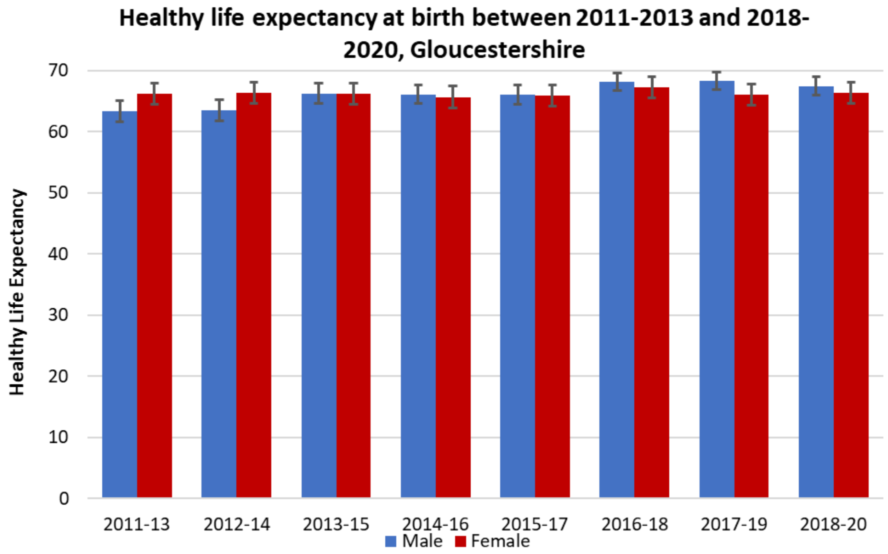

Figure 74: Healthy life expectancy at birth between 2011-2013 and 2018-2020, Gloucestershire[443]

Comparing Gloucestershire to its geographic neighbours, males have the 3rd highest healthy life expectancy and females have the 5th highest healthy life expectancy. In contrast, when examining Gloucestershire's statistical neighbours, it has the 2nd highest healthy life expectancy for males and the 5th highest healthy life expectancy for females.

[441] The difference in healthy life expectancy years for males and females is not statistically significant

[442] Gloucestershire's healthy life expectancy for females in 2018-20 is not statistically significantly higher than the South West (65.5) but is significantly higher than the England figure of 63.9. Also, the healthy life expectancy for males is statistically significantly higher than both the South West (64.7) and England (63.1) average years.

[443] Health state life expectancy, all ages, UK, ONS

Out of 172[444] county and unitary authorities in England and Wales, Gloucestershire had the 13th highest for males, in the top 10% of authorities and the 33rd highest healthy life expectancy for females, in the top 20% of authorities.

Data is not available at district level for healthy life expectancy.

10.1.2 Disability free life expectancy

Disability free life expectancy (DFLE) is the number of years a person can expect to live without a disability. In Gloucestershire the DFLE at birth was 66.8 years for males and 62.7 years for females in 2018-2020, as shown in Figure 75. There has been a small increase per 2 year period for the male DFLE between 2014-2016 and 2018-2020 whereas the female DFLE has fluctuated

Gloucestershire residents have a higher disability free life expectancy for both males and females compared to the South West (62.6 years males, 61.0 years females) and England (62.4 years males, 60.9 years female).

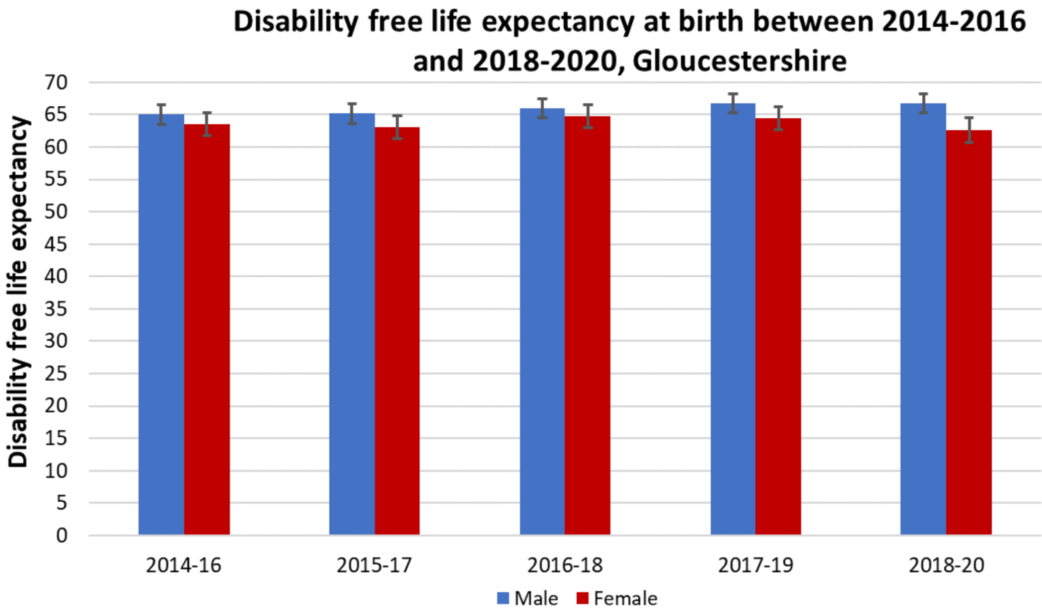

Figure 75: Disability free life expectancy at birth between 2014-2016 and 2018-2020, Gloucestershire[445]

Compared to its geographical neighbours, Gloucestershire has the 2nd highest DFLE for males and the 4th highest DFLE for females. Also, compared to the statistical neighbours, Gloucestershire has the 2nd highest for males and the 7th highest DFLE for females. Comparing to 172[446] county and unitary authorities in England and Wales, males living in Gloucestershire at birth in 2018-2020 have the 13th highest DFLE which is within the top 10% of authorities in England and

[444] Data is not available for the City of London and Isles of Scilly

[445] Health state life expectancy, all ages, UK, ONS

[446] Data is not available for the City of London and Isles of Scilly

Wales whereas, females have the 45th highest DFLE which is within the top 20% of local authorities.

Data is not available at district level for disability free life expectancy.

10.2 Quality of health of the 16-64 population

The 2021 Census asked respondents to rate their health from very good to very bad, the answers are subjective and reflective of how the respondent was feeling at the time of answering the Census. Figure 76 provides the proportion of the 16-64 population by general health category in Gloucestershire and its districts, the South West and England and Wales.

On the 21st of March 2021, 86.0% of Gloucestershire's population aged 16-64 said they had good or very good health, this is around 1.0 percentage point higher than the South West and 1.3 percentage points higher than England and Wales. Furthermore, the proportion for those aged 16-64 is higher than Gloucestershire's whole population proportion where 83.1% said that their health was good or very good.

In contrast, 3.6% of Gloucestershire's working-age population had bad or very bad health in 2021, this is lower than both the South West and England and Wales proportions which were 4.2% and 4.4% respectively. Gloucestershire's 16-64 proportion is lower than the total population proportion of 4.3%.

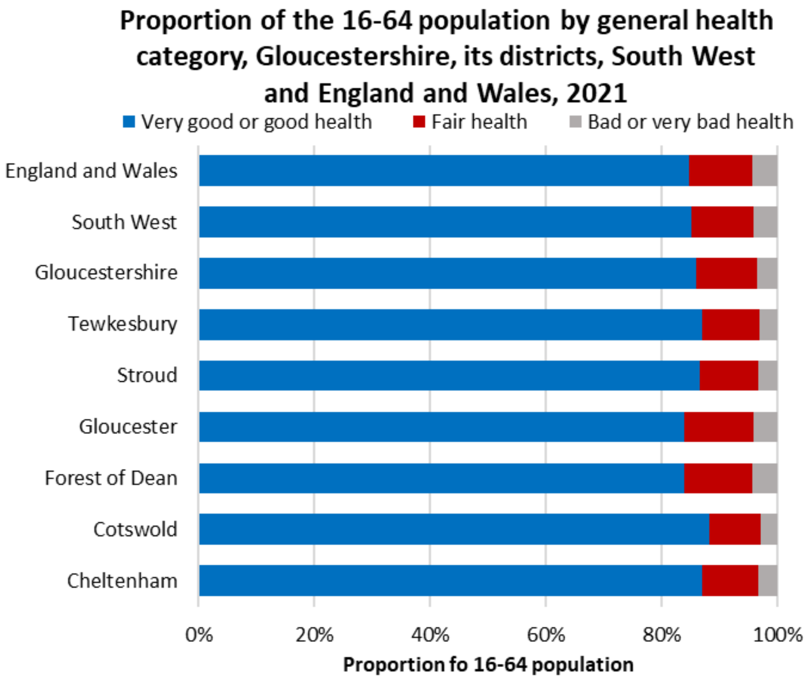

Figure 76: Proportion of 16-64 population by general health category, Gloucestershire, its districts, South West and England and Wales, 2021[447]

[447] 2021 Census, ONS

Looking at Gloucestershire's geographic neighbours, it is placed in the middle at 6th highest for its proportion of the 16-64 population for good or very good health and 8th highest for bad or very bad health. In contrast, out of Gloucestershire's statistical neighbours it is placed in the middle (9th) for good or very good health and in the bottom 50% at 11th for bad or very bad health. Also, compared to all 174 county and unitary authorities in England and Wales, Gloucestershire is placed in the top 40% at 56th for good or very good health and 134th for bad or very bad health.

Figure 76 also indicates that Cotswold had the highest proportion of working-age people with good or very good health at 88.3% and Gloucester the lowest at 83.8%. Conversely, Forest of Dean had the highest proportion of working-age people with bad or very bad health with 4.4% and Cotswold the lowest with 2.9%.

Out of 331 district and unitary authorities in England and Wales, Cotswold is ranked in the top 20% of districts for good or very good health at 41st and Gloucester the bottom 40% at 204th. In contrast, none of Gloucestershire's districts are in the top 40% for proportion of the working-age population with bad or very bad health. Forest of Dean was ranked the highest at 140th and Cotswold was ranked the lowest at 284th.

10.3 Disability

Disability, according to the 2021 Census, is classified as anyone whose day-to-day activities are limited by long-term mental or physical health conditions[448]. A report by the Economics Observatory[449] found disabled people are often "excluded from full economic participation", with disabled people much less likely to be employed than the wider population.

It is also important for employers to be aware of as they are legally obligated to make adjustments in the work place to ensure employees with a disability are not discriminated against according to the Equality Act 2010[450].

In Gloucestershire, 14.8% of its population aged 16-64 are classed as disabled under the Equality Act 2010, this compares to 16.8% of the total population. Gloucestershire has a lower proportion of working-age people who are disabled than the South West (16.3%) and England and Wales (15.5%) as shown in Figure 77.

[448] *Ibid.*

[449] How is the cost of living crisis affecting disabled people in the UK, Economic Observatory

[450] Equality Act 2010: guidance, ONS https://www.gov.uk/guidance/equality-act-2010-guidance

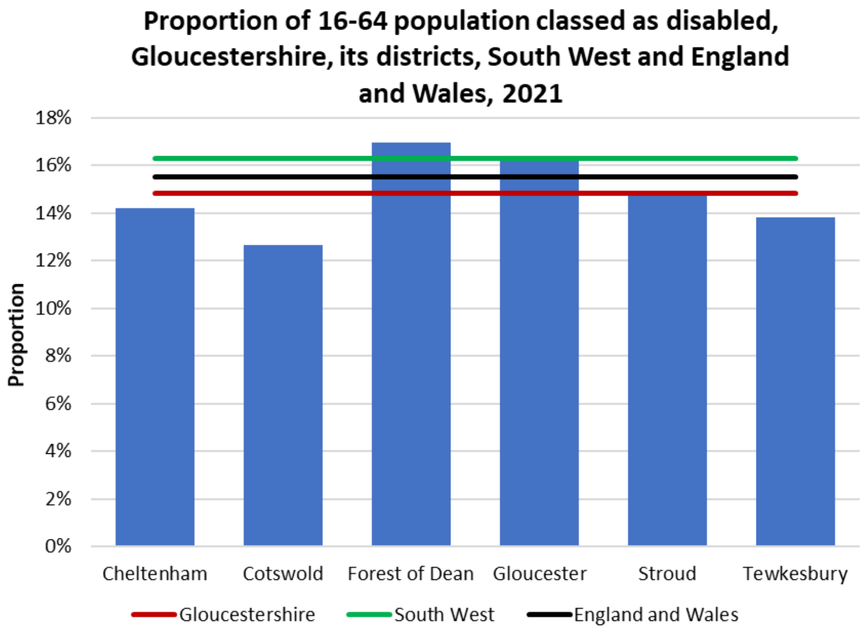

Figure 77: Proportion of 16-64 population classed as disabled, Gloucestershire, its districts, South West and England and Wales, 2021[451]

Compared to its geographic and statistical neighbours, Gloucestershire is placed in the middle for both comparison groups. Overall, Gloucestershire is ranked 109th highest out of 174 county and unitary authorities in England and Wales for the proportion of people aged 16-64, this is within the 40% lowest authorities.

Out of Gloucestershire's districts, Forest of Dean has the highest proportion of its 16-64 population that is classed as disabled at 17.0% whilst Cotswold has the lowest proportion at 12.7%. Forest of Dean and Gloucester have a proportion that is higher than the England and Wales proportion as shown in Figure 77. Furthermore, the Forest of Dean is placed in the top 40% at 116th highest out of 331 district and unitary authorities whilst Cotswold is placed at 268th which is within the lowest 20% of the proportions for disability amongst the 16-64 population.

10.4 Unpaid carers

A full-time unpaid carer is defined as anyone over the age of 5 who looks after, gives help or support for more than 35 hours a week to someone who has a long-term physical or mental ill-health condition, illness or problems related to old age[452]. Full-time unpaid carers are more likely than the general population to be economically inactive[453]. Recent increases in economic inactivity at a national level led to an increased focus on the need to address economic inactivity and support people back into work, however, it is also recognized that unpaid carers

[451] 2021 Census, ONS

[452] *Ibid.*

[453] Why aren't older workers returning to work, Centre for Ageing Better

also save the government from having to provide care services which are publicly funded.

In 2021, 3.0% of the population, equivalent to 11,908 people, aged 16-64 in Gloucestershire were classed as full-time carers, this compares to 2.9% for the overall population. Gloucestershire has a lower proportion of its working-age population classed as full-time unpaid carers compared to the South West and England and Wales which have a 3.6% and 3.8% proportion respectively.

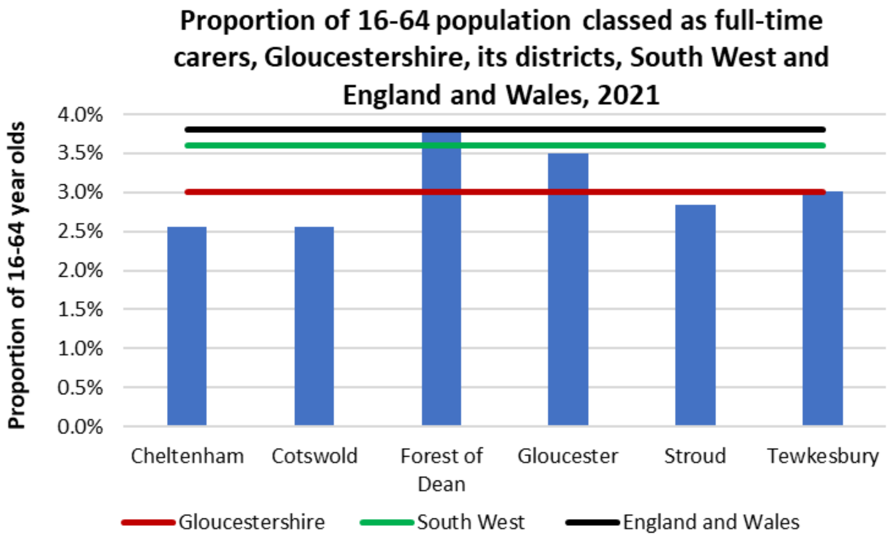

Figure 78: Proportion of 16-64 population classed as full-time carers, Gloucestershire, its districts, South West and England and Wales, 2021[454]

Compared to its geographic neighbours, shown in Figure 79, Gloucestershire was ranked in the bottom half for its proportion of full-time carers and in the lowest 25% compared to its statistical neighbours, demonstrated in Figure 80. Overall, according to the 2021 Census, Gloucestershire was ranked 142nd out of 174 county and unitary authorities, in the lowest 20% of authorities, for its proportion of 16–64-year-olds classed as full-time carers.

[454] 2021 Census, ONS

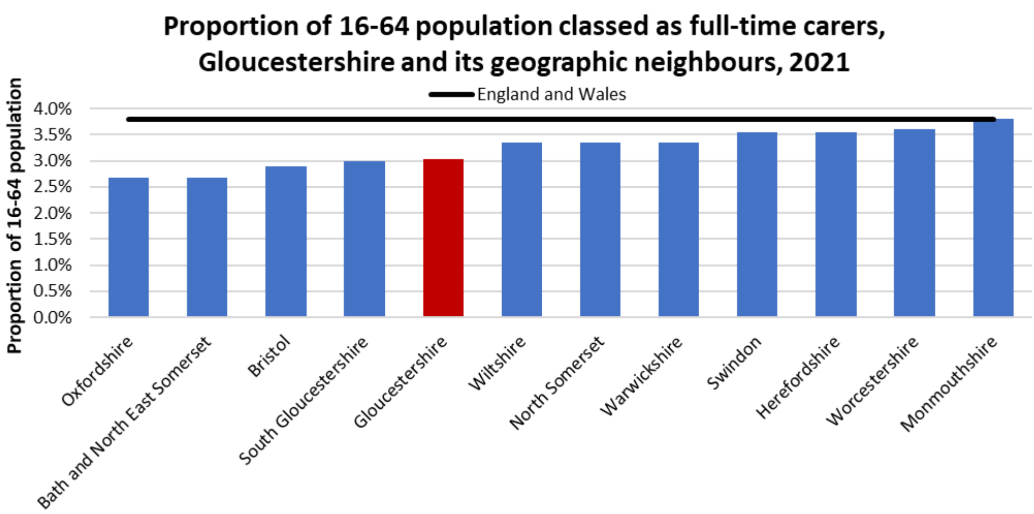

Figure 79: Proportion of 16-64 population classed as full-time carers, Gloucestershire and its geographic neighbours, 2021[455]

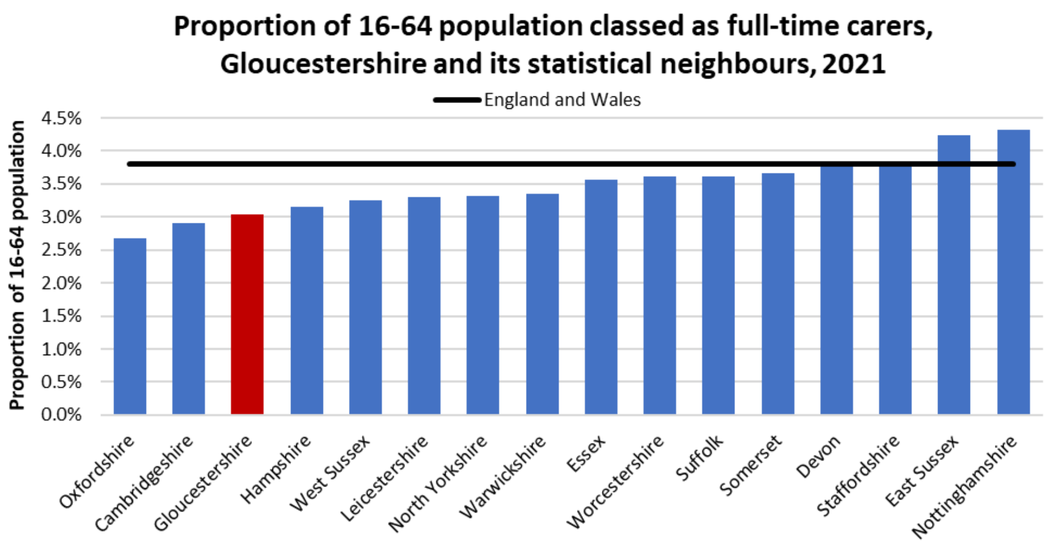

Figure 80: Proportion of 16-64 population classed as full-time carers, Gloucestershire, its districts, South West and England and Wales, 2021[456]

Comparing Gloucestershire's districts, Figure 78 indicates that in 2021, Forest of Dean had the highest proportion of its 16-64 population classed as full-time carers with 3.8%. In contrast, Cheltenham and Cotswold had the lowest proportions with 2.6% of the working age population classed as full-time carers. Compared to all 331 district and unitary authorities in England and Wales, Forest of Dean was placed in the middle of the rankings however, Cheltenham and Cotswold were placed in the lowest 10% at 314th and 312th.

455 *Ibid.*

456 *Ibid.*

10.5 Sickness leave

Between 2009-2011 and 2019-2021, there was between 1.12% and 2.83% of employees who had had at least one day off in the previous week due to sickness, at the time the survey was taken. The lowest proportion was in 2019-2021 with a proportion of 1.12%, also all the proportions recorded in the to-year periods between 2015-2017 and 2019-2021 were lower than the previous six two-year periods. Gloucestershire's proportion has fluctuated above and below the South West and England proportions however, a small sample means it is not possible to determine whether these differences are true differences or a result of sampling error.

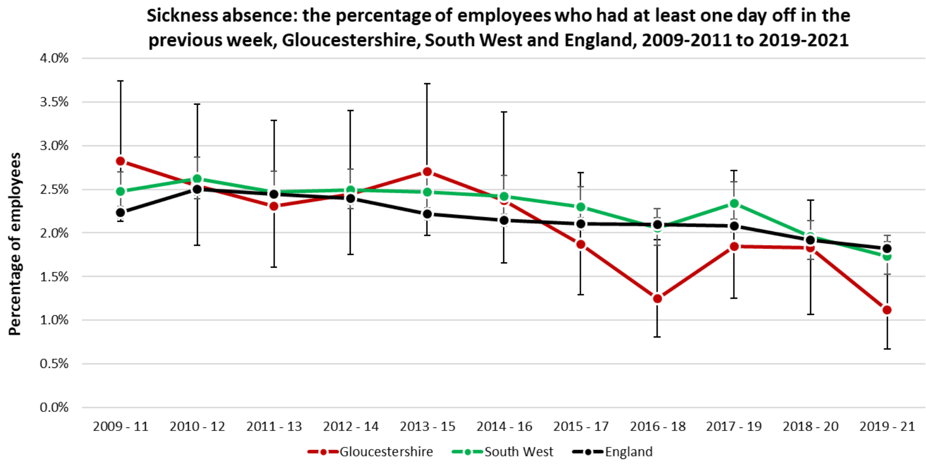

Figure 81: Sickness absence: the percentage of employees who had at least one day off in the previous week, Gloucestershire, South West and England, 2009-2011 to 2019-2021[457]

Gloucestershire has the 2nd lowest percentage of employees taking at least one sick day in 2019-2021 compared to its geographic neighbours and the lowest percentage when compared to its statistical neighbours. Furthermore, Gloucestershire was ranked in the lowest 20% of England's 152 county and unitary authorities at 128th in 2019-2021.[458]

[457] Public Health Profiles, Fingertips

[458] The data records London and the Isles of Scilly as 0.0% for 2019-2021

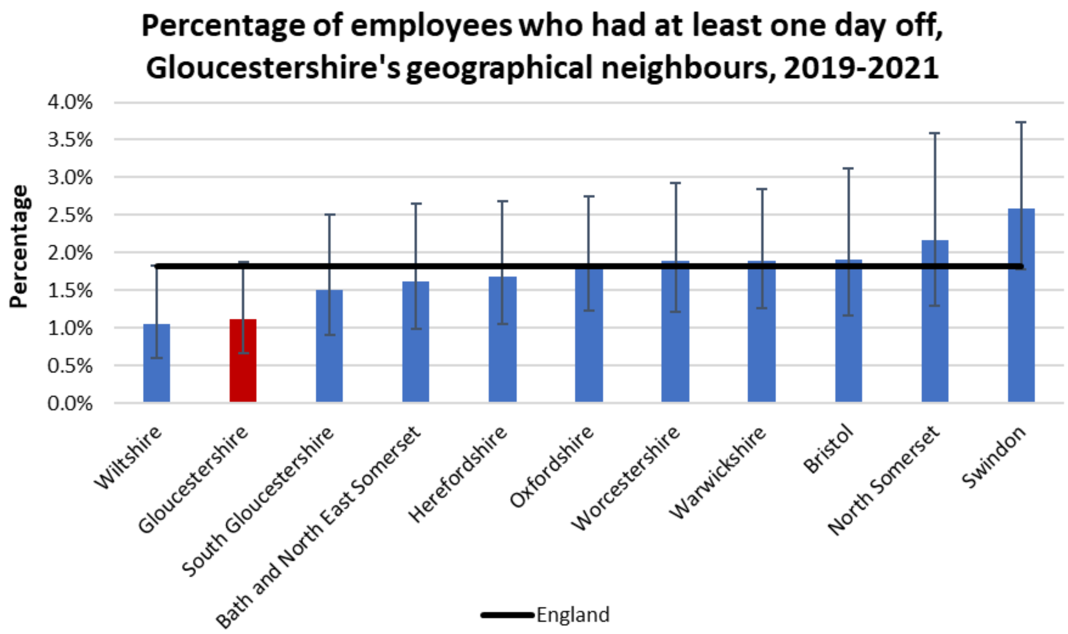

Figure 82: Percentage of employees who had at least one day off, Gloucestershire's geographical neighbours, 2019-2021[459]

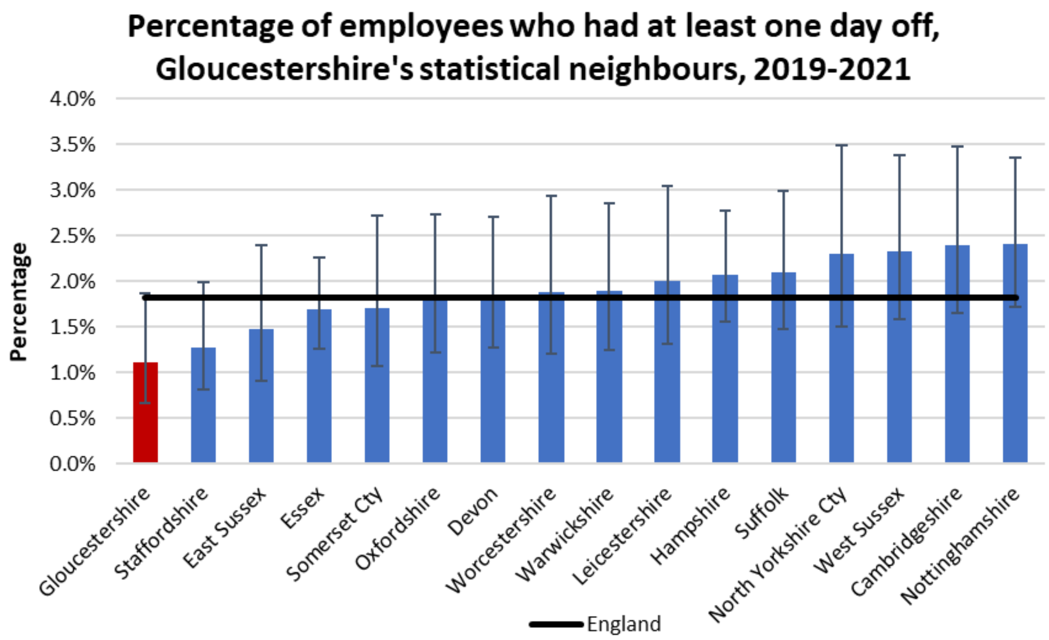

Figure 83: Percentage of employees who had at least one day off, Gloucestershire's statistical neighbours, 2019-2021[460]

In 2019-2021 the percentage of employees who had at least one day off ranged from 0.78% to 1.84% in Gloucestershire's districts. Tewkesbury had the highest

[459] Public Health Profiles, Fingertips
[460] *Ibid.*

proportion which was the 139th highest proportion out of 309[461] district and unitary authorities which is in the top 50%[462] in England. In contrast, Cotswold had the smallest proportion and was ranked 265th out of 309 English district and unitary authorities which is within the lowest 20%.

[461] There is 14 district and unitary authorities where data has not been recorded

[462] Data is not available for 14 of the 309 district and unitary authorities in England

Section 3: Employment and skills

Section summary

Gloucestershire's labour market compares well to other areas. The employment rate stood at 80.7%, up from 76.4% during the peak of the pandemic and significantly higher than the national average (75.7%). The corresponding unemployment rates have also declined and are lower than the national average. However, in line with the national and regional picture there are concerns about an increase in economic inactivity, with 17.3% of the 16-64 year old population falling into this group, up from 15.2% pre pandemic[463]. Levels of economic inactivity are still lower in the county than England and Wales, but this increase is still of concern particularly when looked at alongside the aging population as it reduces the county's labour force.

Self employment on its own is not a definitive indicator of a high degree of entrepreneurship in an area. However, alongside a high rate of business births it can suggest a strong entrepreneurial spirit in an area. Levels of self-employment in Gloucestershire are higher than the national average[464]. However, in recent years self employment rates across the county have been on a downward trend[465].

In 2023 3.3% of Gloucestershire's 16-17 year old population were classed as Not in Education, Employment or Training (NEET) or not known, this was lower than the South West and national average. However, Gloucestershire does have a higher proportion of 16–17-year-olds with Special Educational Needs (10.7%) who are NEET/unknown than England and Wales (9.6%). This suggests more support might be needed to help those with more complex needs[466].

Overall young people in Gloucestershire do well in education. Attainment 8 the key measure of attainment at the end of secondary school, is higher in Gloucestershire than the South West and England and Wales[467]. In addition, 95.4% of students who finished KS4 or Level 2 qualifications in Gloucestershire's mainstream state-funded schools progressed to a sustained education, employment or apprenticeship destination, higher than the proportion for the South West and England and Wales[468].

Gloucestershire also has a well qualified 16-64 year old population with those holding Level 4+ qualifications accounting for 38.3% of the population, above the

[463] APS, ONS
[464] 2021 Census, ONS
[465] APS, ONS
[466] Explore Education Statistics, DFE
[467] PHOF, OHID
[468] Explore Education Statistics, DFE

national average of 37.0% and the regional average of 35.9%[469]. The high skill level of the population is reflected in the occupation structure. Managerial, professional, and associate professional occupations feature highly in Gloucestershire with these three groups accounting for 46.6% of employment in the county, slightly higher than the regional and national averages of 44.7% and 46.2%[470]. There is some evidence of a skills mismatch, with around 39.5% of people employed in Level 3 jobs (associated with a period of post-compulsory education but not normally to degree level), holding a Level 4+ qualification, suggesting there are more highly qualified people than there are jobs for them. This is not unique to Gloucestershire but also reflected at a national level[471].

Economic projections provide an indication of future economic growth and predict potential changes in employment. Looking over the medium term (2021-2031) the occupations projected to see the greatest growth are Professional occupations; Managers, directors and senior officials; and Caring, leisure and other service occupations. During the same period four occupations are projected to see a decline in employment these are: Sales and customer service occupations; Skilled trades; Process, plant and machine operatives; and Elementary occupations. This suggests there will be a greater shift to a high skilled economy in the coming years, similar trends are also projected to take over the longer period 2021-2050[472].

Economic projections also suggest replacement demand, which is the number of openings created by people leaving the labour market on a temporary or permanent basis, will play a significant role in Gloucestershire's economy. It is estimated that Gloucestershire's economy will require 182,708 new workers between 2021 and 2031 with 92% resulting from replacement demand. A similar situation is observed when looking at the longer period 2021-2050, with Gloucestershire's economy projected to require 531,696 new workers, with 98% resulting from replacement demand. Over both time periods the impact of replacement demand is greater in Gloucestershire than the South West and UK and results in a demand in all occupations, even those that are projected to see a decline in overall numbers[473]. This highlights the continuing need to replace higher skill levels of experienced workers leaving the labour market.

Over the last five years, the number of jobs in Gloucestershire increased by 1.8% this was below the rate of growth seen across the South West and England and Wales. Looking more recently between 2020 and 2021 the number of jobs in Gloucestershire declined, while increasing across the South West and England

[469] 2021 Census, ONS

[470] *Ibid.*

[471] *Ibid.*

[472] Oxford Economics

[473] *Ibid.*

and Wales. It is unclear whether this is an emerging trend or a temporary blip, but it is something to consider going forward[474].

Economic projections suggest that over the medium term (2021-2031) job growth in Gloucestershire will be broadly in line with the national average but lower than the regional average. However, over the longer period (2021-2050) job growth in Gloucestershire is projected to be lower than the South West and UK[475].

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 there is one job for every resident of working age. In 2021 Gloucestershire had a job density of 0.87 which was in line with the regional average and marginally higher than the national average. Across the county job density figures varied from 1.03 in Cotswold suggesting there are more jobs than working age residents, to 0.59 in the Forest of Dean[476].

Looking forward the changing population structure may have implications for job density. By 2035 the number of jobs in the county are projected to exceed the number of working age people[477] posing a challenge for delivering future growth. It is worth noting this does not take into account increases to the retirement age or the potential impact of automation and AI.

Gloucestershire has a diverse local economy, not overly reliant on any one large company or sector for employment. In 2021 the Wholesale and retail trade (15.0%) was the largest employer in the county, followed by Human health and social work (14.0%) and Manufacturing (10.4%). The county also had strengths in the energy sector represented by Electricity, gas, steam and air conditioning supply; Agriculture, forestry and fishing; and Accommodation and food service activities, reflecting the importance of tourism[478].

Given the importance of Manufacturing to the county it is important to note it saw a decline in employment between 2016 and 2021[479] and this is projected to continue up to 2050, this will see the sector go from being the third largest employer in 2021 to the 8th largest in 2050. A number of other sectors in the county are also forecast to see declining employment in both the medium term (2021-2031) and longer term (2021-2050) these include: Mining and quarrying; Electricity, gas, steam and air conditioning supply; Agriculture, forestry and fishing; Water supply, sewerage, waste management etc; Public administration and defence; and Financial and insurance activities. Conversely nine sectors are

[474] Job Density, ONS
[475] Oxford Economics
[476] Job Density, ONS
[477] Oxford Economics.
[478] BRES, ONS
[479] *Ibid.*

forecast to see growing employment over both the medium and long term, they include; Arts, entertainment and recreation; Accommodation and food service activities; Information and communication; Administrative and support service activities; Professional, scientific and technical activities; Construction; Human health and social work activities; Other service activities; and Real estate[480].

Job posting data[481] highlights recruitment issues. There has been a significant increase in job postings since March 2021 and this has affected all broad occupation groups. Job postings have consistently outnumbered claimants of unemployment benefits but this difference increased in the last year peaking in June 2023 when there were 3.4 vacancies per claimant and exceeding the national average of 1.8, suggesting recruitment might be a challenge in the county[482].

Recruitment challenges are also highlighted by the Employer Skill Survey which found Gloucestershire has a higher proportion of employers reporting Hard to Fill Vacancies (10%) than nationally (8%), particularly in sectors such as Transport and Storage where the workforce is aging (23% compared to 8% nationally). These recruitment issues do not appear to be driven by skill shortages, with Skill Shortage Vacancies being in line with the national average (6%), instead they seem to be driven by a shortage of available workers[483].

The demand for green jobs which are those that have a direct and positive impact on the environment, is expected to grow at a local and national level in the coming years, suggesting it should be an area of focus[484].

11. Economic activity

According to the ONS, someone is economically active if they are in employment or unemployed but looking for work and are available to start within two weeks or they are waiting to start a job[485]. A high economic activity rate means that a high proportion of people are working or available for work or training.

[480] Oxford Economics,

[481] Lightcast

[482] Lightcast and Claimant Count, ONS

[483] Employers Skills Survey, 2019, DfE

[484] Local Green Jobs, LGA

[485] ONS, Economic activity status, England and Wales: Census 2021 https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/bulletins/economicactivitystatusenglandandwales/census2021

11.1 Economic activity rate

On Census Day 2021, Gloucestershire's economic activity rate[486] was 79.3% which is higher than the South West (77.2%) and England and Wales (75.3%) as shown in Figure 84.

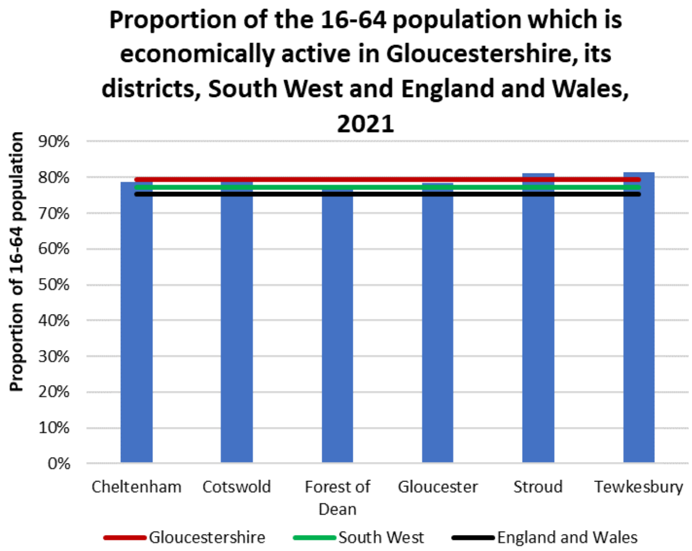

Figure 84: Proportion of the 16-64 population which is economically active in Gloucestershire, its districts, South West and England and Wales, 2021[487]

Comparing Gloucestershire to its geographical neighbours, shown in Figure 85 it has the 5th highest economic activity rate and the 3rd highest rate when compared to its statistical neighbours, both of which are in the top 50% as shown in Figure 86. Furthermore, Gloucestershire is ranked in the top 20% of all county and unitary authorities in England and Wales at 21st, suggesting it is a strength of the county.

486 The number of people who are economically active divided by the population aged 16-64

487 2021 Census, ONS

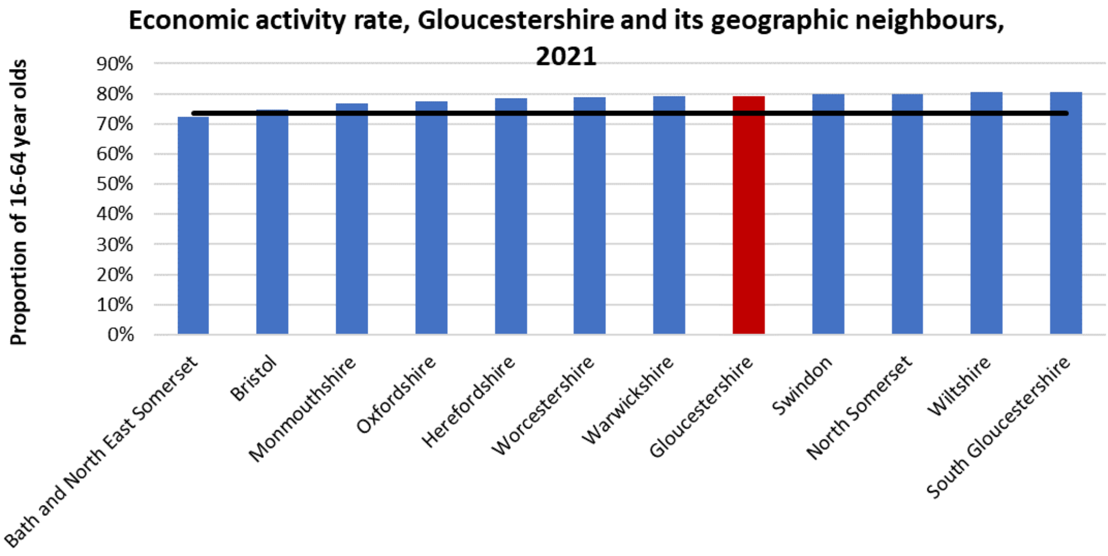

Figure 85: Economic activity rate, Gloucestershire and its geographic neighbours, 2021[488]

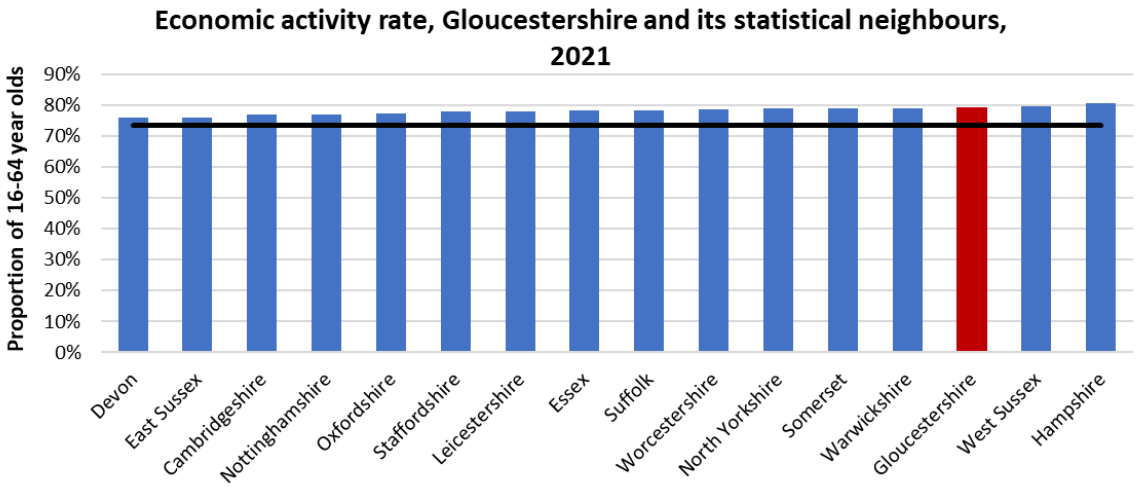

Figure 86: Economic activity rate, Gloucestershire and its statistical neighbours, 2021[489]

Looking at Gloucestershire's districts in Figure 84, Tewkesbury has highest economic activity rate with 81.5% which is in the top 10% of authorities at 21st. In contrast, Forest of Dean has the lowest with 76.4% of 16-64 year olds classed as economically active, this sees the district rank 187th out of 331 district and unitary authorities across England and Wales.

Longitudinal data from the Annual Population Survey (APS), shows that between 2016 and 2022, Gloucestershire's economic activity rate has fluctuated with yearly rates varying between 81.5% and 85.0%. The lowest economic activity rates were recorded at the height of the pandemic, and although they have since

[488] 2021 Census, ONS

[489] 2021 Census, ONS

increased, they have not returned to pre-pandemic levels. Compared to the South West and England and Wales, Gloucestershire has had a higher economic activity rate each year shown in Figure 87 with the exception of the height of the pandemic, when they fell below the South West average. The differences between Gloucestershire and England and Wales have been statistically significant in most years, meaning they are true differences rather than differences resulting from sampling error. However, in most of the years the differences between Gloucestershire and the South West have not been statistically significant meaning they may be a result of sampling error.

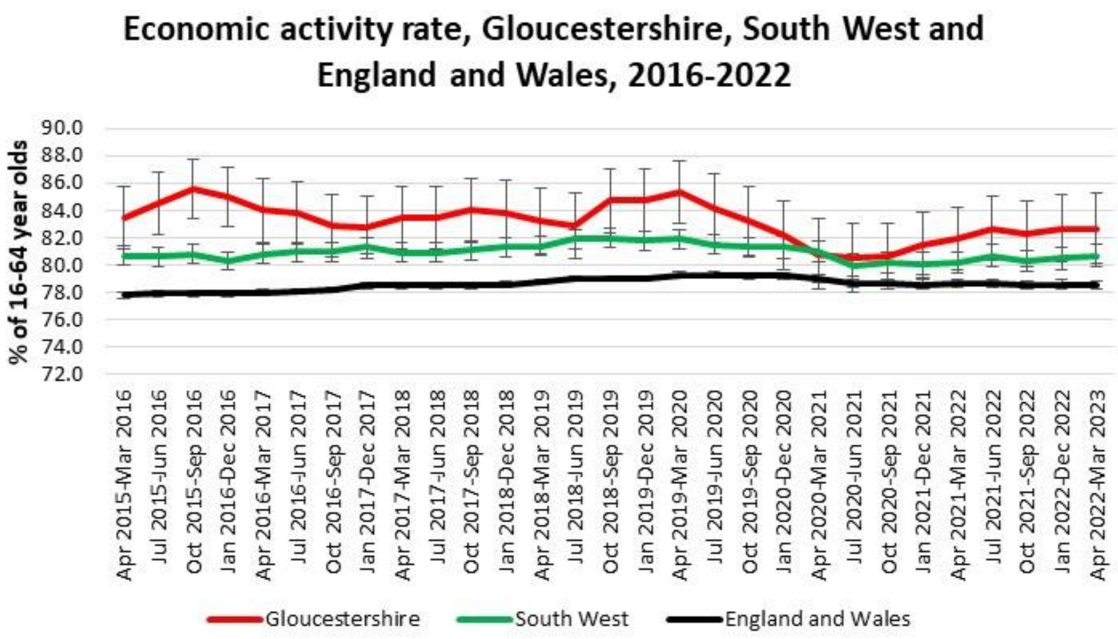

Figure 87: Economic activity rate, Gloucestershire, South West and England and Wales, 2016-2022[490]

11.2 Employment rate

On Census Day 2021, 76.1% of Gloucestershire's 16-64 years olds were in employment, this was higher than the South West (73.7%) and England and Wales (70.9%).

[490] Annual Population Survey, ONS

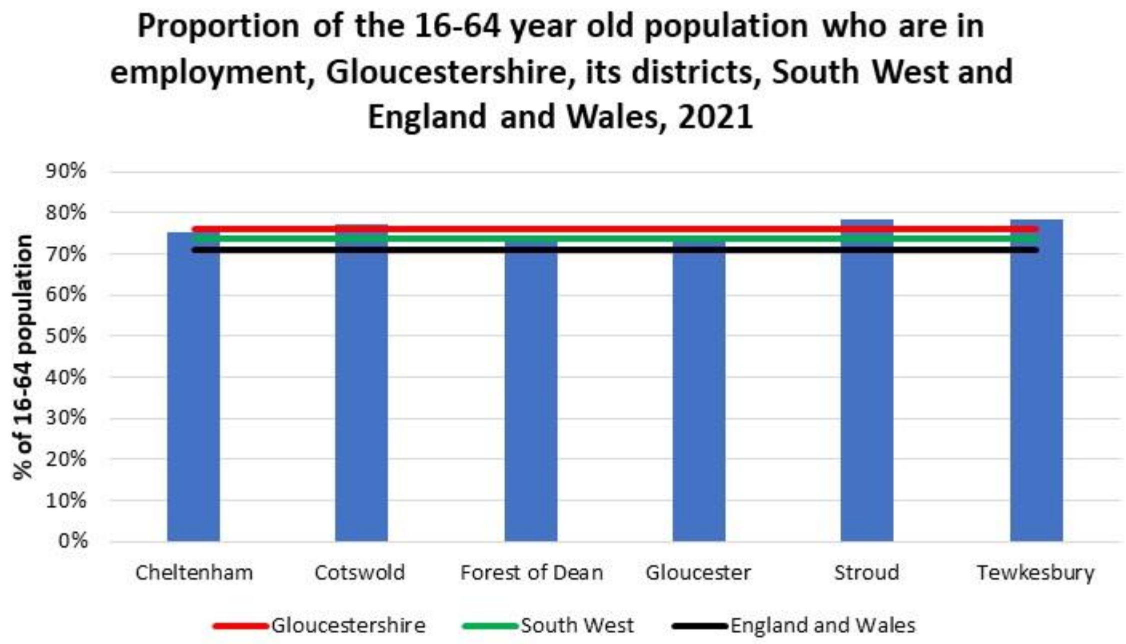

Figure 88: Proportion of the 16-64 year old population who are in employment, Gloucestershire, its districts, South West and England and Wales, 2021[491]

Comparing Gloucestershire to its geographical neighbours, it has the 4th highest employment rate and the 3rd highest rate when compared to its statistical neighbours, both are in the top 50% of the authority groups. Furthermore, Gloucestershire is ranked in the top 20% of all county and unitary authorities in England and Wales at 16th, suggesting it is a strength of the county.

Looking at Gloucestershire's districts, Tewkesbury has highest employment rate with 78.6% which is in the top 10% of district and unitary authorities at 18th, it was closely followed by Stroud (78.2%) which had a rank of 23rd. In contrast, the Forest of Dean has the lowest with 73.0% of 16-64 year olds classed as in employment, this sees the district rank 172nd out of 331 district and unitary authorities across England and Wales.

Longitudinal data from the Annual Population Survey (APS), shows that between 2016 and 2022, Gloucestershire's employment rate has fluctuated. The lowest employment rates were recorded at the height of the pandemic when they fell to 76.4%, and although they have since increased to 80.5%, they have not returned to pre-pandemic levels. Compared to the South West and England and Wales, Gloucestershire has had a higher employment rate each year shown in Figure 87. The differences between Gloucestershire and England and Wales have been statistically significant in most years, meaning they are true differences rather than differences resulting from sampling error. However, in most of the years the

[491] 2021 Census, ONS

differences between Gloucestershire and the South West have not been statistically significant meaning they may be a result of sampling error.

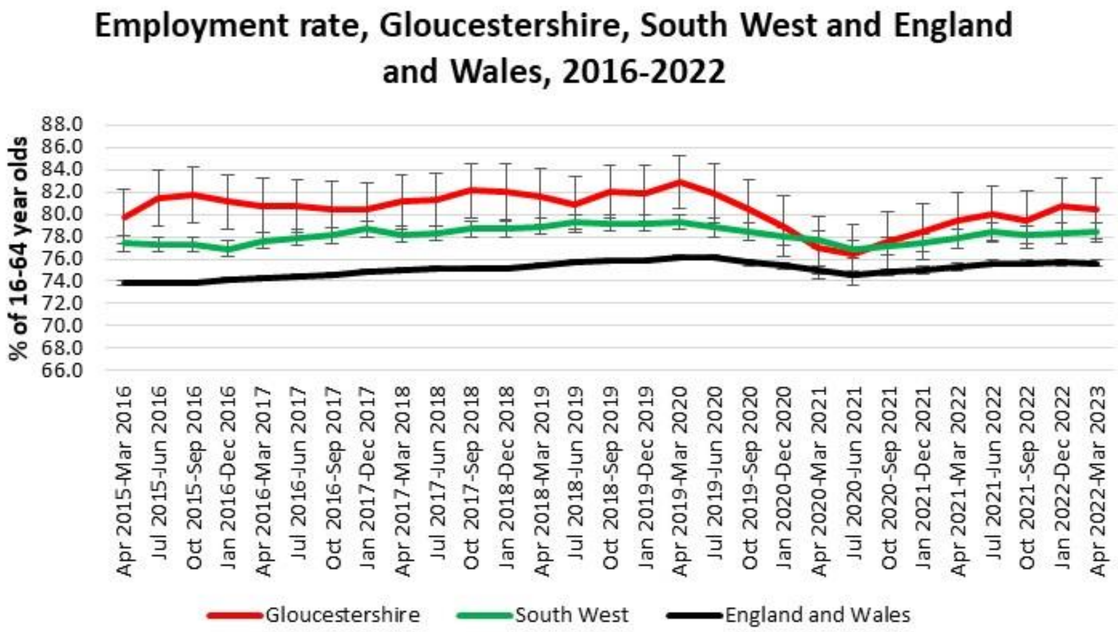

Figure 89: Employment rate, Gloucestershire, South West and England and Wales, 2016-2022[492]

11.2.1 People in employment by age group

Figure 90 indicates the employment rate within each age group and also compares to the South West and England and Wales. Overall, in each of the age groups, Gloucestershire has a higher employment rate than the South West and England and Wales. Furthermore, in Gloucestershire the highest employment rate is in the 35-49 age group with a rate of 85.1% followed by the 20-34 age group (80.6%) and the 50-64 age group (73.6%). The 50-64 age group was the only age group to have an employment rate lower than the overall 16-64 employment rate.

[492] Annual Population Survey, ONS

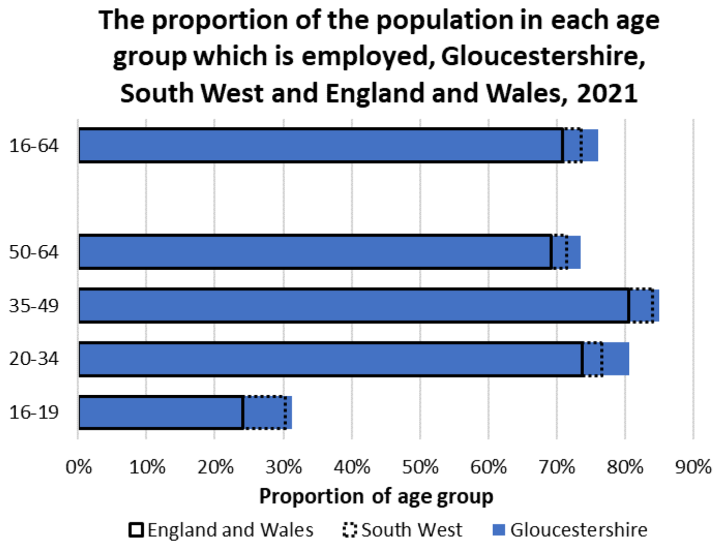

Figure 90: The proportion of the population in each age group which is employed, Gloucestershire, South West and England and Wales, 2021[493]

Looking at the districts age employment rates shown in Figure 91, Tewkesbury had the highest proportion of 30-49 year olds in employment with a rate of 87.3% whereas, Gloucester had the lowest rate with 82.8%. Tewkesbury also had the highest employment rate for the 20-34 age group (84.2%) and Gloucester the lowest (78.5%). However, in the older 50-64 age group Stroud had the highest employment rate accounting for 75.6% of its 50-64 population and Forest of Dean had the lowest employment rate with a rate of 71.5%.

[493] *Ibid.*

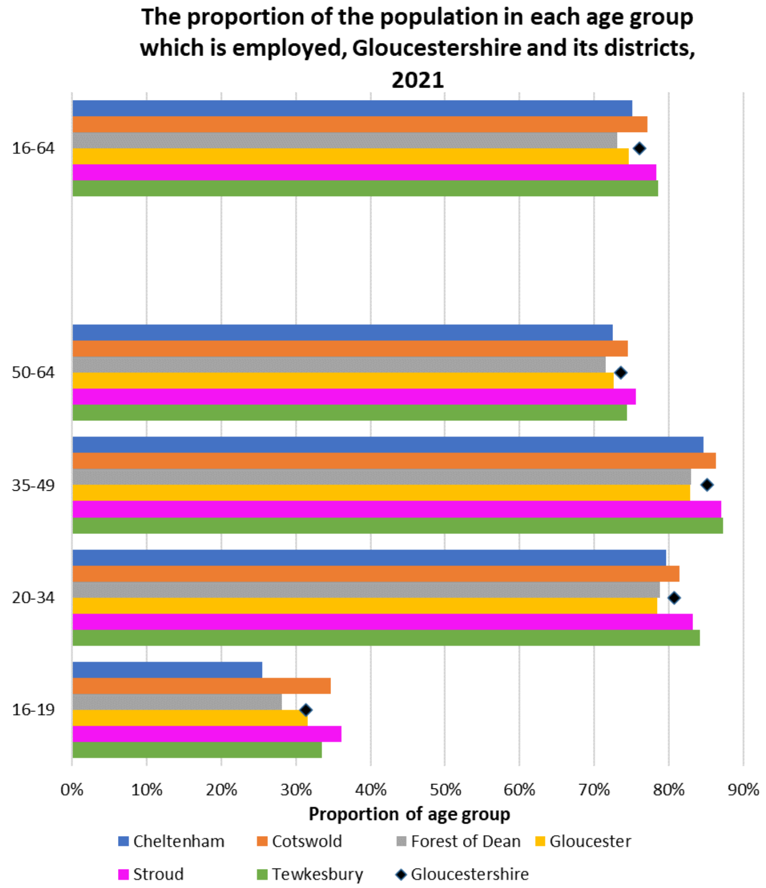

Figure 91: The proportion of the population in each age group which is employed, Gloucestershire and its districts, 2021[494]

11.2.2 Full-time and part-time workers

According to the Census 2021, of the 315,289 residents over the age of 16 and in employment in Gloucestershire, 31.2% (98,424 people) worked part-time hours of 30 hours or less per week prior to the 2021 Census and 68.8% (215,865 people) worked full-time hours of 31 hours or more. In comparison, there was a higher proportion of people working part-time (32.3%) and a lower proportion of people working full-time (67.7%) in the South West but a lower proportion of part-time workers (29.8%) and a higher proportion of full-time workers (70.2%) in England and Wales overall, shown in Figure 92.

[494] *Ibid.*

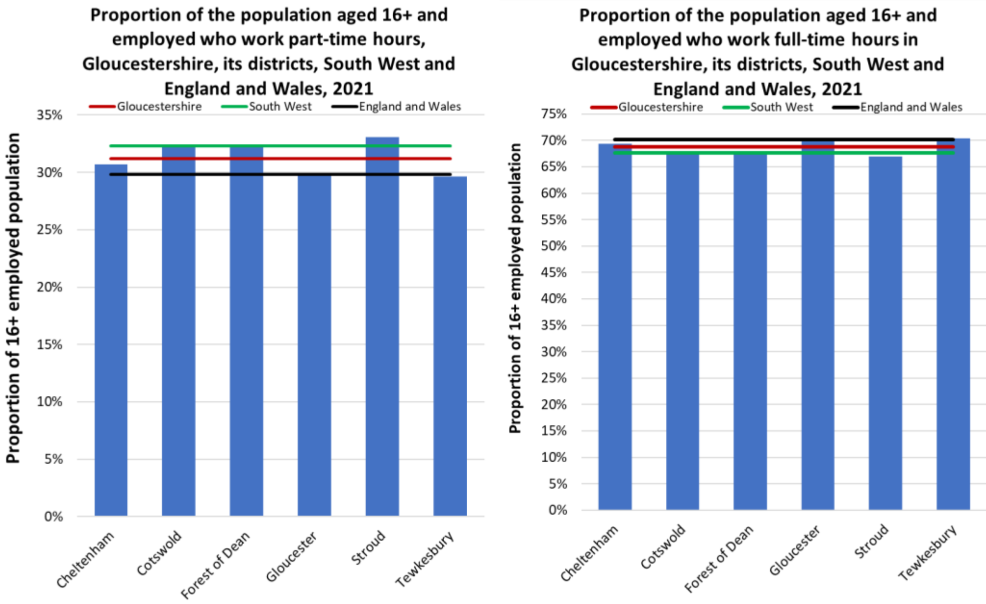

Figure 92: Proportion of the population aged 16+ and employed who work part time or full-time hours in Gloucestershire, its districts, South West and England and Wales, 2021[495]

Comparing to Gloucestershire's geographical and statistical neighbours, Figure 93 and Figure 94 indicate Gloucestershire is ranked in the bottom 50% at 4th lowest for the proportion of people working full time and in the middle at 7th lowest for statistical neighbours. Furthermore, Gloucestershire is ranked in the lowest 40% (118th) out of 174 county and unitary authorities for the proportion of employed people who work full-time hours. This suggests Gloucestershire residents are less likely to work full-time than other areas, which may contribute to labour shortage issues.

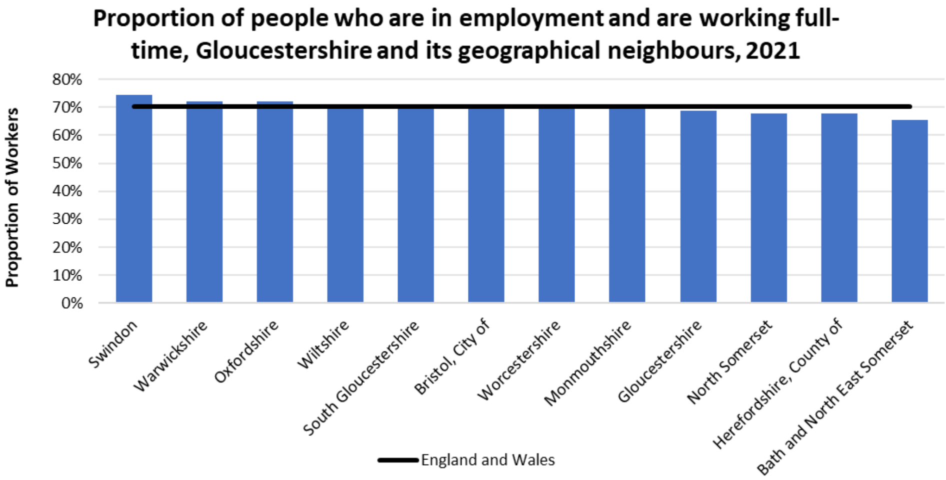

Figure 93: Proportion of people who are in employment and working full-time, Gloucestershire and its geographical neighbours, 2021[496]

[495] 2021 Census, ONS

[496] *Ibid.*

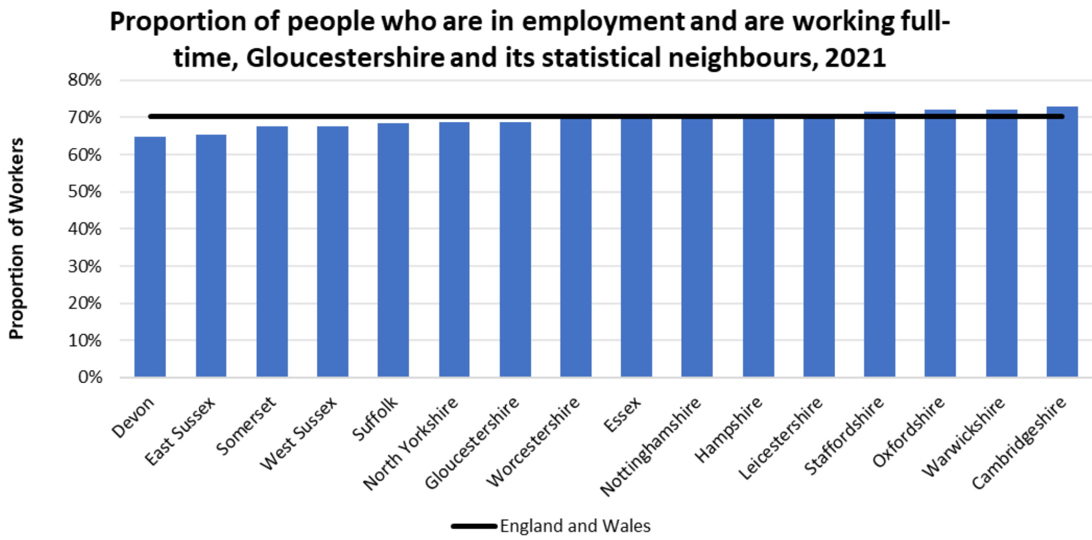

Figure 94: Proportion of people who are in employment and are working full-time, Gloucestershire and its statistical neighbours, 2021[497]

Out of Gloucestershire's districts, Stroud had the highest number of people in employment working part-time hours (33.1%), this proportion was ranked in the 20% highest proportions out of the 331 districts and unitary authorities in England and Wales. In contrast, Tewkesbury had the lowest proportion with 29.6% which was ranked 164th. The inverse can be interpreted for full-time workers, the proportions are indicated in Figure 92.

11.2.3 Self-employment

Self-employment, on its own, is not a definitive indicator of a high degree of entrepreneurship in the area. However, alongside a high rate of business births it can suggest a strong entrepreneurial spirit in an area.

A person who is self-employed works for themself independently and may or may not have employees working for them.

According to the 2021 Census, of the 315,290 people in Gloucestershire who were recorded as economically active and in employment (including full-time students), 17.8% (56,180 people) were self-employed (either with or without employees). This proportion is higher than the England and Wales proportion of 16.8% but lower than the South West proportion of 18.4% as shown in Figure 95.

[497] *Ibid.*

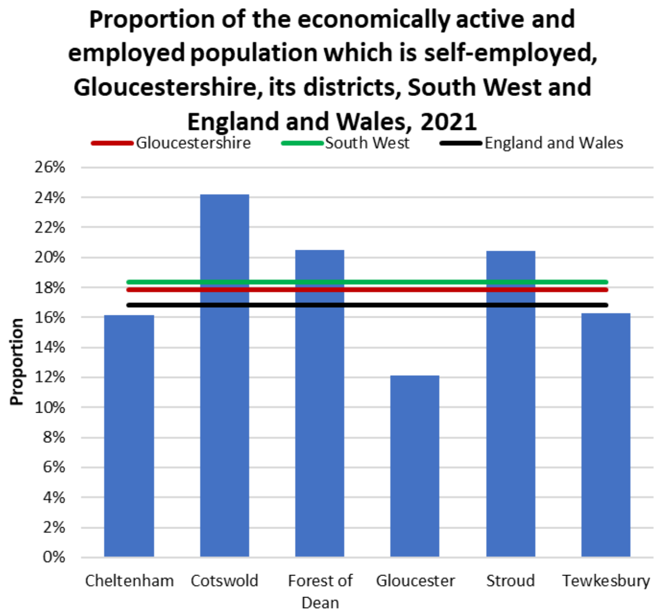

Figure 95: Proportion of the economically and employed population which is self-employed, Gloucestershire, its districts, South West and England and Wales, 2021[498]

In addition, Gloucestershire is in the top 50% with the 4th highest proportion of self-employed people out of its geographical neighbours, shown in Figure 96, and in the middle with the 7th highest proportion out of its statistical neighbours as shown in Figure 97. Overall, Gloucestershire is ranked 59th, in the top 40%, out of 174 county and unitary authorities in England and Wales, suggesting self-employment is a strength in the county.

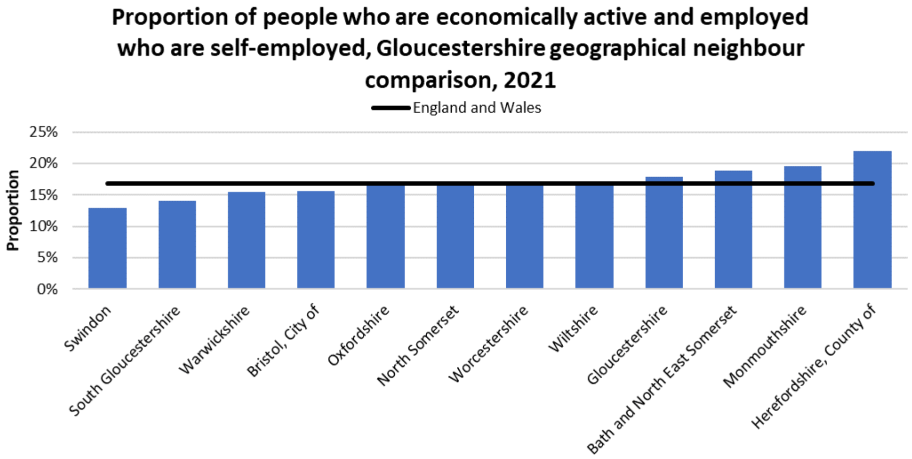

Figure 96: Proportion of people who are economically active and employed who are self-employed, Gloucestershire geographical neighbour comparison, 2021[499]

[498] 2021 Census, ONS
[499] *Ibid.*

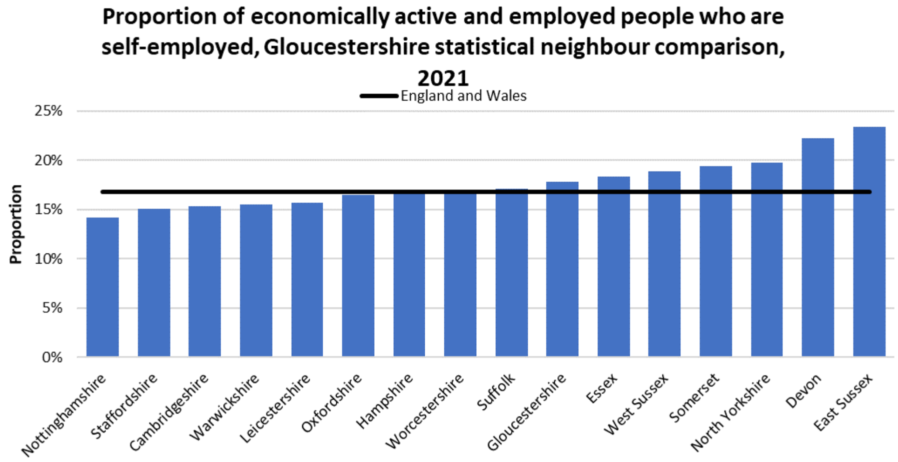

Figure 97: Proportion of economically active and employed people who are self-employed, Gloucestershire statistical neighbour comparison, 2021[500]

Comparing Gloucestershire's districts, Cotswold has the highest proportion of self-employed people at 24.2% whilst Gloucester has the lowest at 12.1%. Furthermore, the proportion of the employed population who are self-employed in Cotswold is ranked 15th, putting it in the top 10%, when compared to all 331 districts and unitary authorities in England and Wales. In contrast, Gloucester has the lowest ranking at 309th, putting it in the lowest 10% of authorities. The other four districts are ranked between 64th and 186th.

The Annual Population Survey provides estimates of self-employment over time. Figure 98 shows that within Gloucestershire self-employment has been on a largely downward trend since 2018. At regional and national level self-employment rates were generally steady until the start of the Covid-19 pandemic when they began to fall, something which has continued since the pandemic came to an end. Prior to the pandemic, Gloucestershire's self-employment rates had largely been in line with the South West average and above the average for England and Wales. However, since 2020 Gloucestershire's self-employment rates have generally been below the regional average and in line or below the average for England and Wales. It is worth noting that these differences are not statistically significant and may be a result of sampling error rather than true variation.

[500] *Ibid.*

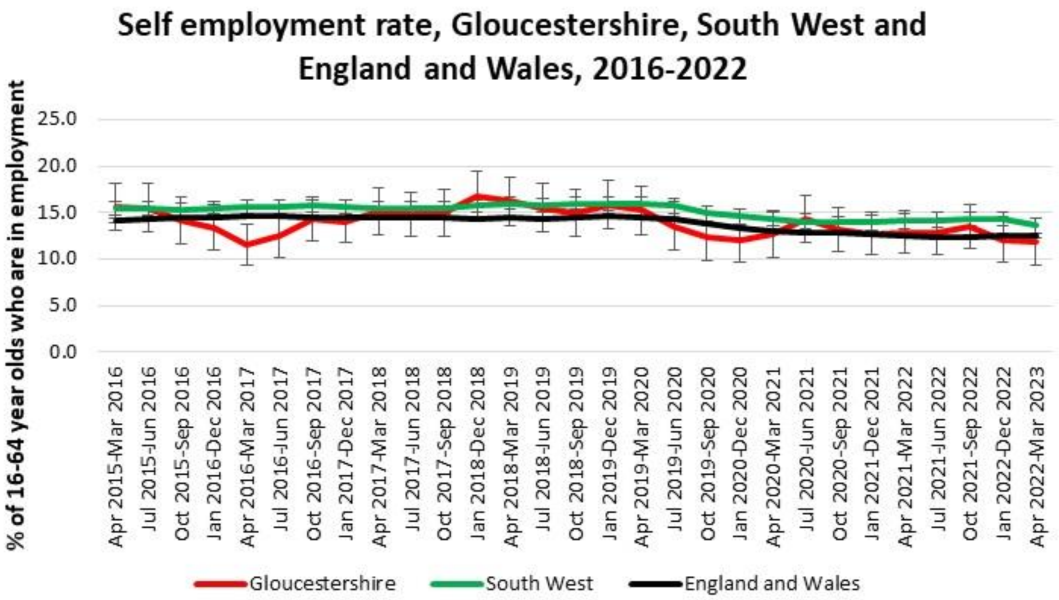

Figure 98: Self-employment rate, Gloucestershire, South West and England and Wales, 2016-2022[501]

11.3 Unemployment

In Gloucestershire, according to the 2021 Census, 3.3% of the 16-64 population was unemployed, this is 0.2 percentage points lower than the South West proportion of 3.5% and 1.1 percentage points lower than the England and Wales proportion of 4.4%, as shown in Figure 99.

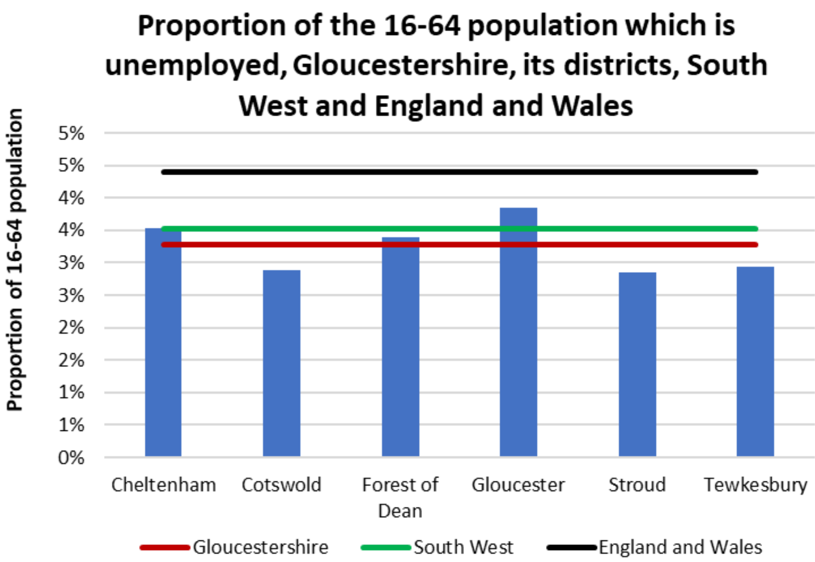

Figure 99: Proportion of the 16-64 population which is unemployed, Gloucestershire and its districts[502]

[501] Annual Population Survey, ONS
[502] Census 2021, ONS

Compared to its geographical neighbours, Gloucestershire was placed in the middle and had the 6th highest unemployment rate and compared to its statistical neighbours it was in the bottom 50% with the 10th highest unemployment rate. Furthermore, Gloucestershire is ranked in the 20% lowest England and Wales county and unitary authorities at 155th for its proportion of the 16-64 population who are unemployed.

Comparing Gloucestershire's districts, Gloucester had the highest proportion of unemployed people with 3.8% of the 16-64 population, ranking 163rd highest out of 331 district and unitary authorities nationally. Stroud had the lowest unemployment rate with 2.8%, ranking 306th out of 331 authorities nationally, which puts it in the 10% lowest.

The Annual Population Survey also collects data on unemployment. However, it records unemployment by dividing the number of people who are unemployed by the economically active population. Therefore, the data gives higher estimates of unemployment than the Census 2021 data which divides by the 16-64 population. Using the APS, it can be inferred that for all three comparison areas there has been a decreasing trend in the unemployment rate in the last 7 years with the exception of the period impacted by the pandemic. Gloucestershire's proportion has fluctuated above and below the South West proportion, but differences have not been statistically significant. Since 2016 Gloucestershire has consistently had a lower unemployment rate than England and Wales, however this difference is not statistically significant as shown in Figure 100.

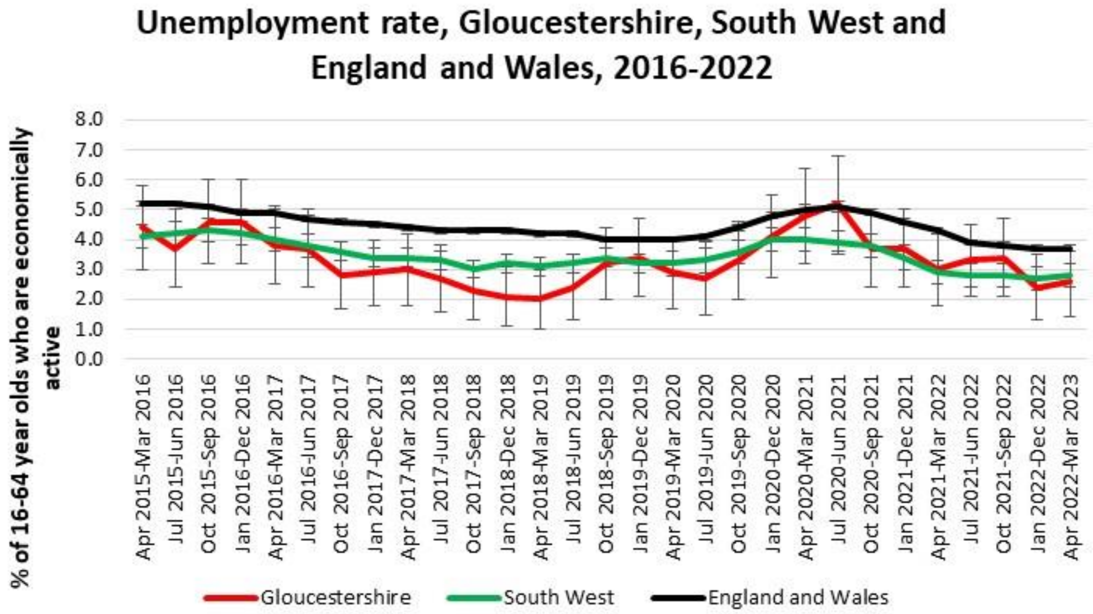

Figure 100: Unemployment rate, Gloucestershire, South West and England and Wales, 2016-2022[503]

[503] Annual Population Survey, ONS

Unemployment can also be measured by using claimant count data which records the number of people who are claiming Job Seeker's Allowance and Universal Credit who are seeking work. Figure 101 shows the proportion of the 16-64 population which is claiming employment related benefits. Since January 2019, Gloucestershire has consistently had a lower proportion of claimants than both the South West and England and Wales. Due to COVID-19 there was a large increase in claimants in March 2020 however, the claimant proportion has now mostly returned to pre-covid levels, although there has been a slight increase in recent months.

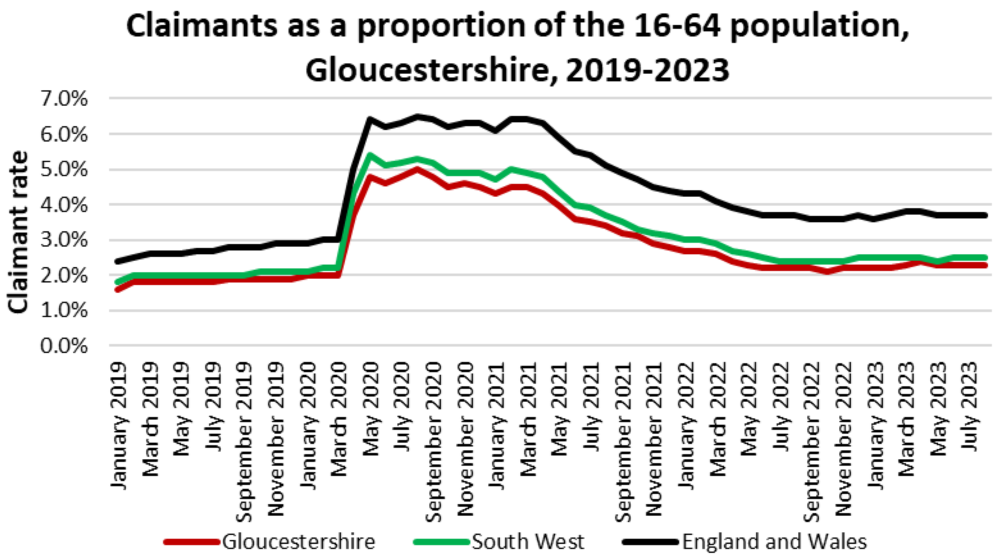

Figure 101: Claimants as a proportion of the 16-64 population, Gloucestershire, 2019-2023[504]

All of Gloucestershire's districts have followed a similar trend to the county, South West and England and Wales. However, there are noticeable differences in the unemployment rates between areas. The claimant unemployment rate is highest in Gloucester where it stood at 3.3% in August 2023, conversely it is lowest in Cotswold and Stroud where it stood at (1.7%), these differences have been fairly consistent over time.

[504] Claimant count, DWP

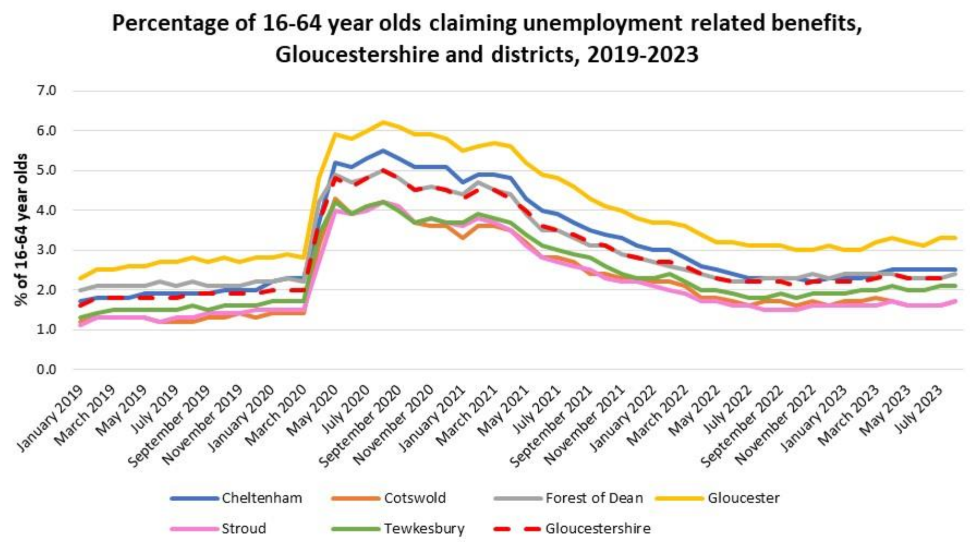

Figure 102: Percentage of 16-64 year olds claiming unemployment related benefits, Gloucestershire and districts, 2019-2023[505]

The claimant count can also be broken down to small area level. Figure 103 shows the claimant rate at LSOA, overall, the unemployment rate across the county is low with the majority of areas having a rate below 2.7%. However, there are four areas in the county where more than 8.6% of the 16-64 population are claiming unemployment related benefits, these areas are all located in Gloucester and include parts of Kingsholm and Wotton, Westgate and Matson and Robinswood. In addition, there are 10 areas where between 6.1% and 8.5% of the 16-64 population are claiming unemployment related benefits, these areas include parts of Moreland, Barton and Tredworth and Podsmead in Gloucester, Hesters Way and St Mark’s in Cheltenham and Tewkesbury South in Tewkesbury.

[505] *Ibid.*

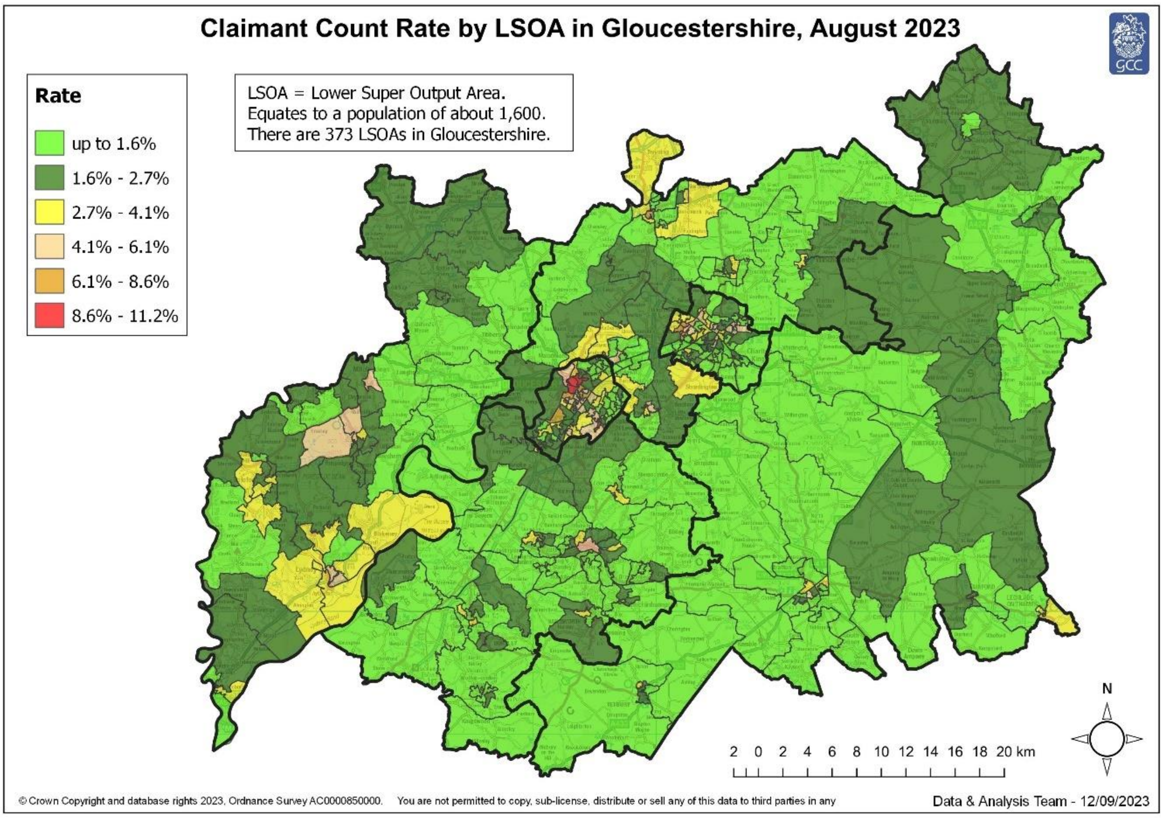

Figure 103: Claimant Count Rate by LSOA in Gloucestershire, August 2023[506]

12. Economic inactivity

Economic inactivity is defined as "people not in employment who have not been seeking work within the last 4 weeks and/or unable to start work within the next 2 weeks"[507]. It can include, students, those who are retired, the long term sick or those with a caring responsibility or looking after a home or family. A high level of economic inactivity in the working population can have implications for economic growth and productivity, and potentially lead to skills shortages in some industries.

According to the 2021 Census, 20.7% of Gloucestershire's population aged 16-64 were economically inactive, this is lower than the South West proportion of 22.8% and the England and Wales proportion of 24.7% as demonstrated in Figure 104.

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[506] *Ibid.*

[507] Economic inactivity, ONS https://www.ons.gov.uk/employmentandlabourmarket/peoplenotinwork/economicinactivity#:~:text=People%20not%20in%20employment%20who,within%20the%20next%202%20weeks.

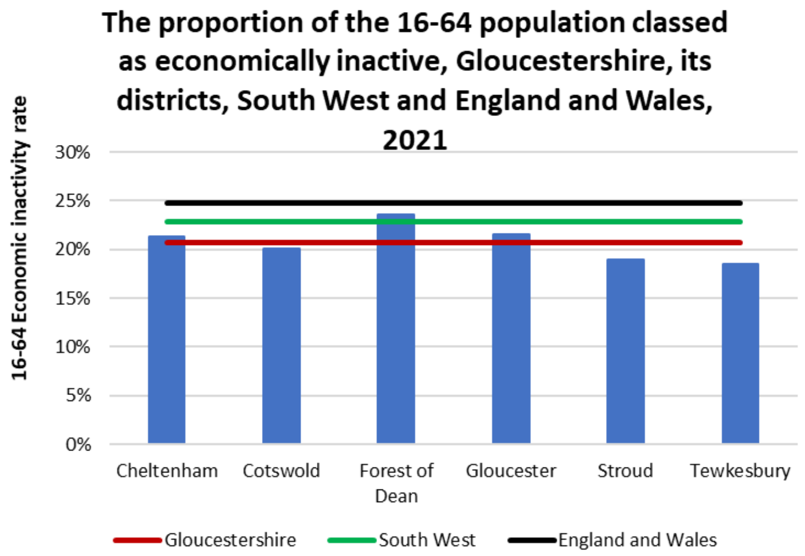

Figure 104: The proportion of the 16-64 population classed as economically inactive, 2021[508]

Compared to geographical neighbours, Gloucestershire has the 8th highest economic inactivity rate shown in Figure 105 and the 14th highest when comparing to statistical neighbours, both of which were in the bottom 50% as indicated in Figure 106. Furthermore, out of 174 county and unitary authorities, Gloucestershire is placed at 154th which is within the 20% lowest economic inactivity rates in England and Wales.

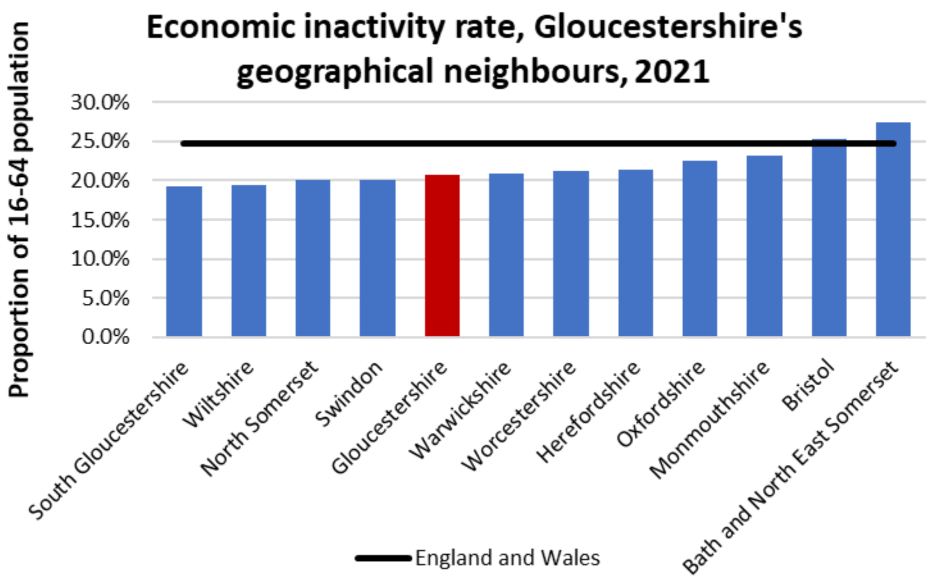

Figure 105: Economic inactivity rate, Gloucestershire geographical neighbours, 2021[509]

[508] 2021 Census, ONS

[509] *Ibid.*

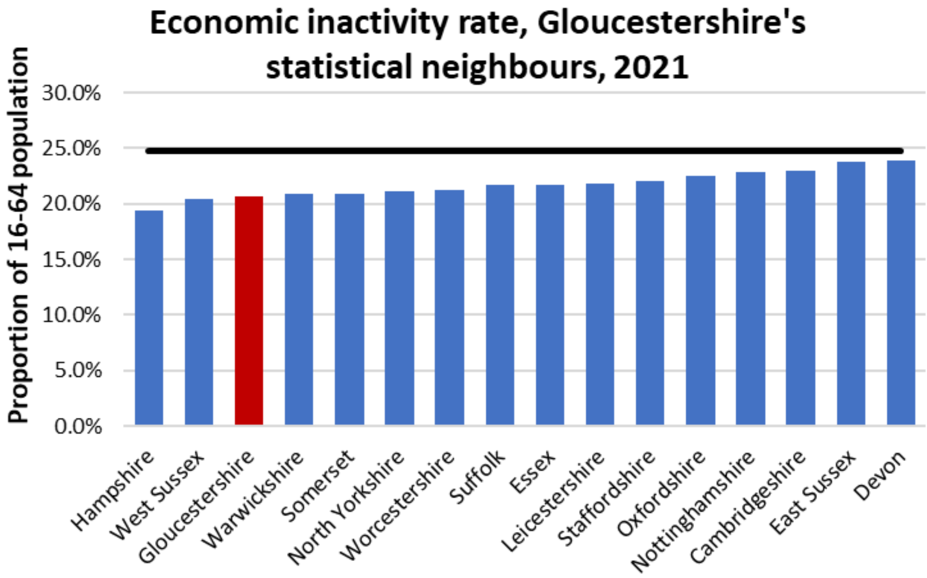

Figure 106: Economic inactivity rate, Gloucestershire's statistical neighbours, 2021[510]

Examining Gloucestershire's districts, Figure 104 indicates the Forest of Dean had the highest economic inactivity rate at 23.6% in March 2021 and ranked 145th out of the district and unitary authorities in England and Wales. In contrast, Tewkesbury had the lowest rate with 18.5% which is in the lowest 10% of authorities at 311th. Stroud is also within the lowest 10% with an 18.9% economic inactivity rate and a rank of 306th.

The Annual Population Survey provides estimates of economic inactivity over time, Figure 107 shows data for the last 7 years. In line with other areas Gloucestershire's economic inactivity levels increased during the pandemic and although they have subsequently fallen to 17.3% of 16–64-year-olds in Apr 2022-March 2023, they are still higher than the 15.2% observed pre pandemic. Gloucestershire has consistently had a lower economic inactivity rate than both the South West and England and Wales. However, the difference between Gloucestershire and the South West in most years is not statistically significant due to sampling error and the difference between Gloucestershire and England and Wales was not statistically significant at the height of the pandemic.

[510] *Ibid.*

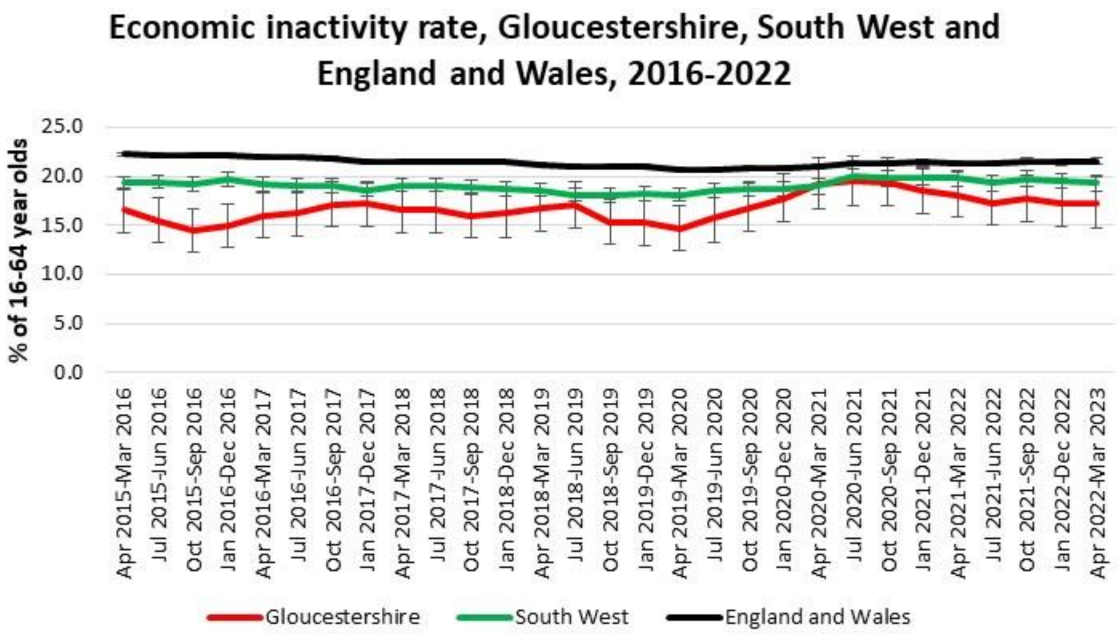

Figure 107: Gloucestershire's 16-64 economic inactivity rate, Gloucestershire, South West and England and Wales, 2016- 2022[511]

12.1 Economic inactivity by age

Economic inactivity varies by age group. Figure 108 indicates the economic inactivity rate for each age group, obtained by dividing the number of people in the age group who are economically inactive by the total population of the age group. It also compares to the South West and England and Wales. In each of the age groups, the economic inactivity rate in Gloucestershire was lower than the South West and England and Wales rates, suggesting that whilst economic inactivity has increased in the county, it still performs better than nationally.

[511] Annual Population Survey, ONS

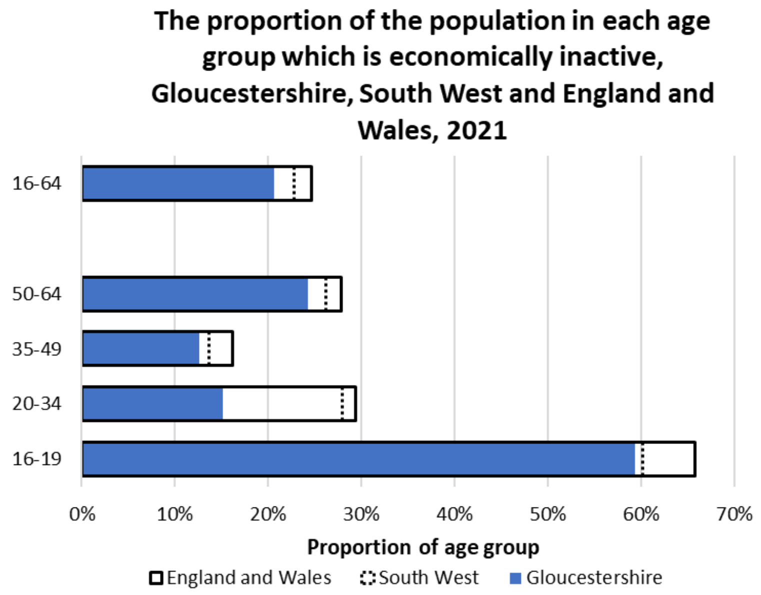

Figure 108: The proportion of the population in each age group which is economically inactive, Gloucestershire, South West and England and Wales, 2021[512]

Comparing the 20-34, 35-49 and 50-64[513] groups in Gloucestershire, the highest economic inactivity rate is within the 50-64 age group with a rate of 24.3%. This is 9.2 percentage points higher than the next highest group, 20-34 year olds with a 15.1% rate. Particularly since the pandemic there has been an increase in the number of 50-64 year olds who have become economically inactive, this could be due to a number of reasons including, taking early retirement, ill health and changes in the nature of work as remote working became more prevalent[514][515]. The 50-64 economic inactivity rate is also the only age group to have a rate higher than the overall 16-64 economic inactivity rate.

Gloucestershire has a lower economic inactivity rate in each of the age groups when compared to the South West and England and Wales. The largest difference is within the 20-34 age group whereby the England and Wales proportion is almost twice as high. Additional analysis indicates that this is due to there being a higher proportion of 20-24 year olds who are economically inactive in the South West and

[512] 2021 Census, ONS

[513] There is a high level of economic inactivity in the 16-19 age group, many of the people in this age group will economically inactive due to attending full-time education and therefore, this group is not comparable to the older age groups.

[514] Economic labour market status of individuals aged 50 and over, trends over time: September 2022, GOV.UK https://www.gov.uk/government/statistics/economic-labour-market-status-of-individuals-aged-50-and-over-trends-over-time-september-2023/economic-labour-market-status-of-individuals-aged-50-and-over-trends-over-time-september-2023#economic-inactivity

[515] The rise in economic inactivity among people in their 50s and 60s, Institute for Fiscal Studies https://ifs.org.uk/publications/rise-economic-inactivity-among-people-their-50s-and-60s

England and Wales. Gloucestershire has a comparatively smaller student population; therefore, it is expected that more people aged 20-24 would be economically active.

Figure 109 indicates that, excluding the 16-19 age group, in each of the districts the 50-64 economic inactivity rate accounts for the greatest proportion of its age group which is economically inactive. The Forest of Dean had the highest proportion of economically inactive people in the 50-64 age group accounting for just over a quarter (26.2%) of the 50-64 population. In comparison, Stroud had the lowest proportion with 22.6%.

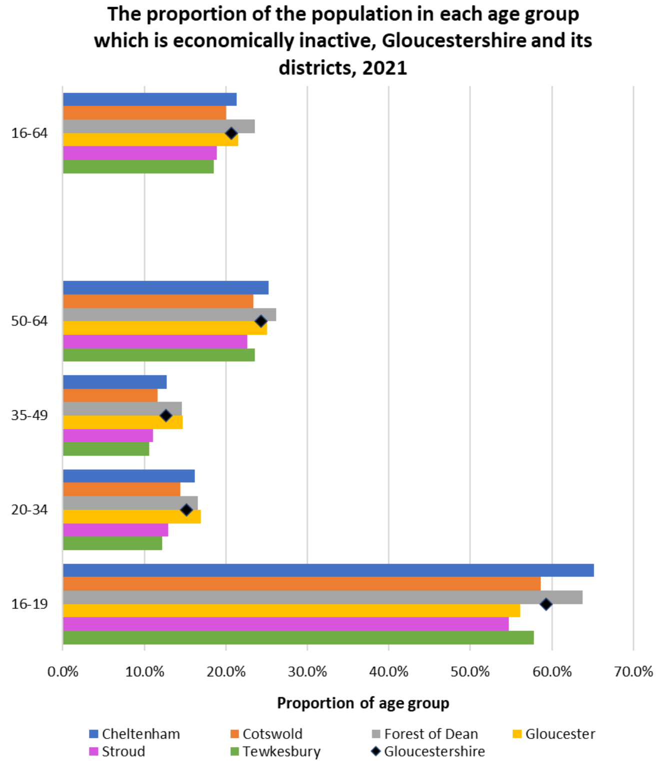

Figure 109: Proportion of people of people who are economically inactive and aged 16-64 by age group, Gloucestershire and its districts, 2021[516]

12.2 Never worked

In 2021, Gloucestershire had a lower proportion of its 16-64 population who have never worked with 6.6% compared to the South West which was 0.3 percentage points higher (6.9%) and England and Wales which was 3.5 percentage points lower overall (10.1%), as shown in Figure 110.

[516] 2021 Census, ONS

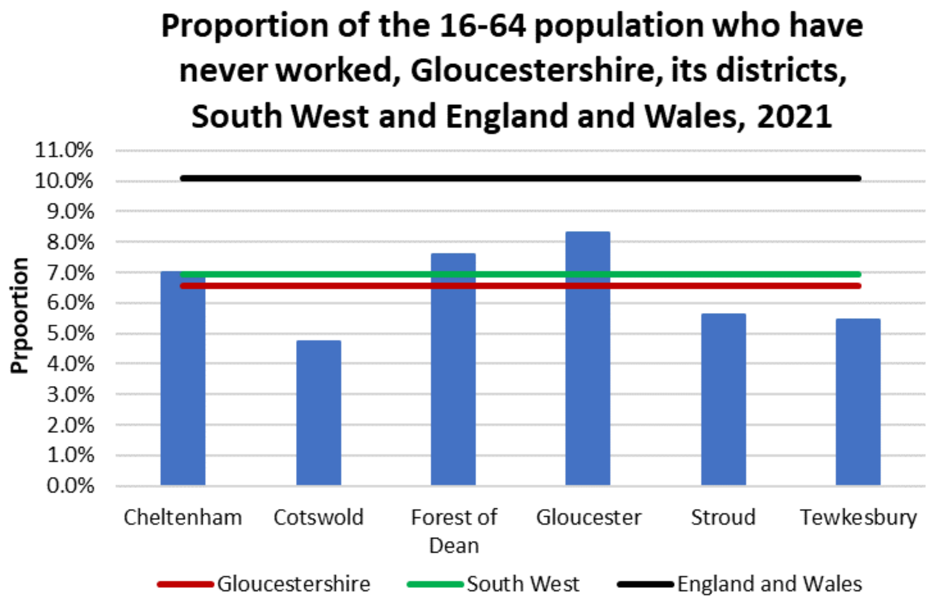

Figure 110: Proportion of the 16-64 population who have never worked, Gloucestershire, its districts, South West and England and Wales, 2021[517]

Compared to its geographical neighbours, Gloucestershire had the 8th highest proportion of its 16-64 population who had never worked and the 11th highest proportion when compared to its statistical neighbours, both of which are in the bottom 50%. Gloucestershire was also within the 20% lowest county and unitary authorities in England and Wales with a rank of 156th highest proportion of its 16-64 population who have never worked.

Out of Gloucestershire's districts, as shown in Figure 110, Gloucester had the highest proportion of never worked accounting for 8.3% of its 16-64 population and this ranked 159th out of 331 district and unitary authorities in England and Wales. In contrast, Cotswold had the lowest proportion with 4.7% and this was within the lowest 10% of all authorities. This difference may be a result of the age profile of the area, with Gloucester having a higher proportion of students who have not yet entered the labour force.

12.3 NEET's

A NEET is classified as a young person who is Not in Education, Employment or Training. These young people indicate that there is barriers to their participation education, training and employment which will reduce their ability to live and work in society at older ages unless interventions are put in place. The OECD supports this and reports that NEETs are at risk of falling into poverty and have the inability to improve their economic situation as they lack the necessary skills.[518]

[517] *Ibid.*

[518] OECD, https://data.oecd.org/youthinac/youth-not-in-employment-education-or-training-neet.htm

In 2023, 3.32% of the population aged 16-17 in Gloucestershire was classed as NEET or not known. This is higher than the 2022 proportion of 3.25% but lower than the 2019-2021 proportions as shown in Figure 111. Except for 2019, Gloucestershire has had a lower proportion of its 16-17 year olds classed as NEET compared to the South West and England proportions.

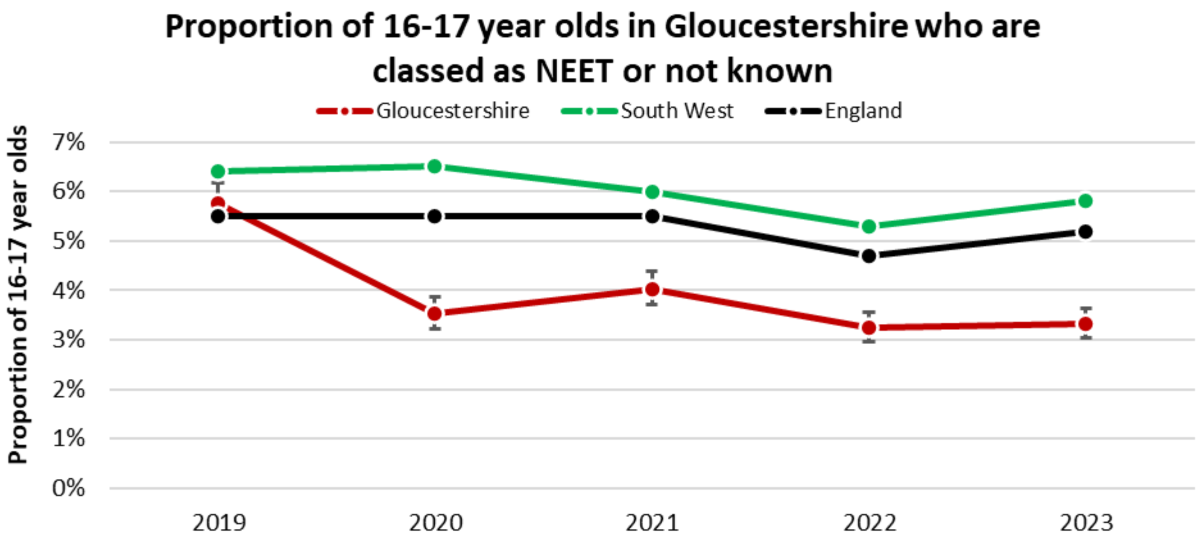

Figure 111: Proportion of 16-17 year olds who are classed as NEET or not known, Gloucestershire, South West and England and Wales, 2019-2023[519]

In 2023, Gloucestershire was ranked to have the 2nd lowest proportion of NEETs/unknown status compared to its geographic neighbours in England. It was also ranked 3rd lowest when compared to its statistical neighbours. These are both in the top 50% of the neighbour groups. In comparison to all the England county and unitary authorities with data[520], Gloucestershire was ranked 110th highest out of 152 in 2023 for the proportion of 16-17 year olds who have been classed as a NEET or status unknown. This is within the lowest 40%, which Gloucestershire has been ranked within since 2020.

[519] GOV.UK, https://explore-education-statistics.service.gov.uk/find-statistics/participation-in-education-training-and-neet-age-16-to-17-by-local-authority

[520] Data is not available for Bournemouth, Northamptonshire and Poole

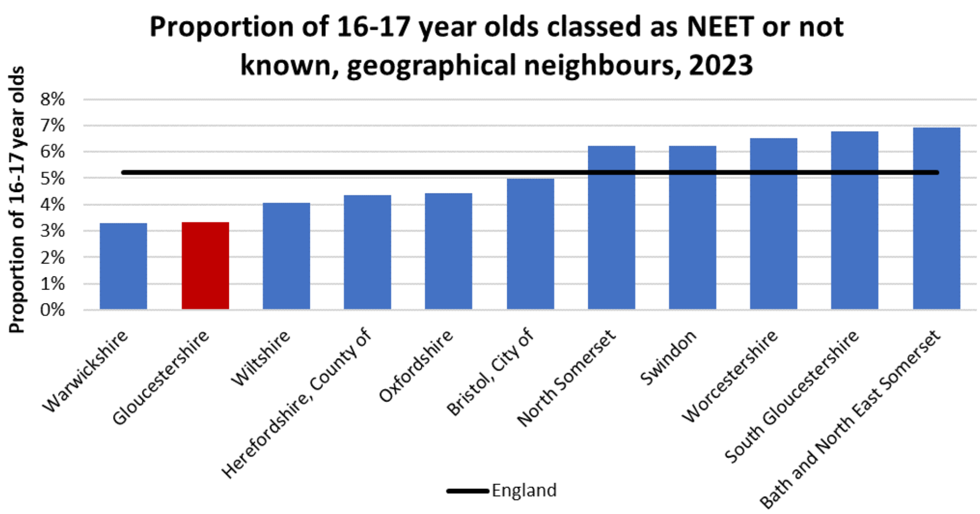

Figure 112: Proportion of 16-17 year olds classed as NEET or not known, geographical neighbours, 2023[521]

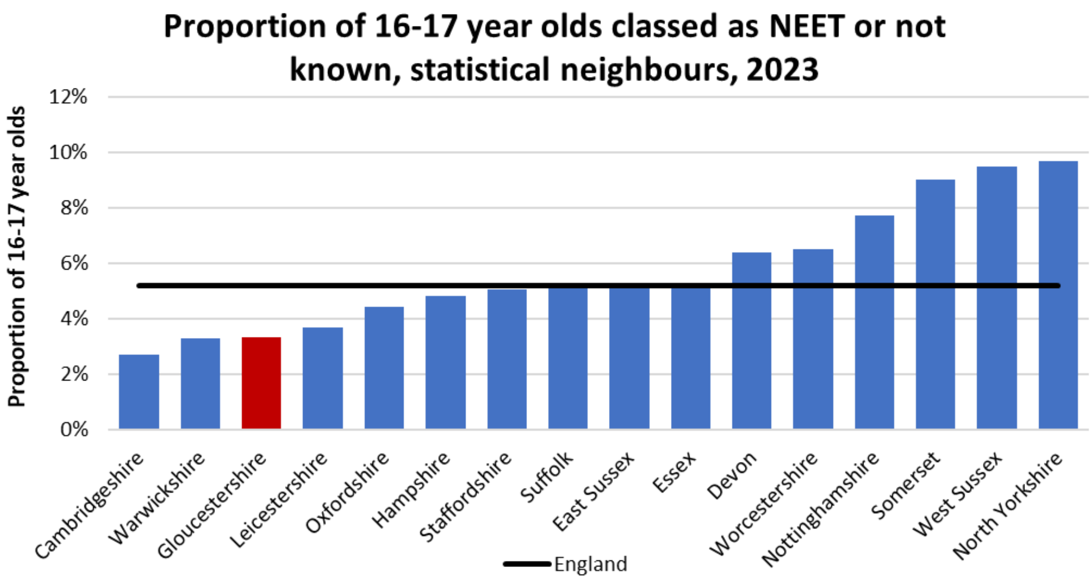

Figure 113: Proportion of 16-17 year olds classed as NEET or not known, statistical neighbours, 2023[522]

12.3.1 NEETs by gender

The data in the following subsection refers to the proportion of 16-17 year olds in each of the gender categories who are classed as NEET/unknown. In most of the years shown in Figure 114, there was a slightly higher proportion of NEETs in the male category compared to females. There has also been little variation in the proportions for the years shown. However, the proportion of 16-17 year olds where the gender is unclassified or withheld has been higher than the male and

[521] GOV.UK, https://explore-education-statistics.service.gov.uk/find-statistics/participation-in-education-training-and-neet-age-16-to-17-by-local-authority

[522] *Ibid.*

female categories since 2021 and statistically significantly higher since 2022. In addition, there has been an increasing trend since 2020.

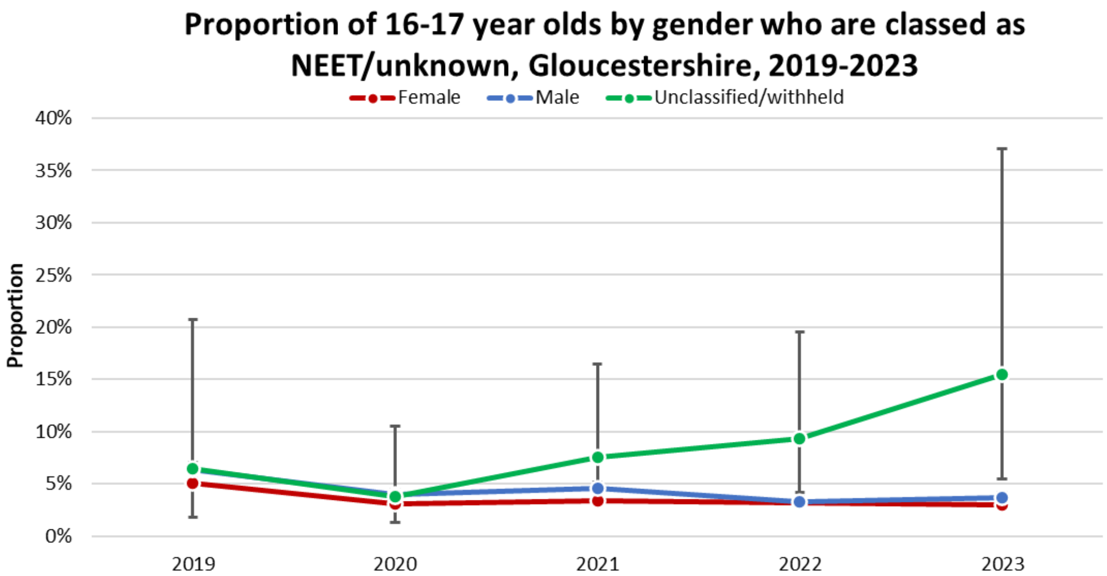

Figure 114: Proportion of 16-17 year olds by gender who are classed as NEET/ unknown, Gloucestershire, 2019-2023[523]

Comparing to all 152 county and unitary authorities which have data[524], in 2023 Gloucestershire was ranked in the lowest 40% for both males (115th) and females (108th) however, it was ranked in the top 20% for the unclassified/withheld category (19th).

12.3.2 NEETs with Special Education Needs (SEN)

In 2023, 10.1% of 16-17 year olds with SEN support or an EHC/statement were classed as NEET/unknown, this is three times higher than the 16-17 no SEN cohort NEET/unknown proportion of 3.32%. Gloucestershire's proportion of SEN who are NEET is lower than the South West proportion of 11.0% but higher than the England proportion of 9.6%.

Looking at the SEN category in more detail, in 2023, 14.3% of 16-17 year olds with an EHC/statement were classed as NEET/known and 7.5% of 16-17 year olds with SEN support were classed as NEET/unknown. SEN support refers to people given support in school for example, speech therapy whilst having an EHC/statement refers to a plan of care for children and young people up to the age of 25 who have more complex needs[525].

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[523] *Ibid.*

[524] Data is not available for Bournemouth, Northamptonshire and Poole

[525] GOV.UK, https://www.gov.uk/children-with-special-educational-needs

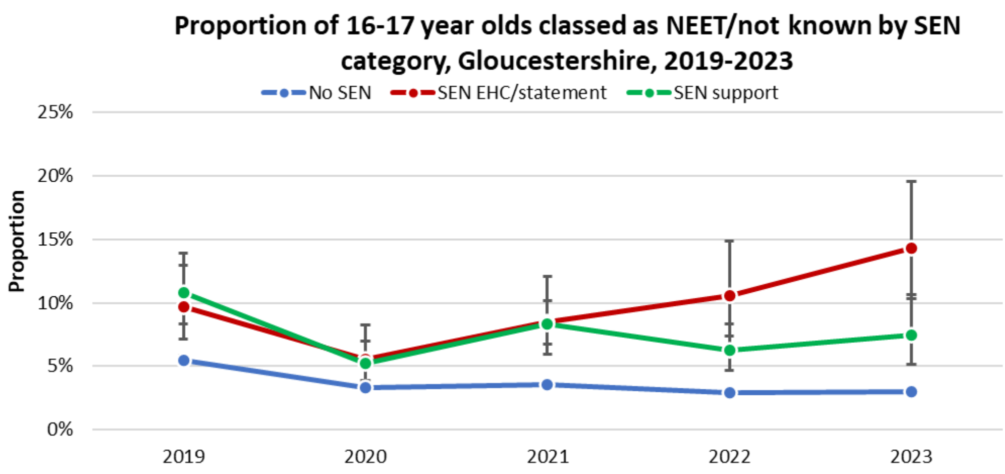

Figure 115: Proportion of 16-17 year olds who are classed as NEET/not known by SEN category, Gloucestershire, 2019-2023[526]

In 2023 Gloucestershire was ranked 61st out of 147 county and unitary authorities in England[527], where data was available, for the proportion of 16-17 year olds with SEN EHC/statement or EHC support classed as NEET/unknown. It also in the top 50% at 4th highest proportion out of its English geographical neighbours[528] and bottom 50% at 11th highest proportion compared to its statistical neighbours.

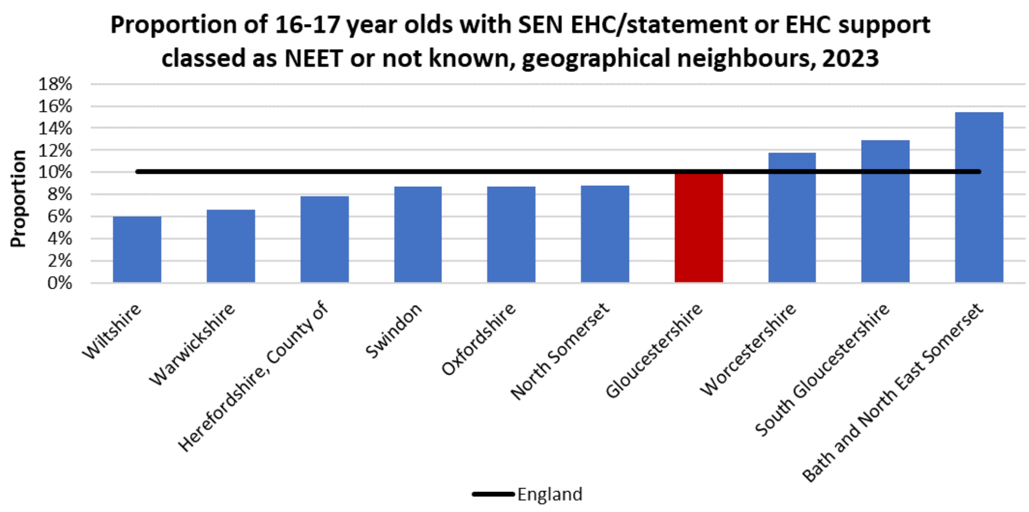

Figure 116: Proportion of 16-17 year olds with SEN EHC/statement or EHC support classed as NEET or not known, Gloucestershire's geographical neighbours, 2023[529]

[526] GOV.UK, https://explore-education-statistics.service.gov.uk/find-statistics/participation-in-education-training-and-neet-age-16-to-17-by-local-authority

[527] 2023 data is not available for Bournemouth, Bristol, Cheshire East, Manchester, Medway, Northamptonshire, Poole and Rutland

[528] 2023 data is not available for Bristol

[529] Department for Education, https://department-for-education.shinyapps.io/neet-comparative-la-scorecard/

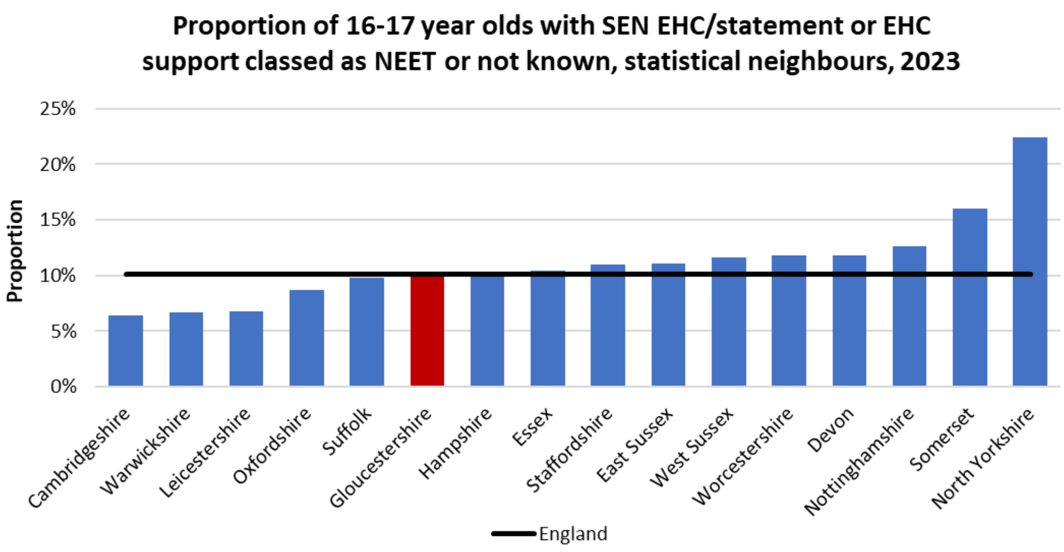

Figure 117: Proportion of 16-17 year olds with SEN EHC/statement or EHC support classed as NEET or not known, Gloucestershire's statistical neighbours, 2023[530]

This shows that while overall Gloucestershire performs relatively well in terms of the proportion of its 16-17 year old population who are NEET, it does not perform as well in terms of those within SEN who are NEET, which suggests more support might be needed to help those with more complex needs.

12.3.3 NEETs by vulnerable groups

The analysis in this section refers to the proportion of NEETs/unknown that fall into a vulnerable group.[531]

In Gloucestershire, 21.8% of NEETs/unknown were classed as belonging to a vulnerable group in 2023. This proportion is lower than the South West proportion of 22.9% and the England proportion of 25.8%.

[530] Department for Education, https://department-for-education.shinyapps.io/neet-comparative-la-scorecard/

[531] Department for Education , https://department-for-education.shinyapps.io/neet-comparative-la-scorecard/ - A young person is said to be in a vulnerable group if they have any of the following characteristics (taken from IC01 of the NCCIS returns): 11- Looked after/In care, 130 Refugee/Asylum seeker, 140- Carer-not own child, 150- Disclosed substance misuse, 160- Care leaver, 170- Supervised by YOT (Youth Offending Team), 190- Parent- not caring for own child, 200- Alternative provision, 210- Mental health flag

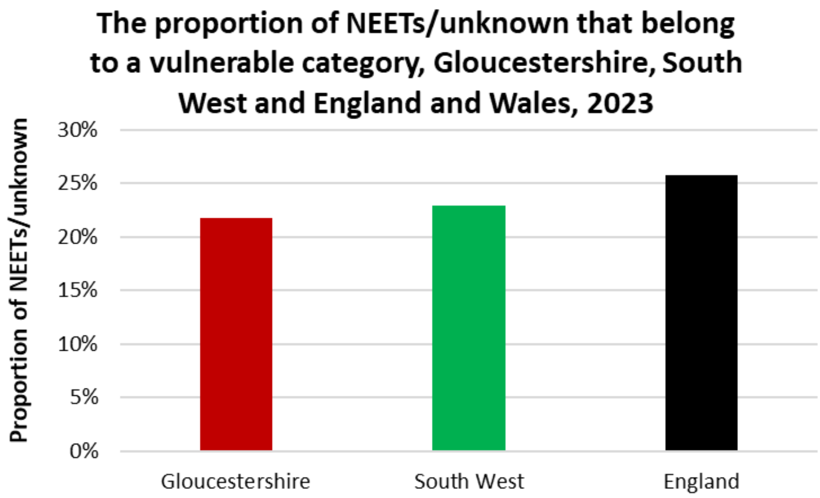

Figure 118: The proportion of NEETs/unknown that belong to a vulnerable category, Gloucestershire, South West and England and Wales, 2023[532]

Compared to its geographical neighbours Gloucestershire is ranked 8th highest and 12th highest compared to its statistical neighbours. However, when compared to authorities across the country Gloucestershire is ranked within the 40% highest proportion of NEETs/unknown who are classed within a vulnerable group at 101st out of 150[533] county and unitary authorities in England.

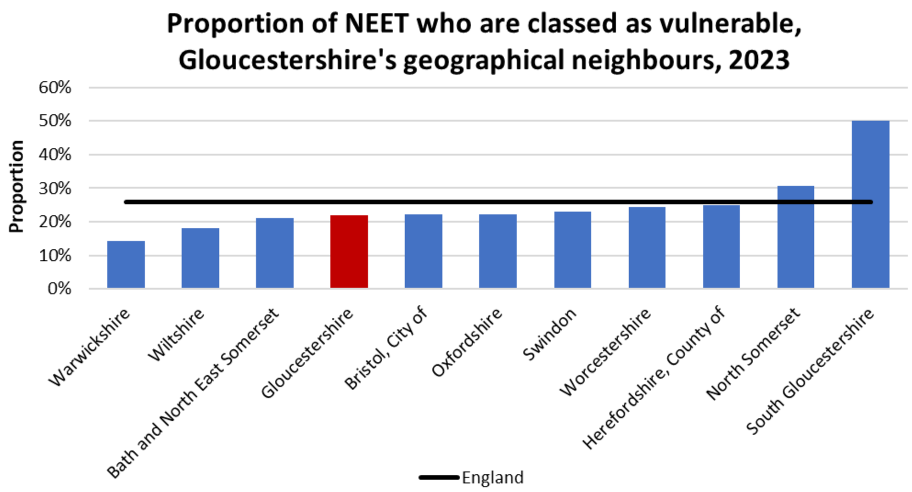

Figure 119: Proportion of NEET who are classed as vulnerable, Gloucestershire's geographical neighbours, 2023[534]

532 Department for Education, https://department-for-education.shinyapps.io/neet-comparative-la-scorecard/

533 Data is not available for City of London and Isles of Scilly

534 Department for Education, https://department-for-education.shinyapps.io/neet-comparative-la-scorecard/

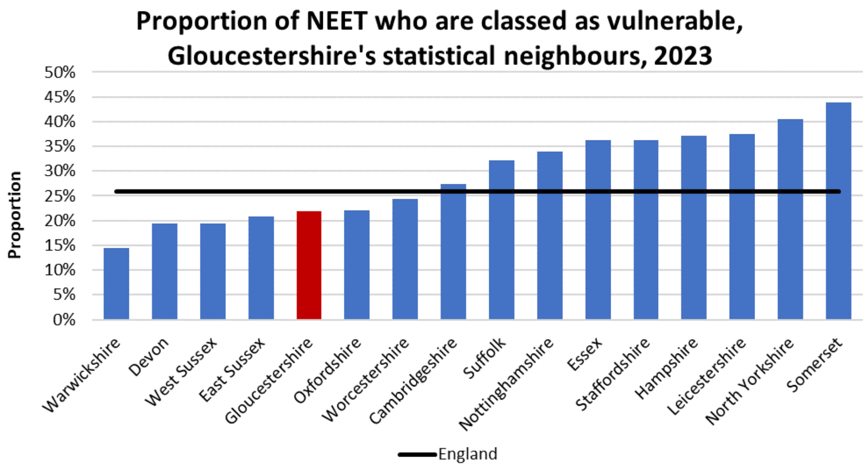

Figure 120: Proportion of NEET who are classed as vulnerable, Gloucestershire's statistical neighbours, 2023[535]

13. Earnings

Levels of earnings are an important economic indicator and help to identify areas of relative affluence and deprivation; low levels of earnings indicate that individuals may struggle to attain a good quality of life.

The following information is derived from survey data and therefore caution should be exercised in drawing firm conclusions. In principle, many random samples could be drawn, and each sample would be made up of different people who would give different answers to the questions asked, this is known as sampling error.

13.1.1 Full-time earnings

In 2022, the median weekly wage of a Gloucestershire resident working full time was £660.50. This was higher than the regional and national averages of £619.80 and £642.60.

[535] *Ibid.*

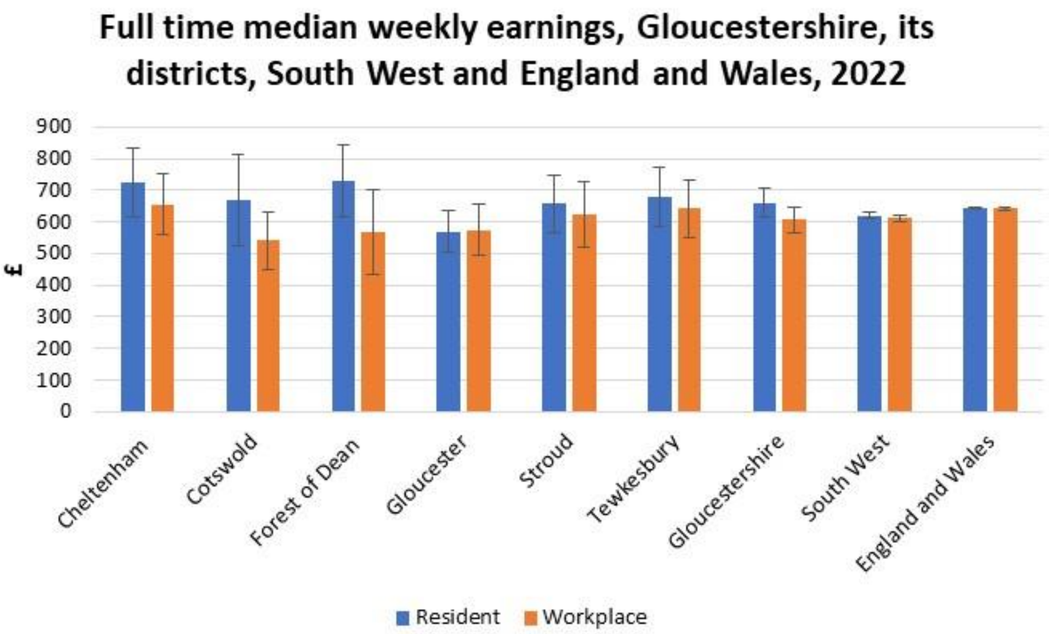

Figure 121: Full time median weekly earnings, Gloucestershire, its districts, South West and England and Wales, 2022[536]

Figure 122 and Figure 123 show in absolute terms Gloucestershire sits in the top half of both statistical and geographic neighbours, for resident based full time earnings, suggesting it fares relatively well for this measure.

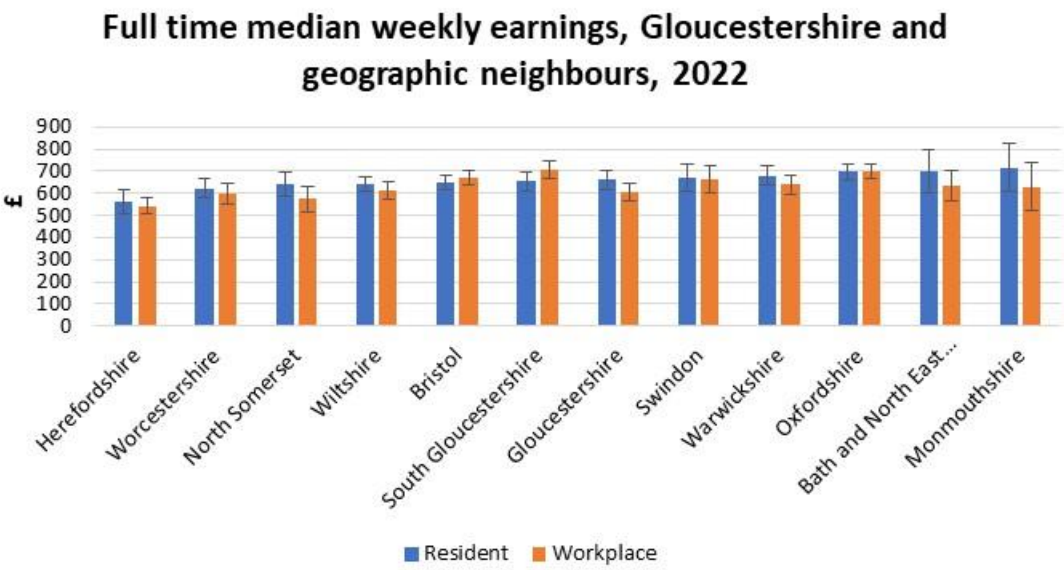

Figure 122: Full time median weekly earnings, Gloucestershire and geographic neighbours, 2022[537]

[536] ASHE, ONS

[537] *Ibid.*

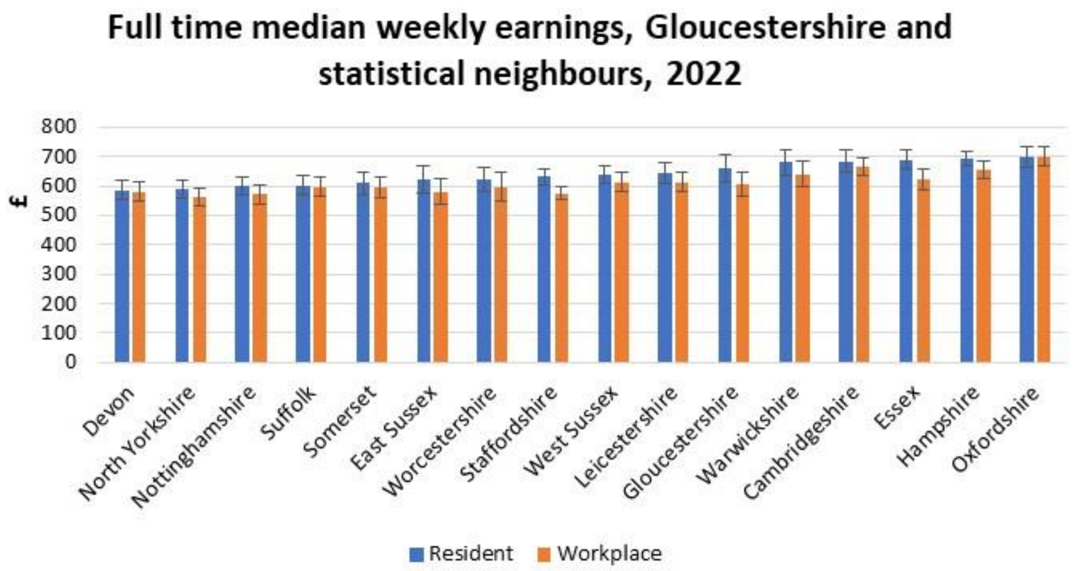

Figure 123: Full time median weekly earnings, Gloucestershire and statistical neighbours, 2022[538]

Figure 121 shows at district level full time weekly earnings are highest amongst Forest of Dean residents (£729.4) followed by Cheltenham residents (£724). They are lowest amongst Gloucester residents (£569.2).

The median weekly wage of a Gloucestershire full time worker was £606.2. This was lower than the regional and national averages of £611.3 and £642. It was also lower than the median weekly wage of a Gloucestershire resident, which would suggest some out commuting[539] to higher paid jobs takes place within the county, although it is worth noting these differences are not statistically significant and may be a result of sampling error rather than true variation.

Given the median wage of a Gloucestershire worker is lower than the regional and national average, it is unsurprising Gloucestershire does not appear to fair as well in this measure as resident earnings when compared to geographic and statistical neighbours. It sits in the bottom half of geographic neighbours and the middle of its statistical neighbours, although there are no statistically significant differences between areas.

At district level the lowest workplace-based earnings were estimated to be in Cotswold (£540.3), while the highest were in Cheltenham (£655.1). Interestingly in Gloucester, workplace-based earnings were higher than resident-based earnings, suggesting some in commuting[540] into the district for higher paid jobs.

[538] *Ibid.*

[539] Residents of Gloucestershire commuting to areas outside of Gloucestershire for work

[540] People outside of Gloucester travelling to the district for work

13.1.2 Part-time earnings

Figure 124 shows both resident and workplace based part-time earnings were lower in Gloucestershire than at a regional and national level.

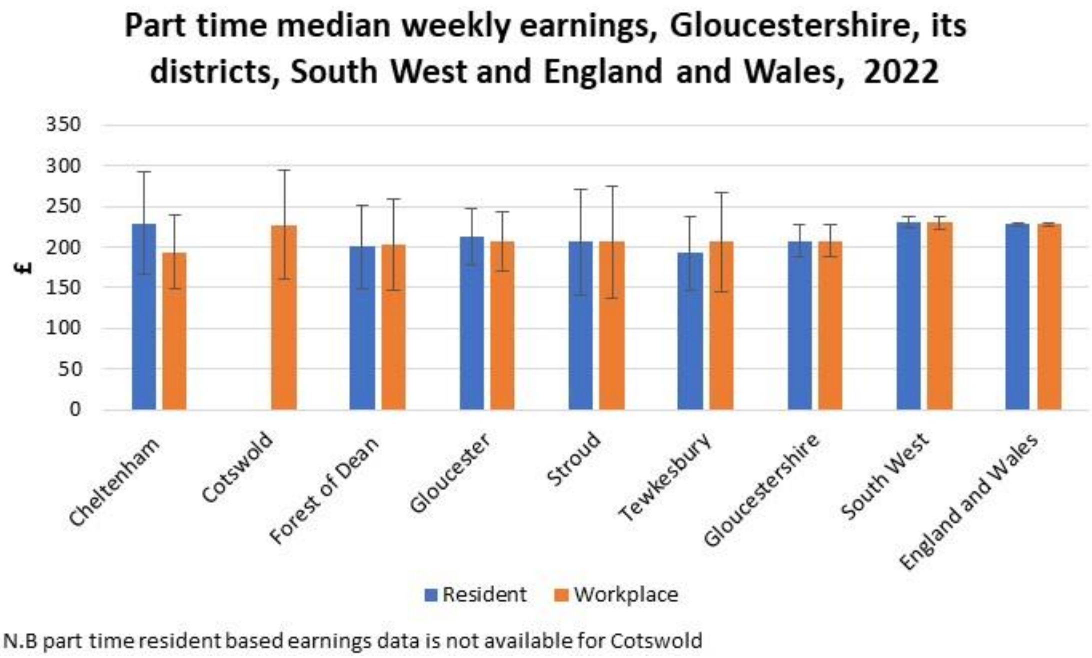

Figure 124: Part time median weekly earnings, Gloucestershire, its districts, South West and England and Wales, 2022[541]

When compared to its geographic and statistical neighbours, Gloucestershire fares badly in terms of both resident and workplace based part time earnings. It is estimated to have the lowest workplace based part time earnings of its geographic neighbours and the second lowest of its statistical neighbours. Looking at resident based part time earnings, it has the second lowest of its geographic neighbours and the lowest of its statistical neighbours. This suggests the quality of part-time work in Gloucestershire may be lower than in other areas.

[541] *Ibid.*

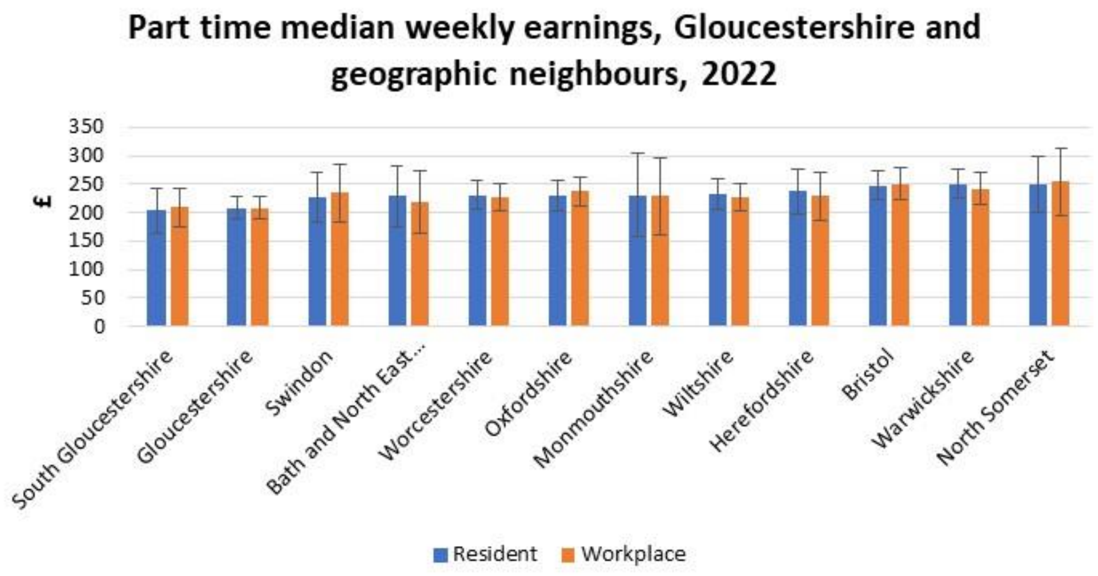

Figure 125: Part time median weekly earnings, Gloucestershire and geographic neighbours, 2022[542]

It is worth noting, data at district level comes with particularly strong warnings around its reliability, due to small samples sizes and because of this issue there is no information about residents in Cotswold working part time. The data does suggest part time workers in Cotswold have the highest earnings, while those in Cheltenham have the lowest. Conversely residents in Cheltenham working part time have higher earnings than any other district, while those in Tewkesbury have the lowest earnings.

13.1.3 Change in earnings

The survey-based nature of the ASHE data means it is difficult to make firm conclusions about change over time, as variation may be a result of sampling error rather than true change.

Resident based full time earnings have seen a statistically significant increase in Gloucestershire between 2016-2022, which means the observed increase is a true increase rather than one resulting from sampling error. Gloucestershire has followed a similar trend to the South West and England and Wales for this measure.

[542] *Ibid.*

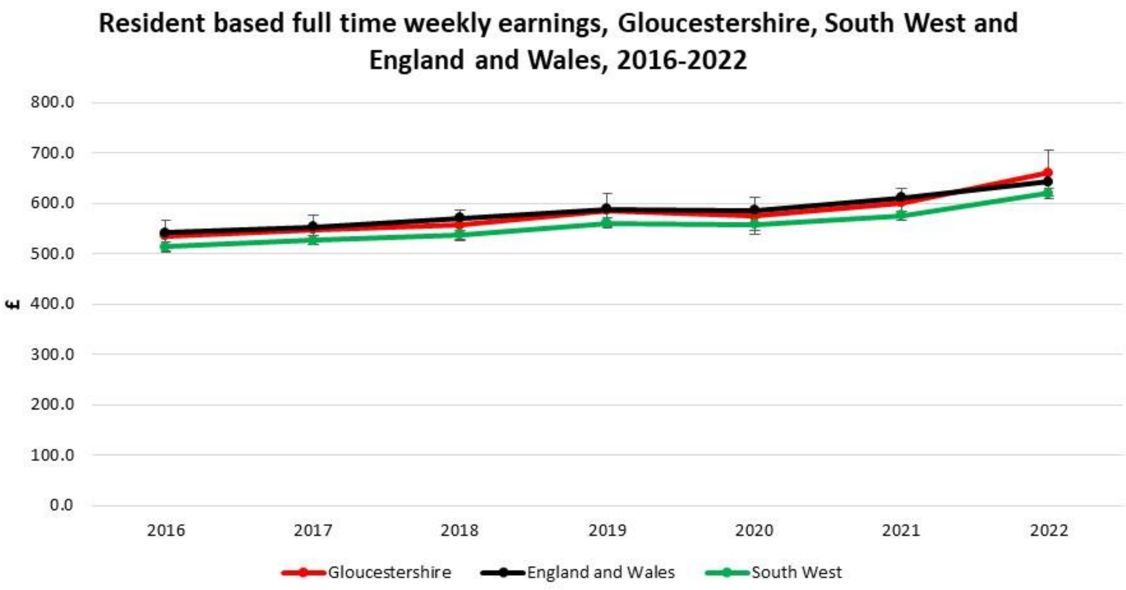

Figure 126: Resident based full time weekly earnings, Gloucestershire, South West and England and Wales, 2016-2022[543]

Workplace based full time earnings also saw a statistically significant increase in Gloucestershire between 2016-2022. However, the picture in Gloucestershire and the South West differs from that seen nationally, with earnings falling between 2019 and 2020 before recovering, whilst nationally earnings increased year on year.

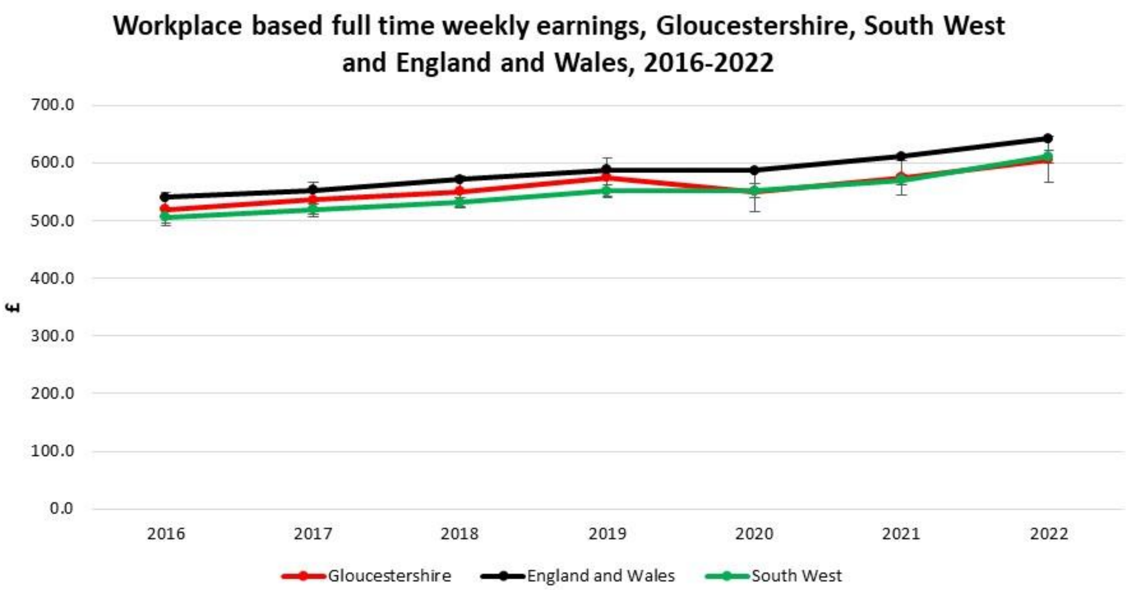

Figure 127: Workplace based full time weekly earnings, Gloucestershire, South West and England and Wales, 2016-2022[544]

[543] *Ibid.*

[544] *Ibid.*

Figure 128 and Figure 129 show resident and workplace-based part time earnings increased in Gloucestershire between 2016 and 2022, however the differences are not statistically significant, meaning they could be a result of sampling error. It is also worth noting that the increase in part time earnings observed in Gloucestershire does not appear to have been as significant as that observed across the South West or England and Wales. This resulted in an earnings gap appearing between Gloucestershire the South West and England and Wales in 2021 which was not apparent in 2019 or previous years, this gap then increased in 2022.

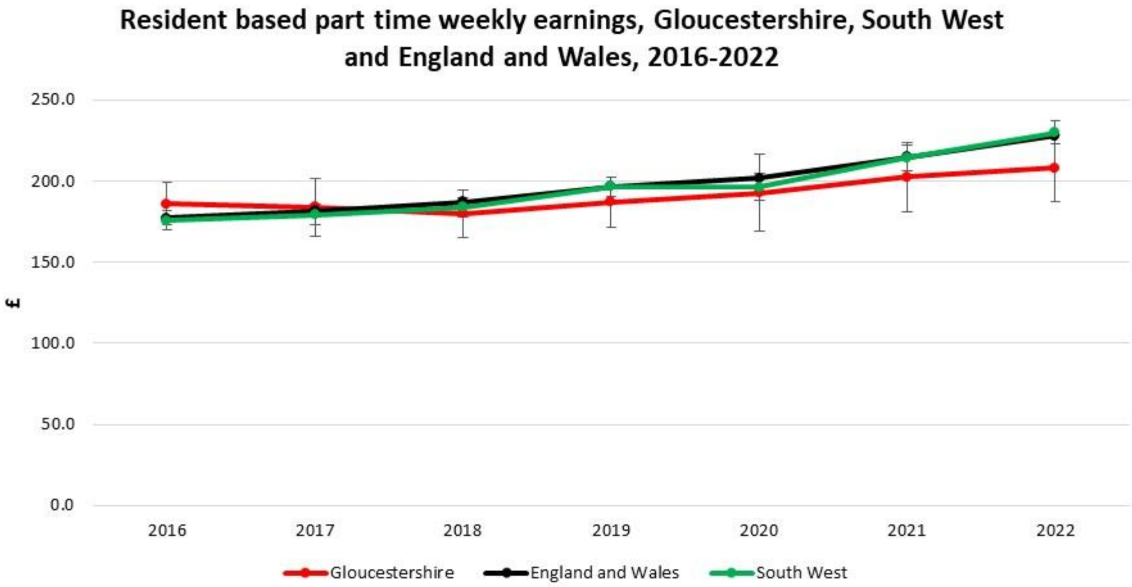

Figure 128: Resident based part time weekly earnings, Gloucestershire, South West and England and Wales, 2016-2022[545]

[545] *Ibid.*

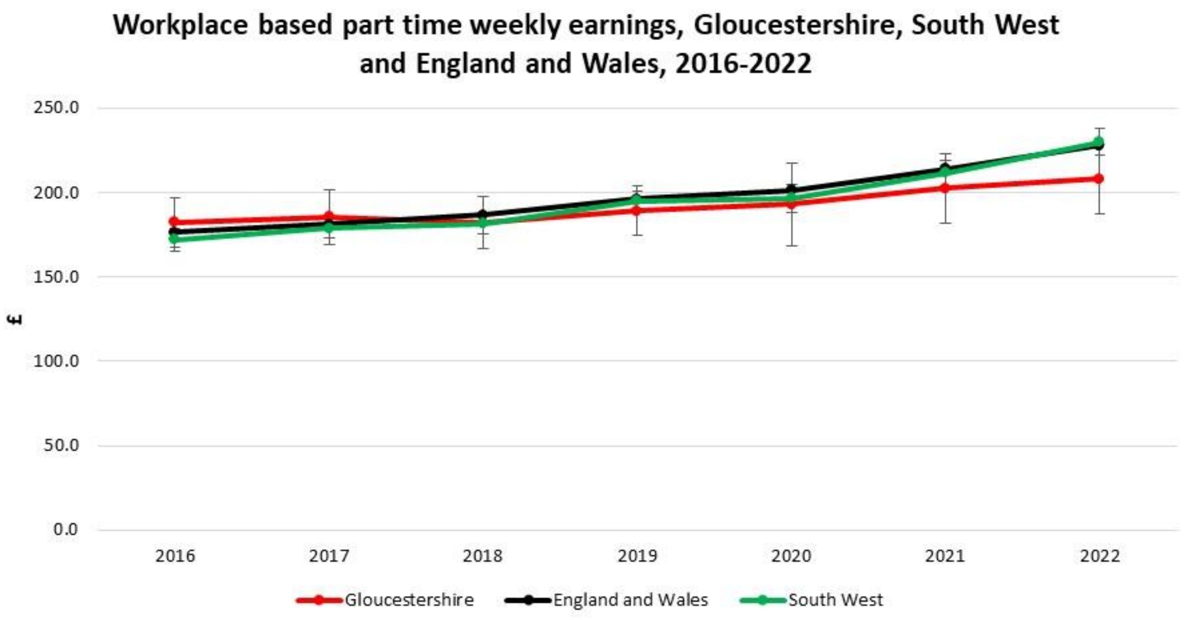

Figure 129: Workplace based part time weekly earnings, Gloucestershire, South West and England and Wales, 2016-2022[546]

Data quality issues means it is not possible to look at the change in earnings at a district level.

13.1.4 PAYE earnings

Given the limitations of ASHE data, there has been a focus nationally on making better use of administrative data sourced from HM Revenue and Customs' (HMRC's) Pay As You Earn (PAYE) Real Time Information (RTI) system. This data is experimental and cannot be broken down into full time and part time employment or provided for a workplace basis, but it does add to the picture around resident based earnings.

In May 2023, median monthly earnings for Gloucestershire residents was estimated to be £2,193. This was slightly higher than the regional average of £2,137 but lower than the UK average of £2,240.

[546] *Ibid.*

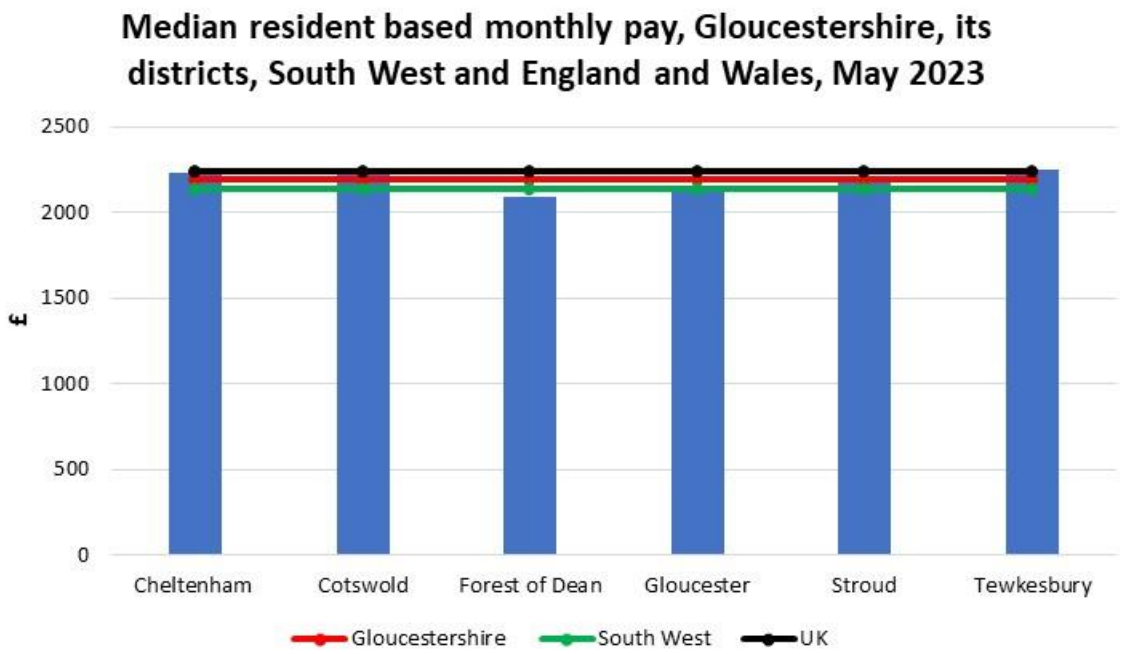

Figure 130: Median resident based monthly pay, Gloucestershire, its districts, South West and England and Wales, May 2023[547]

When compared to our geographic neighbours, Gloucestershire has the third lowest monthly earnings with Herefordshire and Worcestershire being the only areas with lower monthly earnings. The picture is somewhat different when compared to our statistical neighbours with Gloucestershire being in the top half of this comparator group. Gloucestershire also sits in the middle 20% of county and unitary authorities across England and Wales in terms of median monthly earnings.

[547] Earnings and employment from Pay As You Earn Real Time Information, ONS

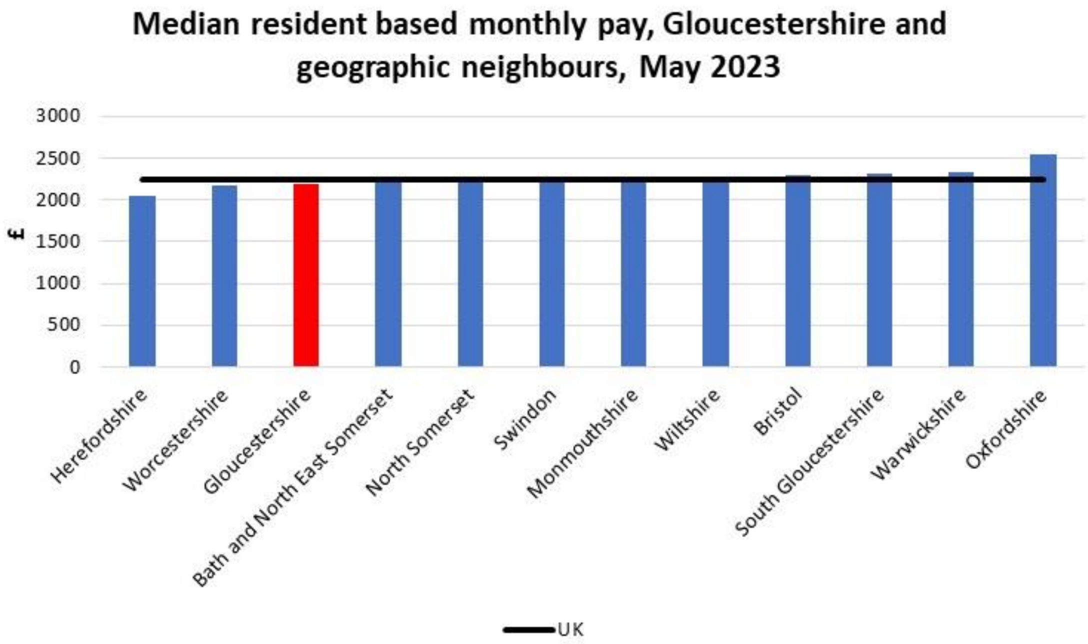

Figure 131: Median resident based monthly pay, Gloucestershire and geographic neighbours, May 2023[548]

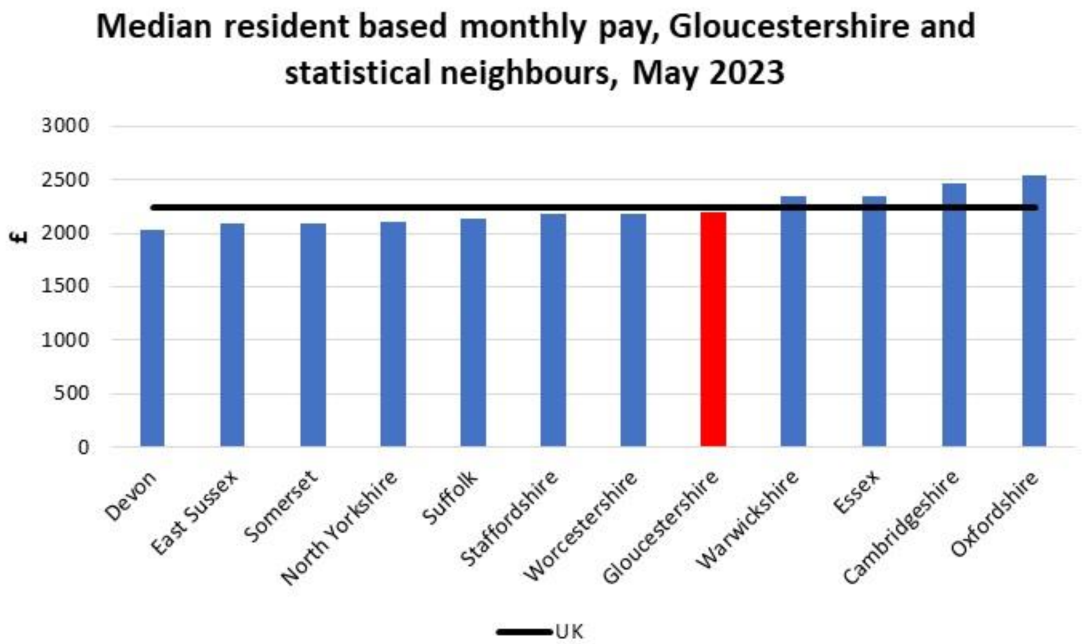

Figure 132: Median resident based monthly pay, Gloucestershire and statistical neighbours, May 2023[549]

548 *Ibid.*

549 *Ibid.*

Figure 130, shows at district level median monthly pay is highest in Tewkesbury (£2,247) which is the only district in the county to have a median monthly pay higher than the national average. Tewkesbury is also in the top 40% of district and unitary authorities across England and Wales in terms of median monthly pay. Median monthly pay is lowest in the Forest of Dean where it stood at £2,095, considerably below the regional, county and national average and putting it amongst the bottom 40% of authorities across England and Wales.

Over time the trend in median monthly wages in Gloucestershire has largely followed the picture seen at a regional and national level, with pay growth falling during the first part of 2020 coinciding with the coronavirus (COVID-19) pandemic and related economic and policy responses. From June 2020 median pay growth has been positive and is now above pre-coronavirus pandemic levels.

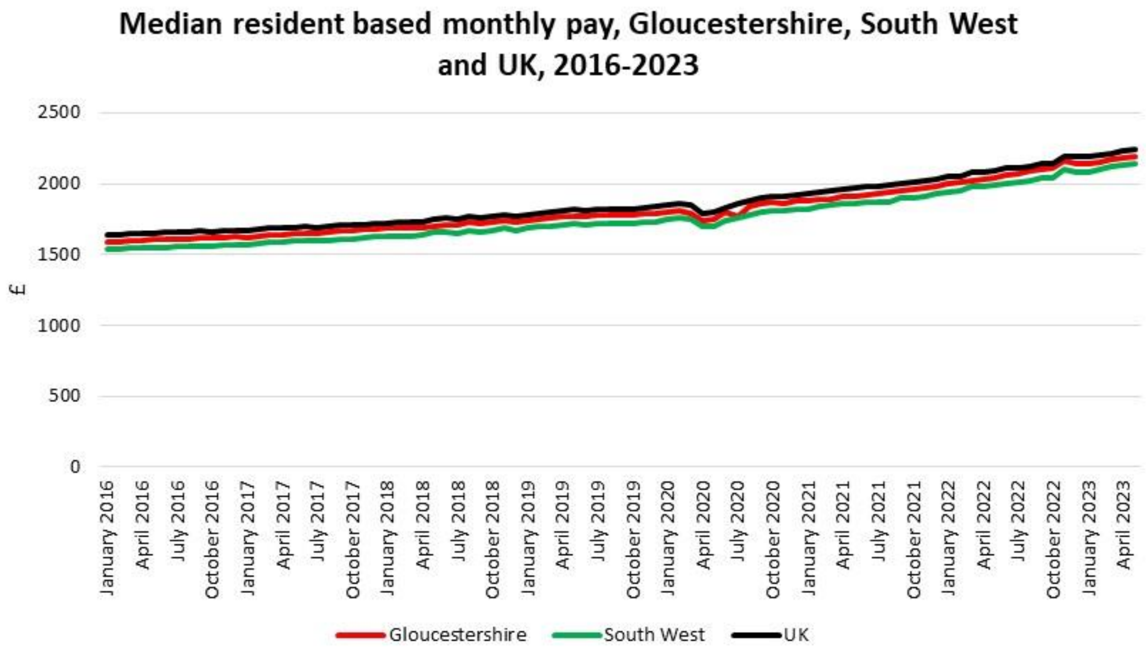

Figure 133: Median resident based monthly pay, Gloucestershire, South West and UK, 2016-2023[550]

Over the last year median pay in Gloucestershire has increased by 7.5%, this was in line with the rate of growth seen across the South West but slightly higher than the rate of growth seen across the UK.

[550] *Ibid.*

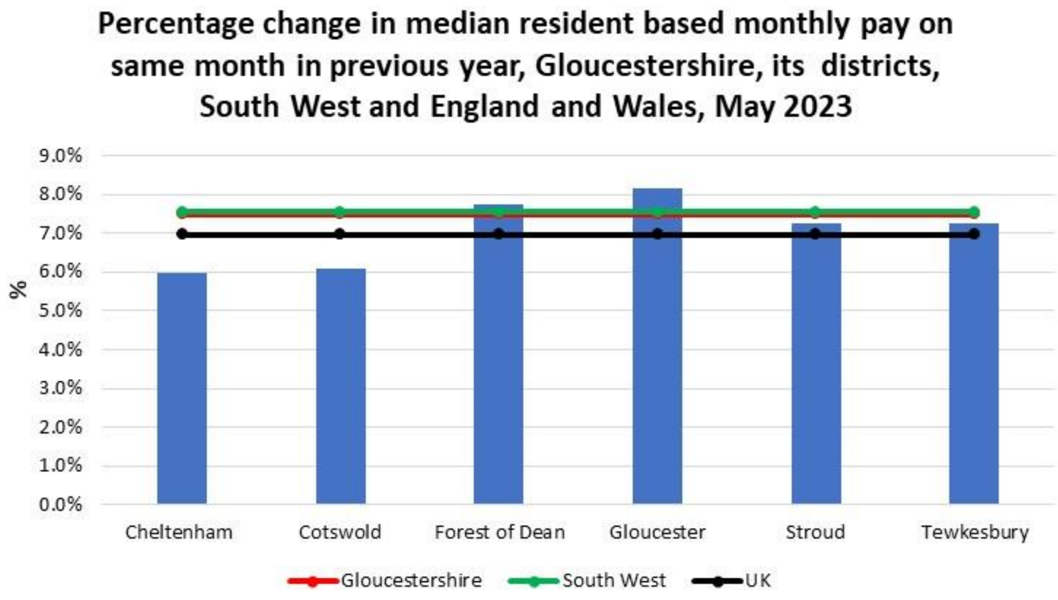

Figure 134: Percentage change in median resident based monthly pay on same month in previous year, Gloucestershire, its districts, South West and England and Wales, May 2023[551]

Gloucestershire has also seen a higher rate of growth in median pay than all its geographic neighbours with the exception of Wiltshire. However, it sits in the middle of the cohort when compared to its statistical neighbours and other county and unitary authorities across England and Wales.

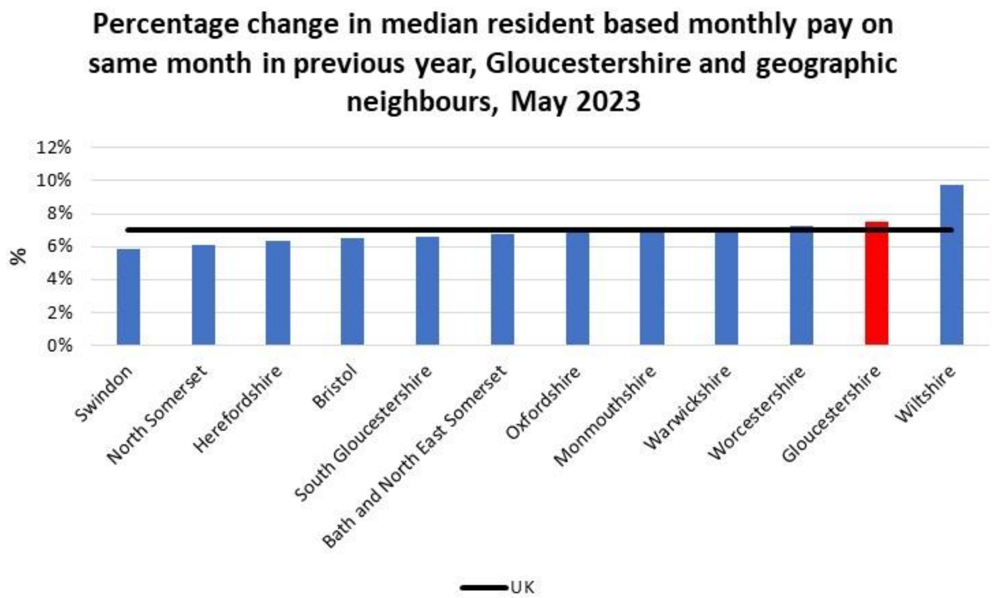

Figure 135: Percentage change in median resident based monthly pay on same month in previous year, Gloucestershire and geographic neighbours, May 2023[552]

[551] *Ibid.*

[552] *Ibid.*

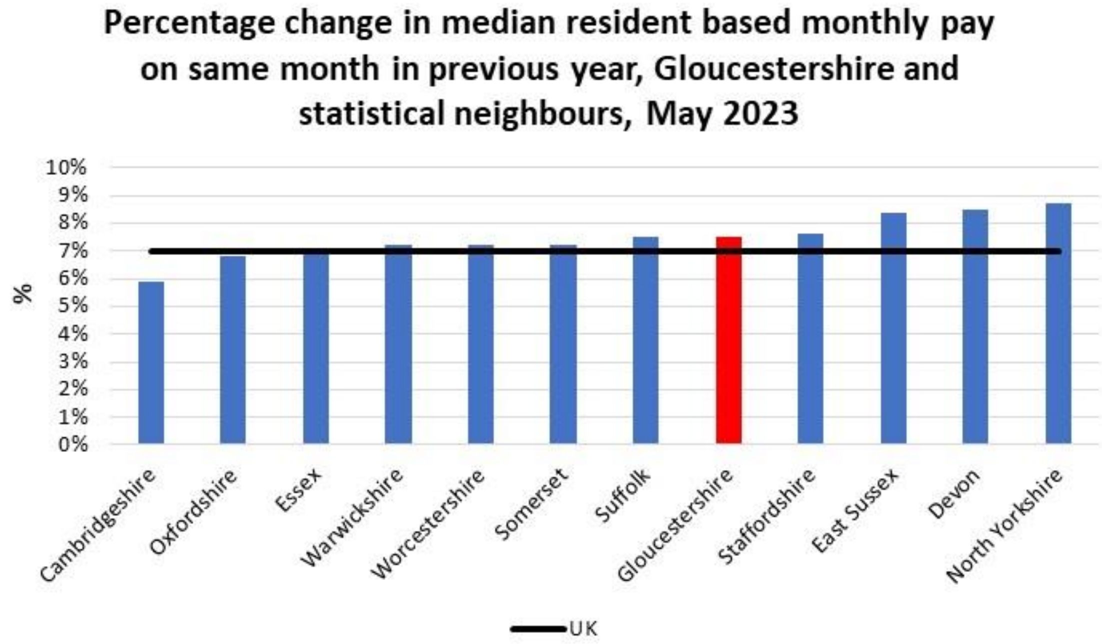

Figure 136: Percentage change in median resident based monthly pay on same month in previous year, Gloucestershire and statistical neighbours, May 2023[553]

Figure 134, shows at district level growth in median pay has been greatest in Gloucester (8.1%) exceeding the county, regional and national average and sitting in the top 20% of authorities across England and Wales. Conversely growth has been lowest in Cheltenham (6.0%) which sits in the bottom 20% of district and unitary authorities across the country in terms of growth in median pay.

14. Travel to work and working at home

A mismatch between labour supply and labour demand can lead to commuting in or out of an area for work.

Information about travel to work and working at home is only routinely collected at a local level at the time of the Census. Unfortunately the 2021 Census was conducted during a national lockdown and as a result the data collected around travel to work has been classed as unreliable. This means the latest data available was collected in 2011, while this is dated it still gives the best view of commuting in Gloucestershire.

In 2011, of the 240,320 residents aged 16 and over in Gloucestershire who commuted to work, some 83.1% equating to 199,735 people worked within the county. Table 2 shows the greatest flows between districts was by residents of Tewkesbury to Cheltenham, followed by residents of Tewkesbury to Gloucester.

[553] *Ibid.*

Table 2: Commuting to work within Gloucestershire, 2011[554]

Resident Origin	Workplace Destination						
	Cheltenham	**Cotswold**	**Forest of Dean**	**Gloucester**	**Stroud**	**Tewkesbury**	**Gloucestershire**
Cheltenham	29,462	1,768	311	4,454	1,191	6,313	43,499
Cotswold	1,487	16,221	147	796	957	687	20,295
Forest of Dean	1,073	329	15,379	4,036	467	1,646	22,930
Gloucester	5,057	948	1,054	29,407	4,699	7,053	48,218
Stroud	1,947	2,334	283	5,492	23,998	1,791	35,845
Tewkesbury	8,293	873	464	5,457	946	12,915	28,948
Gloucestershire	47,319	22,473	17,638	49,642	32,258	30,405	199,735

Some 40,585 (16.9%) residents commuted out of Gloucestershire to work. Of these, 42% travelled to the rest of the South West, 24% commuted to the West Midlands region, 13% went to the South East region and the remaining work destinations were in Wales and London. Figure 137 provides more detail and shows the most common district of work for residents who commute to work outside of the county. South Gloucestershire was the most common destination accounting for 13.8% of the total, this was followed by Bristol and Swindon accounting for 8.8% and 8.7% respectively.

[554] 2011 Census, ONS

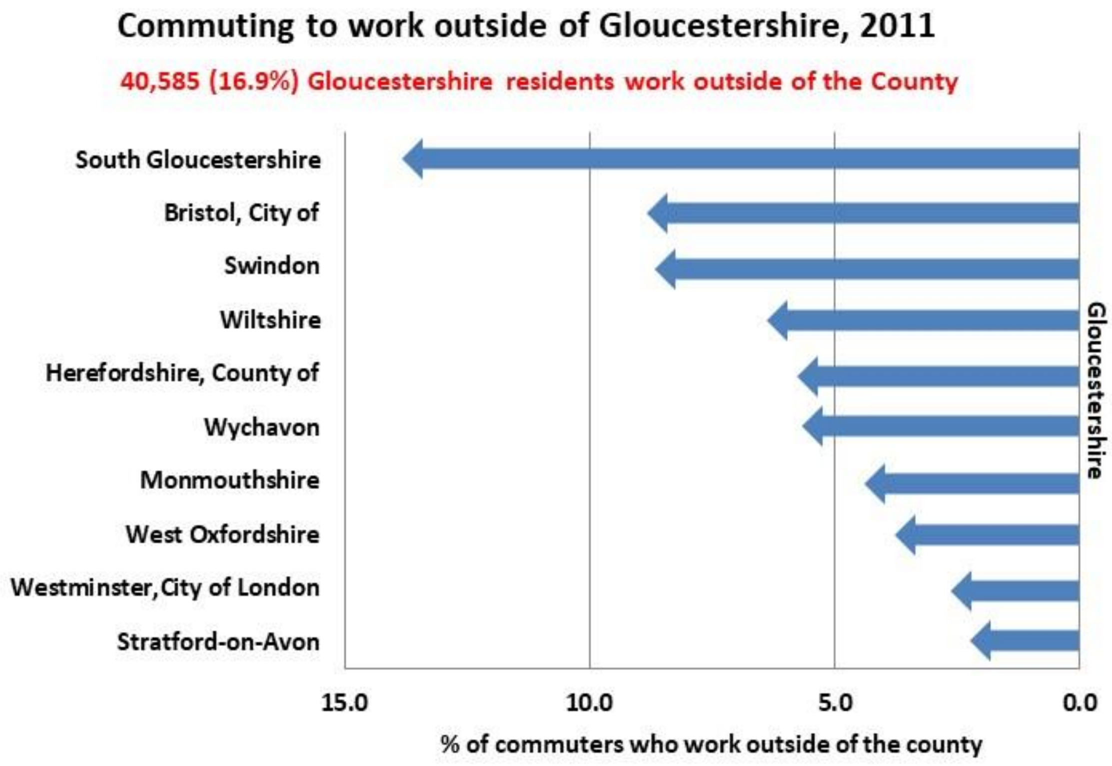

Figure 137: Commuting to work outside of Gloucestershire, 2011[555]

In addition, some 38,148 (16.7%) workers commuted in to the county, of these nearly 40% came from the West Midlands region, 35% from the rest of the South West region, and the rest mainly from Wales and the South East region. Figure 138 provides more detail and shows the most common district of residence for workers who live outside of the county. Wychavon was the most common district of residence accounting for 13.1% of the total, this was followed by South Gloucestershire and Herefordshire accounting for 9.1% and 8.1% respectively.

[555] *Ibid.*

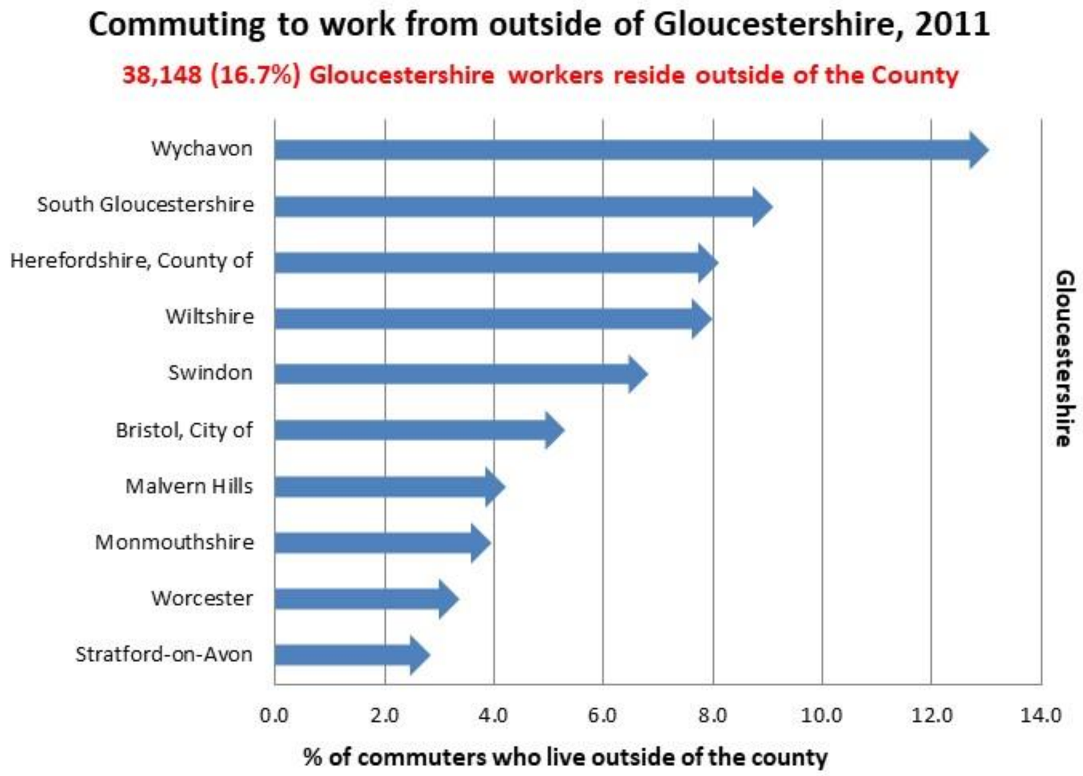

Figure 138: Commuting to work from outside of Gloucestershire, 2011[556]

Overall, there is a net outward flow from Gloucestershire, with more people going out of the county for work than coming in as shown in Table 3.

Table 3: Number of workers commuting in or out of Gloucestershire districts 2011[557]

Commuting to work	Total outward	Total inward	Net
Cheltenham	19,782	24,148	4,366
Cotswold	13,820	15,709	1,889
Forest of Dean	14,627	6,015	-8,612
Gloucester	23,617	26,131	2,514
Stroud	20,526	13,287	-7,239
Tewkesbury	20,566	25,211	4,645
Gloucestershire (includes offshore installation & outside UK)	40,585	38,148	-2,437

556 *Ibid.*

557 *Ibid.*

In addition to those who commuted to work in 2011 there were another 38,200 people who worked at home in Gloucestershire, equating to 13% of those employed residents aged 16 and over as shown in Table 4. Working at home was most common in Cotswold and least common in Gloucester.

Table 4: Proportion of residents in employment who work at home 2011[558]

Area	Work mainly at or from home Number	Work mainly at or from home as % of residents aged 16+ in employment
Cheltenham	6,199	10
Cotswold	8,268	20
Forest of Dean	5,618	14
Gloucester	4,439	7
Stroud	8,353	14
Tewkesbury	5,331	13
Gloucestershire	38,208	13

The pandemic and associated lockdowns changed the way people work, making homeworking or hybrid working more common. There is limited information about the current extent of homeworking at a local level, however national research gives an indication of the current picture. Throughout 2022 the percentage of working adults reporting having worked from home in the UK has varied between 25% and 40%, without a clear upward or downward trend. In the most recent period (25 January to 5 February 2023) around 40% of working adults reported having worked from home at some point in the past seven days. Equivalent data from pre-pandemic suggested for the 12-month period from January to December 2019 around 12% of working adults reported working from home at some point in the week before they were interviewed[559].

15. Occupations and qualifications

For individuals', education and skills contribute to differences in earnings and opportunities. For local areas a well-educated population is more likely to be productive and innovative, which can drive economic growth and development.

558 *Ibid.*

559 Public Opinions and Social Trends Survey, ONS

15.1 Key stage 4

15.1.1 Key stage 4 attainment

The qualifications gained by young people is an indication of the skills levels of the future population.

The key measure of attainment at the end of secondary school is attainment 8[560]. In the academic year 2021/22 the average attainment 8 score for pupils in Gloucestershire was 51.8, this was higher than the regional and national average of 48.7.

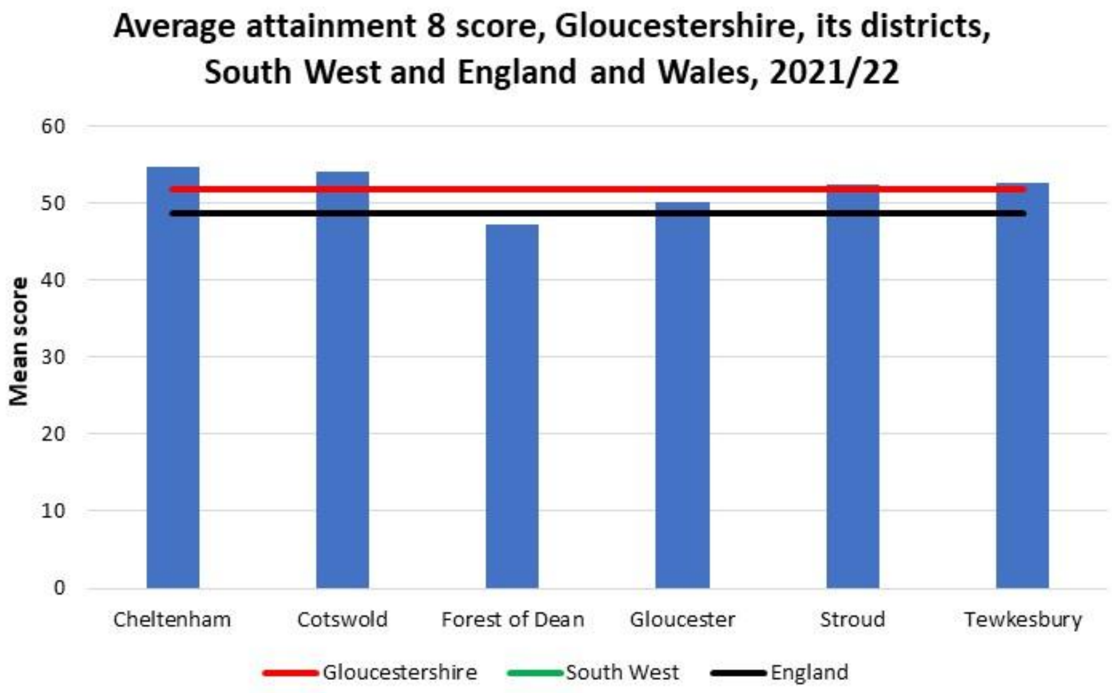

Figure 139: Average attainment 8 score, Gloucestershire, its districts, South West and England and Wales, 2021/22[561]

Gloucestershire's attainment 8 score also compares well to its comparator groups. It has the highest attainment 8 score of its statistical neighbour[562] group and the second highest score when compared to geographic neighbours[563].

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

[561] PHOF, OHID

[562] Data is not available for all areas

[563] Data is not available for all areas

When compared to other county and unitary authorities nationally it is ranked 31st out of 149 areas, putting it in the top 40% of authorities across England.

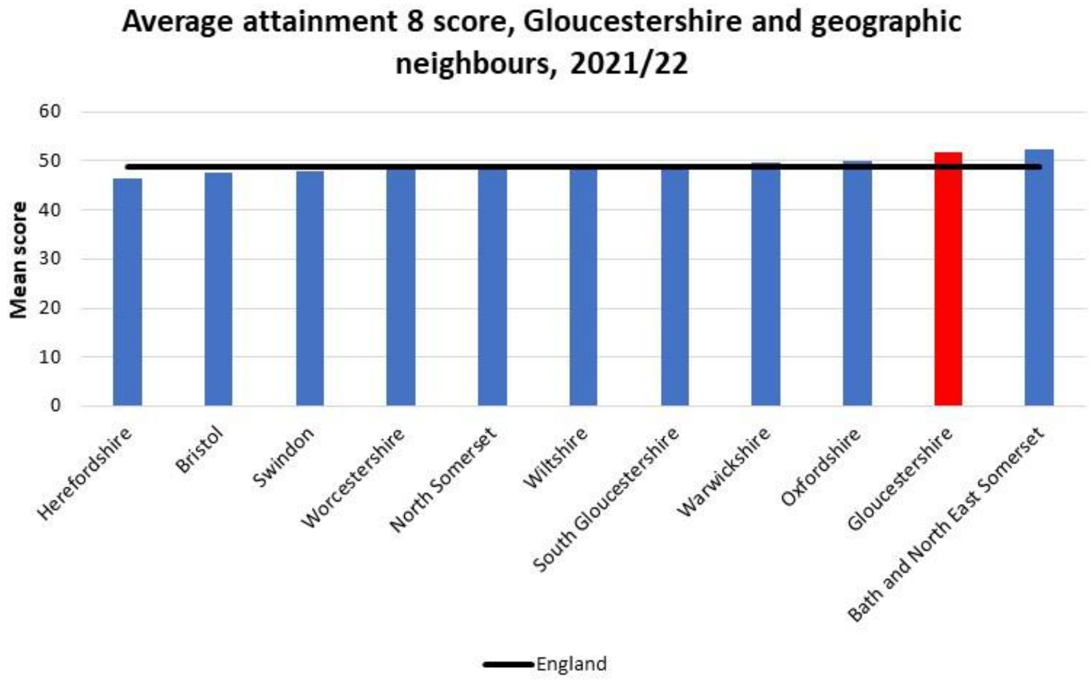

Figure 140: Average attainment 8 score, Gloucestershire and geographic neighbours, 2021/22[564]

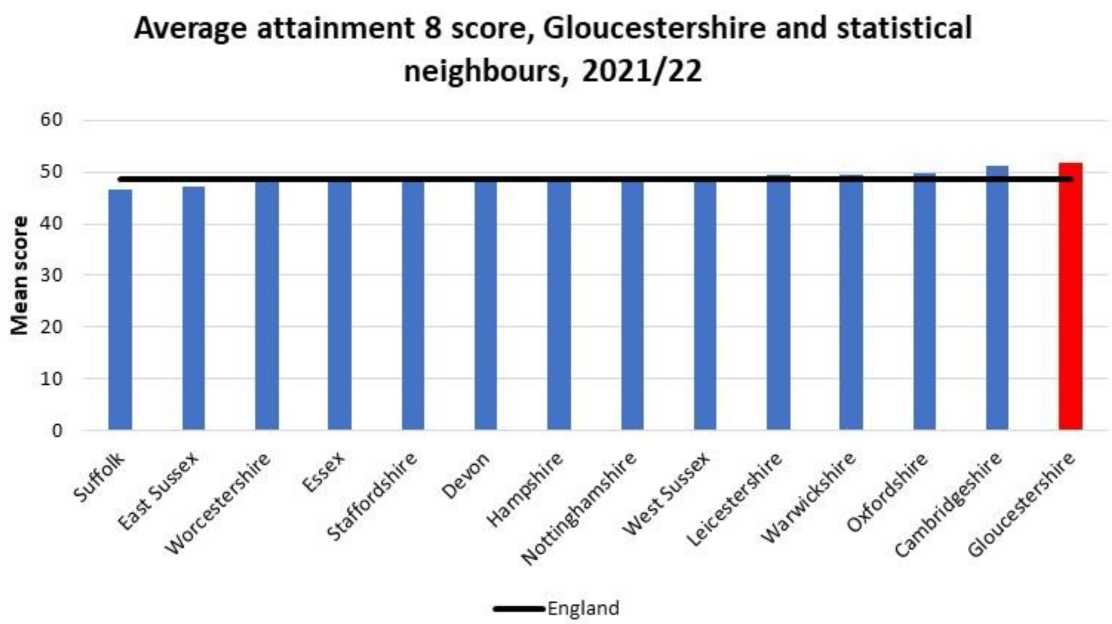

Figure 141: Average attainment 8 score, Gloucestershire and statistical neighbours, 2021/22[565]

[564] PHOF, OHID

[565] *Ibid.*

At district level the attainment 8 score is highest in Cheltenham, closely followed by Cotswold. Both of these areas, along with Stroud and Tewkesbury sit in the top 20% of district and unitary authorities across England in terms of average attainment 8 score. The average attainment 8 score is lowest in the Forest of Dean, which has a lower score than England and sits in the bottom 40% of district and unitary authorities across England for this measure.

15.1.2 Key Stage 4 (level 2 qualification) destinations[566]

In 2020/21, 95.4% of students[567] who finished KS4 or level 2 qualifications in Gloucestershire mainstream state-funded schools progressed to a sustained[568] education, employment, or apprenticeship destination. This is higher than the proportion of 94.8% for the South West and the overall proportion for England at 94.1%.

Figure 142 indicates that of the KS4 Gloucestershire cohort in 2020/21, 89.3% of students progressed onto a sustained education destination whilst 3.1% of the cohort moved onto apprenticeships and 3.1% progressed to employment. In previous years, a slightly lower proportion (around 4 percentage points) of students went to an education destination and a higher proportion went on to employment or apprenticeship destinations, this may be due to the impact of COVID-19 and fewer employers offering opportunities to the 2018/19 cohort.

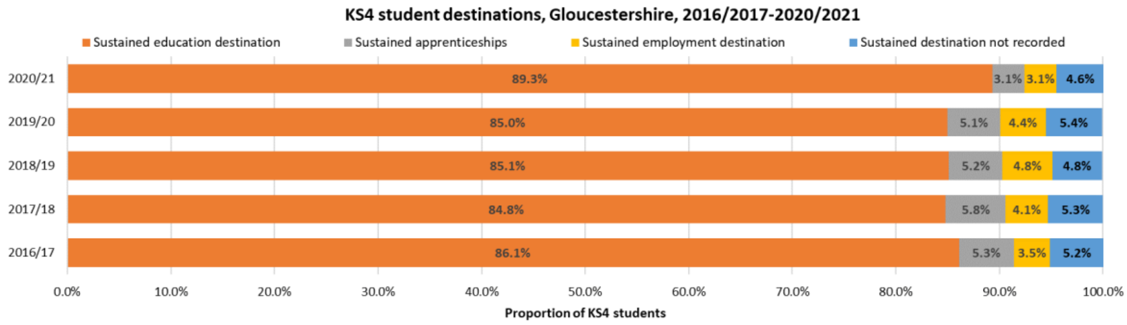

Figure 142: KS4 student destinations, Gloucestershire, 2016/2017-2020/2021[569]

Compared to its geographical neighbours, in 2020/21 Gloucestershire had the 4th highest proportion of students progressing to the next level of destinations and the 2nd highest proportion when compared to its statistical neighbours, putting it in the top 50% for both comparisons. Gloucestershire also had the 25th highest, within the top 10%, proportion of students progressing to an education, apprenticeship, or employment destination out of 151 county and unitary authorities.

[566] KS4 is equivalent to students undergoing their level 2 qualifications
[567] Studying at state-funded mainstream schools
[568] "To be counted in a level 4 or higher destination, students have to be recorded as having sustained participation for a 6 month period in the two-year destination window."- https://explore-education-statistics.service.gov.uk/find-statistics/progression-to-higher-education-or-training/2020-21
[569] Progression to higher education or training, GOV.UK https://explore-education-statistics.service.gov.uk/find-statistics/progression-to-higher-education-or-training/2020-21

Out of Gloucestershire's districts, the highest proportion of students progressing to an education, apprenticeship, or employment destination in 2020/2021 was Stroud with 97.2% of its students. Stroud consistently has one of highest proportions of students progressing as shown in Figure 143 below. In contrast, the Forest of Dean accounted for the lowest proportion of its students progressing with a figure of 93.7%, the Forest of Dean consistently performs in the lowest of Gloucestershire's districts.

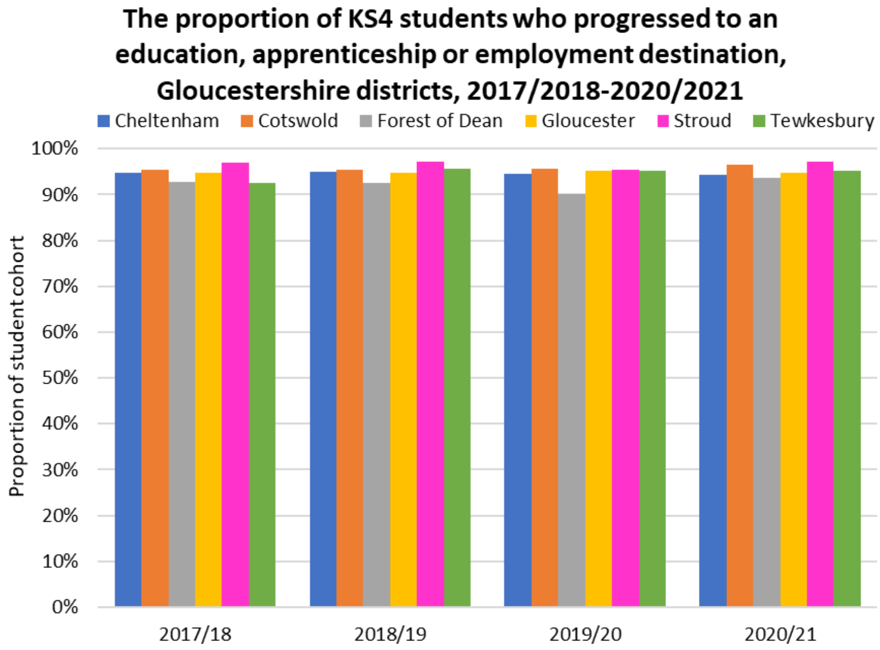

Figure 143: The proportion of KS4 students who progressed to an education, apprenticeship or employment destination, Gloucestershire districts, 2017/2018-2020/2021[570]

15.1.3 Level 3 destinations

This data refers to the destination students have obtained within two years of completing their study of a level 3 qualification when aged 16-18. Students either attended mainstream state-funded schools or colleges. Level 3 students can also be referred to as Key Stage 5 students.

Within two years, 64.1% of the 2018/19 level 3 student cohort had progressed to a sustained[571] level 4 or higher destination, this is higher than the South West proportion of 59.5%. For each of the cohorts for 2016/17 to 2018/19, Gloucestershire has had a higher rate of progression than the South West. In

[570] Kay stage 4 destination measures, GOV.UK Key stage 4 destination measures, Academic year 2020/21 – Explore education statistics – GOV.UK (explore-education-statistics.service.gov.uk)

[571] To be counted in a level 4 or higher destination, students have to be recorded as having sustained participation for a 6 month period in the two-year destination window. This participation can include activity in a single destination or a combination, as long as there are six consecutive months at level 4 or higher.

contrast, Gloucestershire had a lower proportion of the level 3 2018/2019 student cohort progressing to level 4 or higher destinations than England which had a 66.0% progression rate. England has had a higher proportion than Gloucestershire for all three cohorts in 2016/2017 to 2018/2019.

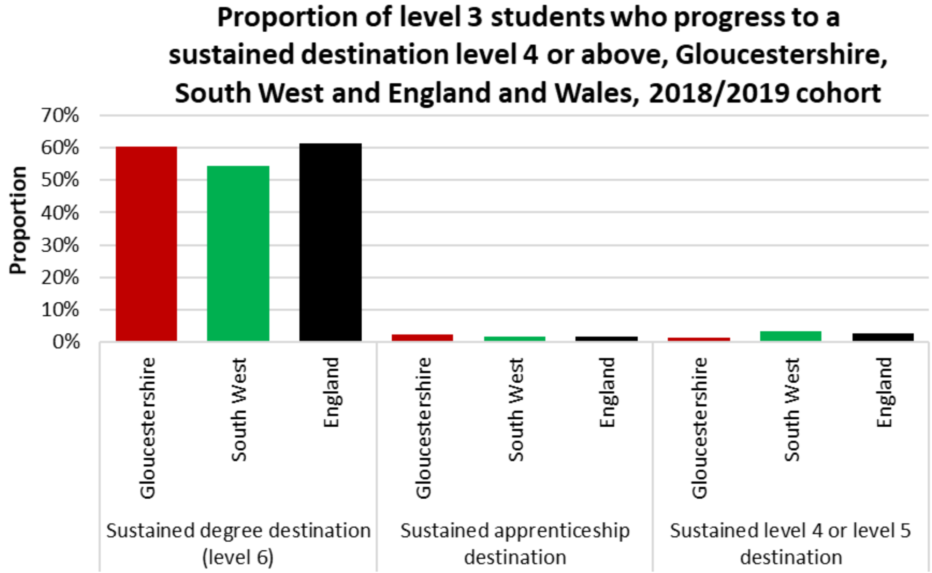

Figure 144: Proportion of level 3 students who progressed to a sustained destination level 4 or above, Gloucestershire, South West and England and Wales , 2018/2019 cohort[572]

In more detail, of the students who went on to a level 4 or higher destination: 60.5% of the 2018/19 cohort went on to a sustained degree destination, 2.3% to a sustained apprenticeship destination and 1.5% to a sustained level 4 or 5 destination as shown in Figure 144.

Compared to its England geographical neighbours, Gloucestershire had the 4th highest proportion of students progressing to level 4 or higher destinations and the 6th highest when compared to its statistical neighbours in England. Out of 147 county and unitary authorities[573], which have data for the 2018/2019 cohort, Gloucestershire was ranked 82nd highest for its proportion of level 3 students progressing onto a level 4 or higher destination.

15.2 Apprenticeships

Apprenticeships improve the skills of the incoming workforce by combining studying and working within a particular industry at the same time.

[572] Progression to higher education or training, GOV.UK https://explore-education-statistics.service.gov.uk/find-statistics/progression-to-higher-education-or-training

[573] Data is not available for City of London, Isles of Scilly, North Northamptonshire, West Northamptonshire and Buckinghamshire

Between 2017/2018 and 2021/2022, the number of apprenticeships started each year ranged between 3,790 and 4,330. Furthermore, there were between 8,120 and 8,790 people participating in apprenticeship schemes during the academic years shown in Figure 145, and there was between 1,610 and 3,000 apprenticeship achievements. In each of the categories shown, the number of apprenticeships was highest in 2017/2018 with fluctuation in numbers in the subsequent years.

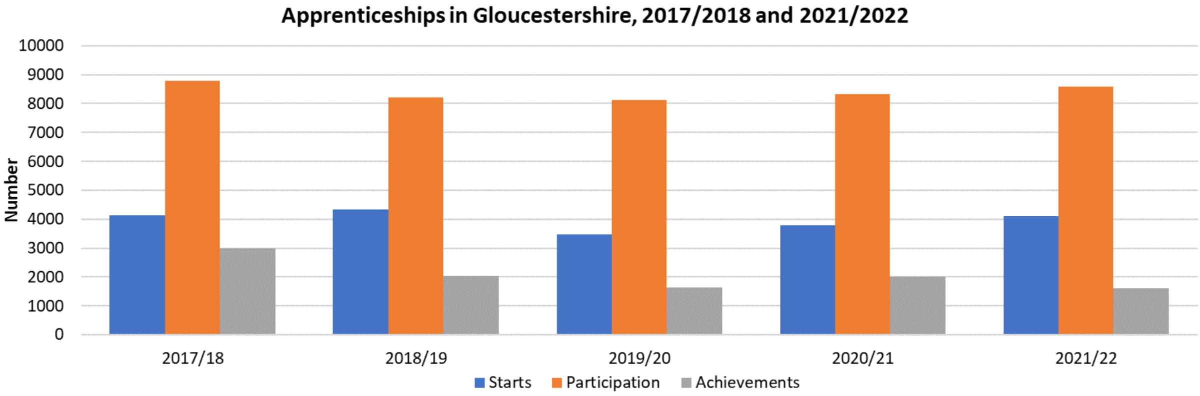

Figure 145: Apprenticeships in Gloucestershire, 2017/2018 and 2021/2022[574]

In 2021/2022 there were 2,186 people per 100,000 population participating in apprenticeships in Gloucestershire, this is a lower rate than the South West which had a participation rate of 2,477 people per 100,000 but higher than the England rate of 2,080 people per 100,000. Since 2017/2018 Gloucestershire has continuously had a lower participation rate than the South West and a higher rate than England since 2019/2020.

[574] Apprenticeships and traineeships, GOV.UK https://explore-education-statistics.service.gov.uk/find-statistics/apprenticeships-and-traineeships

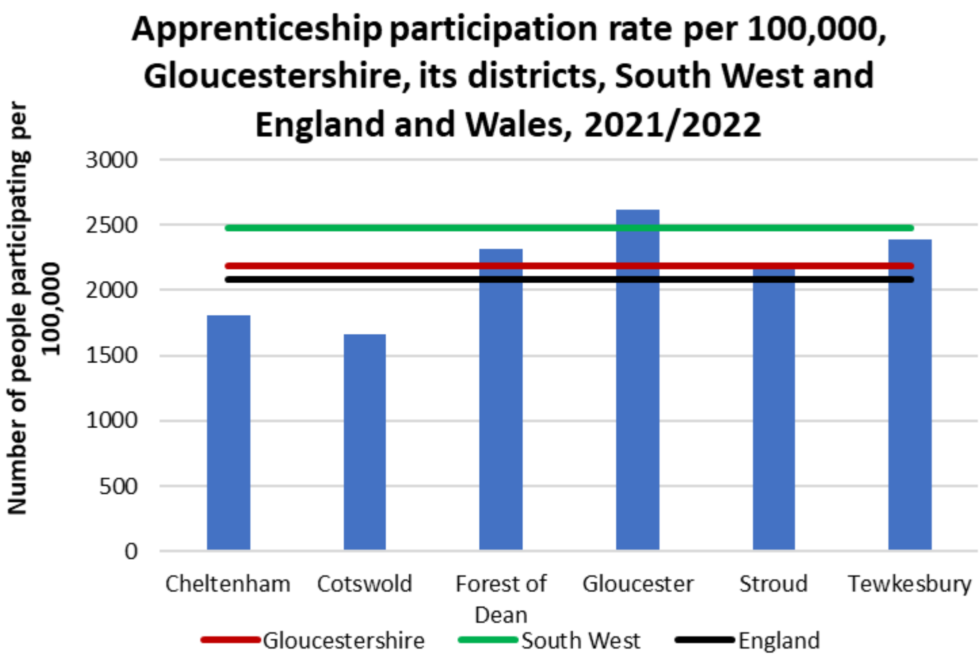

Figure 146: Apprenticeship participation rate per 100,000 in Gloucestershire, its districts, South West and England and Wales, 2021/2022[575]

Compared to its geographical neighbours, Gloucestershire had the 3rd highest apprenticeship participation rate per 100,000 in 2021/22, putting it in the top 25%, and the 8th highest when compared to its statistical neighbours, putting it in the middle. Furthermore, comparing to the 152 county and unitary authorities in England, Gloucestershire had the 65th highest apprenticeship participation rate per 100,000 population, putting it in the middle.

The district participation rate is also shown in Figure 146, it indicates that in 2021/2022 Gloucester had the highest number of people participating in apprenticeships with 2,621 per 100,000 population, this is equivalent to a crude figure of 2,220 apprentices being participated in. In contrast, Cotswold had the lowest participation rate with 1,661 per 100,000, equivalent to a crude number of 880 apprenticeships being participated in. In comparison to the 309 district and unitary authorities in England, Gloucester was in the 20% highest, at 35th, for its apprenticeship participation rate per 100,000 and Cotswold was placed in the lowest 20% at 255th.

15.3 Qualifications

The main measure of skills is in terms of the qualifications people hold. Gloucestershire has a slightly better qualified population than England and Wales and the South West. Figure 147 shows in 2021, those with Level 4 qualifications or above accounted for 38.3% of the 16-64 year old population in Gloucestershire, which was above the national and regional averages of 37.0%

[575] *Ibid.*

and 35.9% respectively. At the other end of the scale some 9.6% of Gloucestershire's 16-64 year olds had no qualifications. This was below the national average of 12.5% but in line with the regional average. Although the proportion of people with no qualifications is relatively small in Gloucestershire, it can have a significant impact on individuals and the ability of employers to find the skills they require. A report for the Centre of Cities states unemployment rates are two percentage points higher for people with no qualifications compared to those who have a degree[576].

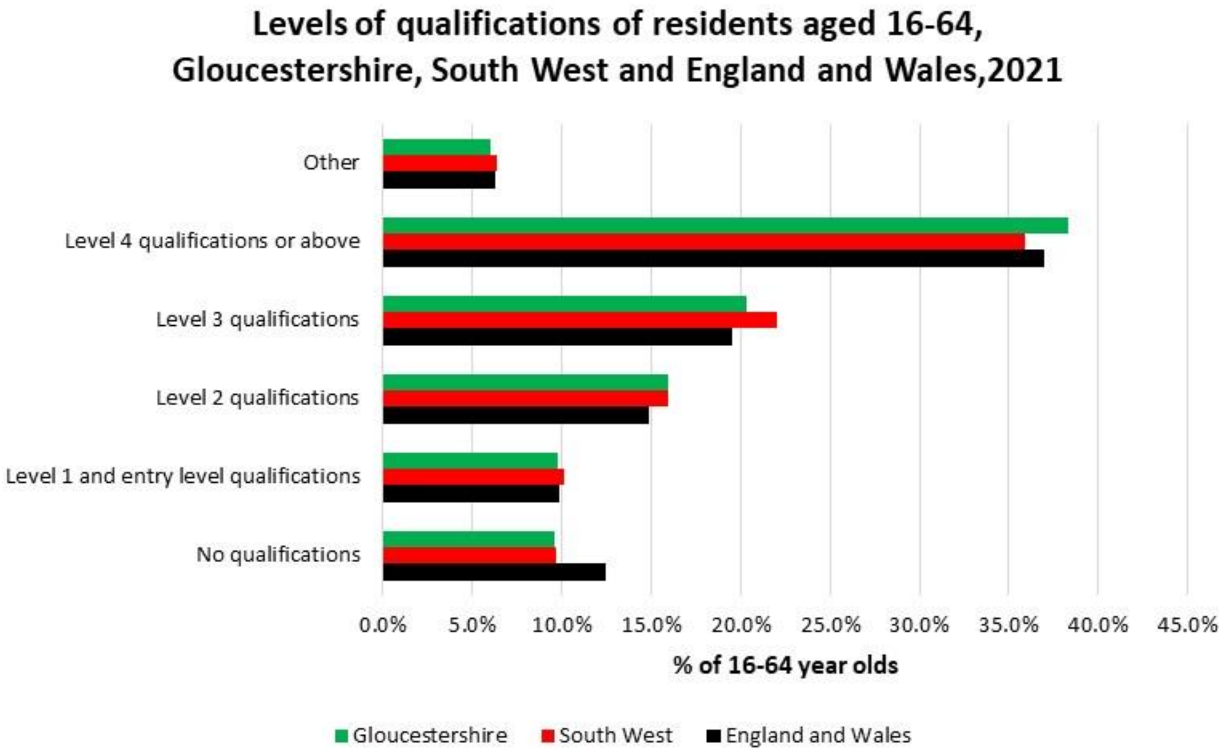

Figure 147: Levels of qualifications of residents aged 16-64, 2021[577]

When compared to other geographic areas, Gloucestershire compares well, sitting in the top 50% of both geographic and statistical neighbours for the proportion of residents with Level 4 + qualifications. It also compares well to other county and unitary authorities across the country, sitting in the top 40% of authorities. Conversely it is in the bottom 20% of authorities across England and Wales in terms of the proportion of residents with no qualifications and sits in the bottom 50% of statistical and geographic neighbours.

[576] The UK's Army of Unemployed People, Centre for Cities
[577] 2021 Census, ONS

Across the county there is considerable variation. Cheltenham and Cotswold have high levels of residents with Level 4+ qualifications, exceeding the county, regional and national average and sitting in the top 20% of district and unitary authorities across England and Wales. Stroud and Tewkesbury also compare well, exceeding the county, regional and national average sitting in the top 40% of authorities across England and Wales. The Forest of Dean and Gloucester have lower proportions of residents with Level 4 + qualifications than the national, regional and Gloucestershire average and are amongst the bottom 40% of authorities across England and Wales. Conversely the Forest of Dean and Gloucester have a higher proportion of residents with no qualifications than the regional and county average. Gloucester also has a higher proportion of residents with no qualifications than England and Wales. This shows that while overall Gloucestershire performs well in terms of skills there are significant differences across the county.

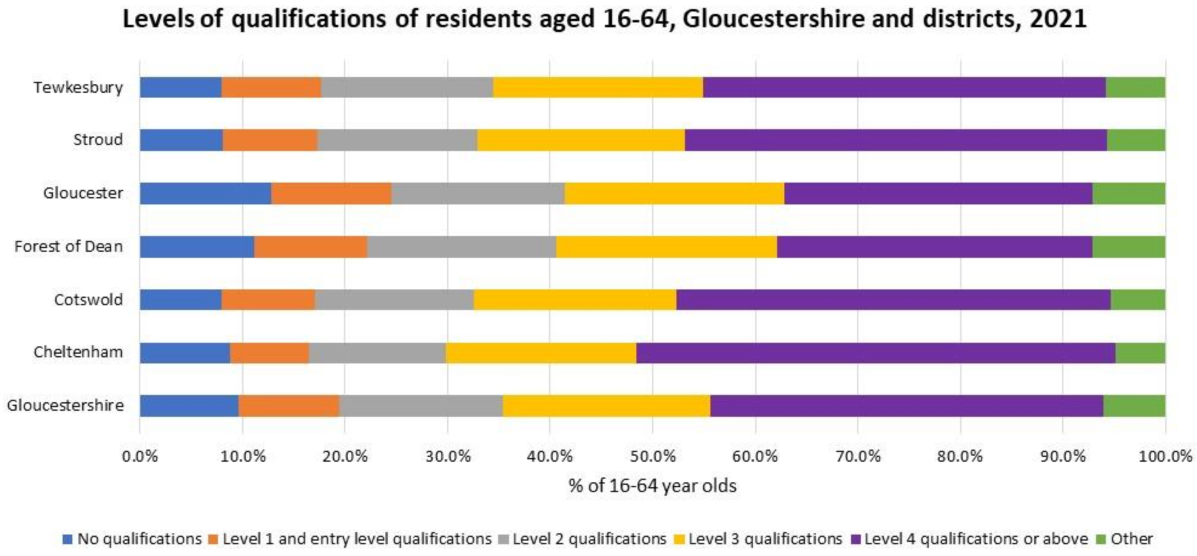

Figure 148: Levels of qualifications of residents aged 16-64, Gloucestershire and districts, 2021[578]

Unfortunately, due to changes in the questions asked it is not possible to use Census data to look at change over time in the qualification profile of residents. The Annual Population Survey (APS) is a good resource to understand changing qualification levels over time[579]. Data from the Annual Population Survey

[578] *Ibid.*

[579] It is worth noting that it is not recommended to compare results of the Census 2021 and the Annual Population Survey directly because of the sample based nature of the Annual Population Survey. The data provided by the Annual Population Survey also has health warnings it is a sample survey; it provides estimates of population characteristics rather than exact measures. In principle, many random samples could be drawn, and each would give different results, because each sample would be made up of different people, who would give different answers to the questions asked. Small sample sizes also mean data at district level is not reliable. In addition, data is missing for some county and unitary authorities meaning comparisons are limited.

suggests the proportion of Gloucestershire residents with Level 4+ qualifications increased from 38.5% in 2016 to 43.3% in 2021, far exceeding the growth observed in any other qualification level. However, Figure 149 shows the increase in Level 4+ qualifications seen in Gloucestershire was not as great as the increase seen nationally. Nationally there was also a decline in the proportion of residents with no qualifications, but this decline was not reflected in Gloucestershire which saw no change. This suggests that while qualification levels are improving in the county, they are not improving as quickly elsewhere which means Gloucestershire may lose its competitive advantage.

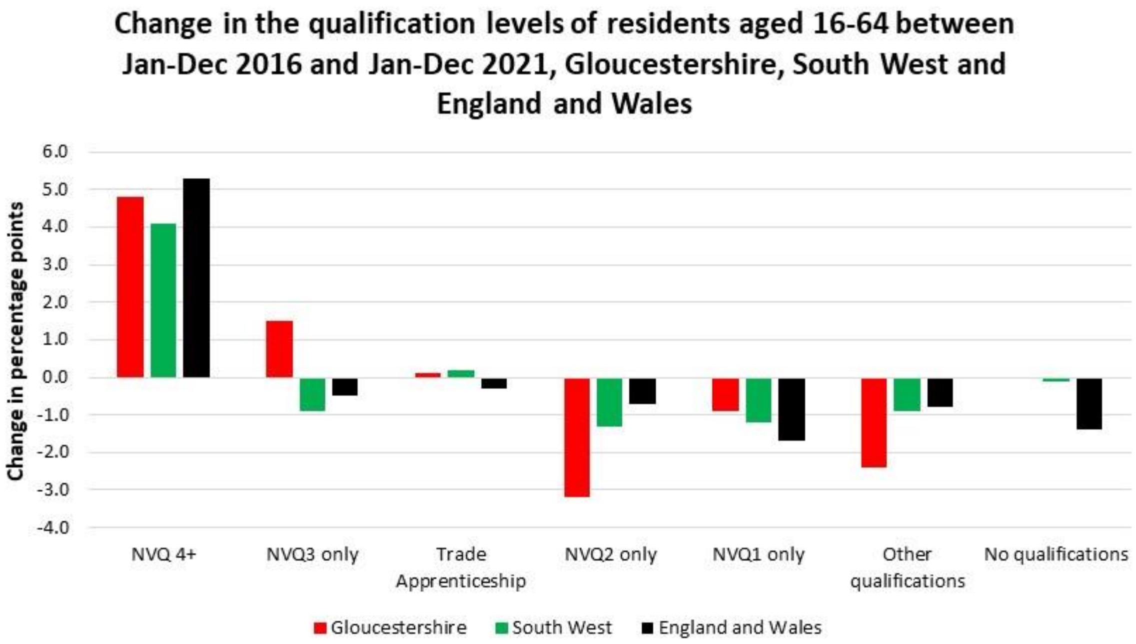

Figure 149: Change in the qualification levels of residents aged 16-64 between Jan-Dec 2016 and Jan-Dec 2021, Gloucestershire, South West and England and Wales[580]

When compared to its geographic and statistical neighbours the change observed in Gloucestershire was not uncommon. Around half of Gloucestershire's geographic neighbours and a third of its statistical neighbours saw a greater growth in Level 4+ qualifications than the county. Likewise, when looking at the change in those with no qualifications, around a third of Gloucestershire's geographic and statistical neighbours saw the same or a greater increase. It is worth noting that when confidence intervals are taken into account, the change in the qualifications levels at a county level are not statistically significant. This means it is not possible to determine whether observed changes are a result of true variation or sampling errors.

[580] Annual Population Survey, ONS

15.4 Current occupations

The high skill level of the population is reflected in the county's occupational structure. Managerial, Professional and Associate professional occupations feature highly in Gloucestershire, with these three groups accounting for 46.6% of employment in the county. This is slightly higher than the regional and national averages of 44.7% and 46.2%. At the other end of the scale 9.1% of employment is in Elementary occupations, lower than the regional average (10.0%) and national average (10.5%).

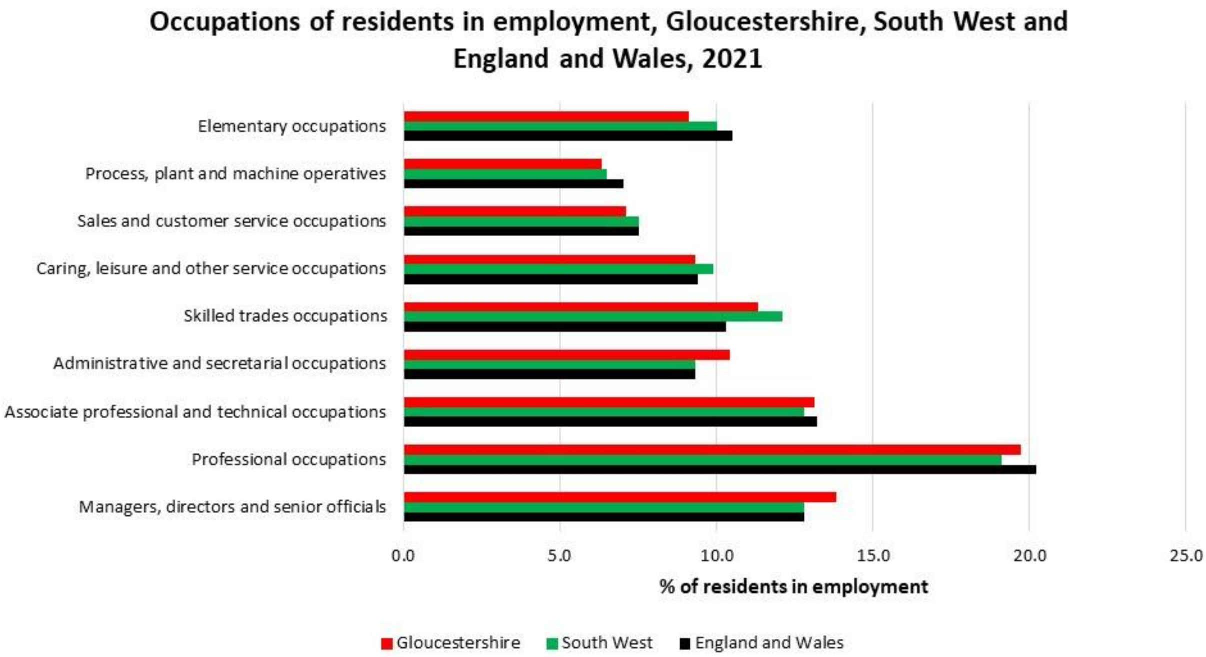

Figure 150: Occupations of residents in employment, Gloucestershire, South West and England and Wales, 2021[581]

When compared to other geographic areas Gloucestershire compares well. The county sits in the top 50% of both geographic and statistical neighbours for the proportion of residents employed in Managerial, Professional or Associate professional occupations. It also compares well to authorities across the country with a rank of 61 out of 174 putting it in the top 40% of county and unitary authorities nationally. Conversely it is in the bottom 40% of authorities across England and Wales in terms of the proportion of residents employed in Elementary occupations and compares well to its statistical and geographic neighbours.

Figure 151 shows that across the county there is some variation. Cheltenham, Cotswold, Stroud, and Tewkesbury have high levels of residents employed in Managerial, Professional and Associate professional occupations, exceeding the county, regional and national average and sitting in the top 40% of district and

[581] 2021 Census, ONS

unitary authorities across England and Wales. Conversely the proportion of residents in the Forest of Dean and Gloucester employed in Managerial, Professional and Associate professional occupations is lower than the country, regional and Gloucestershire average and puts them in the bottom 40% of authorities across England and Wales. In the Forest of Dean, the proportion of residents employed in Skilled trades stands out, exceeding the regional and county average and putting it in the top 20% of district and unitary authorities across England and Wales. Gloucester stands out as having a higher proportion of residents employed in Process, plant and machine operative occupations and Caring, leisure and other service occupations exceeding the county, regional and national average and sitting in the top 40% of authorities across the country.

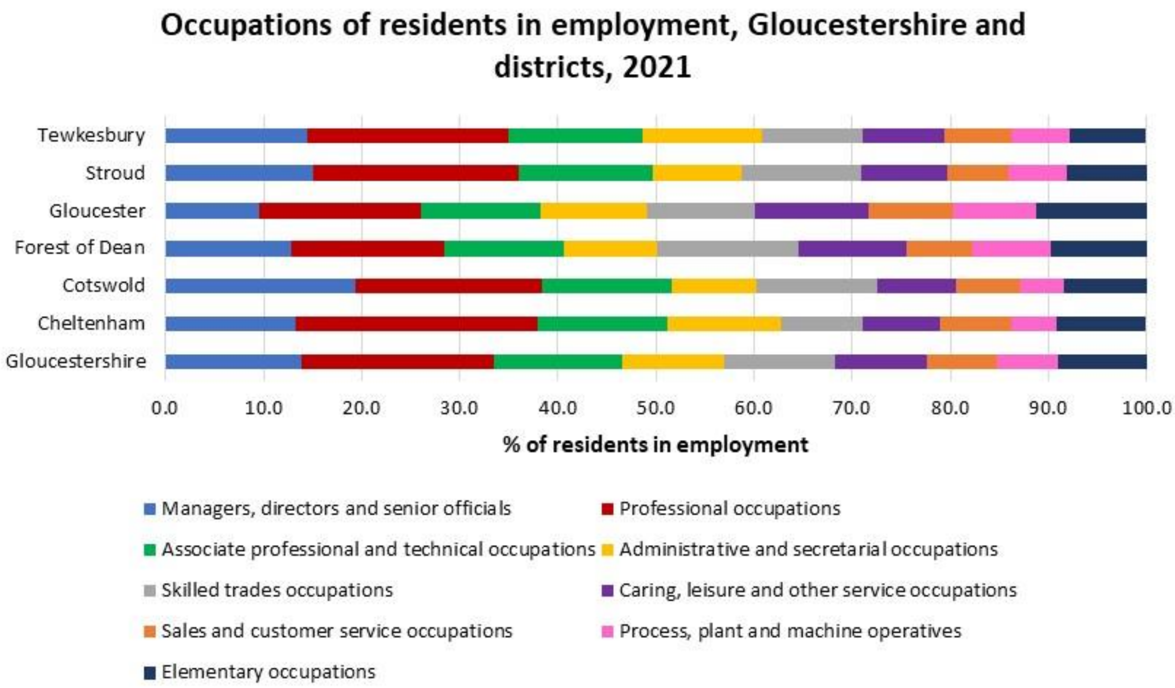

Figure 151: Occupations of residents in employment, Gloucestershire and districts, 2021[582]

Unfortunately, changes in the questions asked means it is not possible to use Census data to look at changes in the occupation structure over time. The Annual Population Survey (APS) is a good resource for understanding this but as mentioned previously has limitations.

The proportion of Gloucestershire residents employed in Professional occupations increased from 19.0% in 2016 to 21.8% in 2021, far exceeding the growth observed in other occupations. However, Figure 152 shows the increase in Professional occupations seen in Gloucestershire was not as great as the

[582] *Ibid.*

increase seen nationally. In addition, while Gloucestershire, the South West and England and Wales all saw a decline in the proportion of residents employed in Managerial occupations, this decline was greater in Gloucestershire than at a regional and national level. Gloucestershire also saw a smaller decline in Elementary occupations than observed at a regional and national level. This suggests that while the skill level of jobs is increasing in Gloucestershire it is not increasing as quickly as elsewhere. If this continues, Gloucestershire may lose the advantage of having higher skilled jobs than other areas.

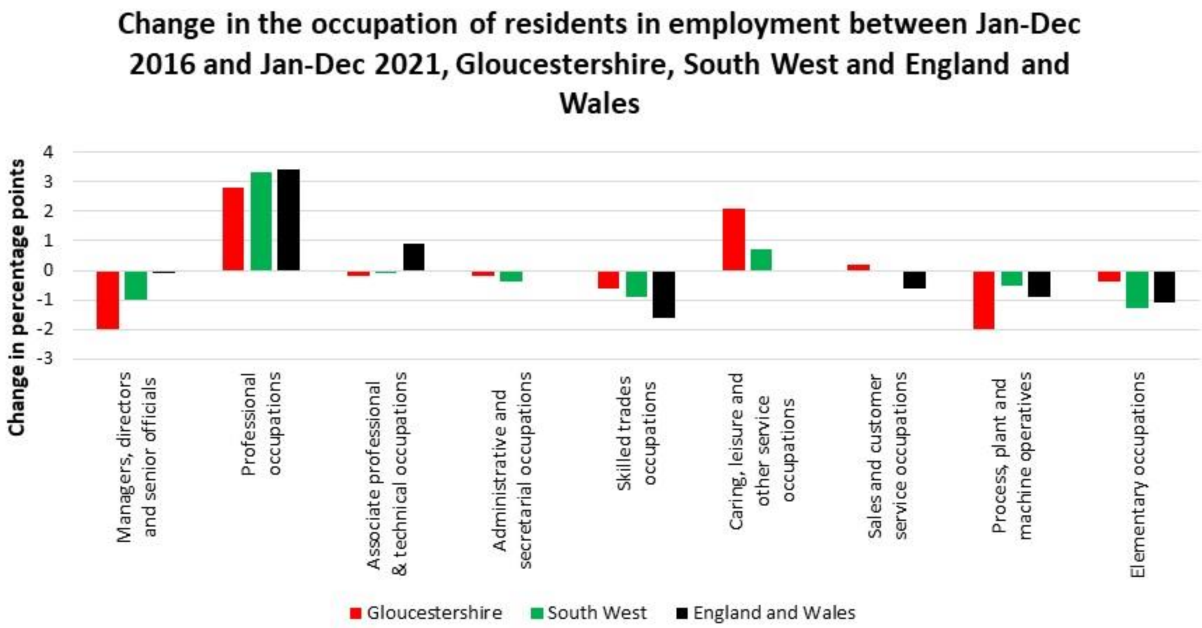

Figure 152: Change in the occupation of residents in employment between Jan-Dec 2016 and Jan-Dec 2021, Gloucestershire, South West and England and Wales[583]

When compared to its geographic and statistical neighbours, Gloucestershire generally sees similar levels of growth across the different occupational groups. However, Figure 153 and Figure 154 show it does stand out as seeing higher growth than most areas in terms of Caring, leisure and other service activities. Figure 155 and Figure 156 show Gloucestershire saw a smaller decline in Elementary occupations than most of its geographic and statistical neighbours. It is worth noting that when confidence intervals are taken into account the change in occupations at a county level are not statistically significant. This means it is not possible to determine whether observed changes are a result of true change or sampling errors.

[583] Annual Population Survey, ONS.

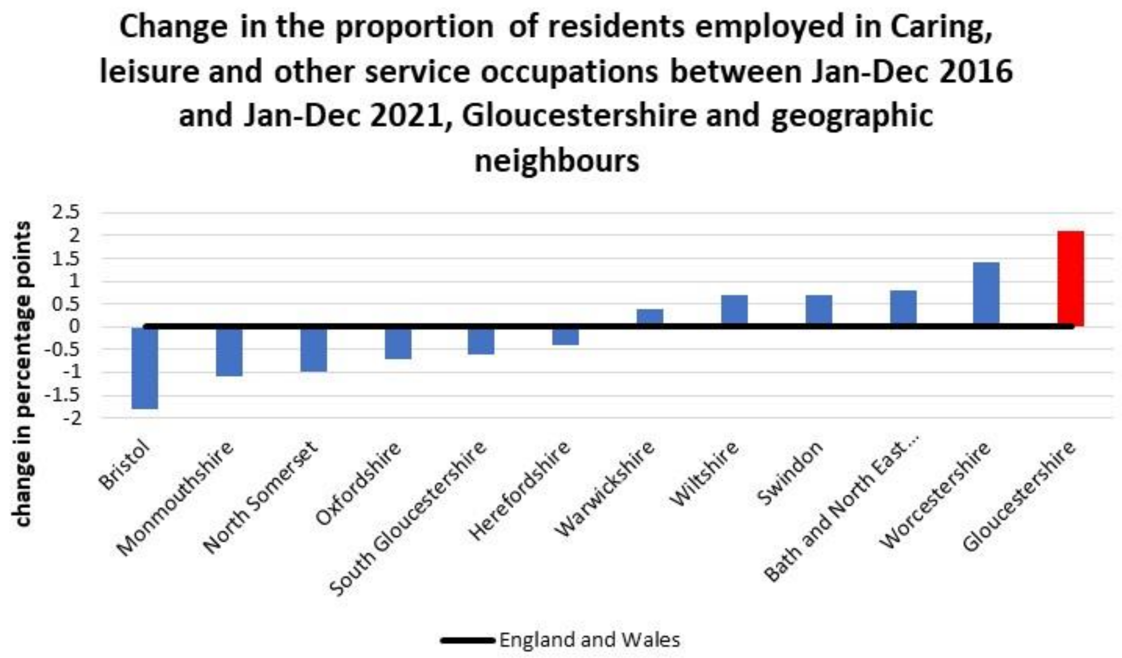

Figure 153: Change in the proportion of residents employed in Caring, leisure and other service occupations between Jan-Dec 2016 and Jan-Dec 2021, Gloucestershire and geographic neighbours[584]

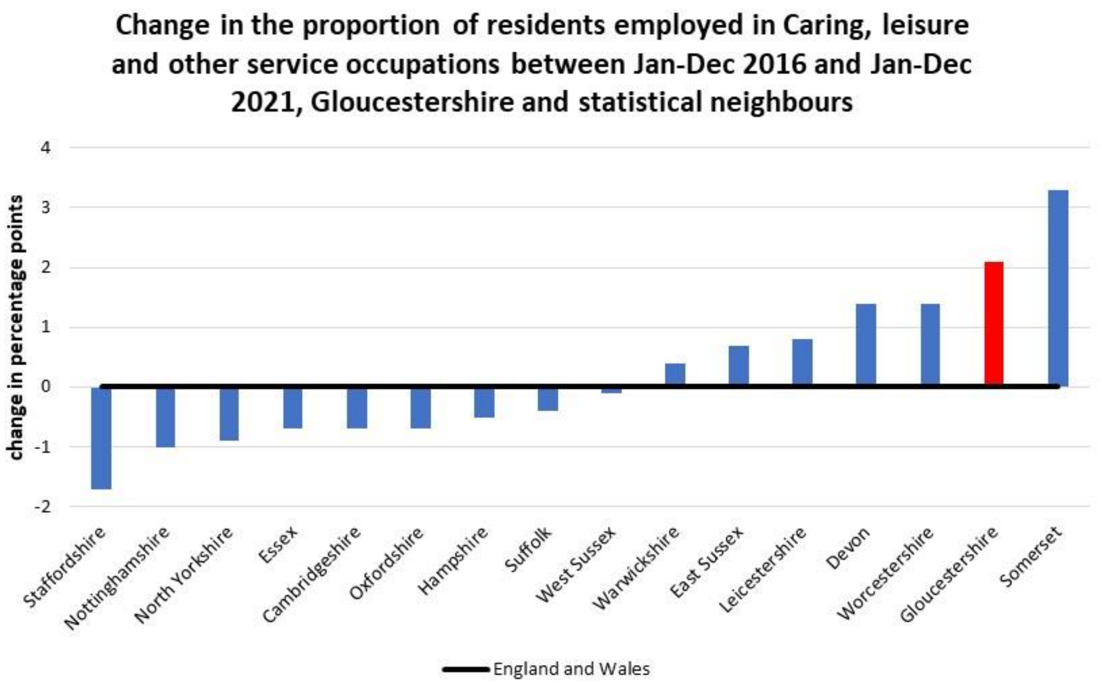

Figure 154: Change in the proportion of residents employed in Caring, leisure and other service occupations between Jan-Dec 2016 and Jan-Dec 2021, Gloucestershire and statistical neighbours[585]

[584] *Ibid.*

[585] *Ibid.*

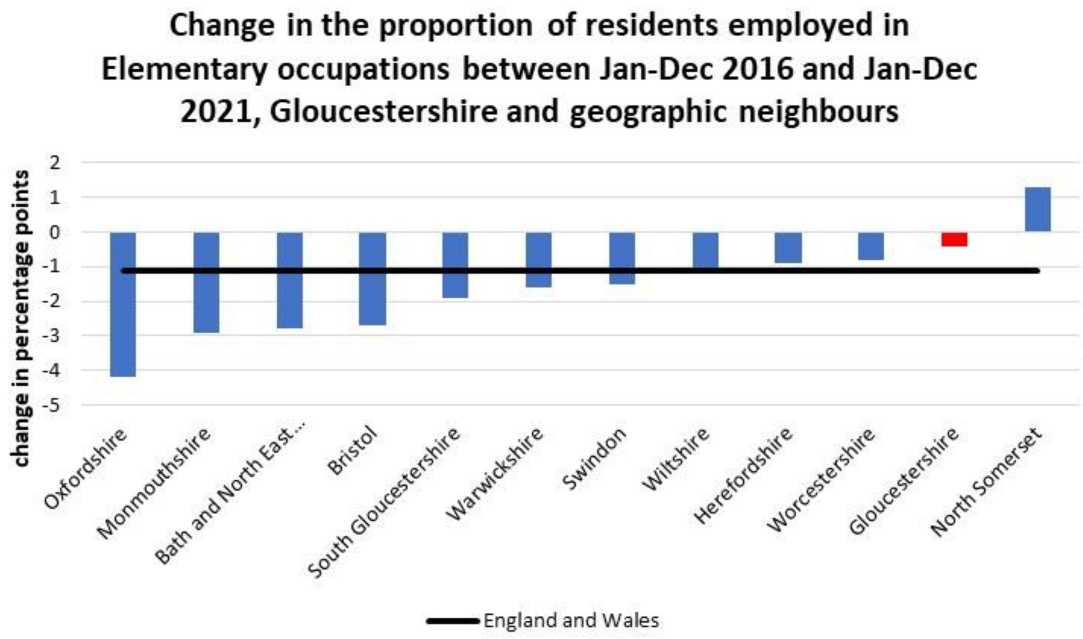

Figure 155: Change in the proportion of residents employed in Elementary occupations between Jan-Dec 2016 and Jan-Dec 2021, Gloucestershire and geographic neighbours[586]

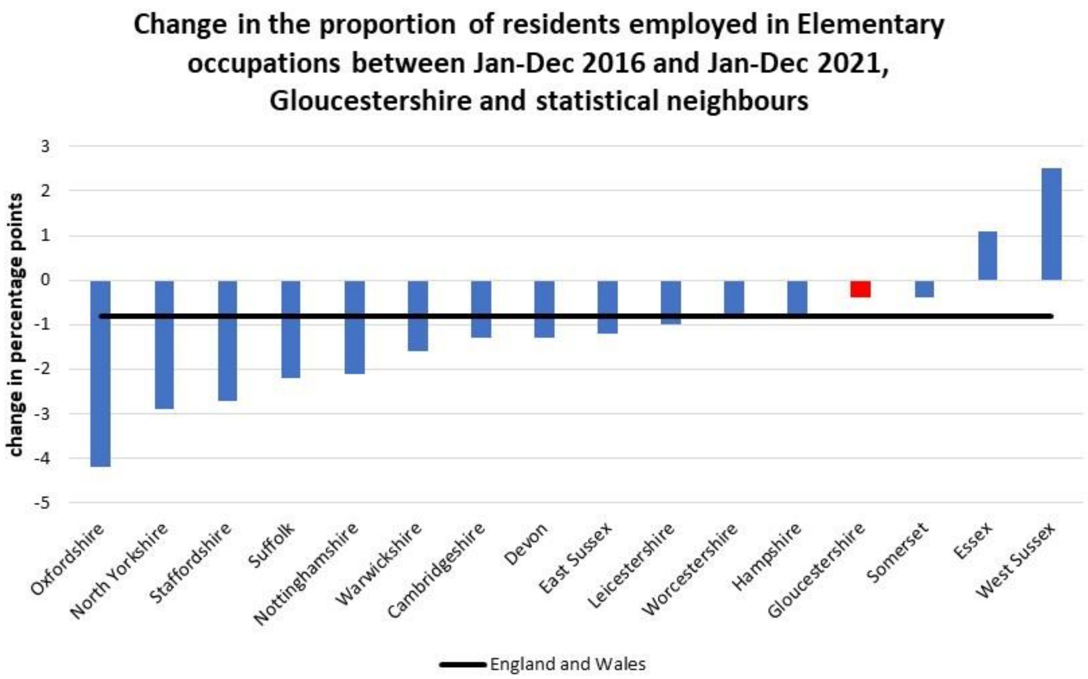

Figure 156: Change in the proportion of residents employed in Elementary occupations between Jan-Dec 2016 and Jan-Dec 2021, Gloucestershire and statistical neighbours[587]

586 *Ibid.*

587 *Ibid.*

15.4.1 Balance between qualifications and occupations

In order to realise the benefits of economic growth, local economies need a good match between labour demand and labour supply – the right skill levels and the right sort of jobs.

Comparing qualification and occupation data from the census suggests there is some evidence of a skills mismatch in the county. Figure 157 shows 26.2% of people in Gloucestershire employed in Level 2 occupations (associated with general education and some degree of work based training /experience) hold a Level 4 + qualification. This increases to 39.5% for Level 3 jobs (associated with a period of post-compulsory education but not normally to degree level). This suggests there are more highly qualified people than there are jobs for them. This is not unique to Gloucestershire but is also reflected at a national level.

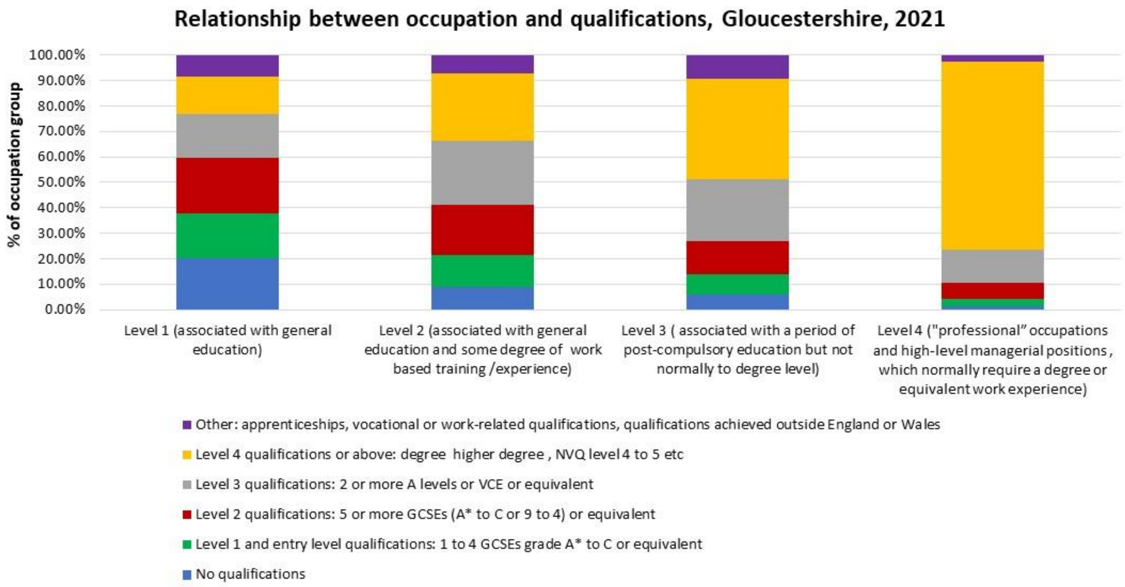

Figure 157: Relationship between occupation and qualifications, Gloucestershire, 2021[588]

15.5 Future occupations

Economic projections are only available for Gloucestershire, its districts, the South West and UK. This means it is not possible to compare to other areas and the UK has been used as the national average rather than England and Wales.

15.5.1 2021 to 2031

Economic projections generated by Oxford Economics, provide an indication of future economic growth and predict potential changes in employment. These projections are presented as a guide, they do not consider the impact of current policies and initiatives.

[588] 2021 Census, ONS

Looking over the 10 years 2021-2031, the three occupations projected to see the greatest growth in Gloucestershire are: Professional occupations; Managers, directors and senior officials; and Caring, leisure and other service occupations. Figure 158 shows these occupations are also expected to see some of the greatest growth at a national and regional level. These occupations are expected to see greater growth in Gloucestershire than the UK, but lower growth than the South West.

Four occupations are projected to see a decline in employment between 2021 and 2031 at a county level, these are: Sales and customer service occupations; Skilled trades, Process, plant and machine operatives; and Elementary occupations. Interestingly only Sales and customer service occupations are expected to decline at a national and regional level, with the other occupations expected to see growth. It is worth noting that those occupations which are forecast to decline are generally those that are lower skilled, while higher skilled occupations are projected to experience growth suggesting a shift to a higher skilled economy.

In absolute numbers the greatest increase in occupations in Gloucestershire is expected to be in Professional occupations and Managers, directors and senior officials. Conversely the greatest fall is projected to be in Sales and customer service occupations.

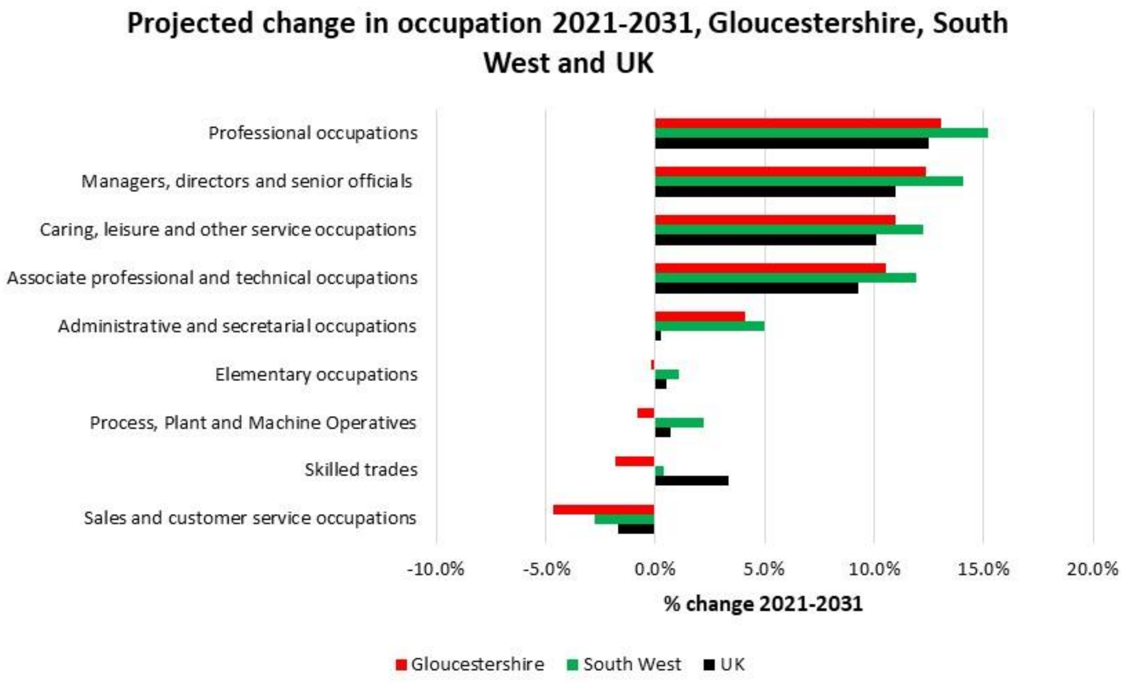

Figure 158: Projected change in occupation 2021-2031, Gloucestershire, South West and UK[589]

[589] Oxford Economics

Figure 159 shows at district level there is some variation. In Cheltenham, the greatest growth is projected to be in Managers, directors and senior officials; Professional occupations; and Associate professionals and technical occupations. Growth in these occupations is projected to be lower than that seen at a county, regional and national level. Process, plant and machine operatives and Skilled trades which are expected to decline at county level are expected to see some growth in Cheltenham. Two occupations are expected to see declining numbers in Cheltenham, these are Sales and customer service occupations and Elementary occupations. The decline in Sales and customers service occupations is reflected at a county, regional and national level, while Elementary occupations are expected to grow at a regional and national level but fall in Gloucestershire.

In Cotswold, projected occupational change is very similar to that seen in Cheltenham. The main difference is that Cotswold is expected to see a decline in Skilled trades and a small increase in Elementary occupations.

The Forest of Dean and Gloucester are projected to broadly follow the picture seen at county level. The greatest growth is projected to be in Professional occupations; Managers, directors and senior officials; and Caring, leisure and other service occupations. Conversely Sales and customer service occupations; Skilled trades; Process, plant and machine operatives; and Elementary occupations are projected to see declining numbers. In addition, Administrative and secretarial occupations are forecast to decline in Gloucester.

Caring, leisure and other service occupations are expected to see the greatest growth in Stroud, followed by Managers, directors and senior officials and Professional occupations. Growth in Caring, leisure and service occupations is expected to exceed that seen at a county, regional or national level. Three occupations are projected to decline in Stroud, Sales and customer service occupations; Process, plant and machine operatives; and Skilled trades. Elementary occupations which are projected to decline at a county level are forecast to see some growth in Stroud.

In Tewkesbury, the greatest growth is projected to be in Professional occupations; Managers directors and senior officials; and Caring, leisure and other service occupations. This reflects the occupations projected to see the highest growth at a county, regional and national level, although growth in Tewkesbury is projected to be higher than these areas. Two occupations are expected to decline in Tewkesbury, these are Process, plant and machine operatives and Skilled trades. Sales and customer service occupations which are forecast to decline at a county, regional and national level are expected to increase in Tewkesbury. Tewkesbury is also expected to see an increase in Elementary occupations despite falls at a county level.

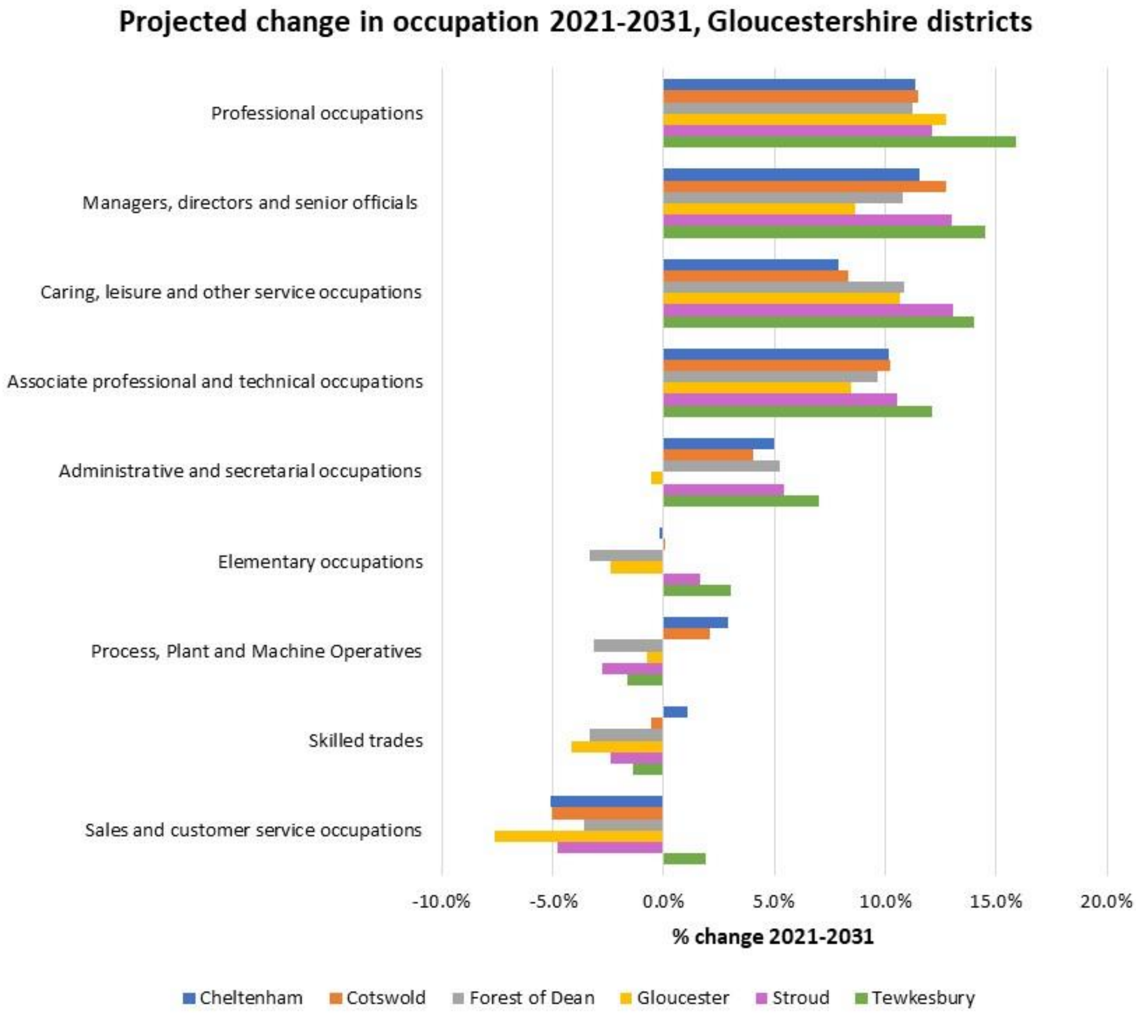

Figure 159: Projected change in occupation, 2021-2031, Gloucestershire districts[590]

15.5.2 2021-2050

Figure 160 shows that when looking over the longer period 2021-2050, four occupations are projected to see growth in the county, these are: Caring, leisure and other service occupations; Professional occupations; Managers, directors and senior officials; and Associate professional and technical occupations. These occupations are also expected to see growth at a national and regional level. However, growth in the South West and the UK is expected to be greater than in Gloucestershire.

The remaining five occupations are projected to see a decline in employment between 2021 and 2050, with the greatest decline expected to be in Sales and customer service occupations. Interestingly Skilled trades is projected to decline at a county and regional level and increase nationally, while Administrative and secretarial occupations are expected to grow across the South West but decline at a county and national level. It is worth noting that as with the projections for

[590] *Ibid.*

the period 2021-2031, those occupations which are forecast to decline are generally those that are lower skilled, while higher skilled occupations are projected to experience growth.

In absolute numbers the greatest increase in occupations in Gloucestershire is expected to be in Professional occupations and Managers, directors and senior officials. Conversely the greatest fall is projected to be in Sales and customer service occupations.

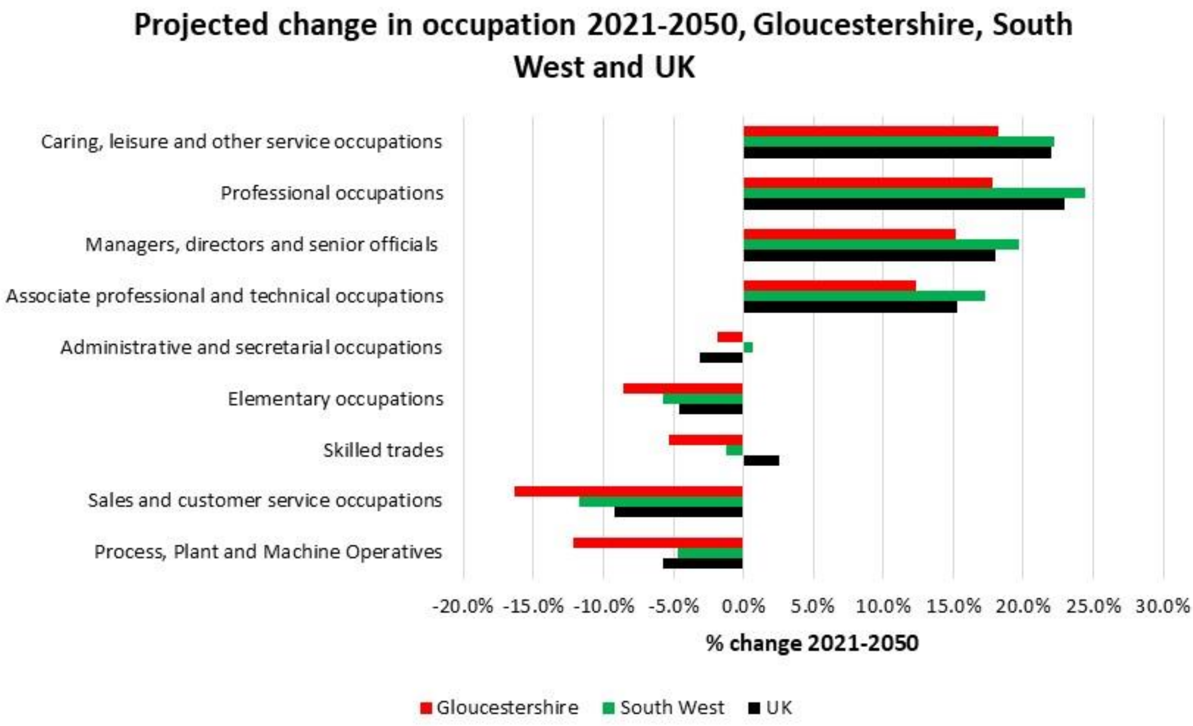

Figure 160: Projected change in occupation 2021-2050, Gloucestershire, South West and UK[591]

At a district level there is some variation. Figure 161 shows in Cheltenham the greatest growth is projected to be in Professional occupations, followed by Managers, directors and senior officials. Administrative and secretarial occupations and Skilled trades, which are expected to decline at county level are expected to see some growth in Cheltenham. Three occupations are expected to see declining numbers in Cheltenham, these are Sales and customer service occupations; Elementary occupations; and Process, plant and machine operatives.

In Cotswold, the greatest growth is projected to be in Managers, directors and senior officials and Caring, leisure and other service occupations. Skilled trades which are projected to see a decline across the county is expected to see no

591 *Ibid.*

change in Cotswold. The number of people employed in Sales and customer service occupations; Elementary occupations; Process, plant and machine operatives; and Administrative and secretarial occupations are projected to fall in Cotswold, reflecting the decline expected at a county level.

In the Forest of Dean, the greatest growth is projected to be in Caring, leisure and other service occupations followed by Professional occupations. This reflects the occupations projected to see the highest growth at a county level. Four occupations are projected to see a decline between 2021 and 2050, these are: Process, plant and machine operatives; Sales and customer service occupations; Elementary occupations; and Skilled trades, all of which are expected to decline at a county level. Administrative and secretarial occupations are projected to increase in the Forest of Dean but decline at a county level.

In Gloucester and Stroud, projected occupational change is very similar to that expected at a county level. Four occupations are projected to see growth, these are: Caring, leisure and other service occupations; Professional occupations; Managers, directors and senior officials; and Associate professional and technical occupations. The remaining five occupations are projected to see a decline in employment between 2021 and 2050, with the greatest decline projected to be in Sales and customer service occupations.

In Tewkesbury the picture is very similar to the county, however Administrative and secretarial activities are expected to increase in Tewkesbury but decline at a county level.

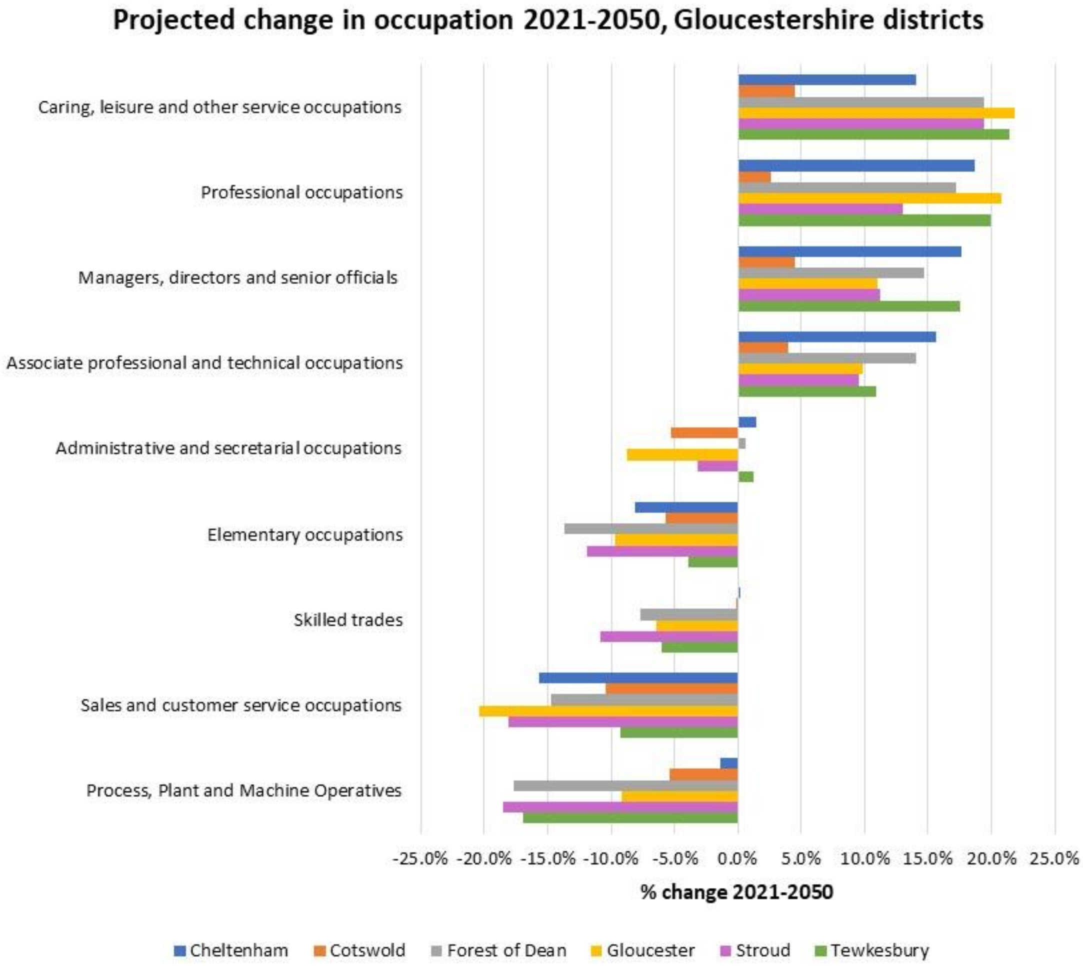

Figure 161: Projected change in occupation 2021-2050, Gloucestershire districts[592]

15.6 Replacement demand

Economic projections are only available for Gloucestershire, its districts, the South West and UK. This means it is not possible to compare to other areas and the UK has been used as the national average rather than England and Wales.

15.6.1 2021-2031

Replacement demand is the number of openings created by people leaving the labour market on a temporary basis (such as maternity leave or sickness) or on a permanent basis for example those retiring or dying.

It is estimated that Gloucestershire's economy will require 182,708 new workers between 2021 and 2031, with 168,891 (or 92%) resulting from replacement demand. This highlights the continuing need to replace the higher skill levels of experienced workers leaving the labour market. Replacement demand will also have a significant impact on the regional and national economy, although to a lesser extent than in Gloucestershire, with forecasts suggesting replacement

[592] *Ibid.*

demand will account for 88% of growth in jobs across the South West and 89% across the UK.

At district level replacement demand is projected to account for a varying extent of growth. Figure 162 shows it will potentially have the greatest impact in the Forest of Dean where it is projected to account for 99% of growth, it is expected to have the smallest impact in Tewkesbury where 87% of growth is attributed to replacement demand.

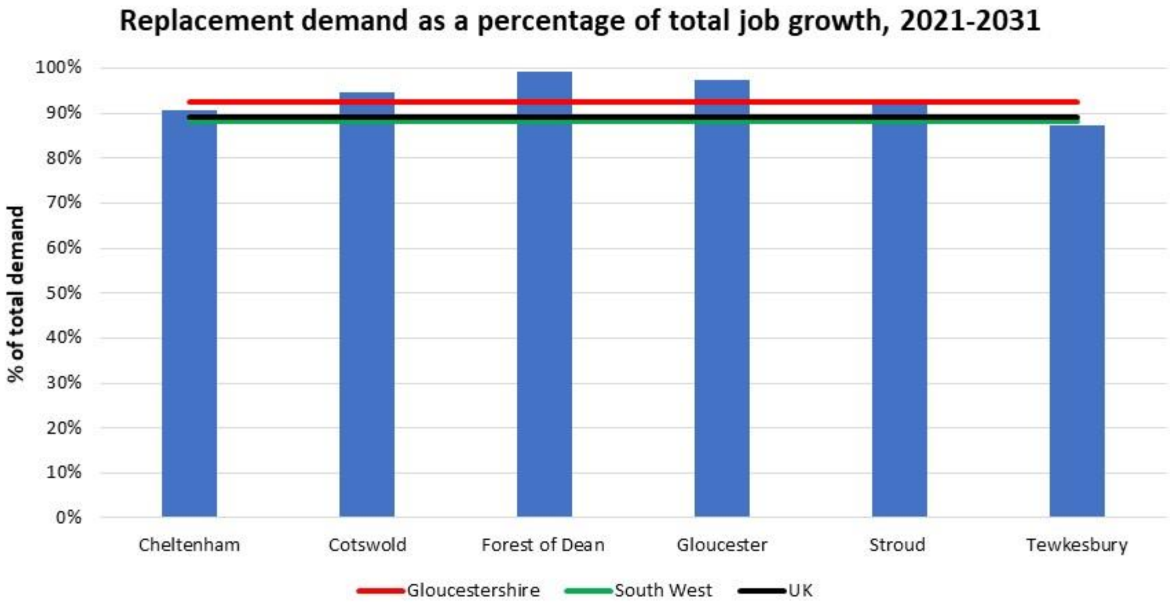

Figure 162: Replacement demand as a percentage of total job growth, 2021-2031[593]

All occupations are expected to see growth as a result of replacement demand. This differs from the picture seen when looking at expansion growth which saw several occupations seeing declining numbers. The greatest growth as result of replacement demand in Gloucestershire is projected to be in Professional occupations, followed by Caring, leisure and other service occupations. This reflects the picture seen across the South West, while across the UK the greatest growth is expected in Professional occupations followed by Elementary occupations.

[593] *Ibid.*

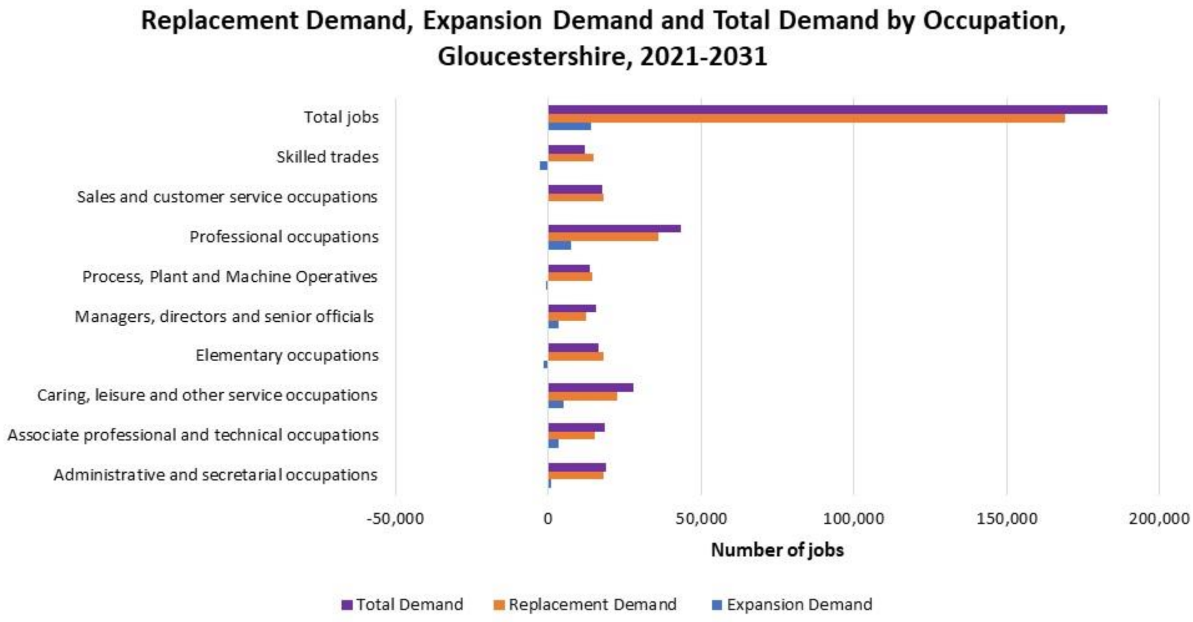

Figure 163: Replacement Demand, Expansion Demand and Total Demand by Occupation, Gloucestershire, 2021-2031[594]

Most districts follow the picture seen at county level, with replacement demand projected to result in the greatest growth in Professional occupations followed by Caring, leisure and other service occupations. The exception is Cheltenham where the second largest growth is projected in Administrative and secretarial occupations.

15.6.2 2021-2050

Looking over the longer period 2021-2050, it is estimated that Gloucestershire's economy will require 531,696 new workers, with 521,944 (or 98%) resulting from replacement demand. Replacement demand will also have a significant impact on the regional and national economy, although to a lesser extent than in Gloucestershire with forecasts suggesting replacement demand will account for 95% of growth across the South West and 94% across the UK.

At district level replacement demand is projected to account for a varying extent of growth. Figure 164 shows it will potentially have the greatest impact in the Forest of Dean where jobs as a result of expansion are projected to decline, meaning replacement demand is expected to account for 101% of total job growth. Replacement demand is projected to have the lowest impact in Cheltenham and Tewkesbury, where 96% of growth is expected to be attributed to replacement demand.

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[594] *Ibid.*

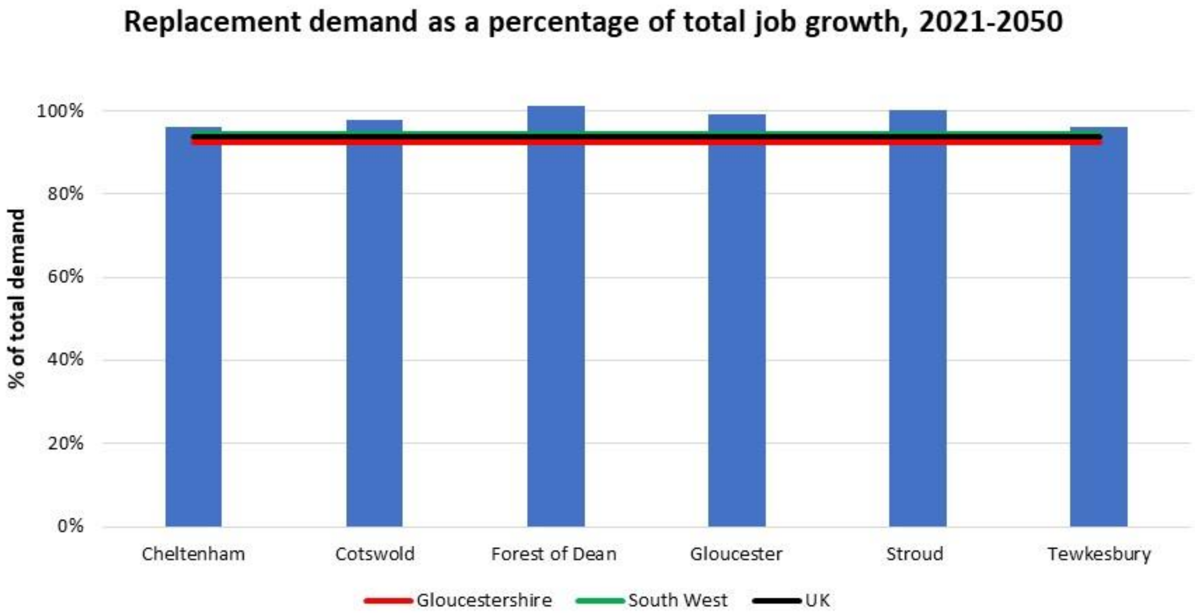

Figure 164: Replacement demand as a percentage of total job growth, 2021-2050[595]

All occupations are expected to see growth because of replacement demand, this differs from the picture seen when looking at expansion growth which saw several occupations with declining numbers. Figure 165 shows the greatest growth as result of replacement demand in Gloucestershire is projected to be in Professional occupations, followed by Caring, leisure and other service occupations. This reflects the picture seen across the South West while across the UK the greatest growth is expected in Professional occupations followed by Elementary occupations.

[595] *Ibid.*

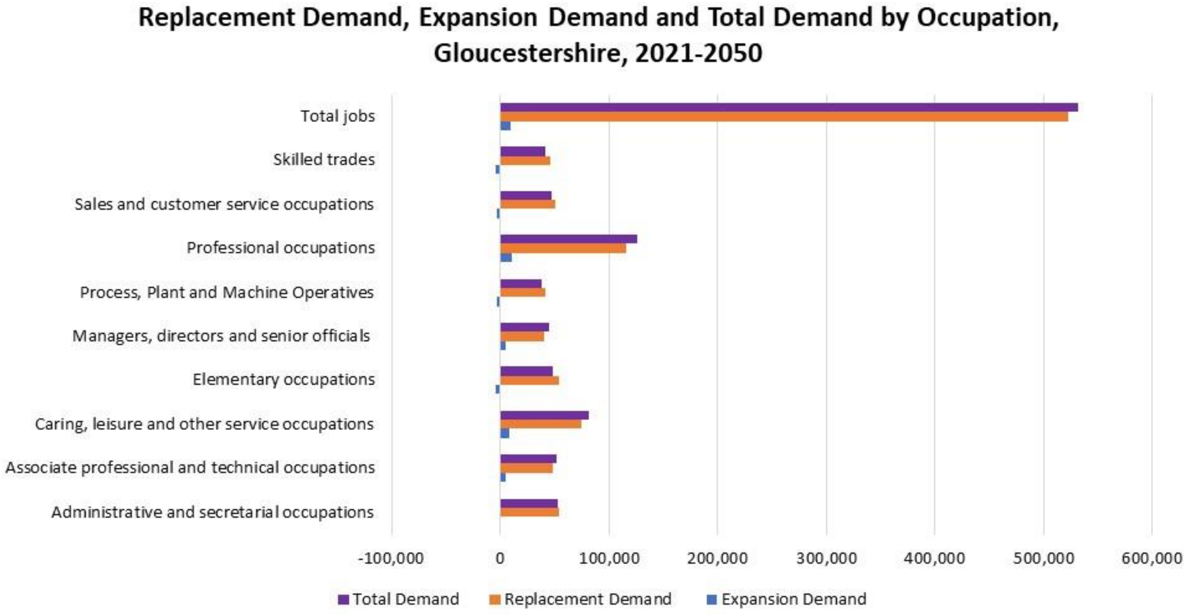

Figure 165: Replacement Demand, Expansion Demand and Total Demand by Occupation, Gloucestershire, 2021-2050[596]

Most districts follow the picture seen at county level, with replacement demand projected to result in the greatest growth in Professional occupations followed by Caring, leisure and other service occupations. The exception was the Forest of Dean where the greatest growth was projected to be in Caring, leisure and other service activities followed by Professional occupations.

16. Employment and jobs

16.1 Current jobs

The demand for labour relates to the job opportunities within the economy and will be influenced by industrial change and the location and performance of companies. Key indicators relating to the demand for labour include the number of jobs, job density, workplace-based employment, and job vacancies.

The total number of jobs in Gloucestershire amounted to 342,000 in 2021. This figure is a workplace measure and includes employees, self employed, government supported trainees and HM Forces. The largest number of jobs were in Gloucester (75,000) and Cheltenham (74,000) and the smallest in the Forest of Dean (30,000), broadly reflecting the distribution of population.

[596] *Ibid.*

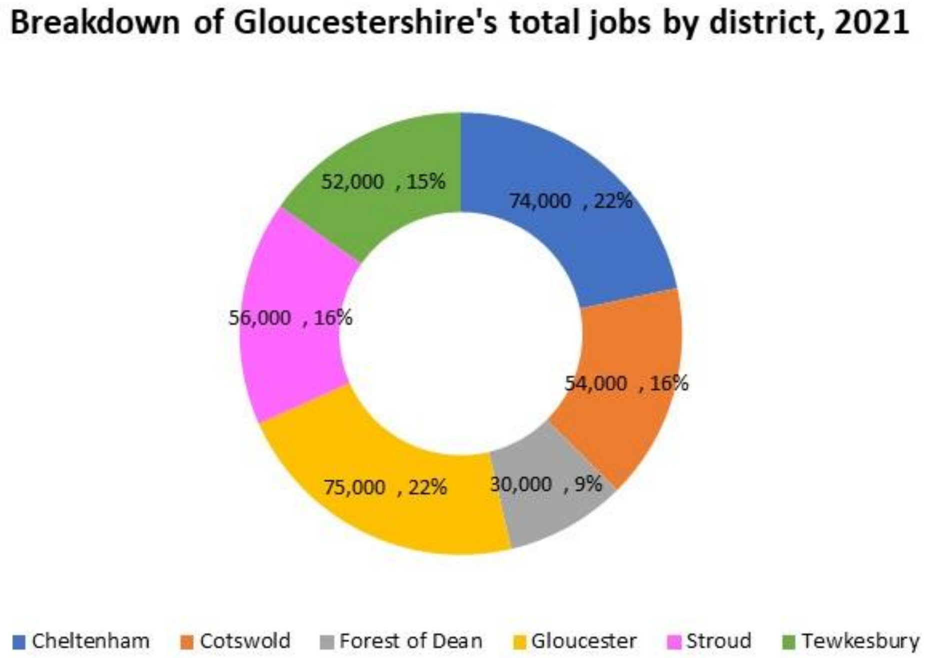

Figure 166: Breakdown of Gloucestershire's total jobs by district, 2021[597]

Over the last five years, the number of jobs in Gloucestershire increased by 6,000 or 1.8%. This was below the rate of growth seen across the South West (2.8%) and England and Wales (2.2%). However, it is broadly in line with the growth seen by our geographical and statistical neighbours. Gloucestershire also sits in the middle 20% of county and unitary authorities across England and Wales with a rank of 89 out of 174 authorities.

At district level there are some significant differences, Figure 167 shows Cotswold, Forest of Dean, Stroud and Tewkesbury saw a decline in the number of total jobs. The urban districts of Cheltenham and Gloucester, saw a significant growth with both districts featuring amongst the top 20% of district and unitary authorities across England and Wales in terms of growth.

[597] Job Density, ONS

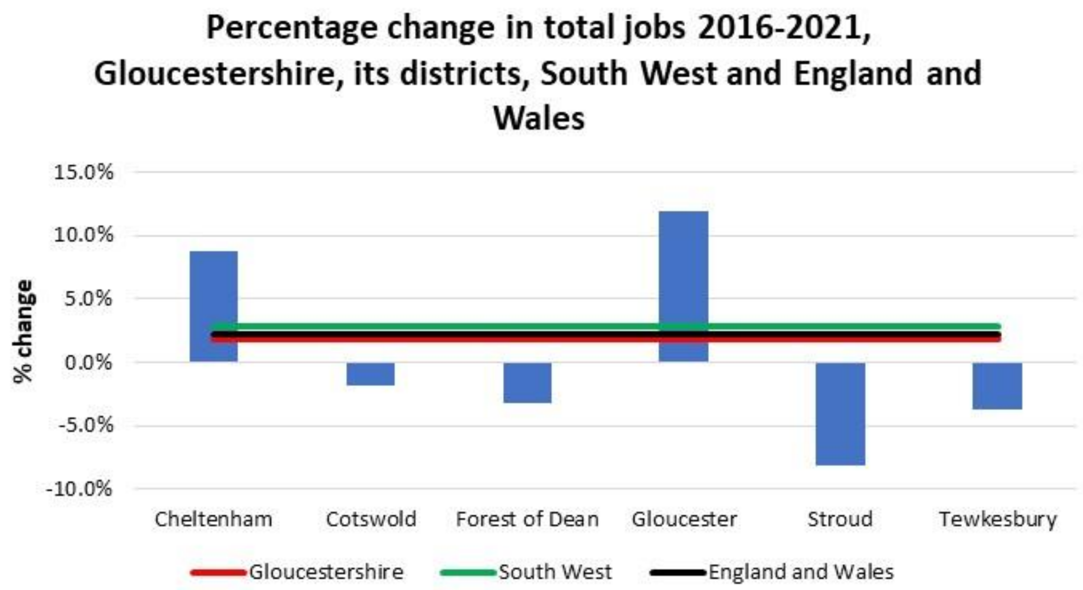

Figure 167: Percentage change in total jobs 2016-2021, Gloucestershire, its districts, South West and England and Wales[598]

Figure 168 shows between 2020 and 2021 the number of jobs in Gloucestershire declined by 0.9%. Conversely the number of jobs across the South West (0.8%) and England and Wales (1.9%) increased.

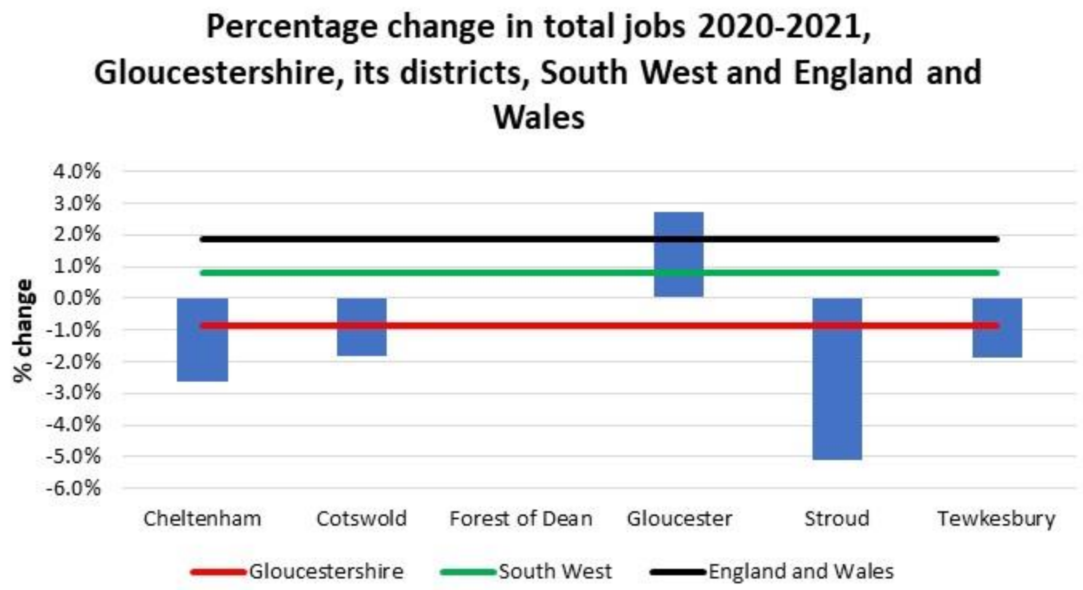

Figure 168: Percentage change in total jobs 2020-2021, Gloucestershire, its districts, South West and England and Wales[599]

[598] *Ibid.*

[599] *Ibid.*

Figure 169 and Figure 170 show Gloucestershire also compared poorly to its geographic and statistical neighbours in terms of job growth between 2020 and 2021, sitting in the bottom 30% of both cohorts. When compared to all county and unitary authorities across England and Wales it sits in the bottom 40%, ranking 132 out of 174 authorities.

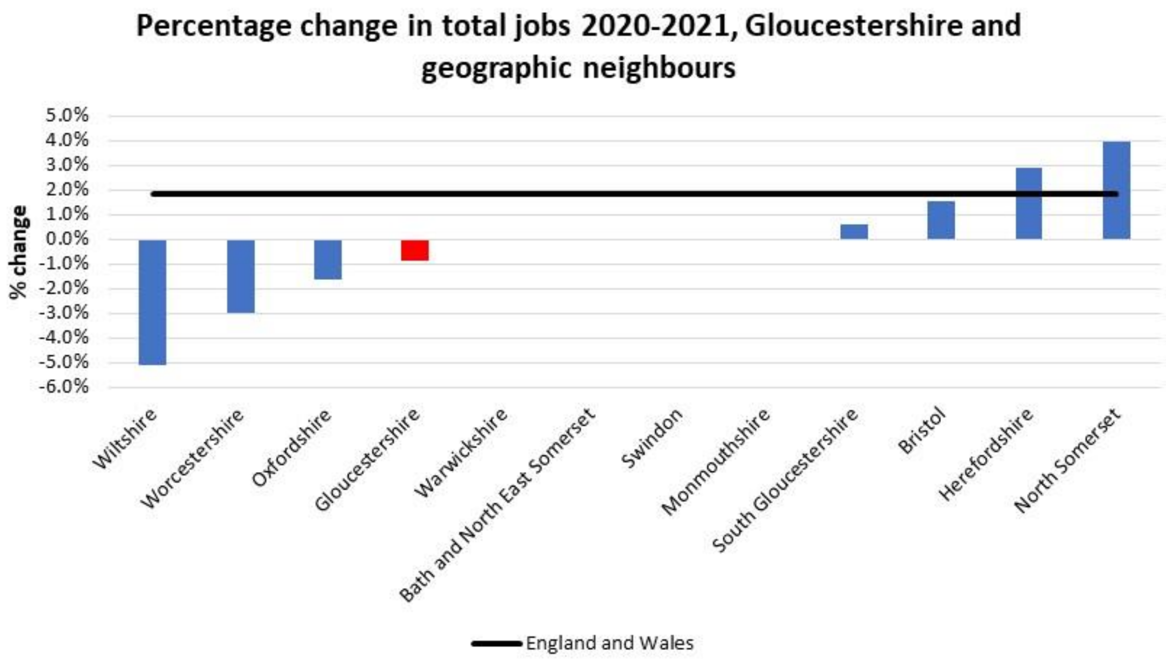

Figure 169: Percentage change in total jobs 2020-2021, Gloucestershire and geographic neighbours[600]

[600] *Ibid.*

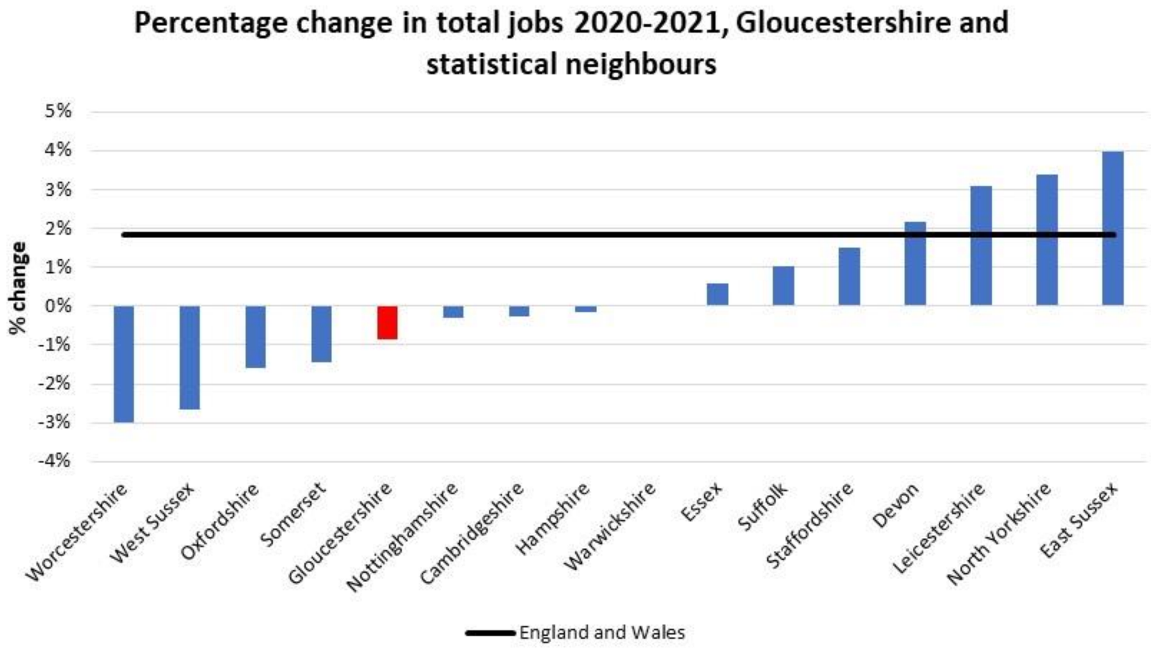

Figure 170: Percentage change in total jobs 2020-2021, Gloucestershire and statistical neighbours[601]

Figure 168 shows Gloucester was the only district in the county which saw an increase in jobs between 2020 and 2021, with an increase of 2.7%. This saw it sit in the top 40% of district and unitary authorities across England and Wales. Stroud saw the biggest decline in total jobs with a decline of 5.1% or 5,000 jobs, this saw it sit in the bottom 20% of district and unitary authorities across the country.

Recent job growth in Gloucestershire is falling at a greater extent than elsewhere in the country. It is unclear whether this is an emerging trend or whether this is a result of the area having a higher proportion of jobs in sectors such as Accommodation and food which took longer to recover from the pandemic.

16.2 Future jobs

Economic projections are only available for Gloucestershire, its districts, the South West and UK. This means it is not possible to compare to other areas and the UK has been used as the national average rather than England and Wales.

16.2.1 2021-2031

Economic projections provided by Oxford Economics, provide an indication of future economic growth and predict potential changes in employment. These projections are presented as a guide, they do not take into account the impact of current policies and initiatives. Forecast data is only available for

601 *Ibid.*

Gloucestershire, its districts the South West and UK. According to Oxford Economics, employment in Gloucestershire is set to increase between 2021 and 2031 by 20,937 jobs. This equates to a growth of 6.1% which is broadly in line with the national average (6.4%) but lower than the regional average (7.7%).

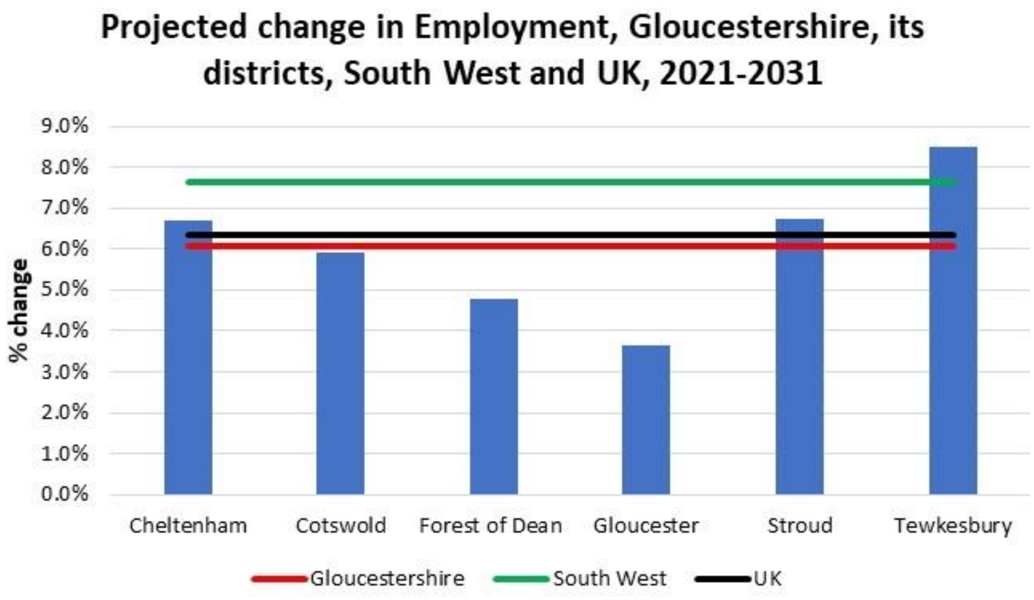

Figure 171: Projected change in Employment, Gloucestershire, its districts, South West and UK, 2021-2031[602]

Figure 171 shows that at district level the greatest increase in employment is projected to be in Tewkesbury (8.5%), exceeding the county, regional and national average. The lowest growth is projected to be in Gloucester, which is expected to see a growth of 3.6% between 2021 and 2031.

16.2.2 2021-2050

Over the longer time period 2021 to 2050, the number of jobs in Gloucestershire is expected to increase by 16,019. This growth was less than the increase seen between 2021 and 2031. Figure 172 shows this is because the growth in the number of jobs is expected to slow from 2027, the number of jobs is then expected to decline slowly from 2030.

[602] Oxford Economics

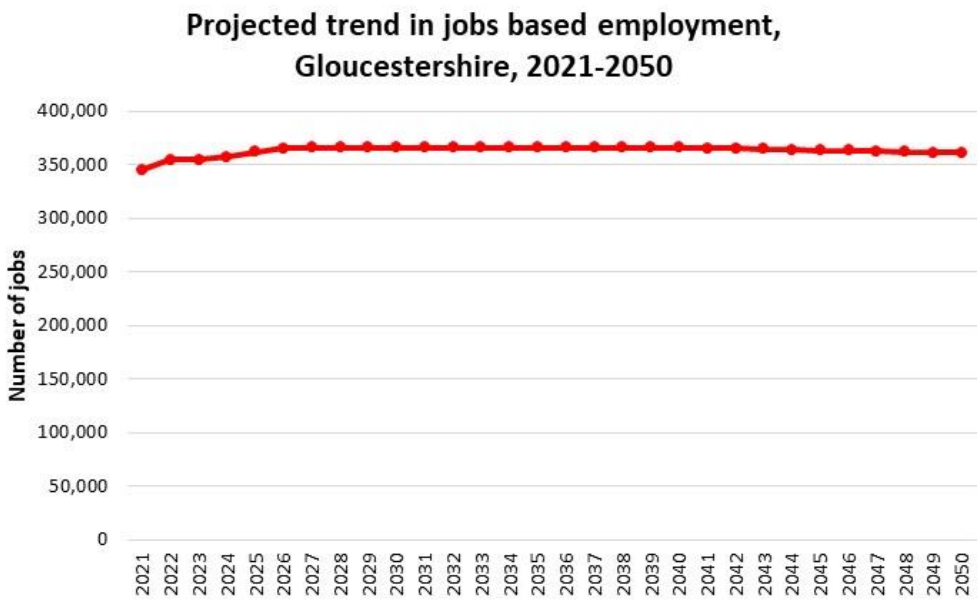

Figure 172: Projected trend in jobs based employment, Gloucestershire, 2021-2050[603]

Interestingly the number of jobs is expected to continue to increase throughout the period 2021 to 2050 in both the South West and UK. This difference has meant that overall growth during the period 2021 to 2050 is much lower in Gloucestershire (4.6%) than in the South West (9.2%) and the UK (9.3%).

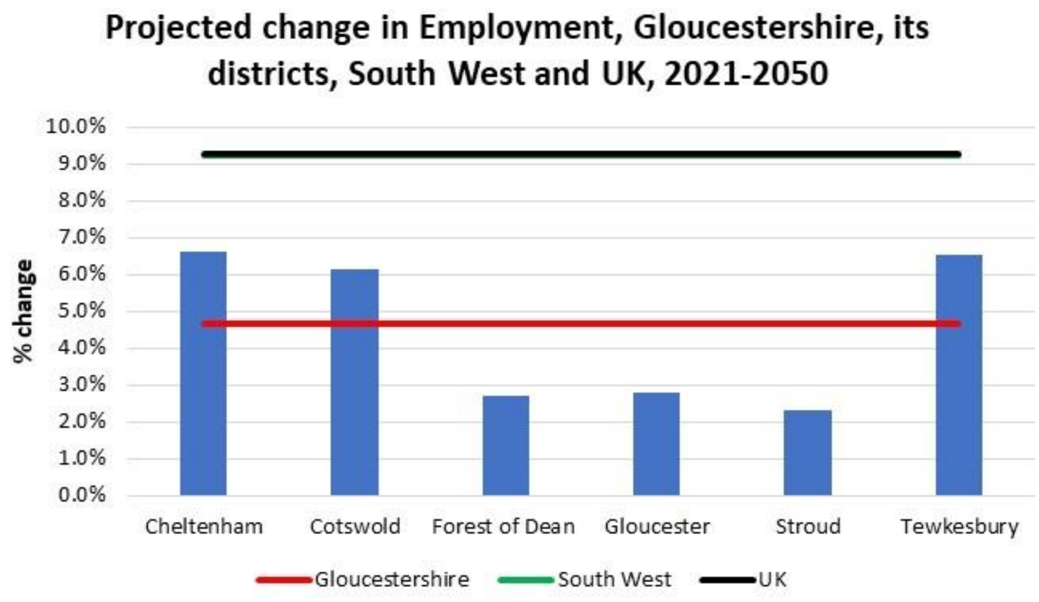

Figure 173: Projected change in Employment, Gloucestershire, its districts, South West and UK, 2021-2050[604]

[603] *Ibid.*

[604] *Ibid.*

All districts followed a similar trend to Gloucestershire, which resulted in them all seeing much lower rates of projected growth in employment than the South West and UK. Figure 173 shows projected growth in employment between 2021 and 2050 is expected to be highest in Cheltenham (6.6%) and Tewkesbury (6.5%) and lowest in Stroud (2.3%).

16.3 Current job density

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.

Traditionally high job density is seen as an asset, it suggests an area has a strong employment centre that may attract people from outside of the area to work. However, more recently it has been recognised as a potential challenge, highlighting areas that may have recruitment issues.

In 2021 Gloucestershire had a job density of 0.87, this is in line with the regional average (0.87) and marginally higher than the national average (0.86).

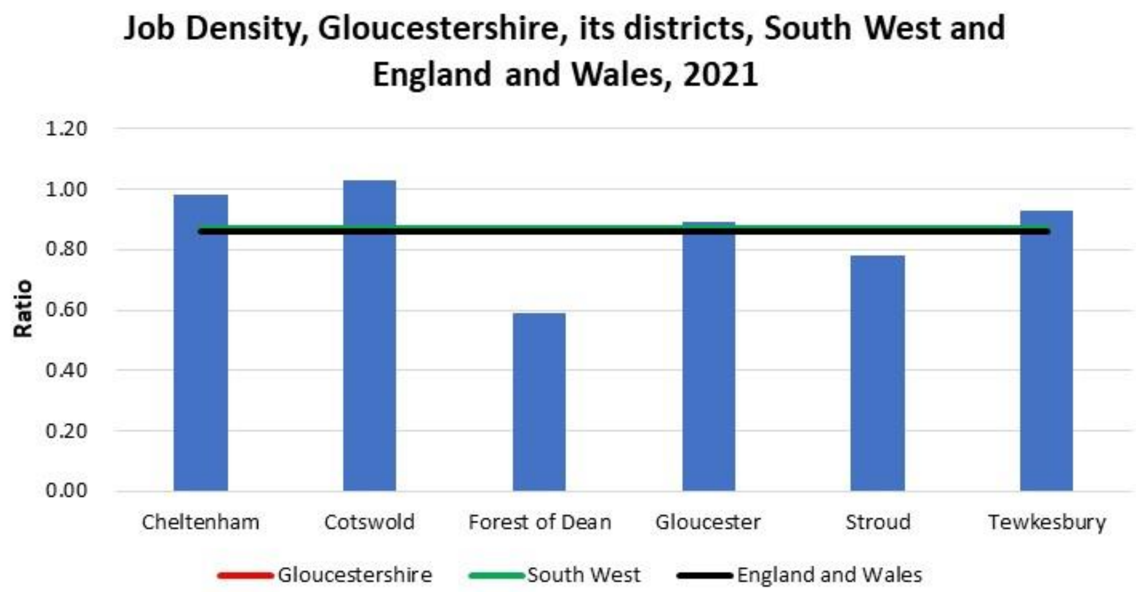

Figure 174: Job Density, Gloucestershire, its districts, South West and England and Wales, 2021[605]

When compared to its geographic and statistical neighbours, Gloucestershire is average, sitting in the middle of its geographic neighbours and in the top half of its statistical neighbours. Gloucestershire ranks 50 out of 174 county and unitary authorities across England and Wales, putting it in the top 40% of authorities across the country in terms of job density.

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[605] Job Density, ONS

Figure 174 shows at district level, Cotswold has the highest job density (1.03) meaning there are more jobs in the district than working age residents. This was closely followed by Cheltenham (0.98), both areas sit in the top 20% of district and unitary authorities across England and Wales in terms of job density. Conversely the Forest of Dean has the lowest (0.59) job density, considerably below the county, national and regional average and putting it in the bottom 20% of all authorities nationally.

Gloucestershire's job density ratio increased between 2016 and 2019 reflecting the trend seen at a regional and national level, it then fell in 2020 following the COVID-19 pandemic. Nationally job density figures improved in 2021, however this was not the case for Gloucestershire, the South West or the majority of Gloucestershire's geographic or statistical neighbours, with most areas seeing declining ratios between 2020 and 2021.

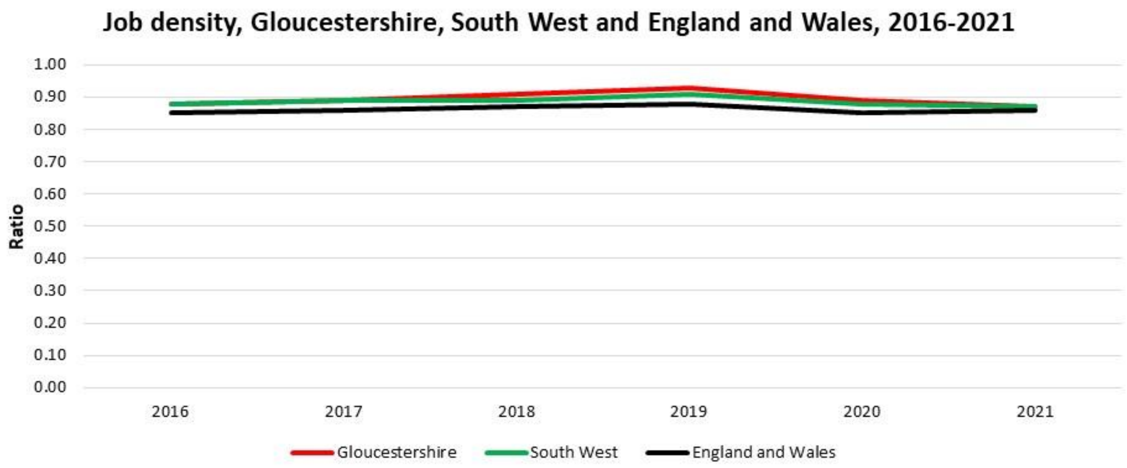

Figure 175: Job density, Gloucestershire, South West and England and Wales, 2016-2021[606]

Figure 176 shows all districts except Tewkesbury, reflected the picture seen at county level with a decline in job density figures between 2020 and 2021. As with the trend in total jobs, it is unclear whether this is an emerging trend or a temporary situation.

[606] *Ibid.*

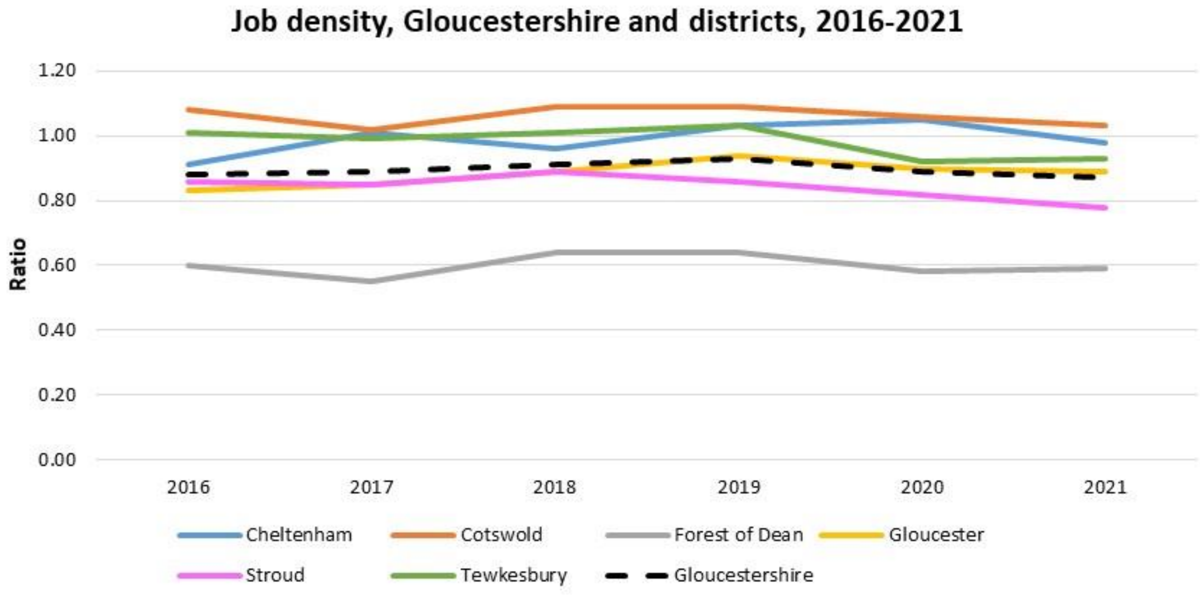

Figure 176: Job density, Gloucestershire and districts, 2016-2021[607]

16.4 Future job density

Economic projections are only available for Gloucestershire, its districts, the South West and UK. This means it is not possible to compare to other areas and the UK has been used as the national average rather than England and Wales.

Currently job density figures are lower than 1.0 across the county, meaning there are more working age residents than jobs. This reflects the fact that not all working age residents are in employment, some are unemployed or economically inactive. However, economic forecasts suggest that if current trends continue, this will not always be the case. It is estimated that by 2035, the number of jobs will begin to exceed the number of working age residents in Gloucestershire. By 2050 the number of jobs will exceed working age residents by almost 26,000. Figure 177 shows a similar picture is expected to be seen across the South West with jobs exceeding working age residents by 2037. Nationally the number of working age residents is expected to exceed the number of jobs until beyond 2050.

[607] *Ibid.*

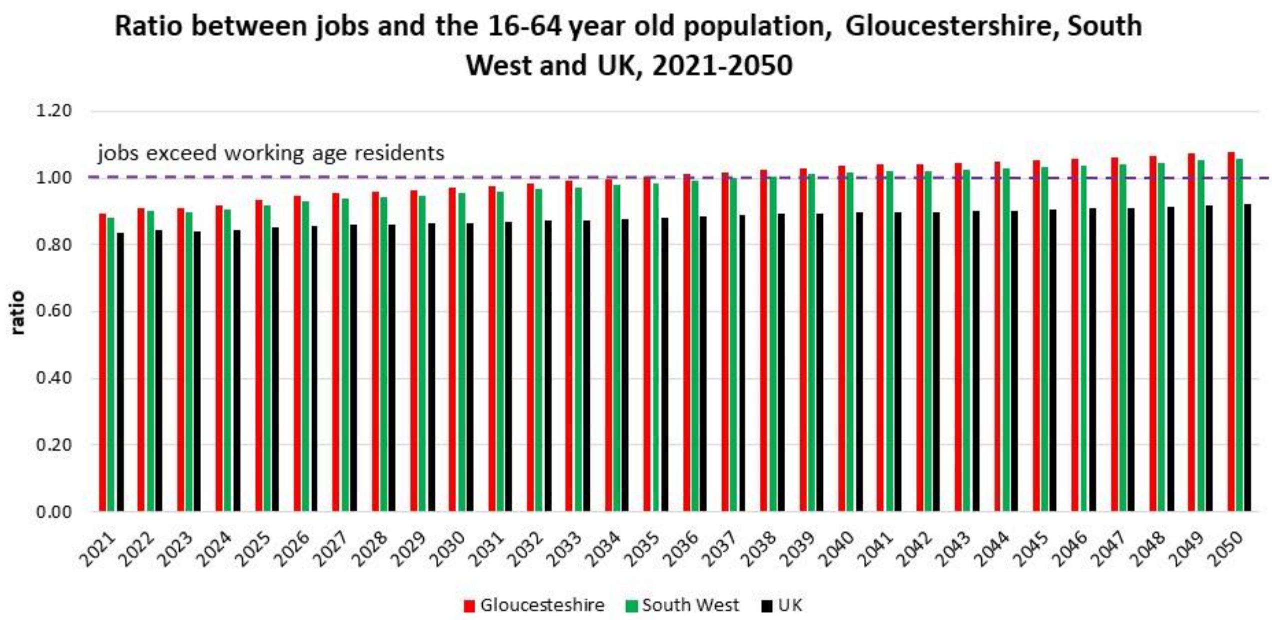

Figure 177: Ratio between jobs and the 16-64 year olds population, Gloucestershire, South West and UK, 2021-2050[608]

Economic forecasts at district level suggest the number of jobs is already exceeding working age residents in Cotswold, as reflected in current job density figures. The forecasts presented in Figure 178 show the number of jobs was also expected to be exceeding the number of working age residents in Cheltenham in 2021. The actual data presented in the previous section shows this was not quite the case, due to a fall in the number of jobs between 2020 and 2021, however it is likely to be in the coming years. The number of jobs is also expected to exceed working age residents in Tewkesbury by 2022 and Gloucester by 2044. However, in Stroud and the Forest of Dean working age residents are expected to outnumber jobs until at least 2050.

[608] Oxford Economics

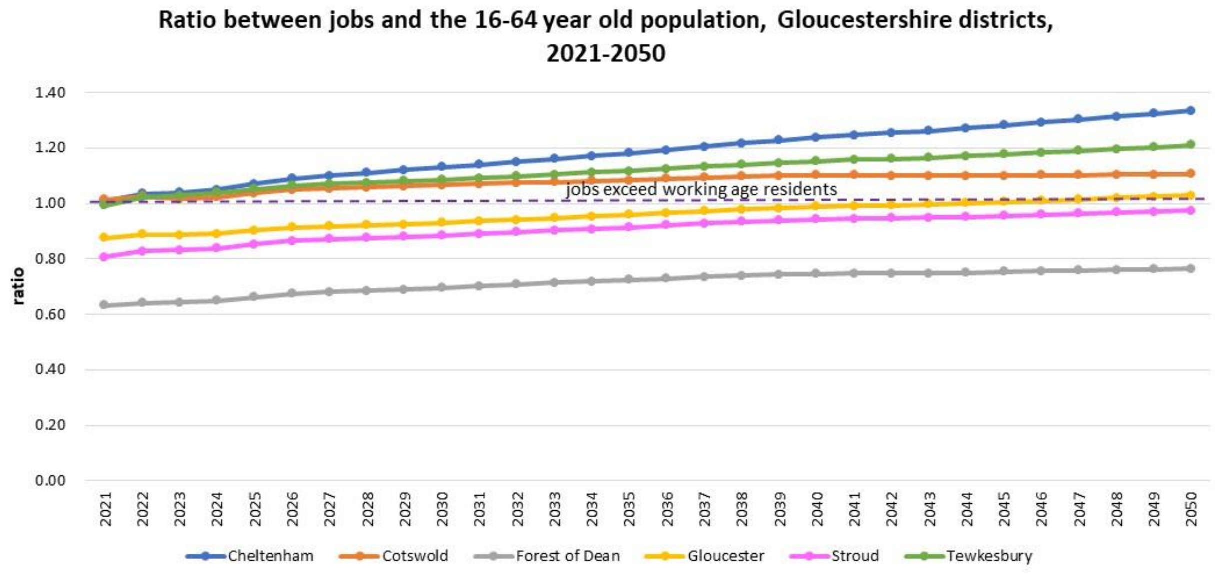

Figure 178: Ratio between jobs and the 16-64 year old population, Gloucestershire districts, 2021-2050[609]

It is worth noting that these figures do not consider recent increases in the retirement age, which means many people work beyond the age of 64. However, they do highlight potential challenges for the future. They are also based on the assumption that current trends will continue. It is likely that in the event of jobs beginning to exceed working age residents, current trends would not continue, as the growth in employment would not be sustainable or our population would adapt and grow to accommodate economic growth.

16.5 Current employment by sector

In 2021, the Wholesale and retail trade was the largest employer in the county, employing 46,000 people and accounting for 15.0% of employment. This was followed by Human health and social work activities (14.0%) and Manufacturing 10.4%. Gloucestershire followed the regional and national average in terms of the top two sectors. However, nationally the third largest sector was Administrative and support service activities and across the South West it was Accommodation and food service activities. This demonstrates the importance of the Manufacturing sector to the county.

[609] *Ibid.*

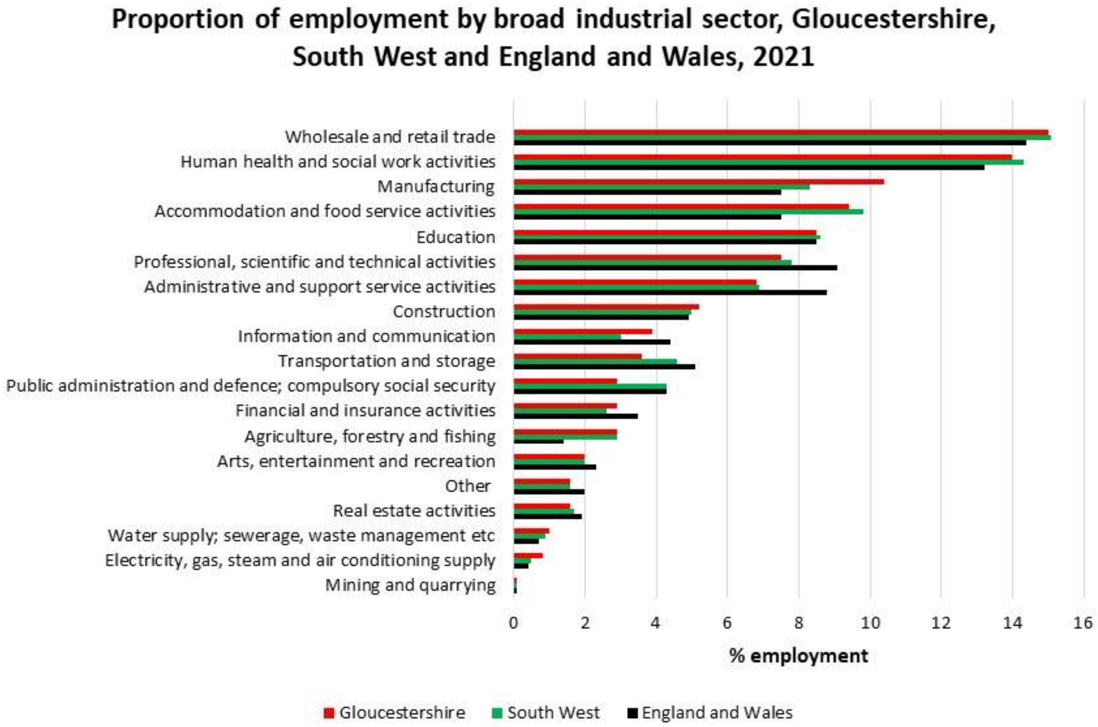

Figure 179: Proportion of employment by broad industrial sector, Gloucestershire, South West and England and Wales, 2021[610]

Figure 180 shows the industrial sectors in terms of their size, growth and local concentration. The sectors employing the most people in the county are those represented by the largest bubbles. Those in the top-left quadrant are more concentrated in Gloucestershire than in England as a whole, but crucially have experienced falling employment in Gloucestershire in recent years. The upper-right quadrant of the diagram shows sectors which are growing and in which Gloucestershire has a structural advantage in terms of local concentration of employment.

Location quotients (LQ) are used for identifying specialism. A simple ratio has been used to compare the share of local employment in an industry, to the share of employment in that industry across England and Wales. A LQ that is greater than 1 indicates Gloucestershire has a higher concentration of employment in the industrial activity relative to the national average.

Agriculture, forestry and fishing and Electricity, gas, steam and air conditioning supply have the highest location quotients in the county, with quotients of 2.1 and 2.0. In other words, these industries are twice as concentrated in Gloucestershire compared to England and Wales. Additionally, Accommodation and food service activities; Manufacturing; Human health and social work activities; and Water supply; sewerage, waste management etc are also locally concentrated when compared to the national average.

[610] Business Register and Employment Survey, ONS

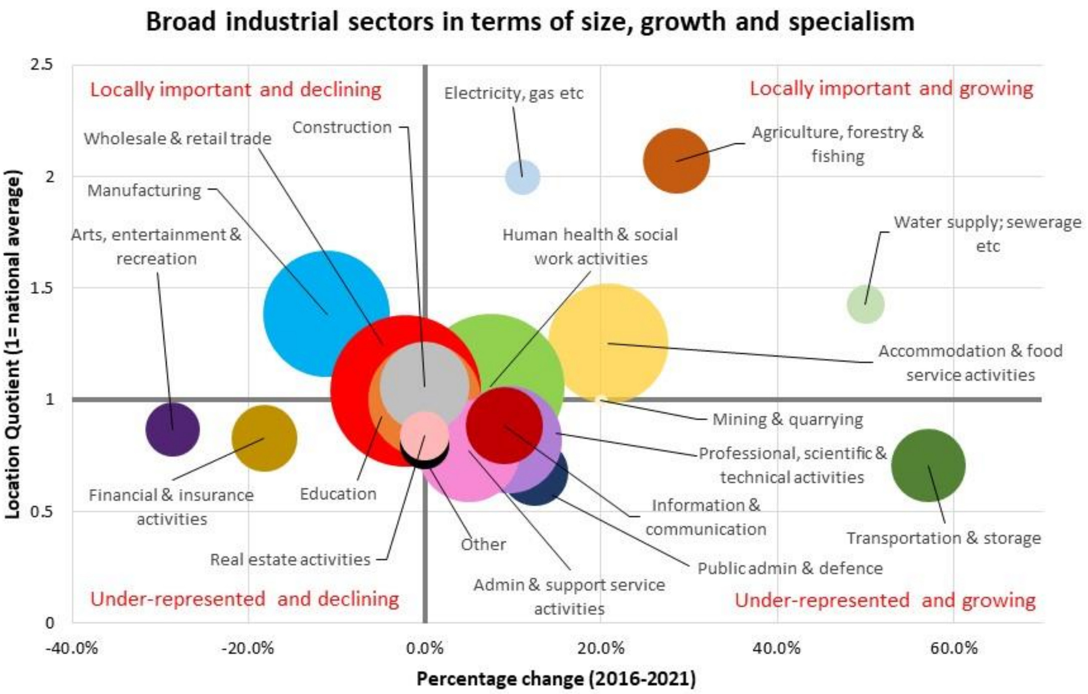

Figure 180: Broad industrial sectors in terms of size, growth and specialism[611]

Several of these sectors also stand out as strengths when compared to our geographic and statistical neighbours. Figure 181 shows Gloucestershire has a higher proportion of people employed in Accommodation and food service activities than all our geographic neighbours with the exception of Bath and North East Somerset. When compared to our statistical neighbours it has the third highest proportion of employment in this sector, behind North Yorkshire and Devon. It also ranks 29th out of 174 county and unitary authorities nationally, putting it in the top 20% of authorities, showing the importance of tourism to the county.

[611] *Ibid.*

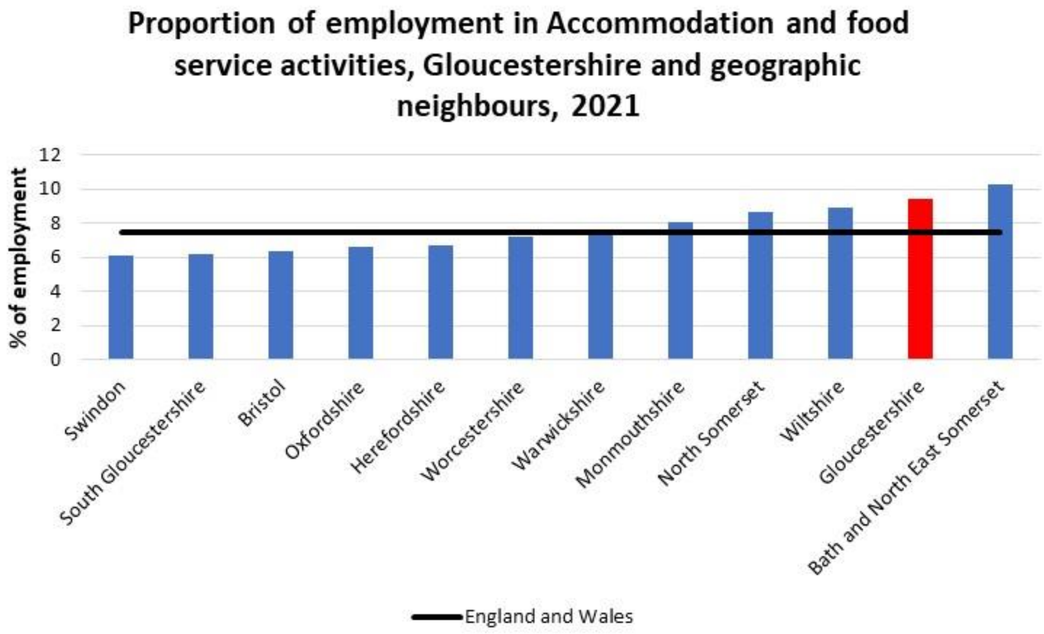

Figure 181: Proportion of employment in Accommodation and food service activities, Gloucestershire and geographic neighbours, 2021[612]

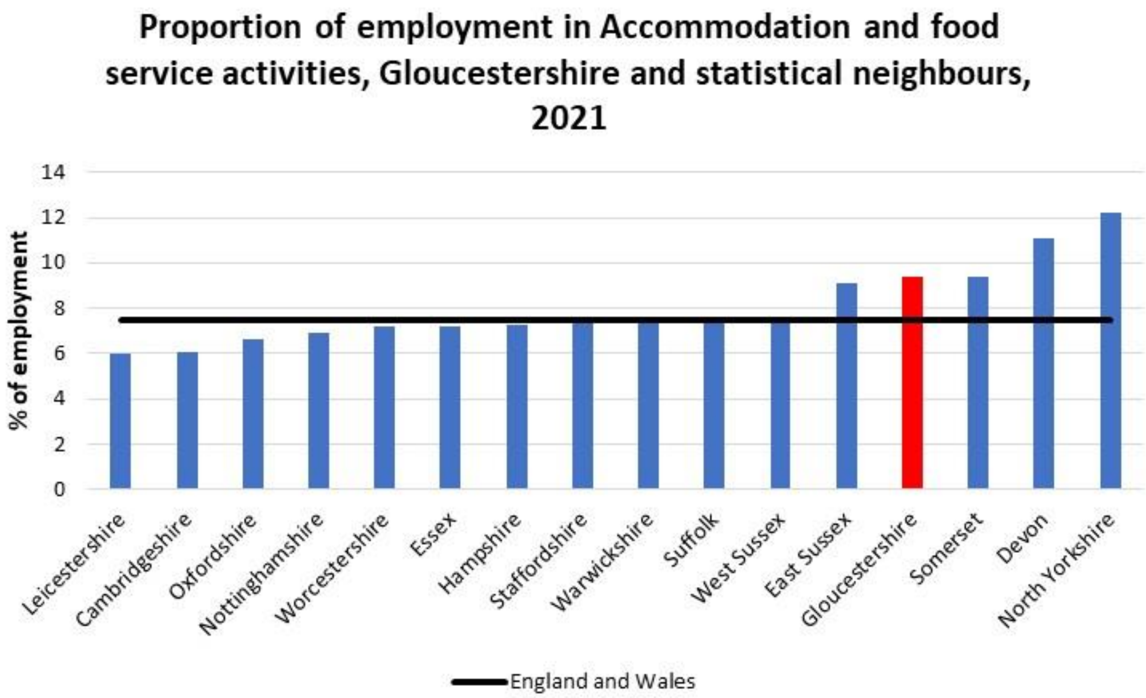

Figure 182: Proportion of employment in Accommodation and food service activities, Gloucestershire and statistical neighbours, 2021[613]

[612] *Ibid.*

[613] *Ibid.*

Gloucestershire has the second highest proportion of people employed in the Electricity, gas, steam and air conditioning supply sector of all its geographic neighbours, behind Warwickshire. Figure 184 shows it also has the third highest proportion of people employed in the sector when compared to our statistical neighbours. When compared to authorities across the country it sits in the top 20% of county and unitary authorities in England and Wales, reflecting the importance of the energy sector to the county. Gloucestershire's specialism in the Electricity, gas, steam and air conditioning supply sector, is a result of having a higher proportion of people employed in the sub sector Electric power generation, transmission and distribution than elsewhere, employment in the other sub sectors is in line with other areas.

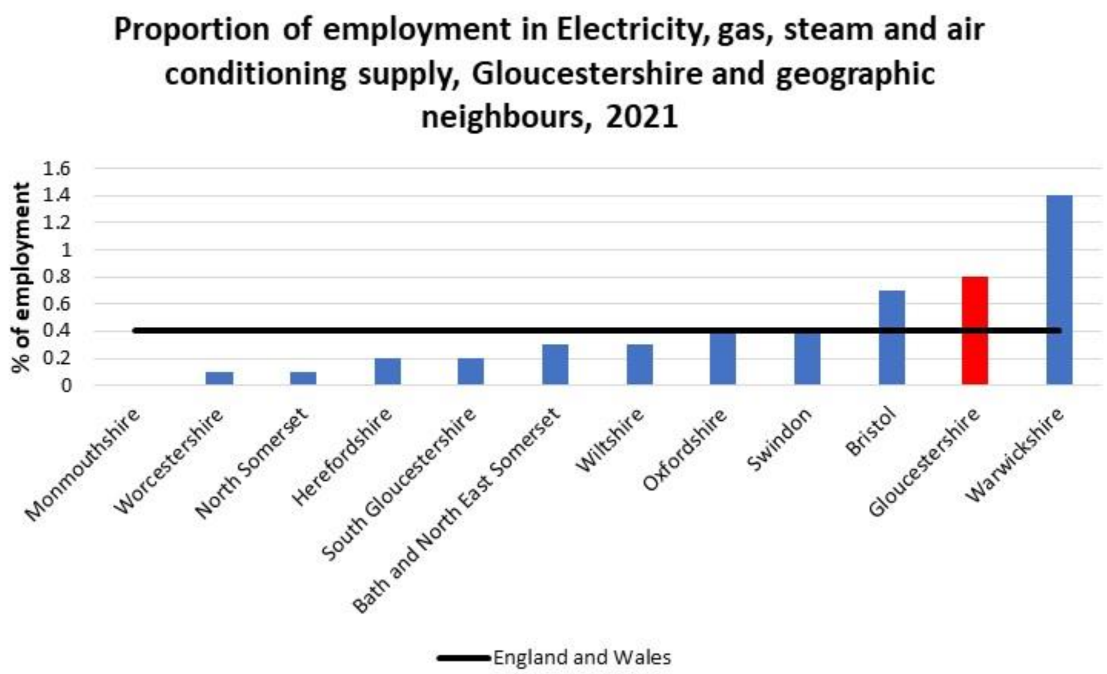

Figure 183: Proportion of employment in Electricity, gas, steam and air conditioning supply, Gloucestershire and geographic neighbours, 2021[614]

[614] *Ibid.*

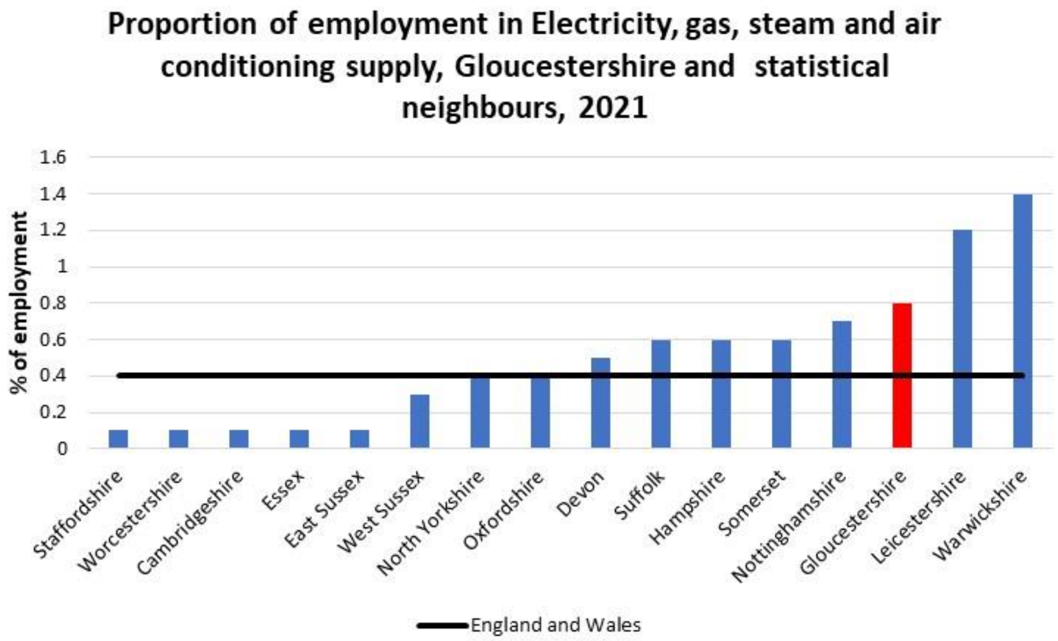

Figure 184: Proportion of employment in Electricity, gas, steam and air conditioning supply, Gloucestershire and statistical neighbours, 2021[615]

When compared to our geographic neighbours, Gloucestershire has the fourth highest proportion of employment in the Agriculture, forestry and fishing sector. Figure 186 shows it also compares well to our statistical neighbours, ranking fifth out of 16. Nationally Gloucestershire has the 26th highest proportion of employment in Agriculture, forestry and fishing out of the 174 county and unitary authorities in England and Wales, putting it in the top 20%. This reflects the importance of the rural economy to the county.

[615] *Ibid.*

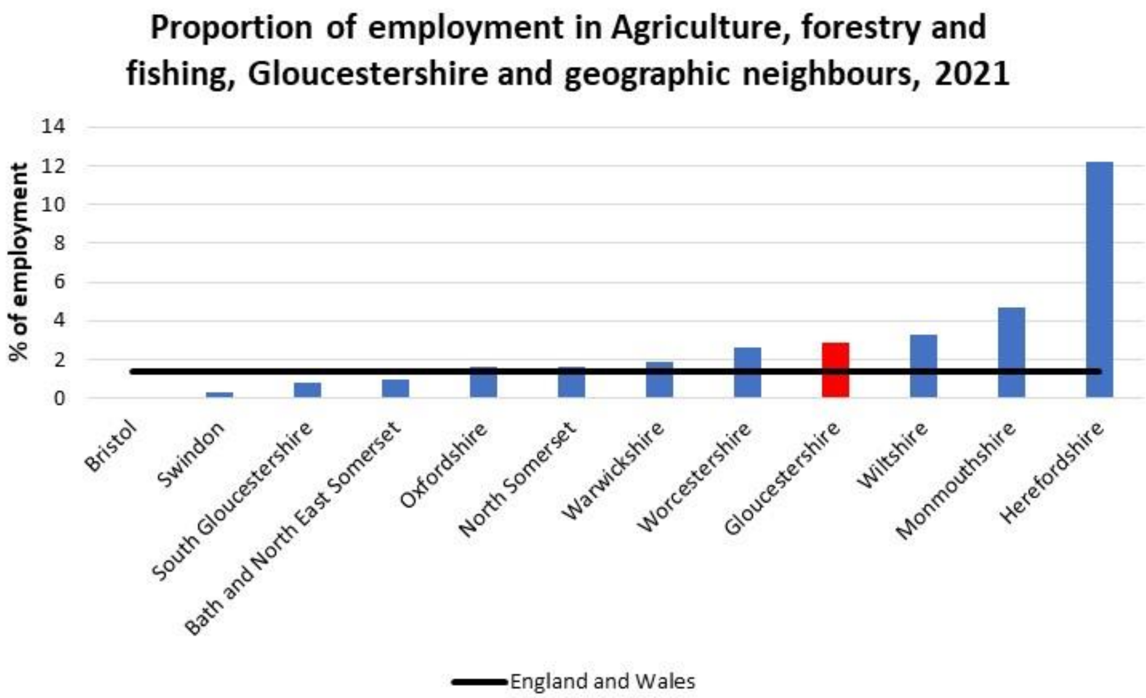

Figure 185: Proportion of employment in Agriculture, forestry and fishing, Gloucestershire and geographic neighbours, 2021[616]

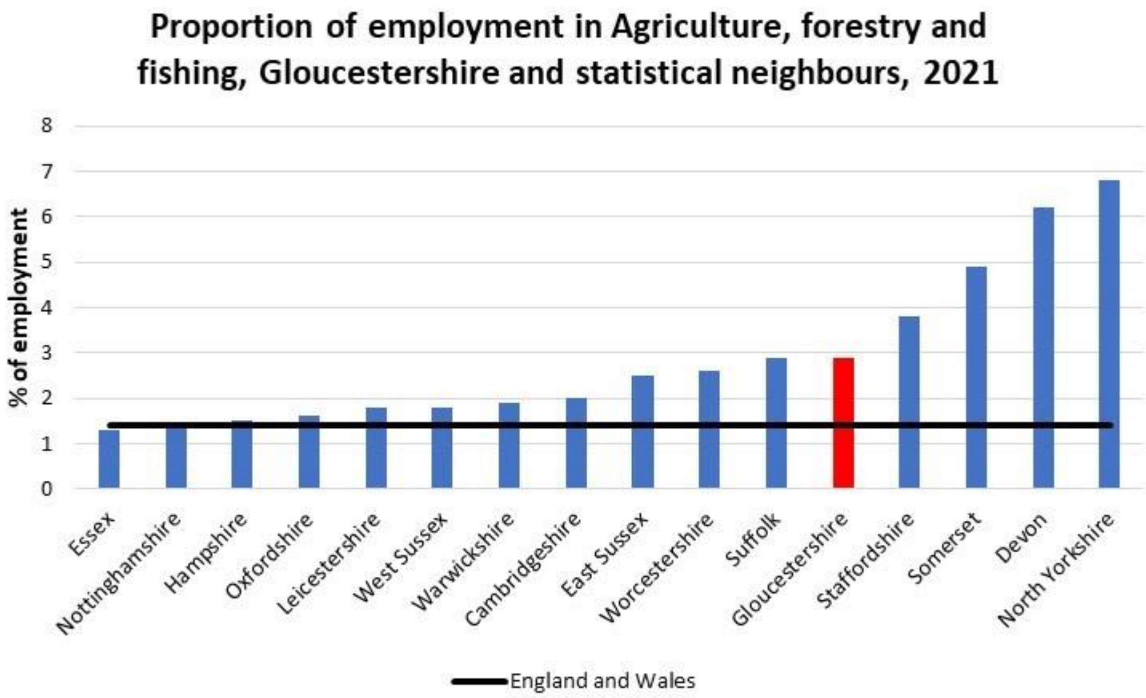

Figure 186: Proportion of employment in Agriculture, forestry and fishing, Gloucestershire and statistical neighbours, 2021[617]

[616] *Ibid.*

[617] *Ibid.*

It has previously been acknowledged that the Manufacturing sector is a strength within the county, however it is also a strength in several of our geographic and statistical neighbours. Gloucestershire is ranked fourth out of its geographic neighbours and eighth out of its statistical neighbours in terms of the proportion of people employed in the Manufacturing sector. When compared to all authorities across England and Wales, it ranks 54th out of 174, putting it in the top 40% of authorities. Gloucestershire's particular strength in terms of sub sectors include Manufacture of dairy products; Manufacture of instruments and appliances for measuring, testing and navigation; watches and clocks; Manufacture of general purpose machinery; Manufacture of air and spacecraft and related machinery; and Manufacture of medical and dental instruments and supplies.

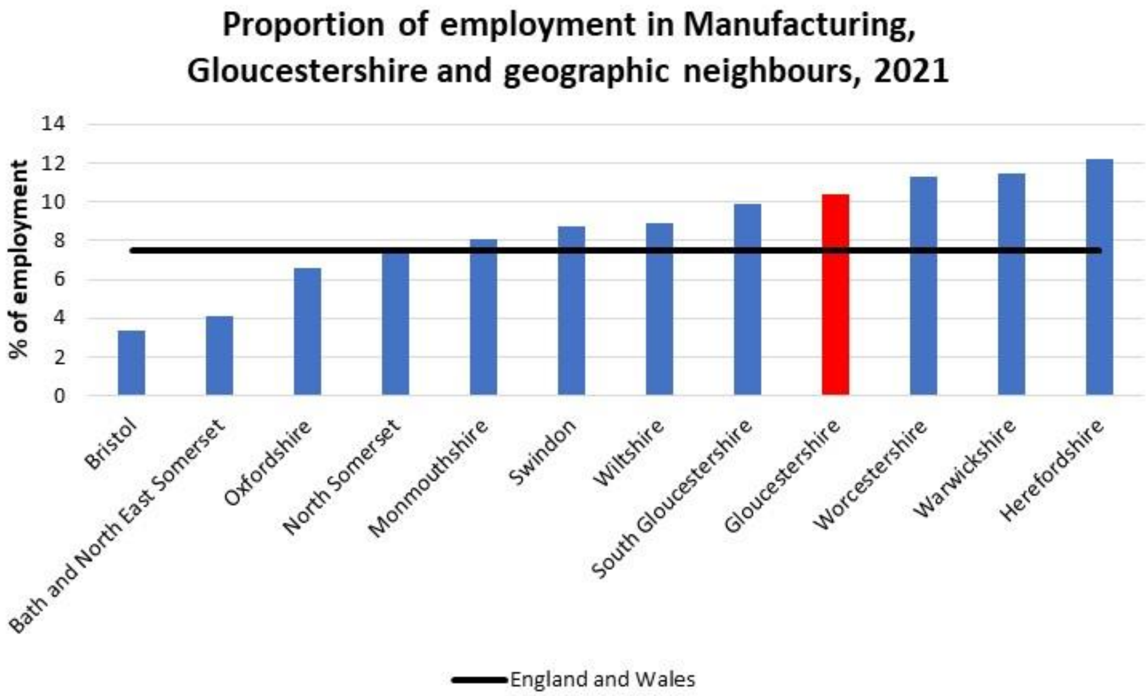

Figure 187: Proportion of employment in Manufacturing, Gloucestershire, and geographic neighbours, 2021[618]

[618] *Ibid.*

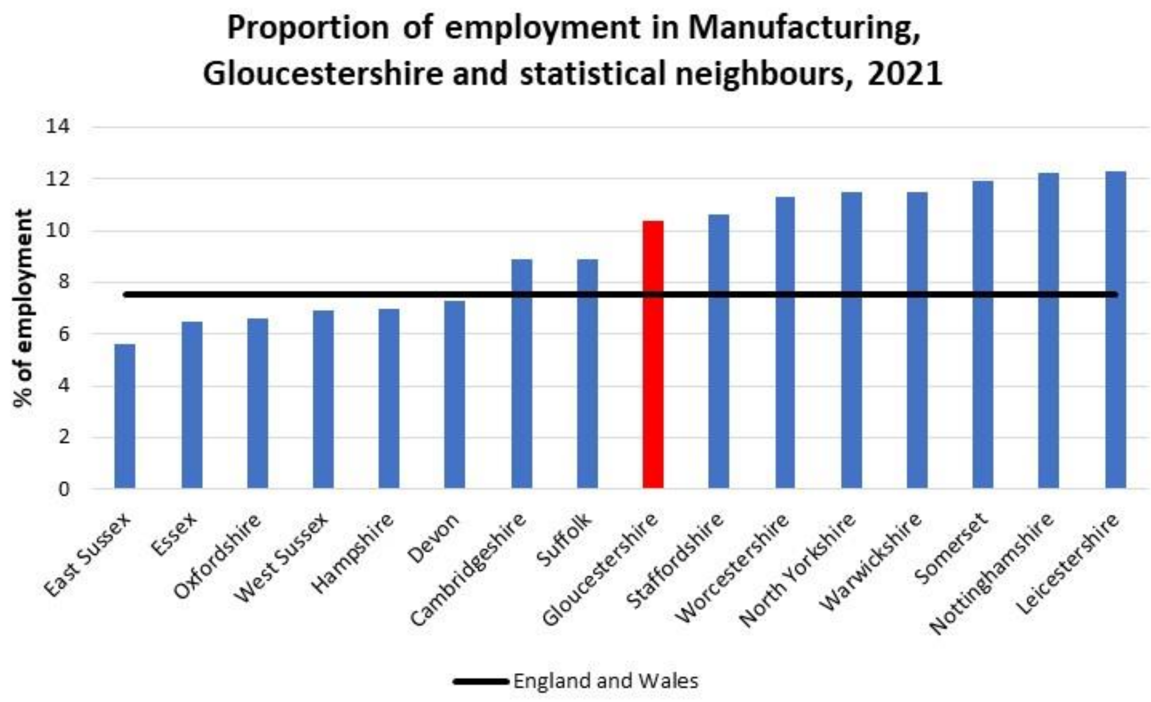

Figure 188: Proportion of employment in Manufacturing, Gloucestershire, and statistical neighbours, 2021[619]

When compared to the national average, Gloucestershire does not have a particular specialism in the Financial and insurance activities sector. However, Figure 189 and Figure 190 shows it does compare well to other areas. It has the third highest proportion of employment in the Financial and insurance activities sector of all its geographic neighbours and the second highest proportion of employment of its statistical neighbours. It also ranks 43rd of all authorities across England and Wales, putting it in the top 40% of county and unitary authorities in the country in terms of the proportion of employment in the Financial and insurance activities sector.

[619] *Ibid.*

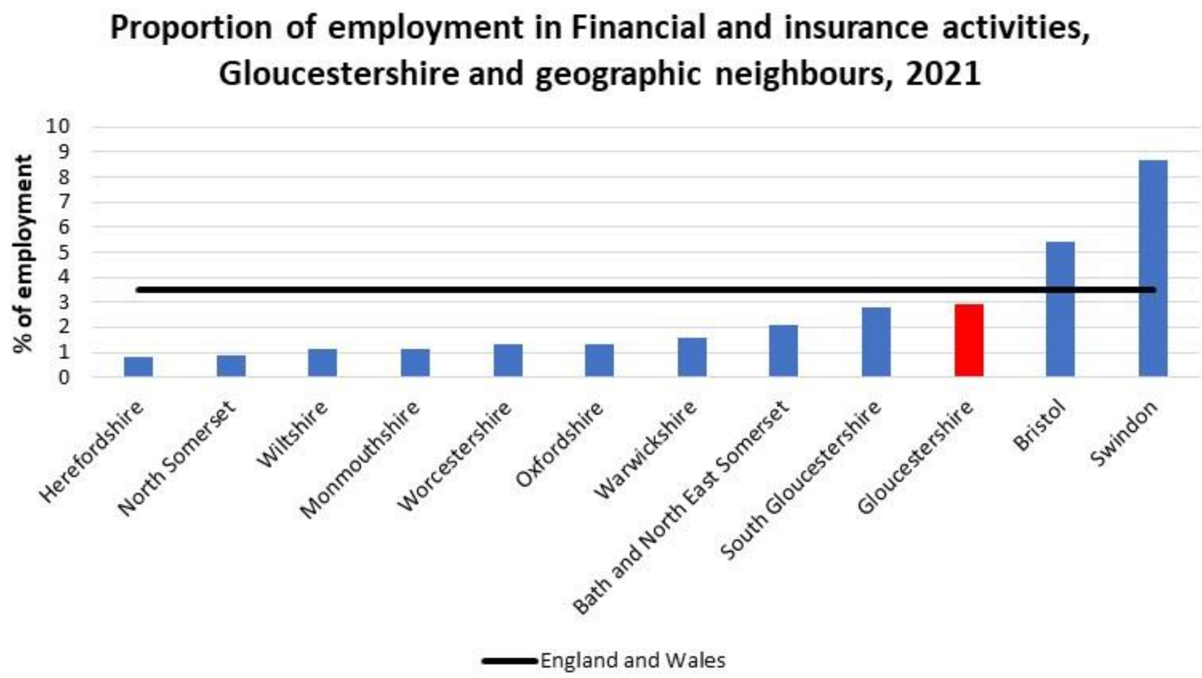

Figure 189: Proportion of employment in Financial and insurance activities, Gloucestershire, and geographic neighbours, 2021[620]

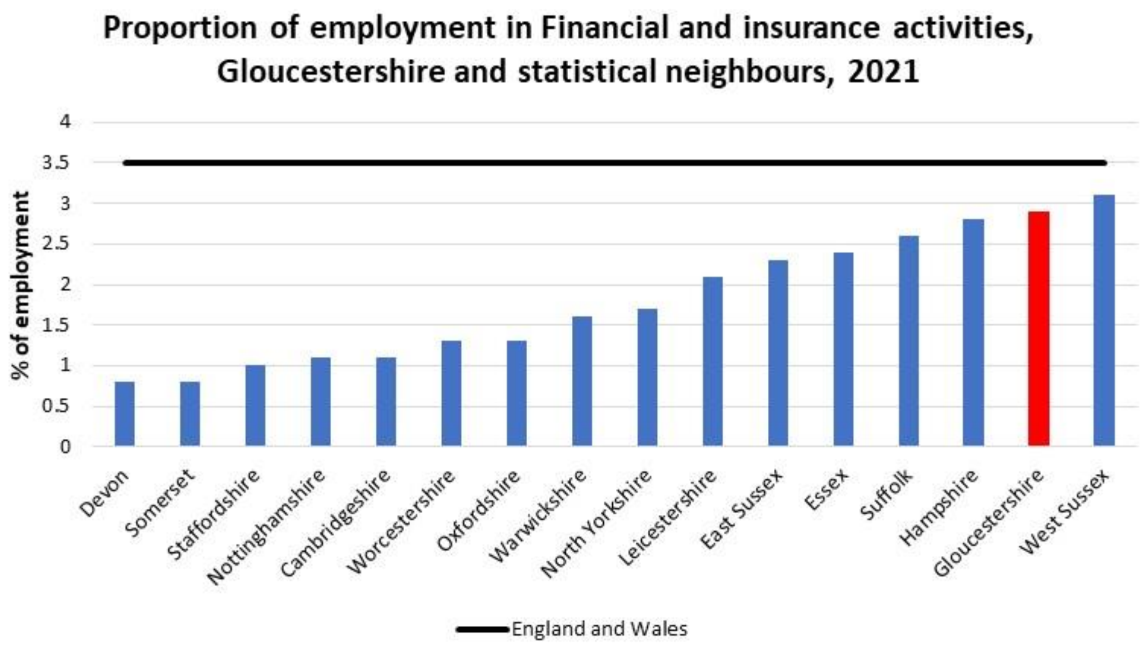

Figure 190: Proportion of employment in Financial and insurance activities, Gloucestershire, and statistical neighbours, 2021[621]

Figure 191 shows the breakdown of employment by sector at district level. In the urban districts of Gloucester and Cheltenham the Human health and social work

[620] *Ibid.*

[621] *Ibid.*

activities sector and the Wholesale and retail trade are the largest sectors. This is unsurprising, due to the presence of the two large hospitals; Cheltenham General and Gloucestershire Royal Hospital, and the fact that these districts are the largest retail destinations in the county.

In Cotswold, the two largest sectors are the Wholesale and retail trade and Accommodation and food service activities, reflecting the importance of tourism in the district.

In the Forest of Dean and Tewkesbury, Manufacturing is the largest sector, followed by Wholesale and retail trade and Human health and social work activities. While in Stroud, Manufacturing; Wholesale and retail trade; and Human health and social work activities are the joint largest sectors all employing 15.7% of those in employment.

There is considerable variation in terms of district strengths when compared to the national average. In Cheltenham, the particular strengths include Accommodation and food service activities; Education; Information and communication; and Professional, scientific, and technical activities. Employment in these four sectors exceeds the national, regional and county average and puts the district in the top 20% of district and unitary authorities across England and Wales. Cheltenham also compares well to other authorities in terms of the proportion of employment in the Financial and insurance activities sector, sitting in the top 20% of authorities across the county. However, the proportion of people employed in this sector is lower than the average for England and Wales.

In Cotswold, Agriculture, forestry and fishing; Mining and quarrying; Accommodation and food service activities; and Arts, entertainment and recreation account for a significantly higher proportion of employment than across England and Wales. These sectors also account for a higher proportion of employment in Cotswold than the majority of authorities across the country, with the district sitting in the top 20% of district and unitary authorities in terms of the proportion of employment in these sectors. This reflects the importance of the rural environment and tourism to the local economy. Cotswold also compares well to other authorities in terms of the proportion of employment in the Financial and insurance activities sector and the Professional, scientific and technical activities sector, sitting in the top 20% of authorities across the country. However, the proportion of people employed in these sectors is broadly in line with the national average.

In the Forest of Dean, the strengths when compared to the national average include Agriculture, forestry and fishing; Manufacturing; Water supply; sewerage, waste management etc; and Education. These sectors also account for a higher proportion of employment in the Forest of Dean than the majority of authorities across the country, with the district sitting in the top 20% of district and unitary authorities in England and Wales, in terms of the proportion of employment in these sectors.

Gloucester has a significantly higher proportion of employment in Electricity, gas, steam and air conditioning supply; Public administration and defence; and Human health and social work activities than England and Wales. These sectors also account for a higher proportion of employment in Gloucester than the majority of authorities across the country, with the district sitting in the top 20% of district and unitary authorities. Gloucester also compares well to other authorities in terms of the proportion of employment in the Financial and insurance activities sector, sitting in the top 20% of authorities across the county. However, the proportion of people employed in this sector is lower than the average for England and Wales.

Stroud stands out in terms of higher than average employment in Electricity, gas, steam and air conditioning supply; Agriculture, forestry and fishing; Construction; Water supply; sewerage, waste management and remediation activities; and Manufacturing. Stroud also sits in the top 20% of district and unitary authorities in England and Wales in terms of the proportion of employment in Electricity, gas, steam and air conditioning supply; Construction; Water supply; sewerage, waste management and remediation activities; and Manufacturing.

In Tewkesbury, the local strengths include Manufacturing; Agriculture forestry and fishing; and Water supply; sewerage, waste management etc. Employment in these sectors exceeds the national, regional and county average and puts the district in the top 20% of district and unitary authorities across England and Wales. Tewkesbury also compares well to other authorities in terms of the proportion of employment in the Financial and insurance activities sector, sitting in the top 20% of authorities across the country. However, the proportion of people employed in this sector is lower than the average for England and Wales.

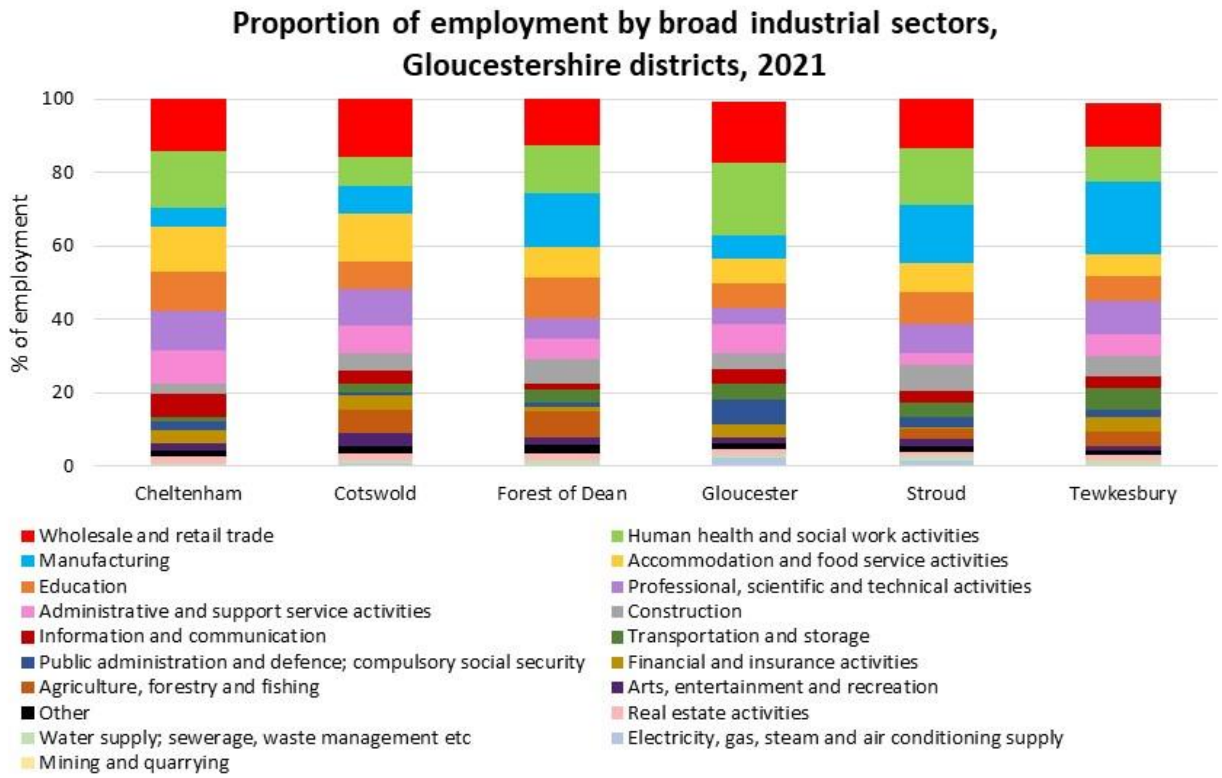

Figure 191: Proportion of employment by broad industrial sectors, Gloucestershire districts, 2021[622]

Between 2016 and 2021, five sectors in Gloucestershire saw more than a 20% increase in employment. These were, Transportation and storage (57% increase); Water supply; sewerage, management and remediation activities (50% increase); Agriculture, forestry and fishing (29% increase); Accommodation and food service activities (21% increase); and Mining and quarrying (20% increase). All of these sectors also increased at a regional and national level, with the exception of Agriculture, forestry and fishing, which declined nationally.

There were four sectors in Gloucestershire which saw a decline in employment between 2016-2021, these are: Other services (29% decrease); Financial and insurance activities (18% decrease); Manufacturing (11% decrease); and Wholesale and retail trade (2% decrease). All of these sectors also declined at a regional and national level, with the exception of Financial and insurance activities, which increased nationally.

In order to understand what has driven the decline in these sectors, data can be broken down by sub sector. In the Manufacturing sector, the greatest fall in employment has been in the Manufacture of computer, electronic and optical products followed by the Manufacture of rubber and plastic products.

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[622] *Ibid.*

Interestingly some sub sectors have seen growth, most notably the Manufacture of food products and machinery and equipment.

When looking at the Wholesale and retail trade sector, the decline has been driven by falling employment in the sub sector Wholesale trade, except for motor vehicles and motorcycles, with employment in Retail trade seeing no change.

The decline in employment in the Financial and insurance activities sector, has largely been driven by falling employment in the sub sector Activities auxiliary to financial services and insurance activities. This includes the provision of services involved in or closely related to financial service activities, but not themselves providing financial services.

The decline in Other services has been driven by a decline in Other personal service activities which includes occupations including those involved in washing and (dry-)cleaning of textiles and fur products, hairdressing and other beauty treatment, funeral and related activities.

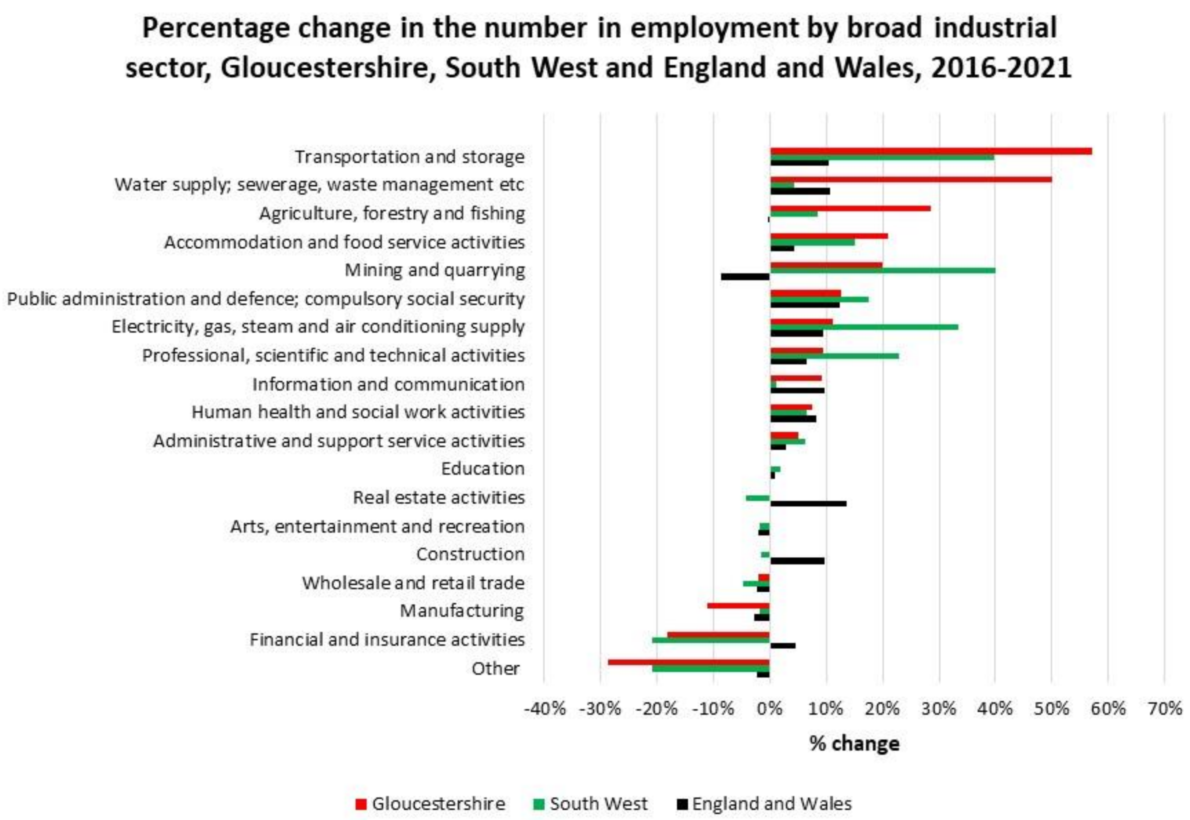

Figure 192: Percentage change in the number in employment by broad industrial sector, Gloucestershire, South West and England and Wales, 2016-2021[623]

[623] *Ibid.*

At district level there were some similarities in terms of high growth sectors. All districts saw high growth (over 20%) in the Transportation and storage sector, reflecting the picture seen at a county and regional level. Cheltenham, Cotswold, Forest of Dean and Gloucester also followed the county average with high growth in Water supply; sewerage, waste management and remediation activities. Professional scientific and technical activities saw high growth in Cheltenham, Cotswold, Forest of Dean and Stroud, despite seeing lower levels of growth across the county as a whole.

Cheltenham also experienced high growth in Accommodation and food service activities (60% increase) a sector which also saw high growth at a county level. Public Administration and defence (88% increase) and Arts, entertainment and recreation (25% increase) also experienced high growth in Cheltenham but lower growth at a county level.

Agriculture, forestry and fishing increased by 20% in Cotswold, broadly in line with the growth of 29% at a county level. Administrative and support service activities (75% increase) and Arts entertainment and recreation (20% increase) saw high growth in Cotswold despite lower growth in Gloucestershire.

The Forest of Dean saw high growth in Accommodation and food service activities (29% increase), reflecting the picture seen at a county level. In addition, it also saw high growth in Administrative and support service activities (20% increase), and Real estate activities (20% increase), these sectors saw no or minimal growth at a county level.

In Gloucester, Agriculture forestry and fishing saw a 50% increase, although it is worth numbers employed in this sector are small. In addition, Construction (20% increase) and Information and communication (25% increase) also saw high growth in Gloucester, but little or no growth at a county level.

Mining and quarrying saw high growth in Stroud (350% increase), this was also a high growth sector across the county. Public administration and defence (39% increase) and Human health and social work activities (33% increase) experienced high growth in Stroud, but lower growth at county level.

In Tewkesbury, Agriculture forestry and fishing (100% increase) saw high growth, reflecting the picture seen across the county. Education (40% increase), Real estate activities (33% increase) and Administrative and support service activities (20%) also saw high growth in Tewkesbury, but no change or limited growth at a county level.

All districts except for the Forest of Dean saw a decline in employment in Other Services, reflecting the picture seen at a county, regional and national level. The Forest of Dean, Gloucester, Stroud and Tewkesbury also saw falling employment in Financial and insurance activities, this sector also declined at a regional and county level but increased nationally. The Manufacturing sector experienced falling employment in Cheltenham, Cotswold, Gloucester and Stroud, following the picture seen at a county, regional and national level.

Cheltenham also experienced falling employment in Wholesale and retail trade (9% decline) which also declined at a county level. Administrative and support service activities declined in Cheltenham (14% decline) but increased at a county level. Employment in Construction fell in Cheltenham (20% decline) but saw no change across the county.

In Cotswold, three sectors saw falling employment but saw no change at a county level, these were Education (30% decline); Real estate activities (20% decline); and Construction (10% decline). In addition, two sectors Public administration and defence (50% decline) and Information and communication, (33% decline), declined in the district but saw growth across Gloucestershire as a whole.

Employment in Public Administration and defence (40% decline) declined in the Forest of Dean but saw growth at a county level.

In Gloucester, employment in Education (10% decline) and Arts, entertainment and recreation declined, despite seeing no change at a county level. Employment in Mining and quarrying (100% decline), Electricity, gas, steam and air conditioning supply (14% decline) and Professional, scientific and technical activities (14% decline) declined in Gloucester but saw growth across the county.

Employment in Education (10% decline) and Arts entertainment and recreation declined across Stroud (33% decline), but saw no change at a county level. Water supply; sewerage, waste management and remediation activities (38% decline); Administrative and support service activities (22% decline); and Accommodation and food service activities (11% decline) declined in Stroud but increased across the county.

In Tewkesbury, employment in Public administration and defence (20% decrease) and Information and communication (14%) declined despite increasing slightly across Gloucestershire.

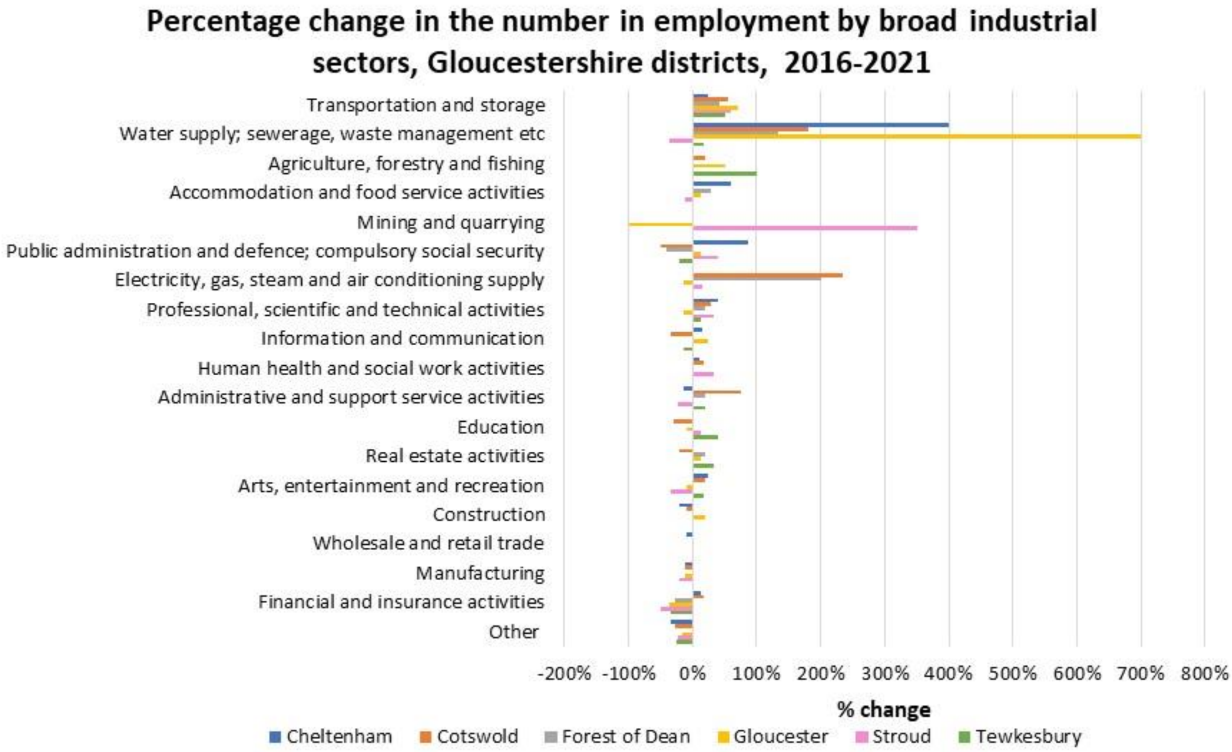

Figure 193: Percentage change in the number in employment by broad industrial sectors, Gloucestershire districts, 2016-2021[624]

16.5.1 Age of workforce by sector

The Census gives us an insight into the age of the workforce of each sector. It is worth noting this information is based on where people live rather than where people work, so will include those people that live in Gloucestershire but work elsewhere and exclude those who work in Gloucestershire but live elsewhere.

Those working in Accommodation and food services are comparatively young compared to those in employment overall. Almost 50% of those working in Accommodation and food are aged 16-34 compared to 25.9% of those in employment overall. Conversely, those working in Agriculture, forestry and fishing and Transportation and storage are generally older than those in employment overall. Around 18.3% of those working in Agriculture, forestry and fishing are aged 65 and over and 33.1% are aged 50-64. In the Transportation and storage sector 6.8% of workers are aged 65+ and 38.4% are aged 50-64 years old. In comparison, 5.3% of those in employment overall are aged 65 and over and 31.7% are aged 50-64. This picture is not unique to Gloucestershire with similar trends being observed across England and Wales. However, it does

[624] *Ibid.*

show areas where there may be the need to recruit in the future because of high numbers retiring and leaving the workforce.

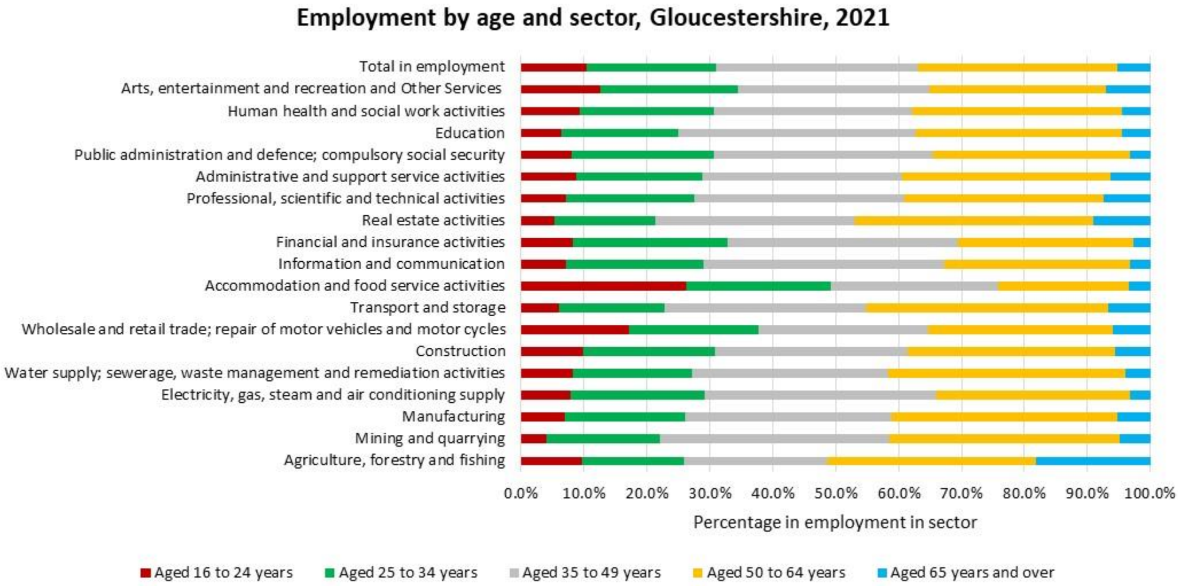

Figure 194: Employment by age and sector, Gloucestershire, 2021[625]

16.6 Future employment by sector

Economic projections are only available for Gloucestershire, its districts, the South West and UK. This means it is not possible to compare to other areas and the UK has been used as the national average rather than England and Wales.

16.6.1 2021-2031

Looking over the 10 years 2021-2031, the three sectors projected to see the greatest growth employment in Gloucestershire are Arts, entertainment and recreation; Accommodation and food service activities; and Information and communication. These sectors were also expected to see some of the greatest growth at a national and regional level. Accommodation and food service activities; Wholesale and retail trade; and the Transportation and storage sector are expected to see slightly greater growth across Gloucestershire than the UK as a whole.

Seven sectors are projected to see a decline in employment in Gloucestershire between 2021 and 2031, these are: Mining and quarrying; Electricity, gas, steam and air conditioning supply; Manufacturing; Agriculture, forestry and fishing; Water supply; sewerage, waste management etc; Public administration and defence; and Financial and insurance activities. All of these sectors are also forecast to decline at a regional and national level, except Financial and insurance activities which is expected to see growth in employment nationally.

[625] 2021 Census, ONS

Gloucestershire is expected to see a greater decline than the UK in all of these seven sectors except Manufacturing.

In absolute numbers the greatest increase in employment in Gloucestershire is expected to be in Accommodation & food services and Human health and social work activities. Conversely the greatest fall is projected to be in Manufacturing, followed by Agriculture, forestry and fishing.

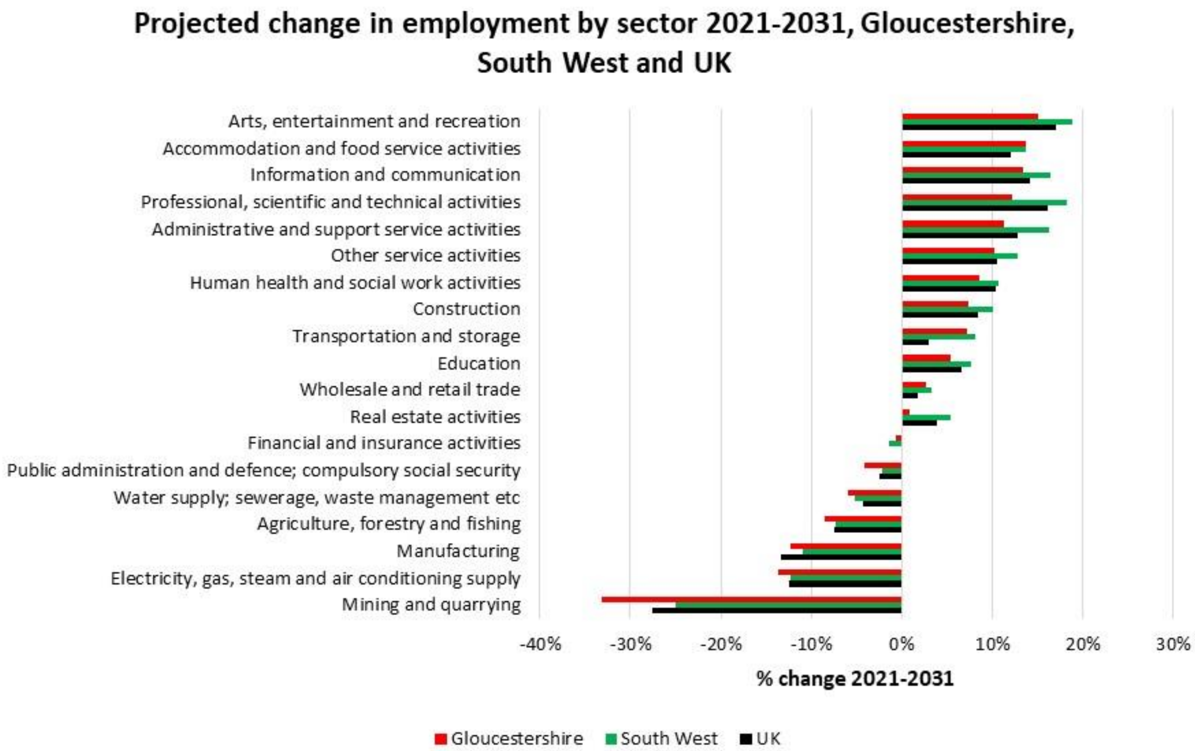

Figure 195: Projected change in employment by sector 2021-2031, Gloucestershire, South West and UK[626]

At a district level the picture is fairly similar. In Cheltenham, Cotswold and the Forest of Dean the greatest growth is projected to be in Accommodation and food service activities. This sector is also projected to see the second highest growth in Gloucester and the county and the third highest growth in Stroud and Tewkesbury.

The Education sector is expected to see the highest rate of growth in Gloucester, this sector is also projected to see the second highest growth in Cheltenham, Forest of Dean and Stroud and the third highest growth in Cotswold.

In Stroud the Wholesale and retail trade sector is expected to experience the greatest growth, this sector is projected to see the second highest rate of growth in Cotswold and the third highest growth in Gloucester.

[626] Oxford Economics

The Human health and social work activities sector is expected to see the greatest growth in Tewkesbury, this sector is also projected to see the third highest rate of growth in Cheltenham.

Four sectors are projected to see falling employment across all districts, these are: Agriculture, forestry and fishing; Manufacturing; Mining and quarrying; and Water supply; sewerage, waste management etc. These sectors are also forecast to see declining employment at a county, regional and national level. Employment in the Transportation and storage sector is projected to decline in all districts except Cotswold. The Administrative and support services activities sector is expected to decline in all districts except Tewkesbury and employment in Electricity, gas, steam and air conditioning supply is projected to fall in all districts except Gloucester. Interestingly employment in the Construction sector is forecast to decline in Gloucester but increase in all other districts.

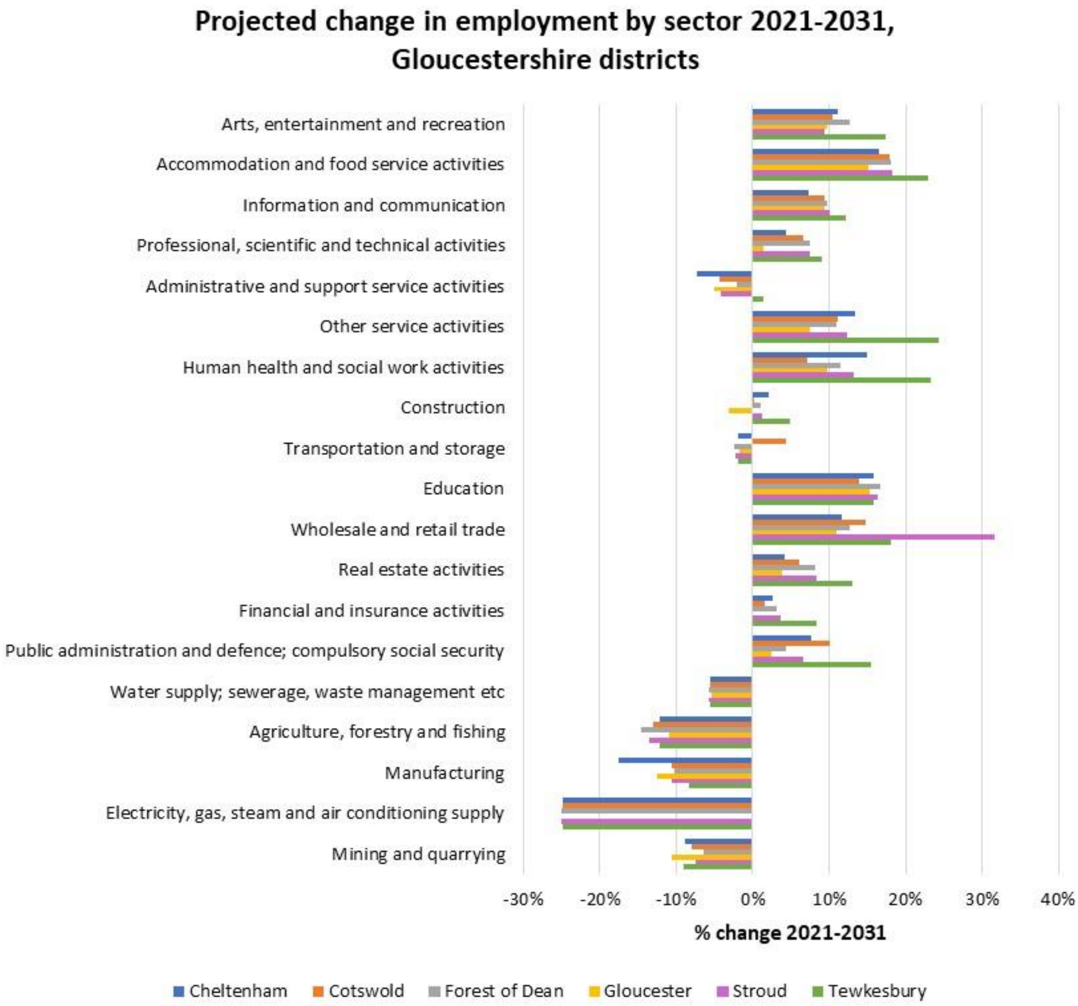

Figure 196: Projected change in employment by sector 2021-2031, Gloucestershire districts[627]

[627] *Ibid.*

16.6.2 2021-2050

Looking over the longer period 2021-2050, the three sectors projected to see the greatest growth in employment in Gloucestershire are Arts, entertainment and recreation; Administrative and support service activities; and Construction. Arts, entertainment and recreation and Administrative and support service activities were also expected to see some of the greatest growth at a national and regional level. Accommodation and food service activities is expected to see slightly greater growth across Gloucestershire than the UK as a whole.

Ten sectors in Gloucestershire are projected to see a decline in employment between 2021 and 2050, these are: Mining and quarrying; Manufacturing; Electricity, gas, steam and air conditioning supply; Water supply; sewerage, waste management etc; Agriculture, forestry and fishing; Public administration and defence; Financial and insurance activities; Wholesale and retail trade; Transportation and storage; and Education. All of these sectors except Education are also forecast to decline at a national level, and all sectors except Transportation and storage and Education are expected to decline at a regional level. Gloucestershire is expected to see a greater decline than the UK in all declining sectors except Manufacturing.

The decline in Manufacturing is particularly significant and will see the sector go from being the third largest employer in Gloucestershire in 2021, to the eighth largest in 2050.

In absolute numbers the greatest increase in employment in Gloucestershire is expected to be in Human health and social work activities. Conversely the greatest fall is projected to be in Manufacturing.

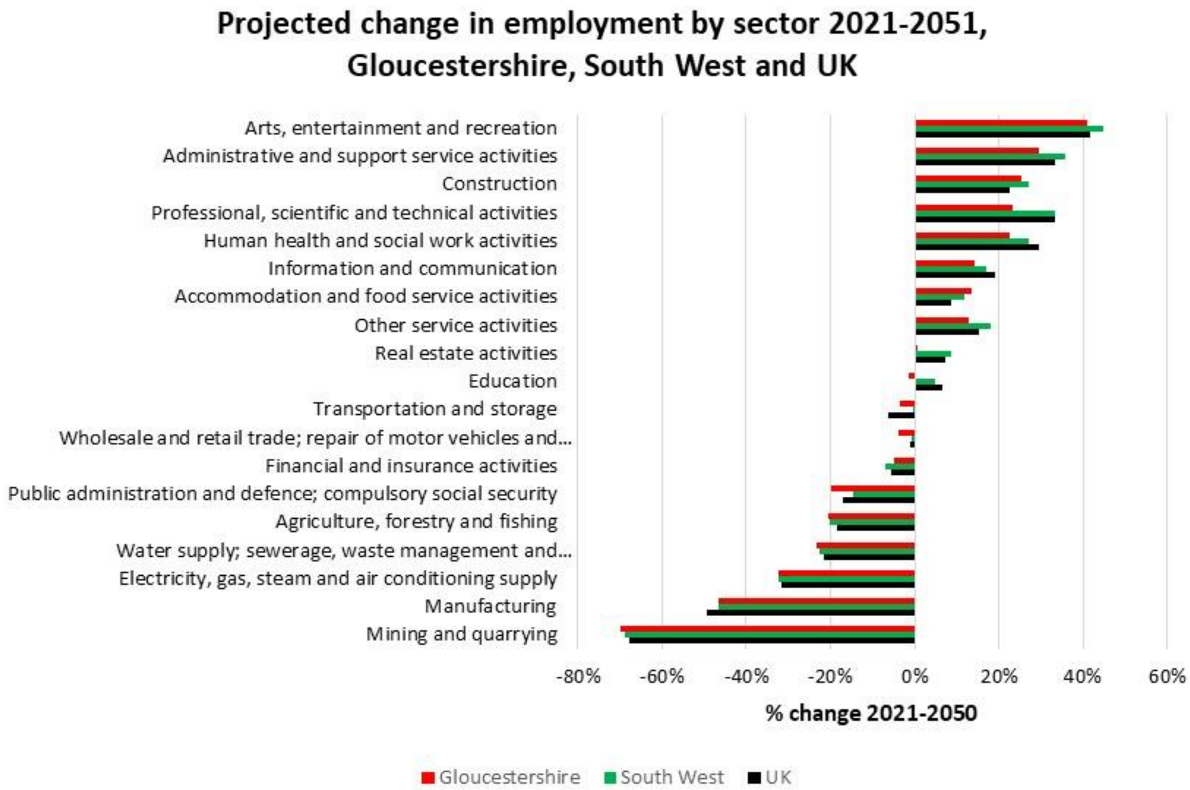

Figure 197: Projected change in employment be sector 2021-2050, Gloucestershire, South West and UK[628]

At a district level the picture is fairly similar. In all districts except Tewkesbury, the highest rate of growth is projected to be in Arts, entertainment and recreation, reflecting the picture seen at a county, regional and national level. In Tewkesbury, Arts, entertainment and recreation is expected to see the second highest rate of growth behind Administrative and support service activities. Administrative and support service activities is expected to see the second highest rate of growth at a county, regional and national level and in Cheltenham and the Forest of Dean. In Gloucester, the second highest rate of growth is expected to be in Human health and social work activities, while in Stroud it is projected to be in Accommodation and food service activities and in Cotswold in Construction.

All districts are projected to see declining employment in Manufacturing; Electricity, gas, steam and air conditioning supply; Water supply; sewerage, waste management etc; Agriculture, forestry and fishing; and Public administration and defence. All districts with the exception of Gloucester are projected to see a decline in Mining and quarrying. The Wholesale and retail sector and Transportation and storage sectors are both expected to see declines in all districts except Tewkesbury. Cotswold is the only district in the county

628 *Ibid.*

which is not projected to see falling employment in the Financial and insurance activities sector. Two districts, Cheltenham and Gloucester are projected to see declining employment in the education sector. The Real estate sector is projected to see falling employment in Gloucester and Stroud.

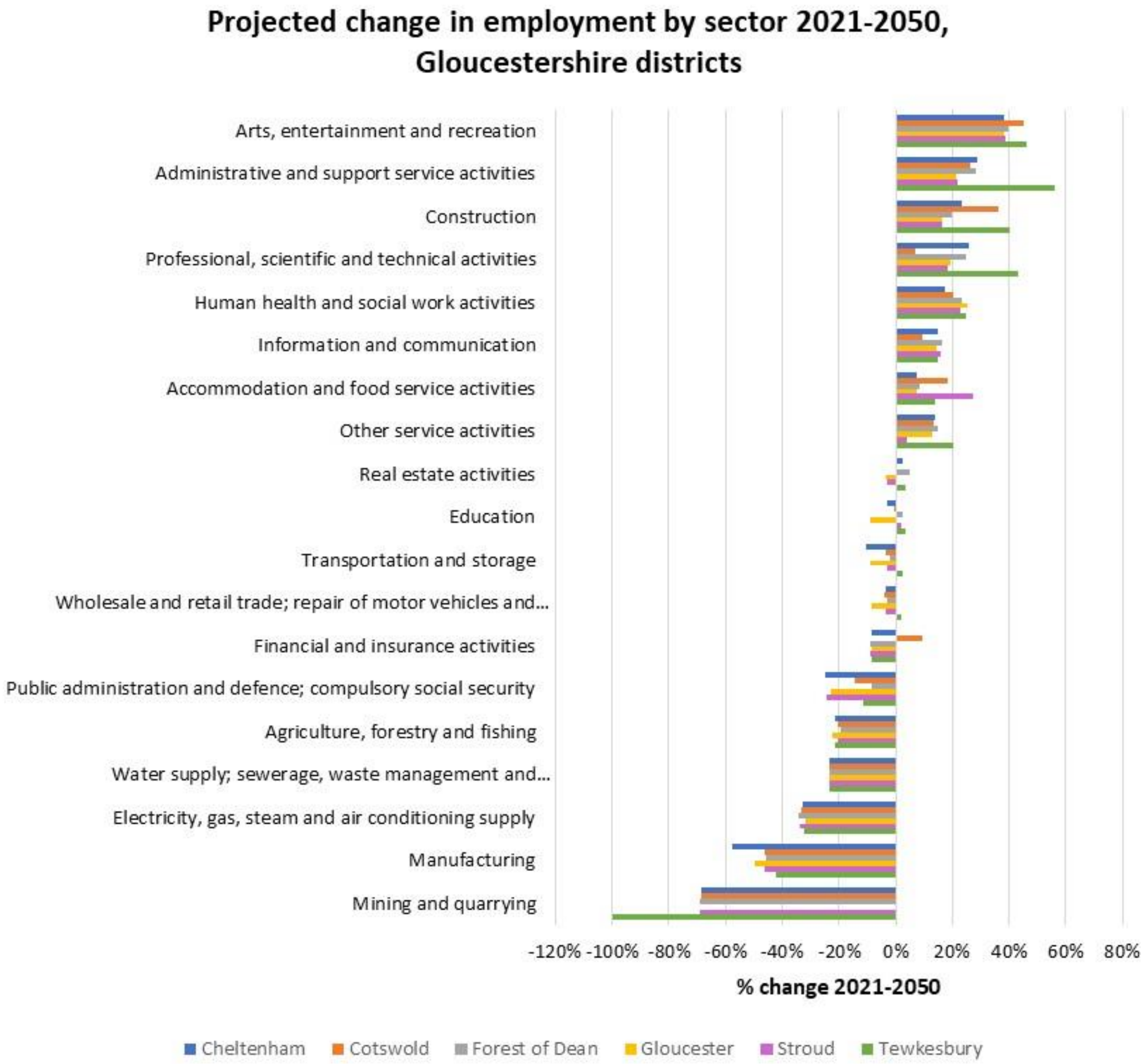

Figure 198: Projected change in employment by sector 2021-2050, Gloucestershire districts[629]

16.7 Job vacancies and recruitment

One measure of labour demand is the number of unfilled job vacancies. In periods of relatively high demand labour demand, the labour market is said to be 'tight'. Unemployment will be low and there will be many unfilled job vacancies. When the supply of labour is relatively high, the market is 'slack' with few vacancies and lots of jobseekers.

[629] *Ibid.*

16.7.1 *Employer reported vacancies*

The National Employer Skill Survey has highlighted recruitment challenges in the county. In 2019, 10% of Gloucestershire employers had at least one vacancy that was hard to fill, this was higher than the national average of 8%.

When compared to other authorities, Gloucestershire had the fifth highest proportion of employers reporting hard to fill vacancies of its geographic neighbours. It had the second highest proportion of hard to fill vacancies out of its geographic neighbours, behind Oxfordshire. It was also in the top 20% of county and unitary authorities across England and Wales for this measure. This suggests hard to fill vacancies are an issue within the county relative to other areas.

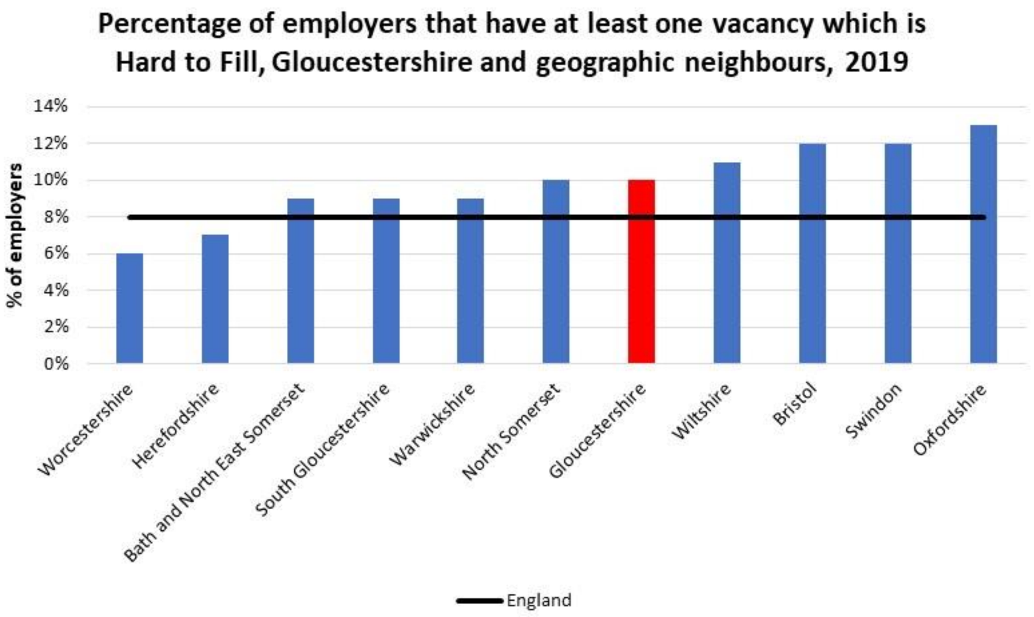

Figure 199: Percentage of employers that have at least one vacancy which is Hard to Fill, Gloucestershire and geographic neighbours, 2019[630]

[630] National Employers Skills Survey, DfE

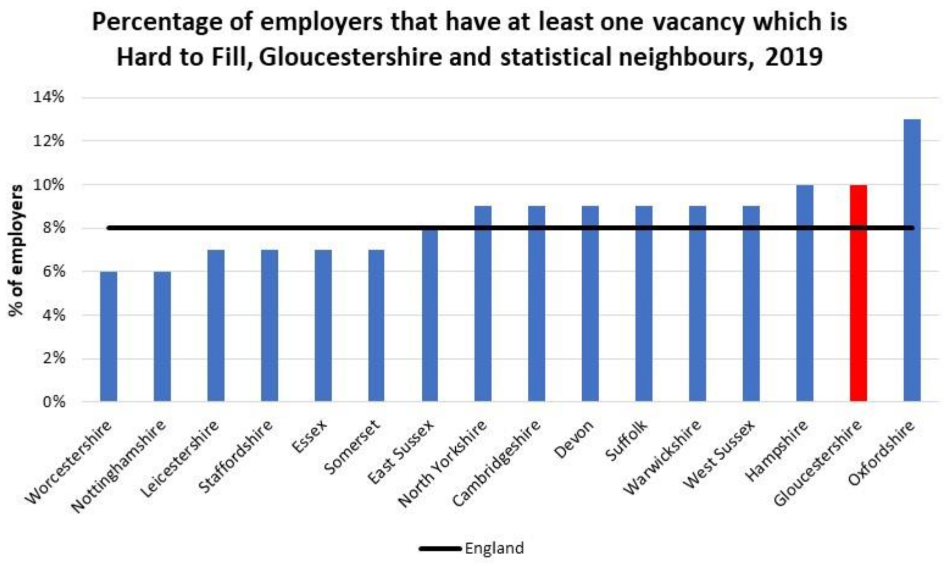

Figure 200: Percentage of employers that have at least one vacancy which is Hard to Fill, Gloucestershire and statistical neighbours, 2019[631]

This was reinforced when looking at the proportion of vacancies that were hard to fill, with 44% of vacancies in the county being classed as hard to fill compared to 36% nationally. When compared to its geographic neighbours, Gloucestershire had the third highest proportion of hard to fill vacancies. It had the fifth highest proportion of hard to fill vacancies when compared to its statistical neighbours. The county also sat in the top 40% of county and unitary authorities nationally, in terms of the proportion of vacancies which were hard to fill.

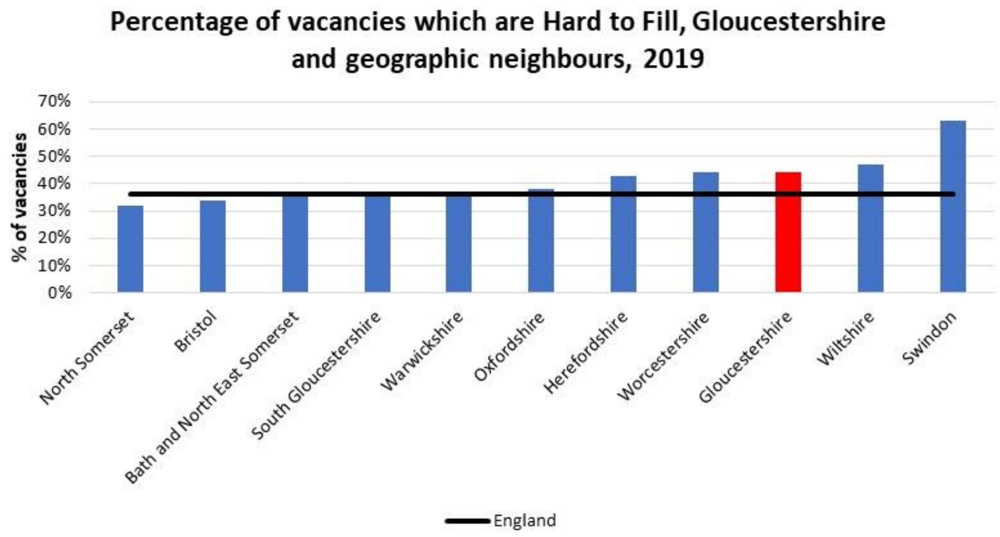

Figure 201: Percentage of vacancies which are Hard to Fill, Gloucestershire and geographic neighbours, 2019[632]

[631] *Ibid.*

[632] *Ibid.*

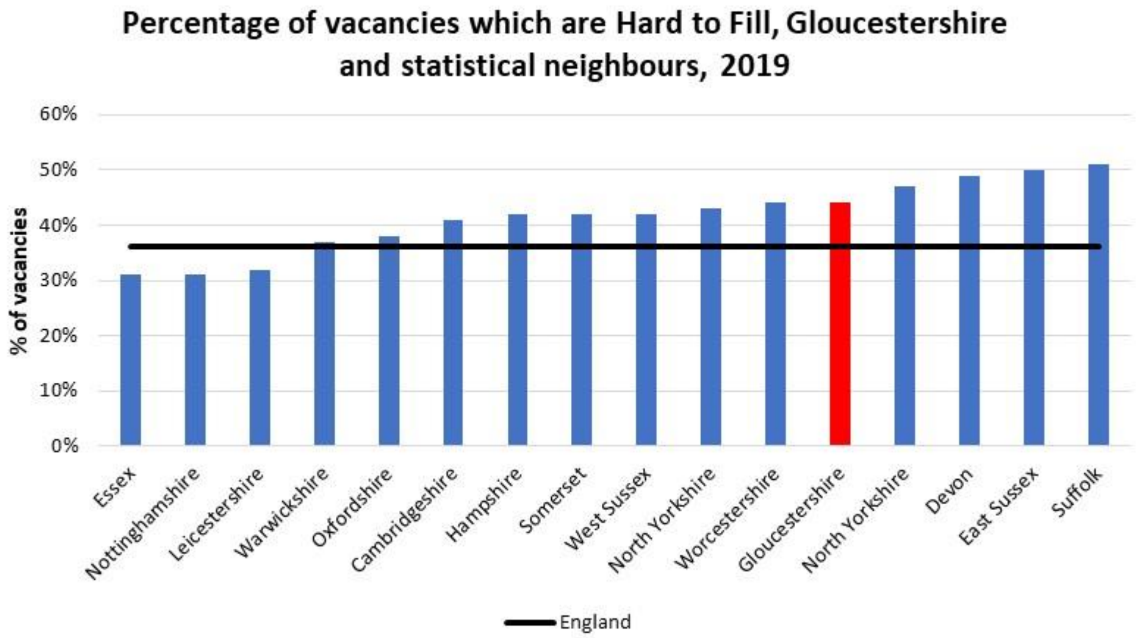

Figure 202: Percentage of vacancies which are Hard to Fill, Gloucestershire and statistical neighbours, 2019[633]

A breakdown by sector shows that in Gloucestershire the Transport and storage sector had the highest proportion of employers reporting hard to fill vacancies at 23%, this was considerably higher than the national average of 8%. This was followed by Health and social work, with 20% of Gloucestershire employers in this sector reporting hard to fill vacancies. Most sectors in Gloucestershire have higher levels of hard to fill vacancies than nationally with the exceptions of Construction; Information and communication; and Education.

[633] *Ibid.*

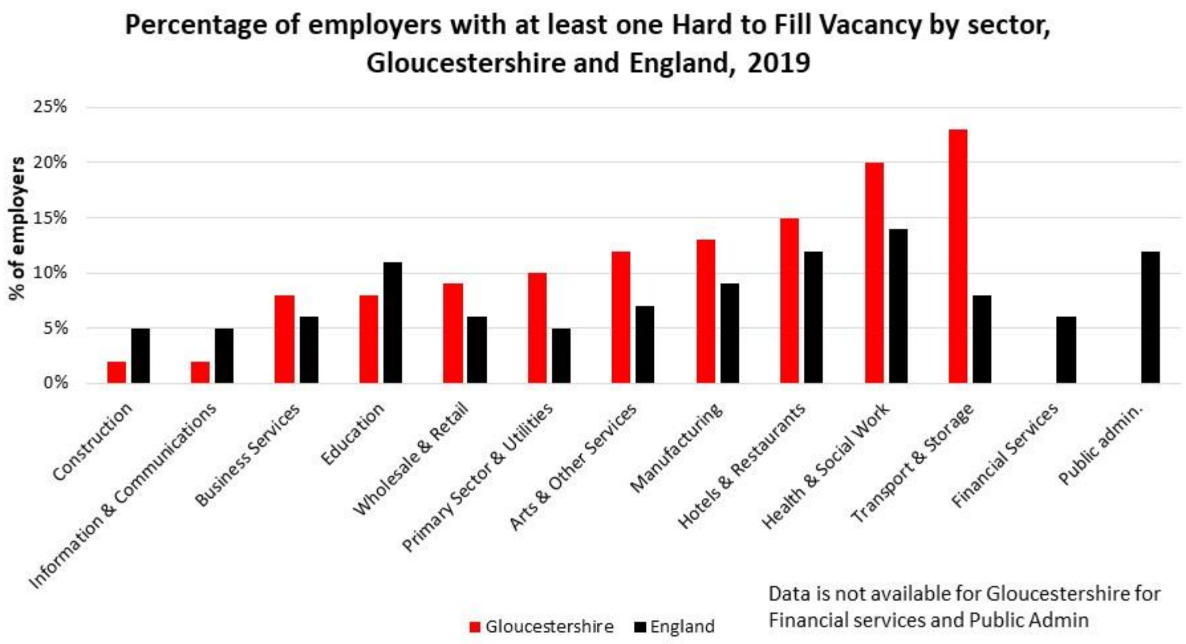

Figure 203: Percentage of employers with at least one Hard to Fill Vacancy by sector, Gloucestershire and England, 2019[634]

There are a number of reasons vacancies can be hard to fill. In Gloucestershire the most common reason cited was "not enough people interested in doing the job", with that being given as one of the reasons behind 32% of all hard to fill vacancies. This was considerably higher than the national figure of 20%. Gloucestershire also has a higher proportion of vacancies due to "Low number of applicants generally"; "Low number of applicants with the required attitude"; and "Difficulty with work permits/immigration issues" than nationally. Conversely, it has a lower proportion of hard to fill vacancies due to "Low number of applicants with the required skills"; "Poor terms and conditions"; and "Lack of work experience" than England.

[634] *Ibid.*

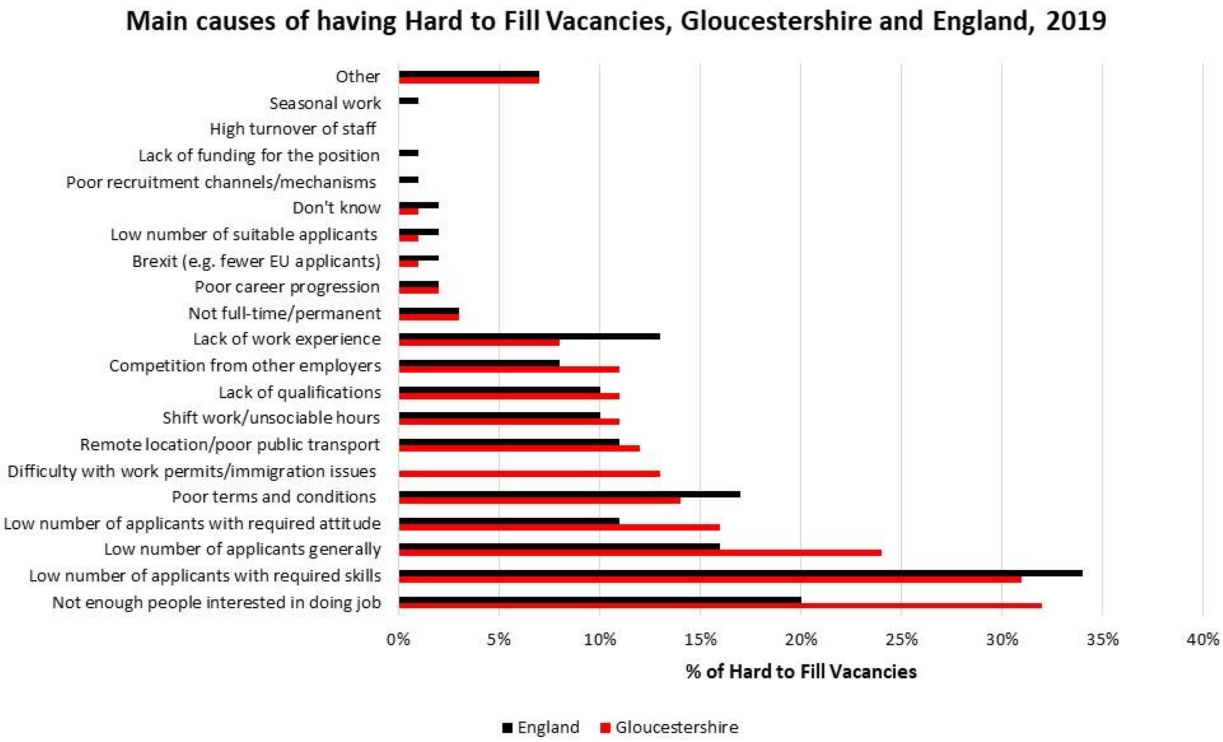

Figure 204: Main causes of having Hard to Fill Vacancies, Gloucestershire and England, 2019[635]

Hard to fill vacancies can have a number of implications for employers. Figure 205 shows the most common implication cited by employers in Gloucestershire was "increased workload for other staff", with 91% of employers in Gloucestershire with hard to fill vacancies citing this as an implication. This was slightly higher than the national average of 82%. This was followed by "increased operating costs" and "have difficulties meeting customer service objectives".

[635] *Ibid.*

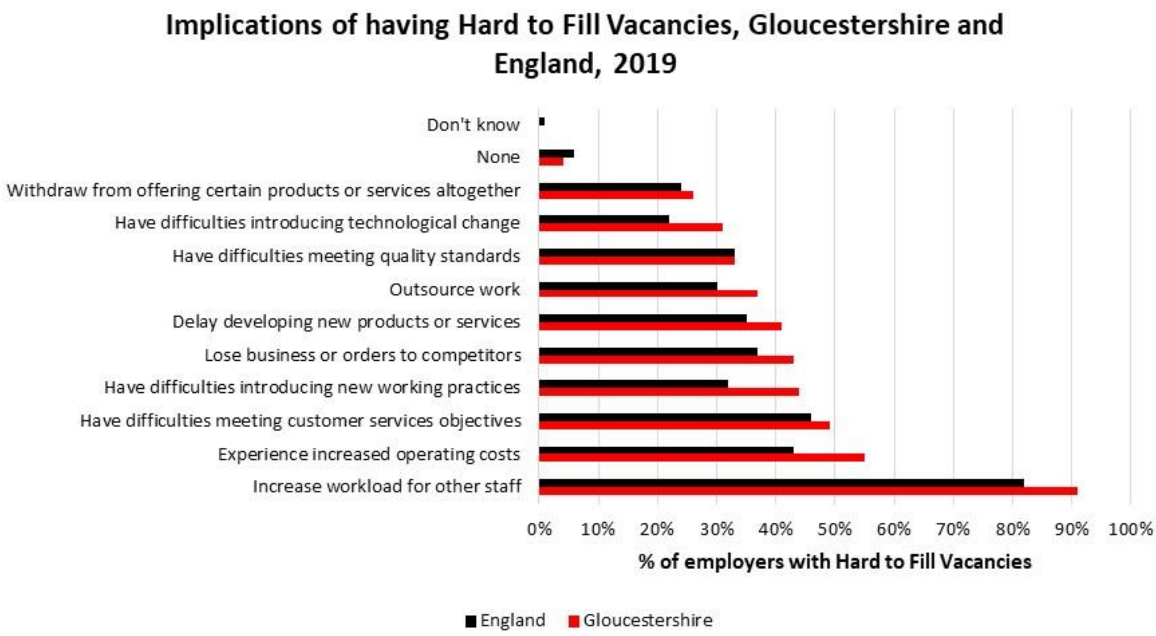

Figure 205: Implications of having Hard to Fill Vacancies, Gloucestershire and England, 2019[636]

Since 2017, the last time the survey was carried out, the proportion of employers reporting hard to fill vacancies in Gloucestershire has fallen from 15% in 2017 to 10% in 2019, at a national level there was no change. The proportion of vacancies that were hard to fill increased marginally in Gloucestershire from 43% in 2017 to 44% in 2019. This increase was reflected across England with the proportion of vacancies that were hard to fill increasing from 33% in 2017 to 36% in 2019.

Skill shortage vacancies are vacancies that are hard to fill due to a lack of skills, experience or qualifications among applicants. In 2019, 6% of employers in Gloucestershire reported skills shortage vacancies. This was in line with the national average and statistical neighbours. When compared to its geographic neighbours it was better than eight of the 12 areas. Gloucestershire also sat in the middle 20% of county and unitary authorities across the country, in terms of the proportion of employers reporting skill shortage vacancies.

[636] *Ibid.*

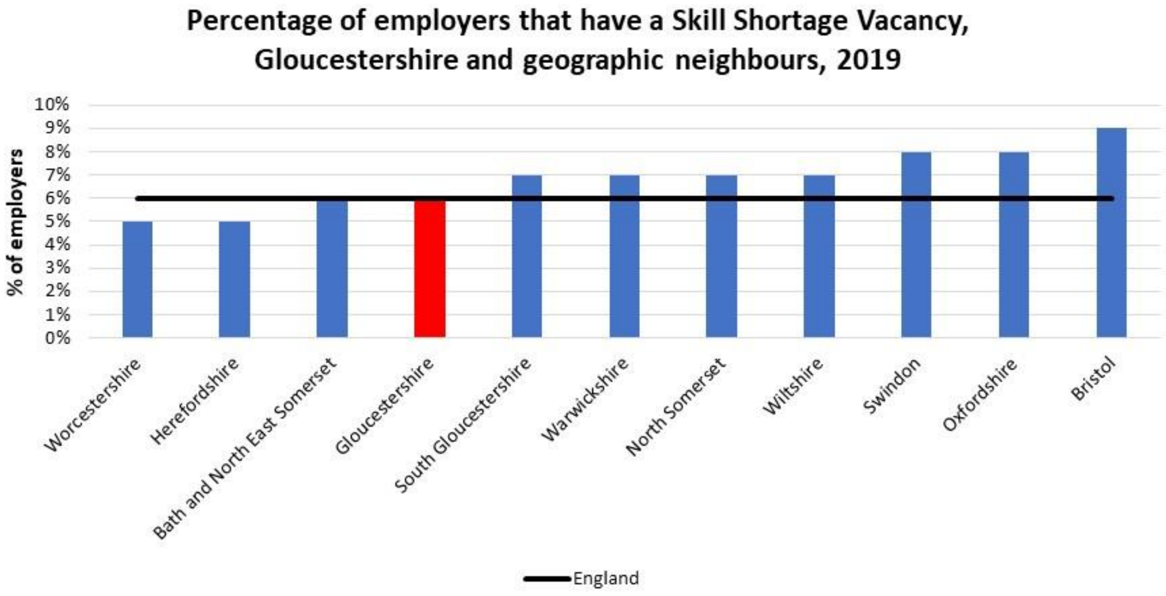

Figure 206: Percentage of employers that have a Skill Shortage Vacancy, Gloucestershire and geographic neighbours, 2019[637]

When expressed as a percentage of all vacancies, 24% of vacancies in Gloucestershire were classed as skill shortage vacancies. This was in line with the national average (25%) and puts Gloucestershire in the middle of its statistical and geographic neighbours and all authorities across England. This suggests that while hard to fill vacancies are a particular issue within the county, skill shortage vacancies are in line with elsewhere.

Figure 207 shows that in Gloucestershire the Transport and storage sector had the highest proportion of employers reporting skill shortage vacancies at 20%, this was considerably higher than the national average of 6%. This was followed by Health and social work (15%) and Manufacturing (13%), with Gloucestershire having a greater proportion of skill shortage vacancies in both of these sectors than nationally. A similar picture is seen when looking at a breakdown of vacancies by sector with the Transport and storage sector standing out with 68% of vacancies in this sector being classed as skill shortage vacancies, this was considerably higher than the national average of 23%. This was followed by Manufacturing, with 46% of vacancies in this sector being skill shortage vacancies compared to 36% nationally. Interestingly Primary Sectors and Utilities have a much smaller proportion of skill shortage vacancies in Gloucestershire (2%) than England (29%).

[637] *Ibid.*

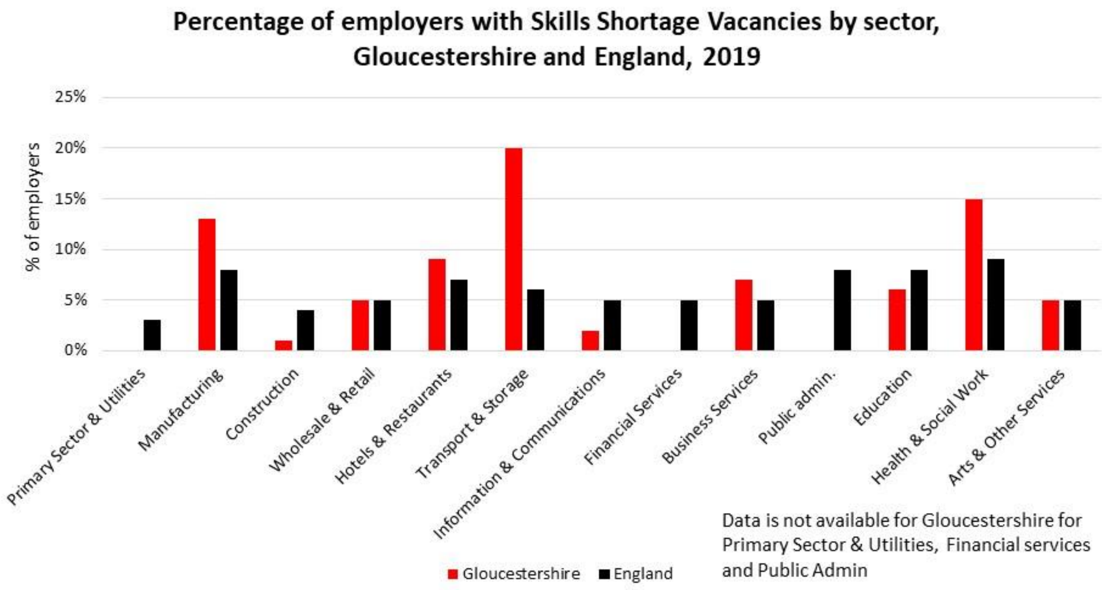

Figure 207: Percentage of employers with Skills Shortage Vacancies by sector, Gloucestershire and England, 2019[638]

The Employer Skills Survey asks what types of technical/practical skills were difficult to obtain from applicants. The most common skills cited were "specialist skills or knowledge needed to perform the role" and "solving complex problems requiring a solution specific to the situation". The picture seen in Gloucestershire broadly reflects that observed nationally.

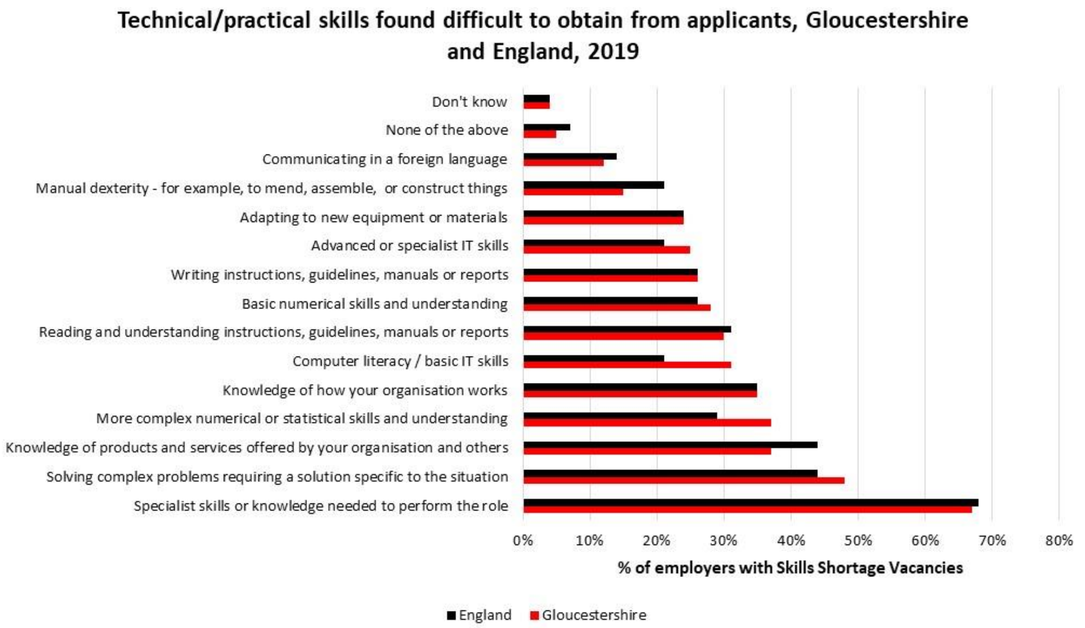

Figure 208: Technical/practical skills found difficult to obtain from applicants, Gloucestershire and England, 2019[639]

638 *Ibid.*

639 *Ibid.*

The survey also asks about soft/people skills. Again, the situation in Gloucestershire reflects the picture across England with the most common skills cited being "ability to manage own time and prioritise own tasks", "managing their own feelings, or handling the feelings of others" and "customer handling skills".

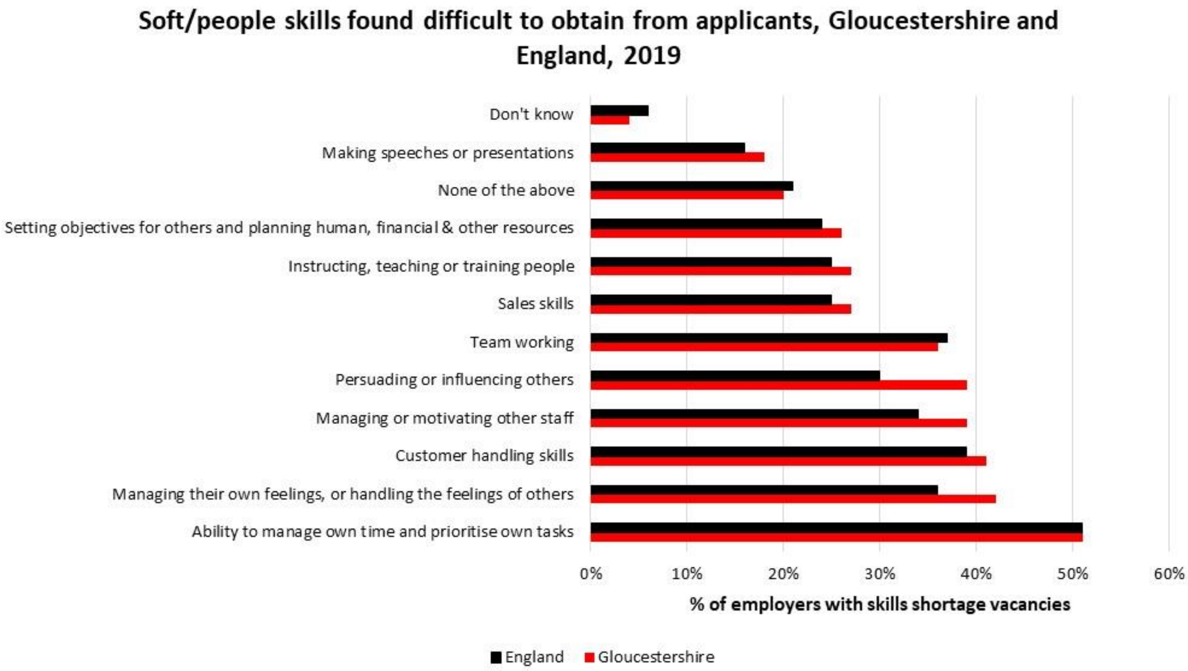

Figure 209: Soft/people skills people found difficult to obtain from applicants, Gloucestershire and England, 2019[640]

Since 2017, the proportion of employers reporting skill shortage vacancies in Gloucestershire has fallen from 9% in 2017 to 6% in 2019, at a national level there was no change. The proportion of vacancies that were skill shortage vacancies decreased marginally in Gloucestershire from 25% in 2017 to 24% in 2019. At a national level, the proportion of vacancies that were skill shortage vacancies increased from 22% in 2017 to 25% in 2019.

16.7.2 Job postings

Job posting data[641] also highlights recruitment issues. The number of vacancies advertised across the county has increased considerably since March 2021 and has been consistently higher than pre covid levels when they stood at 11,048 vacancies in September 2019. In June 2023 they reached record levels with 29,879 unique vacancies across the county, and although they have since fallen, they are still considerably higher than pre covid levels. Figure 210 and Figure 211 shows this trend has been reflected at a district and national level.

[640] *Ibid.*

[641] This is provided by Lightcast, a tool which delivers access to job vacancies from a comprehensive range of online sources, its nature means it will not capture all vacancies but gives an indication.

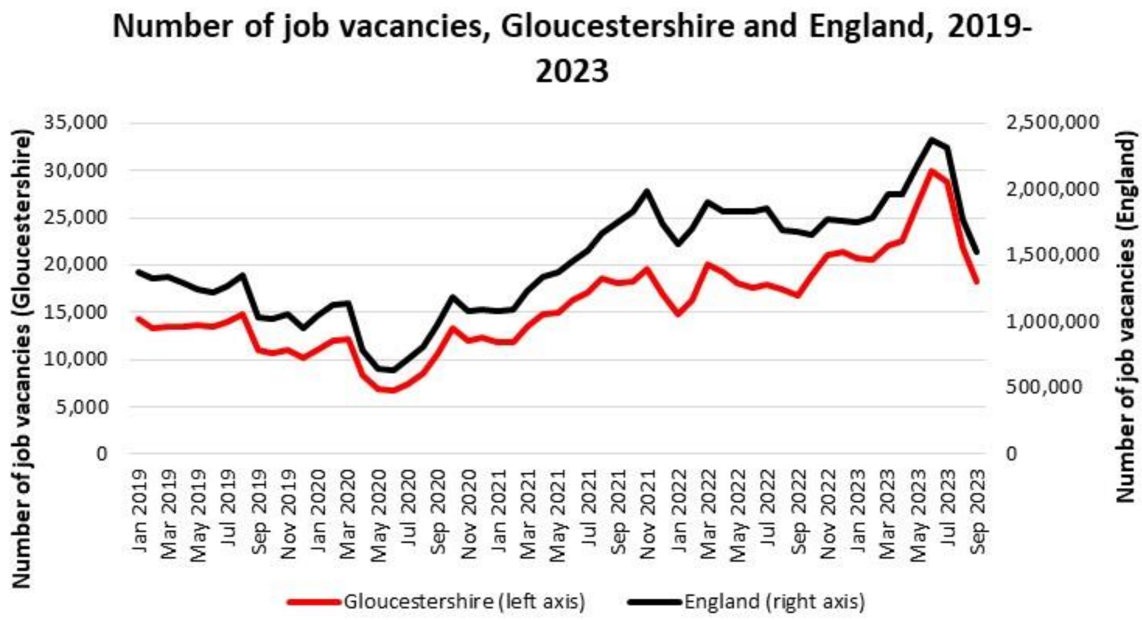

Figure 210: Number of job vacancies, Gloucestershire and England, 2019-2023[642]

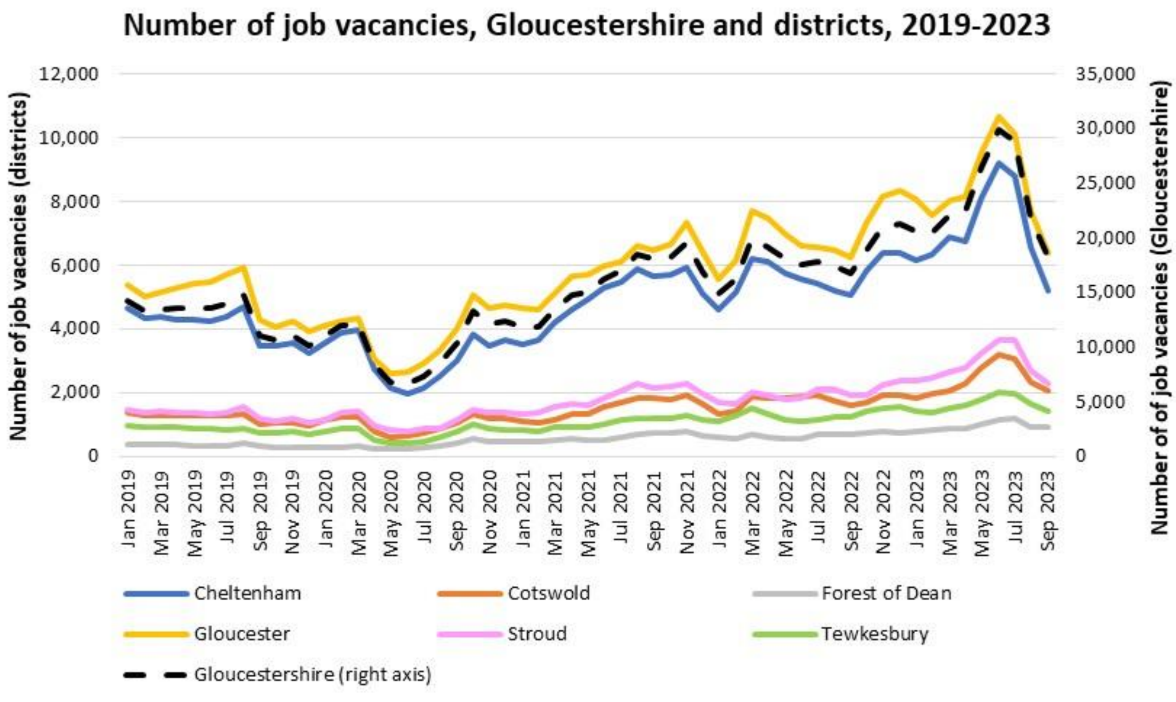

Figure 211: Number of job vacancies, Gloucestershire and districts, 2019-2023[643]

When expressed as a ratio of job vacancies per residents claiming unemployment related benefits you can see that with the exception of the pandemic the number of vacancies has consistently outnumbered the number of claimants. This is reflected at a regional and national level and in most districts

[642] Lightcast
[643] *Ibid.*

within the county. Between September 2021 and July 2023 the ratio of vacancies per claimants increased and was considerably higher than pre covid levels between November 2022 and July 2023, peaking at 3.4 vacancies per claimant in Gloucestershire in June 2023. The ratio has since fallen, standing at 2.0 claimants per vacancy in September 2023, in line with pre-pandemic levels. Despite this recent fall, the claimant to vacancy ratio is still considerably higher than the equivalent figures for England, suggesting recruitment challenges may be greater in Gloucestershire than elsewhere.

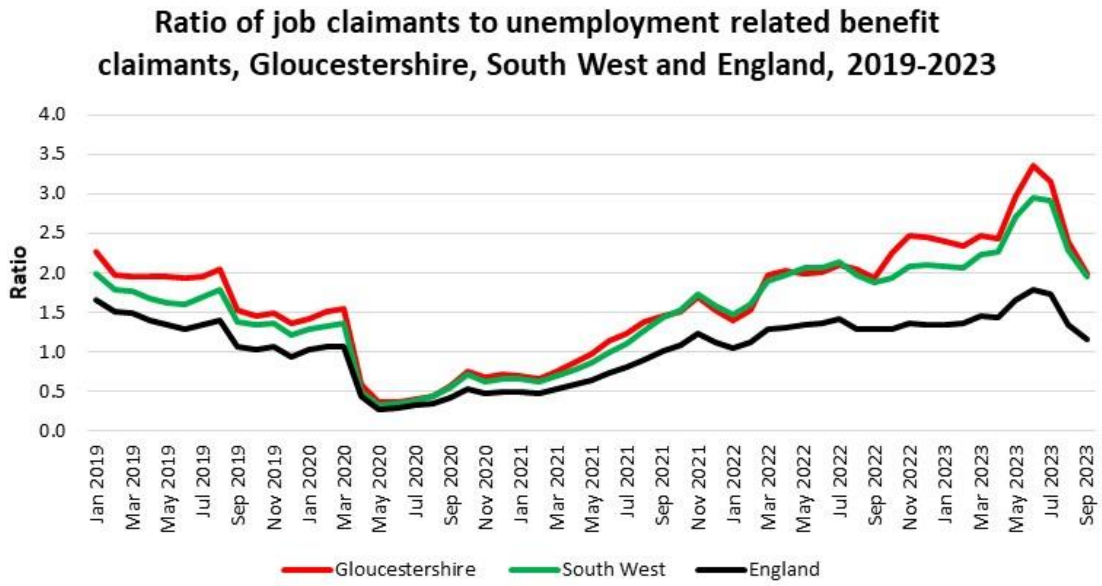

Figure 212: Ratio of job claimants to unemployment related benefit claimants, Gloucestershire, South West and England, 2019-2023[644]

Figure 213 shows that at district level Cheltenham stands out as having the highest ratio of job vacancies per residents claiming unemployment related benefits peaking at 5.0 vacancies per claimant in June 2023. The Forest of Dean has the lowest ratio and has had less than one claimant per vacancy for most months over the period shown in Figure 213.

[644] Lightcast and Claimant Count, ONS

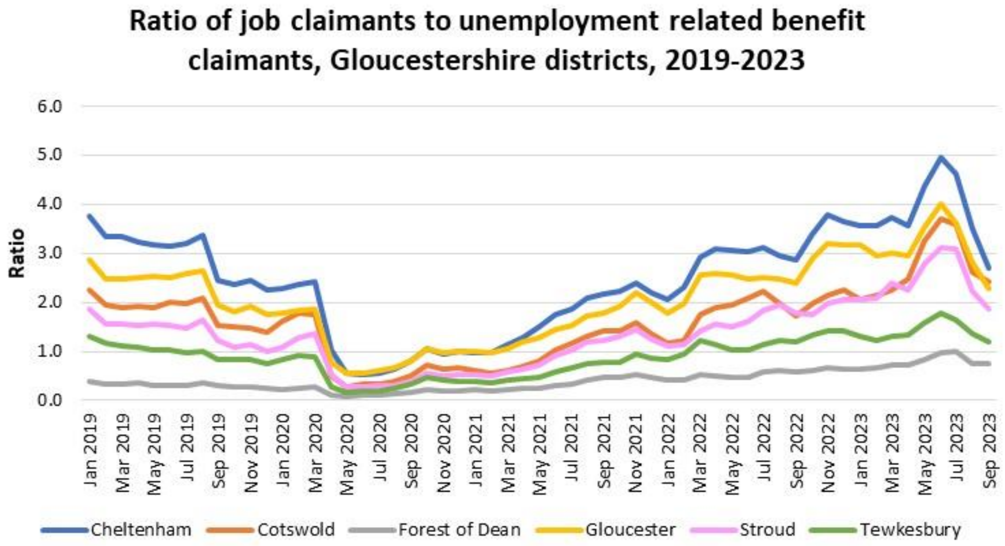

Figure 213: Ratio of job claimants to unemployment related benefit claimants, Gloucestershire districts, 2019-2023[645]

Job vacancy data can also be broken down to identify occupations in demand. This allows us to identify which areas may be facing recruitment challenges.

In September 2023, the highest number of vacancies advertised was for Professional Occupations (4,156) and Associate, Professional and technical occupations (2,605) reflecting the employment structure in the county.

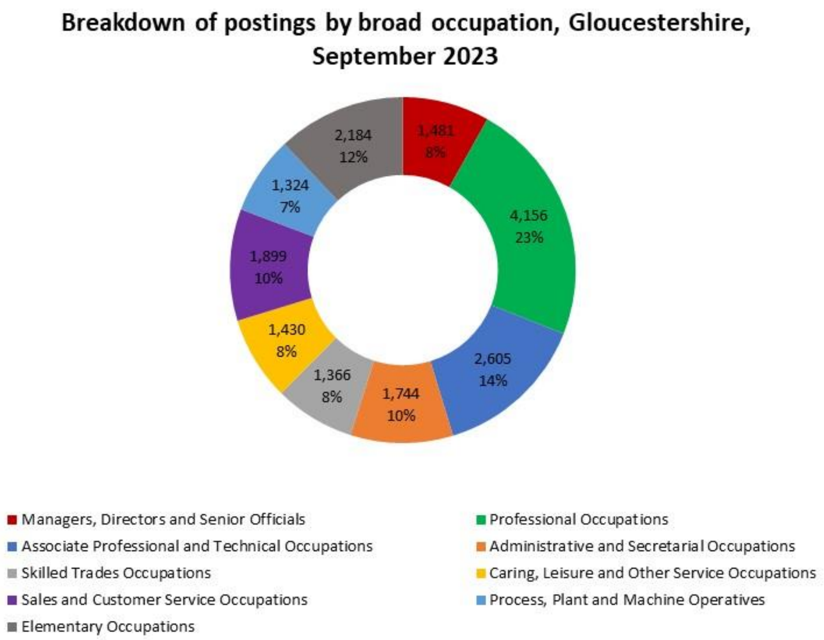

Figure 214: Breakdown of postings by broad occupation, Gloucestershire, September 2023[646]

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645 *Ibid.*

646 *Ibid.*

Over time most broad occupations have followed a similar trend. The number of job postings fell between September 2019 and September 2020 reflecting the start of the COVID 19 pandemic. They then increased between September 2020 and September 2021 as the economy began to reopen following the pandemic, before falling slightly between September 2021 and September 2022. Between September 2022 and September 2023, the number of postings in most occupations increased. The exceptions were Managers, Directors and Senior Officials and Professional Occupations which saw a decline in postings between September 2022 and September 2023, although postings are still considerably higher than pre pandemic levels in these occupations.

The greatest increase has been in Elementary Occupations which have seen an 118% increase between September 2019 and September 2023. This increase has seen the proportion of postings falling into this category increasing from 9.1% in September 2019 to 11.9% in September 2023. Conversely the proportion of postings advertising for Professional Occupations has fallen from 25.8% in September 2019 to 22.7% in September 2023. It is worth noting that this does not necessarily mean the structure of the labour market is changing with jobs becoming lower skilled but might indicate more churn within Elementary Occupations or increasing challenges recruiting to these positions.

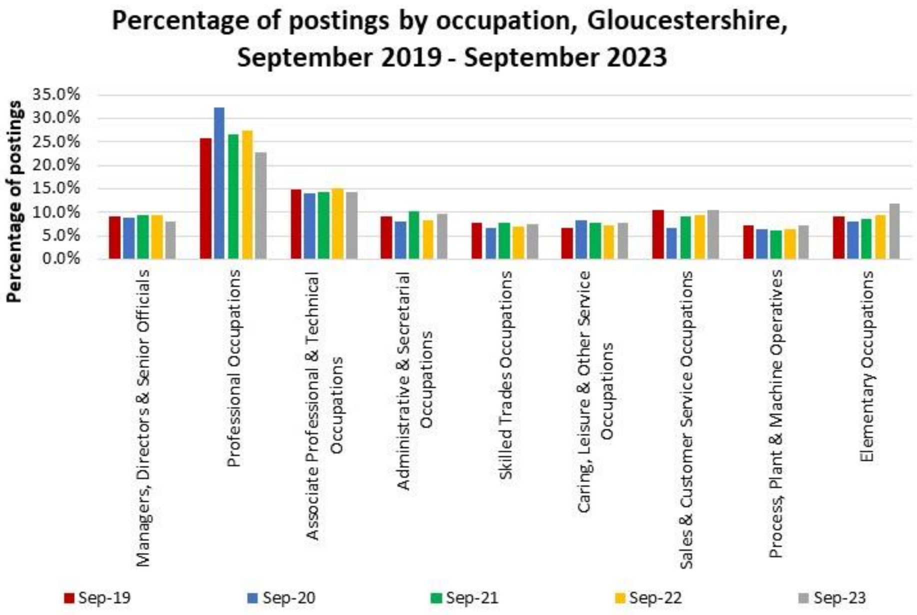

Figure 215: Percentage of posting by occupation, Gloucestershire, September 2019-September 2023[647]

Job vacancy data can also be broken down to identify skills in demand. This information can help us identify emerging skills required as the labour market evolves or identify skills gaps. Skills can be broken down into specialised skills or generic skills.

[647] *Ibid.*

In September 2023, the specialised skills most in demand largely related to Finance with skills including Auditing Finance, Invoicing and Accounting making up four of the top six skills in demand. Figure 217 shows the most common generic skills in demand include Communications, Customer Service and Management.

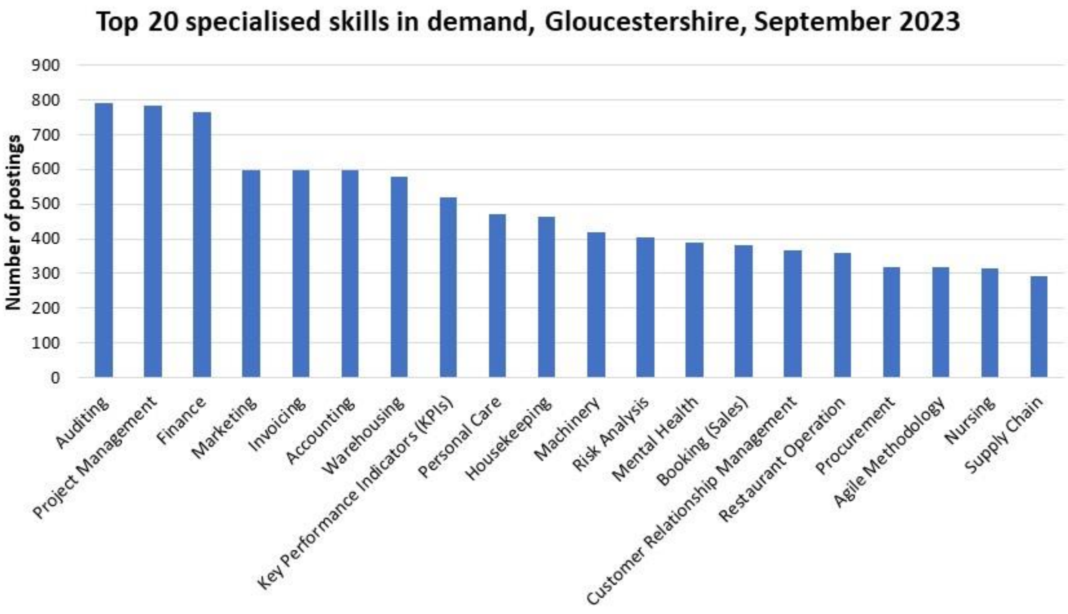

Figure 216: Top 20 specialised skills in demand, Gloucestershire, September 2023[648]

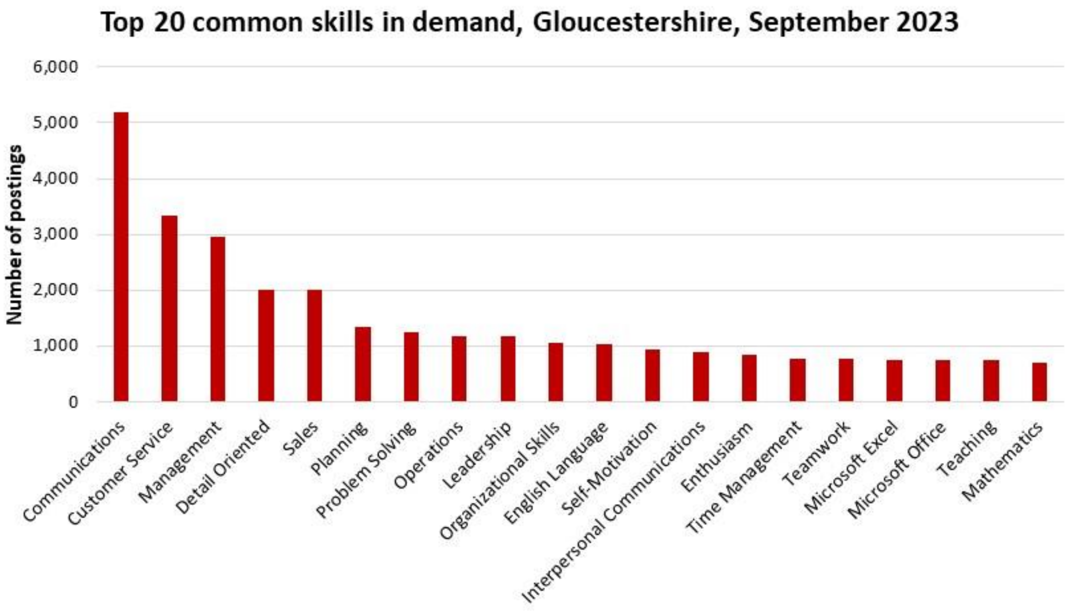

Figure 217: Top 20 common skills in demand, Gloucestershire, September 2023[649]

[648] *Ibid.*

[649] *Ibid.*

Change in the type of skills being mentioned in job postings can highlight new and emerging skills needs or highlight where there are existing skills gaps.

Between 2022 and 2023 the greatest increase in demand was for specialist skills relating to sales including Booking and Sales Prospecting as well as Finance including Invoicing and Accounting. Conversely the greatest fall in demand was Agile Methodology. There was also a decline in demand for a number of skills related to Programming and Software Development. Similar trends were observed when looking over the longer period 2019-2023. It is worth noting the decline in Midwifery and Nursing skills and increase in skills related to Sales were not evident during this longer period.

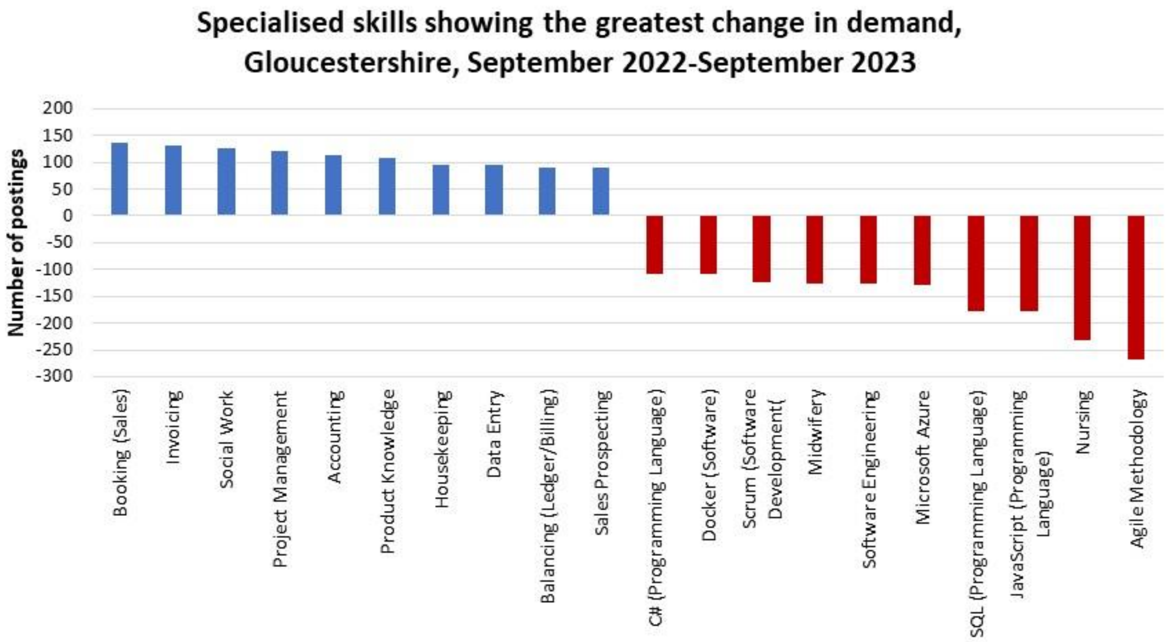

Figure 218: Specialised skills showing the greatest change in demand, Gloucestershire, September 2022-September 2023[650]

Looking at change in demand for common skills the greatest increase in demand between 2022 and 2023 was for Communication skills followed by Customer service and Detail Orientated. The greatest fall in demand was for English Language and Self-Motivated. Looking over the longer period 2019-2023 the greatest increase in demand was also Communication and Customer service while the greatest fall was for Leadership Development.

[650] *Ibid.*

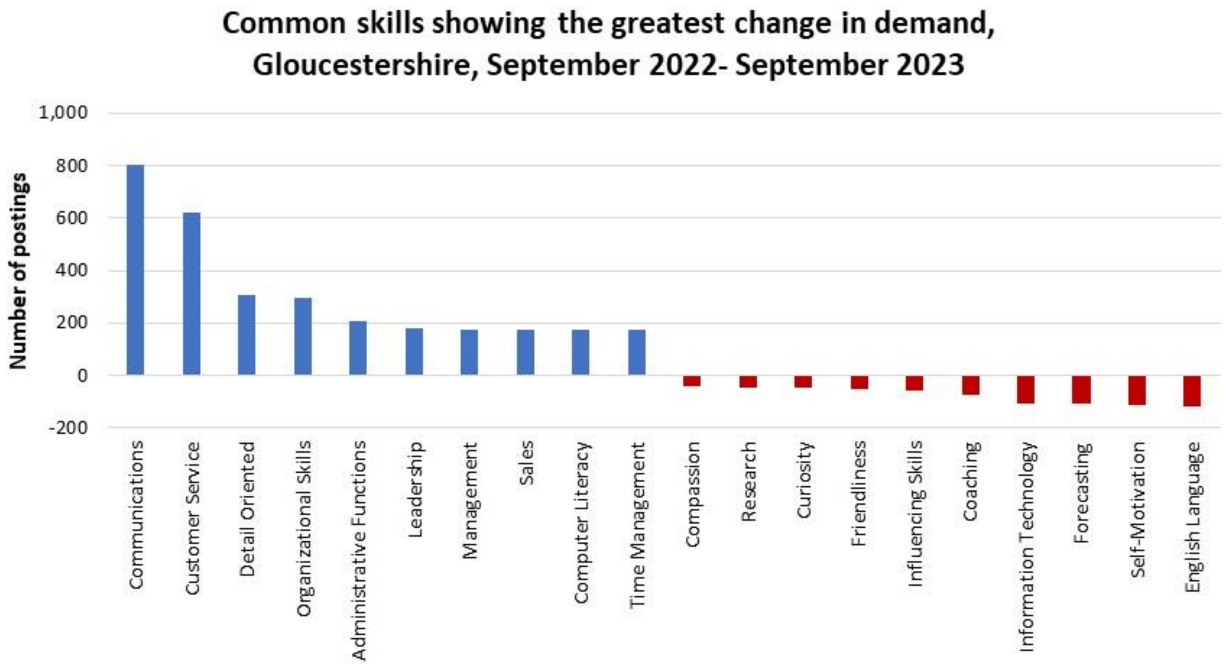

Figure 219: Common skills showing the greatest change in demand, Gloucestershire, September 2022-September 2023[651]

16.7.3 Local Skills Improvement Plan (LSIP)

In order to ensure skills provision delivered post-16 meets the economic requirement for the country's continued growth, the government has tasked each local area to deliver a Local Skills Improvement Plan (LSIP). The LSIP is designed to put additional employer voices at the heart of skills planning. Providing better intelligence and a more joined up regional approach to meet employer's needs, helping to close the gap between post-16 (technical) education and workforce readiness and to aid in planning and preparation for changes to industrial needs within priority sectors. Gloucestershire's LSIP is focused on four sectoral areas: Advanced Manufacturing and Engineering; Construction; Agriculture, Agric-tech and Land Management; and Digital Industries. Work to date has focused on building an understanding of the views of stakeholders including providers and employers. Many of the initial findings were specific to these sectoral areas and can be found here but some were relevant to the economy as a whole and have been summarised below as they provide an interesting insight into the views of employers:

Across all sectors there were a number of common generic skills which are recognised as gaps:

- Communication across all categories.
- Work readiness especially of younger staff members, realistic view of the workplace and roles within employers, motivation and work ethic.

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651 *Ibid.*

- Leadership potential and behaviours, supervision and management of people and projects/workstreams.
- Administration organisational skills including time management.
- Problem solving, critical thinking and an understanding of how individual roles impact on the outcomes of the whole organisation.
- Succession planning and workforce development
- Resilience especially where hybrid and remote working is the norm.

Employers also identified significant training needs in utilisation of generic and specialist digital systems. Common themes across sectors included:

- Email and communication platforms, including calendar management
- Communication via digital modes
- Infrastructure for hybrid working, such as Microsoft Teams.
- Customer Relationship Management Systems (CRM)
- Generic office functions for data and usage (including Excel and databases)
- Social media and marketing expectations
- There is a disconnect in employer expectations with younger new entrants to the workforce and their ability to use core office platforms – having grown up with online social activities and digital pastimes does not necessarily translate to the digital skills required by business.

Across all sectors it was suggested there was a need for (short course) management training on the implications of the UK's Net Zero Strategy, decarbonisation, sustainability and climate change for their sector, organisation and role, picking up key themes such as:

- Calculations and monitoring of carbon budgets, lifecycle assessments, whole life concept including disposal.
- Understanding funding for Net Zero, including Green Finance, cost benefit analysis, measurement of footprints, Return on Investment.
- Regulatory/legislative frameworks and expected changes, required timescales for action, clear direction of travel, including carbon offsetting.
- Waste and resources management, pollution, waste and plastics on sites/in delivery
- Sustainability is often isolated in roles rather than embedded in delivery roles.

- Communicating change and sustainability

Employers also felt existing skills provision could be improved. It was felt there was a need to break down the barriers that currently exists between industry and teaching. For example, the terms and conditions which make it difficult to recruit teachers with relevant recent experience especially in the sectors with regular technological developments.

Courses need to be flexible in both content and delivery, with modular options and the ability to reflect and respond to market changes.

The LSIP also identified a gap in awareness of existing skills provision. Most employers have significant needs for information, advice and guidance about different qualifications and courses. There was recognition that the region's employers only have a partial understanding of both apprenticeships and T-Levels.

16.8 Green jobs

Green jobs are those that have a direct and positive impact on the environment, which includes jobs that have environmentally conscious credentials, such as those in energy efficiency, renewable energy, electric vehicles, conservation, sustainability, waste reduction and adaption to, or reduction in, climate change. Other jobs included in 'green' include those in the circular economy, those that contribute towards reusing, reducing, recycling and repairing our resources through more sustainable and less consumption heavy practices.

Demand for green jobs is increasing as industries prepare themselves for a greener future and net zero. This means the challenge for local areas is ensuring they can meet this demand.

16.8.1 Current and past green job vacancies

Online job postings[652] can be used to give an indication of green job vacancies in Gloucestershire. Green job vacancies are classed as those that align with a predefined list of 107 green specialized skills. Some of these skills include Environmental Management, Wildlife Conservation, Energy Supply (including solar, wind and water energy), Energy Conservation, Recycling, Forestry, Water and Waste (see Appendix 1 for the full list).

These categories can help to provide insights into the demand for green jobs and skills, but they do not offer a complete picture. Some green job titles and skills may not have been identified, while other jobs in green priority sectors will have titles which are not so obviously green.

[652] This is provided by Lightcast, a tool which delivers access to job vacancies from a comprehensive range of online sources, its nature means it will not capture all vacancies but gives an indication.

Over the 12 month period between September 2022 and September 2023, there were a total of 4,056 green jobs posted online in Gloucestershire, this was 3.4% of all jobs posted and was lower than the South West (3.7%) but higher than England (3.3%).

A similar picture was seen when looking at more recent monthly data. In September 2023 Gloucestershire saw 3.3% of jobs posted online requiring at least one green skill, which was lower than the South West (3.8%) and England (3.5%).

Figure 220 looks at the breakdown of green jobs by district in the twelve months from September 2022 to September 2023. Gloucester saw the largest number of green jobs with 42.3% of green jobs located here, followed by Cheltenham (20.0%) and Stroud (15.6%). The Forest of Dean saw the smallest share of green jobs posted (3.8%).

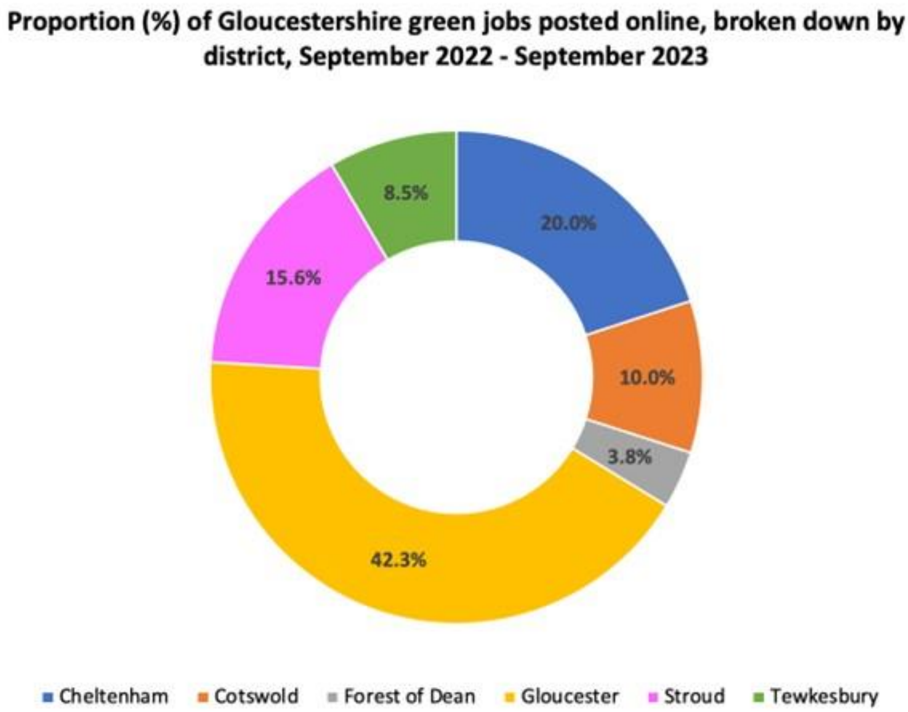


Figure 220: Proportion (%) of Gloucestershire green jobs posted online, broken down by district, September 2022 – September 2023[653]

The picture is slightly different when looking at green jobs as a proportion of total jobs during the same time period. Figure 221 shows that although Gloucester saw the largest number of green jobs, Stroud saw a larger proportion of green jobs with 4.4% of all jobs posted in Stroud being classed as green. This is

[653] Lightcast.

followed by Tewkesbury (4.0%) and Gloucester (3.9%). Cheltenham saw the smallest proportion of green jobs (2.3%) despite seeing the second largest number of green jobs.

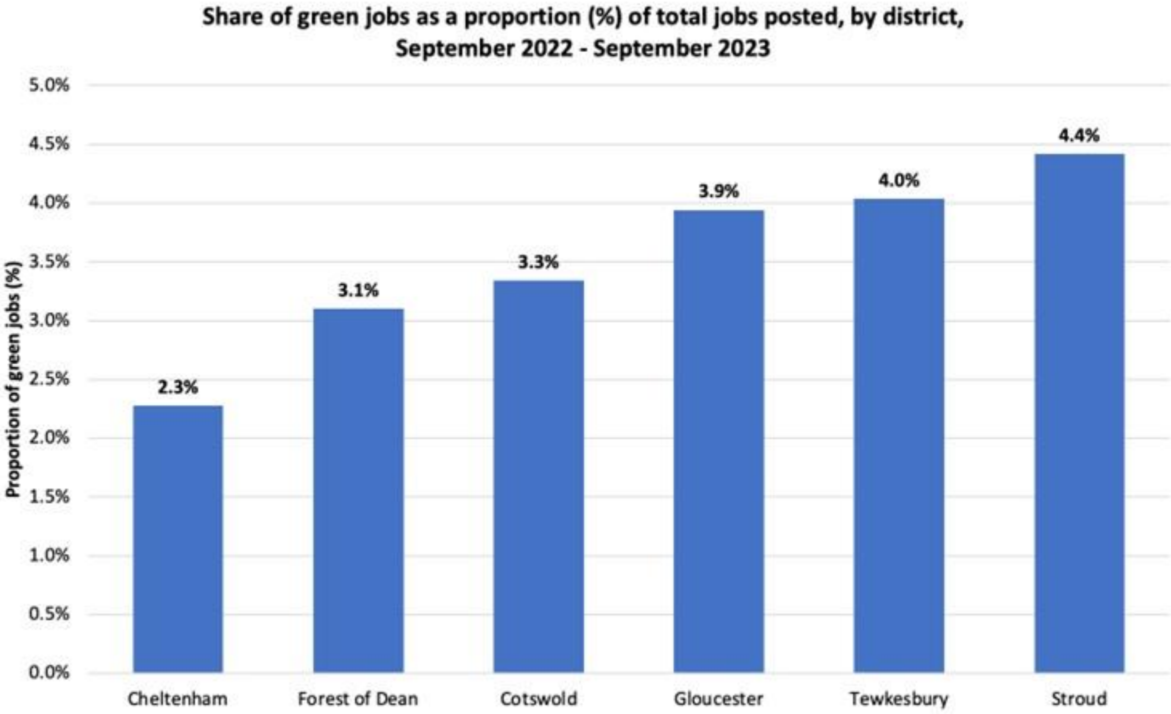


Figure 221: Share of green jobs as a proportion (%) of total jobs posted, by district, September 2022 – September 2023[654]

Figure 222 shows the trend in green jobs from January 2019 to September 2023. The trend in the proportion of green jobs posted has been similar across Gloucestershire, South West and England. All areas saw fairly steady levels in the proportion of green jobs between January 2019 and January 2022. Between January 2022 and March 2022, there was a significant increase in the proportion of green jobs, with them accounting for 4.4% of total jobs in Gloucestershire in March 2022. Since March 2022 the proportion of green jobs has declined in Gloucestershire and the South West, although they remain above levels seen between 2019-2021. Interestingly between March 2022 and September 2023 the proportion of green jobs has increased nationally. The South West has generally seen a slightly higher proportion of green jobs than both Gloucestershire and England throughout this period.

[654] *Ibid.*

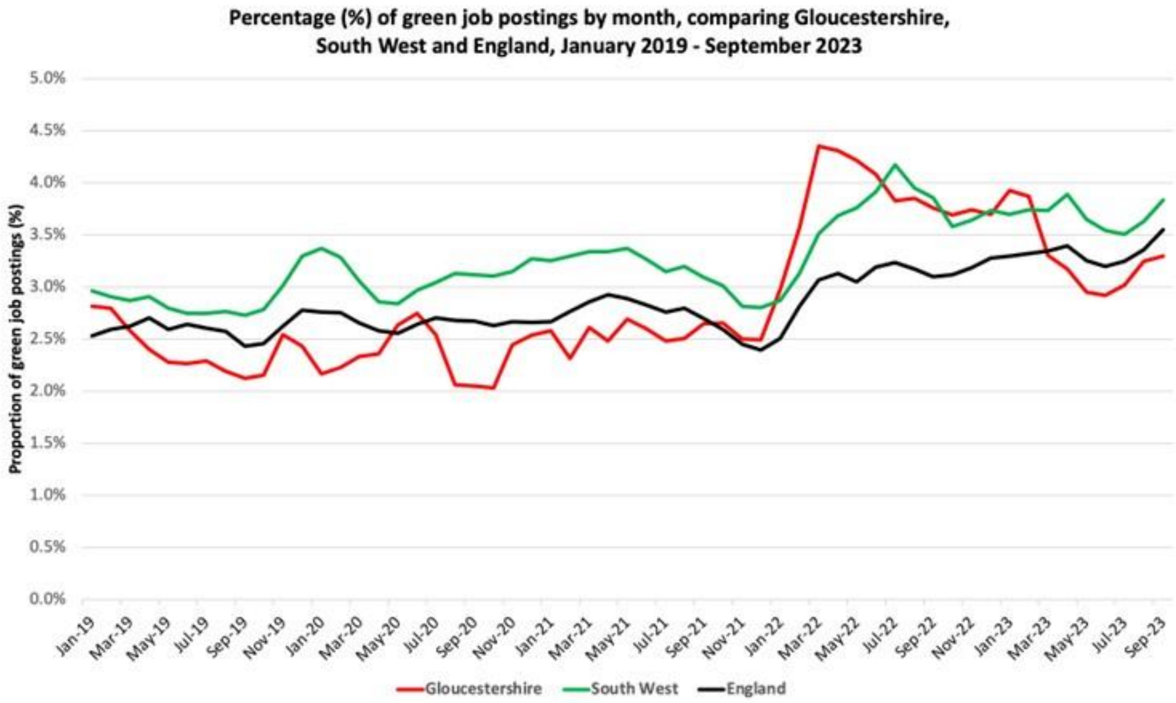


Figure 222: Percentage (%) of green job postings by month, comparing Gloucestershire, South West and England, January 2019 – September 2023[655]

Figure 223 shows the trend in the proportion of green job postings at district level. The trend is fairly consistent cross all districts. The most noticeable exception is in Cotswold which did not see the same increase in green job postings at the start of 2022 as other areas. While Tewkesbury saw the largest proportion of green job postings in August 2023, it saw some of the lowest in September 2023, with both the Forest of Dean and Tewkesbury seeing a decrease in green jobs in recent months

[655] *Ibid.*

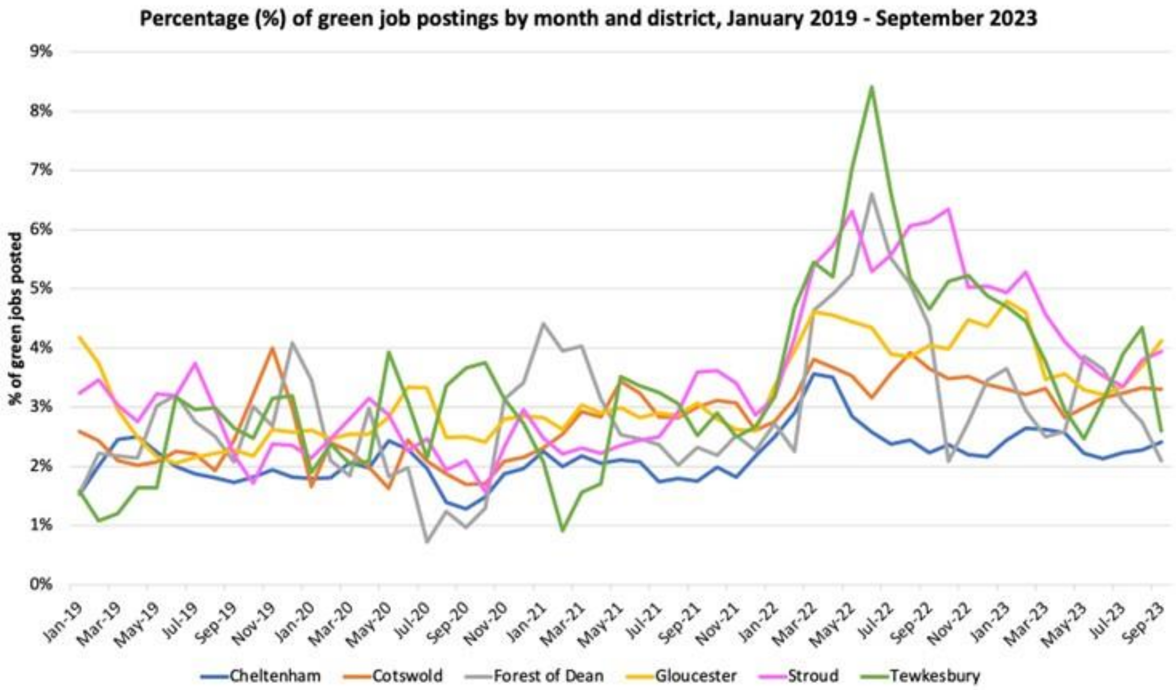


Figure 223: Percentage (%) of green job postings by month and district, January 2019 – September 2023[656]

16.8.2 Current green jobs

The Office for National Statistics (ONS) have recently published experimental data on estimates of green jobs in the UK[657]. These figures are not yet available at a local level, but it is possible to identify key trends in employment in this area that may be reflected locally. The full report from ONS can be found here.

The report provides indicative estimates of green jobs under the definition *"employment in an activity that contributes to protecting or restoring the environment, including those that mitigate or adapt to climate change"*[658]. It must be acknowledged that the definition of 'green jobs' will be different when looking at similar datasets, for example when reviewing Lightcast job postings of green skills or looking at future green job projections.

It is also noted that the methodology focuses on activities undertaken within jobs and that the figures do not consider the environmental impact of any individual job. For example, building a wind turbine would be considered a green job, even though doing so may involve the use of materials that are known to contribute towards greenhouse gas emissions.

[656] *Ibid.*

[657] ONS Experimental estimates of green jobs, UK: 2023

[658] ONS total estimates also exclude some activities for which data are not currently available, most notably those working on decarbonising grid networks and in low-carbon travel other than low and zero emission vehicles.

The report shows that in 2020, employment in green jobs was an estimated 526,000 full time-equivalents (FTE) in the UK. Around a quarter (27%) of working adults in Great Britain reported in May 2023 that they would describe any part of their job as a "green job", while around 1 in 20 (4%) reported that all or most of their job relates to "green" activities.

Energy efficient products and Waste were the two biggest activities of green jobs, with around 113,000 and 97,000 FTE employees in 2020, respectively. These two activities accounted for 40% of all employment in green jobs in 2020.

These estimates include employment in nuclear power, which some users may not classify as green. In 2020, employment in nuclear power was estimated to be around 15,000 FTE.

Employment in green jobs was 3.8% higher than estimates of 507,000 FTE for 2015, the earliest available, but 3.5% lower than the peak in 2018 (545,000 FTE). Growth between 2015 and 2020 was seen across a number of activities, in particular:

- employment in Renewable energy increased by around 10,000 FTE
- the Water quantity sector saw an increase of around 8,000 FTE
- employment in Environmental charities grew by around 6,000 FTE
- the Low emission vehicles sector saw employment increase by around 6,000 FTE

The fall in employment in green jobs between 2018 and 2020 was largely because of lower employment in the Energy efficient products and Waste activities industries. These activities saw a decrease in employment of around 20,000 and 23,000 FTE between 2018 and 2020, respectively.

These are experimental estimates of green jobs that use publicly available data. Therefore, they are subject to revision as definitions, methods and data sources are reviewed.

16.8.3 Projected green jobs

Local Government Association

In order to assist with the journey towards net zero the Local Government Association has carried out research to give an indication of the projected number of green jobs that will be required in 2030 and 2050. The estimates are broken down to regional and local authority level, based on industry insight and the current sectoral breakdown in each area.

This work is based on the UK Government’s current definition of a low-carbon and renewable energy economy, which is defined as consisting of the following industry sectors: Low-carbon electricity, low-carbon heat, alternative fuels, energy efficient products, low-carbon services or low-emission vehicles and infrastructure. It is worth nothing that this definition differs from that used for green job postings and current green jobs.

- The report estimates that by 2030 a total of 693,628 direct jobs employed in the low carbon and renewable energy economy will be required in England and by 2050 this will increase to 1,182,197. In the South West this figure is expected to be 82,761 by 2030 and rise to 139,765 by 2050.
- In Gloucestershire it is estimated that by 2030 a total of 12,583 direct jobs employed in the low carbon and renewable energy economy will be required, which will be 15.2% of those expected in the South West and 1.8% of those in England. By 2050 this is expected to increase to 20,263 jobs, which will be 14.5% of those expected in the South West and 1.7% of those in England.

Figure 224 and Figure 225 look at the total number of projected green jobs required in 2030 and 2050, comparing the Gloucestershire numbers with its geographic [659]and statistical [660]neighbours. Figure 224 shows that Gloucestershire has the highest number of projected green jobs in 2030 and 2050 when compared to its geographic neighbours. It also compares relatively well to statistical neighbours, Figure 225 shows it ranks 3rd out of the 14 areas shown for the number of projected jobs in 2030 and 2050, placing it in the top 40%.

[659] Monmouthshire data is not available for comparison

[660] North Yorkshire and Somerset data is not available for comparison

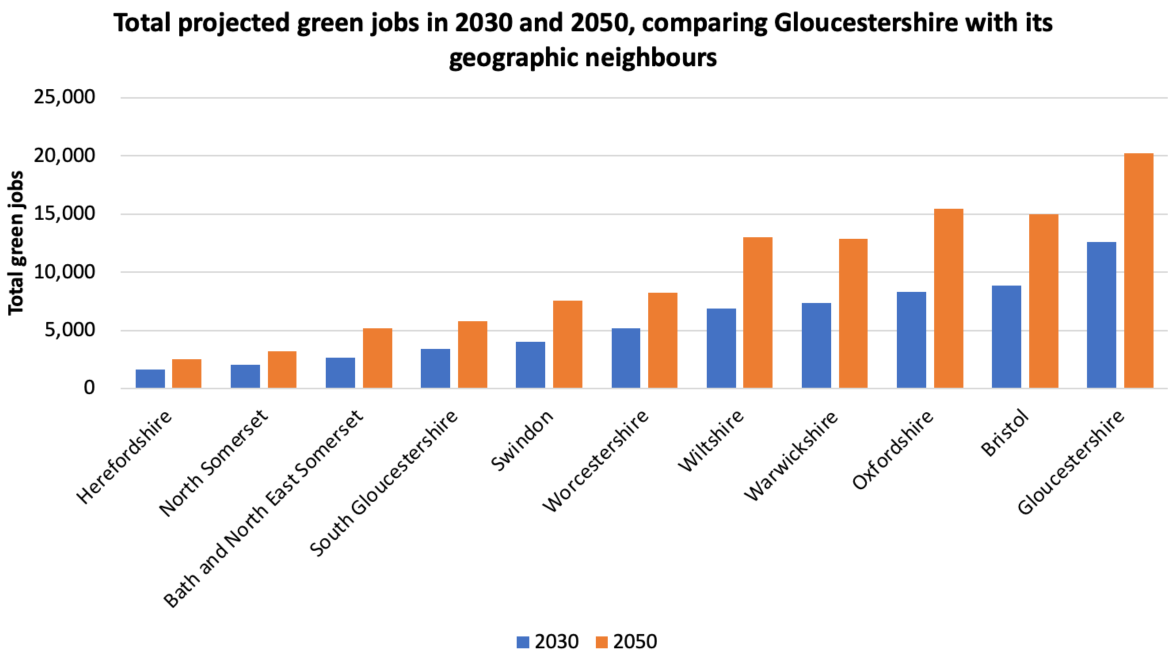


Figure 224: Total projected green jobs in 2030 and 2050, comparing Gloucestershire with its geographic neighbours[661]

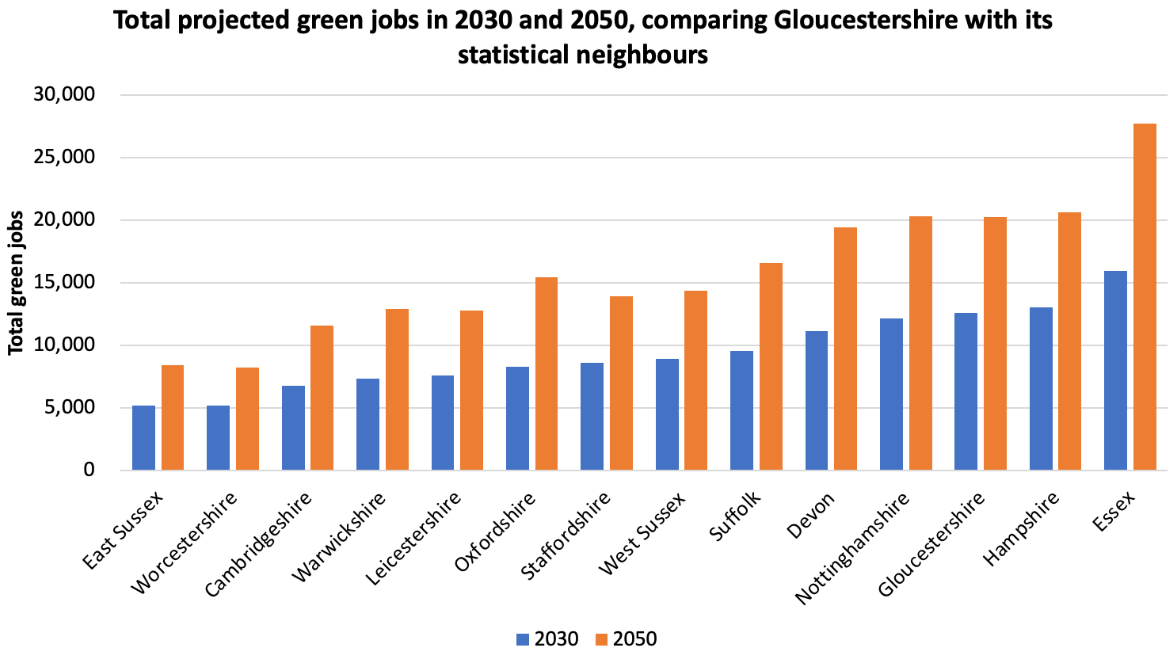


Figure 225: Total projected green jobs in 2030 and 2050, comparing Gloucestershire with its statistical neighbours[662]

[661] Local Government Association – Local green jobs

[662] *Ibid.*

The picture is slightly different when looking at the projected change in green jobs between 2030 and 2050, with Gloucestershire projected to see a 61.0% increase in green jobs between 2030 and 2050, which is lower than the figure projected for the South West (68.9%) and England (70.4%). Figure 226 shows that Gloucestershire is ranked 8th out of its geographic neighbours, placing it in the bottom 40%.

Figure 227 shows a similar picture when Gloucestershire is compared to its statistical neighbours, where it is ranked 13th. This places Gloucestershire in the bottom 20%, which again suggests Gloucestershire is projected to see a smaller increase in green jobs between 2030 and 2050. Given that Gloucestershire is projected to need a greater number of green jobs than many of its comparators, this suggests Gloucestershire may already be better placed than other areas in terms the number of green jobs, meaning less growth is required.

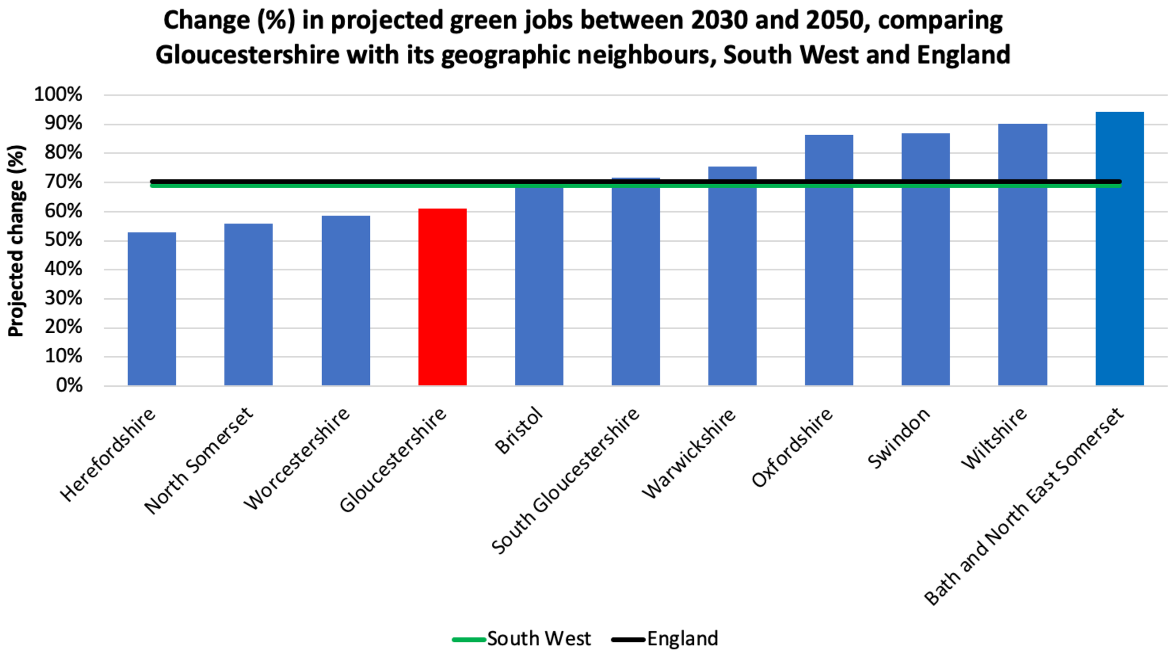


Figure 226: Change (%) in projected green jobs between 2030 and 2050, comparing Gloucestershire with its geographic neighbours, South West and England[663]

[663] *Ibid.*

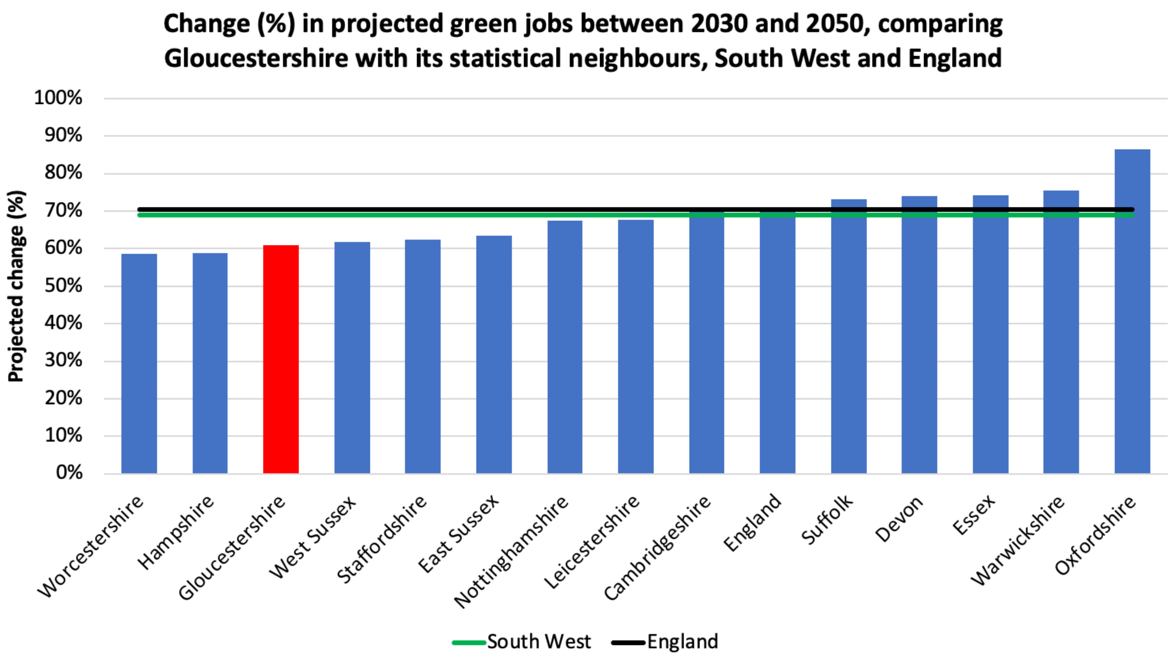


Figure 227: Change (%) in projected green jobs between 2030 and 2050, comparing Gloucestershire with its statistical neighbours, South West and England[664]

GFirst Local Enterprise Partnership Low Carbon Skills Report

Gloucestershire has set a target to be a carbon neutral county by 2045, with each of the districts committing to the ambitious target of 2030. In order to support this journey, GFirst Local Enterprise Partnership commissioned a report [665]to understand the implications of this for the labour market. It is worth noting that this report differs from the research carried out by the LGA, as it focused on detailed occupations rather than the broad green jobs sector and used different scenarios. However, like the LGA research it demonstrates an increased demand for green jobs over the coming years.

The report focused on the sectors of Insulation and heat pump retrofit, and Solar photovoltaic (Solar PV) installation, using three scenarios:

- Urgent action: Assumes a net zero target of 2030.
- Balanced approach: Assumes a net zero target of 2040 (i.e. between 2030 and national 2050 net zero targets).
- Gradual approach: Assumes a net zero target of 2050 in alignment with the UK Government’s statutory net zero.

[664] *Ibid.*

[665] GFirst Local Enterprise Partnership Low Carbon Skills Report, April 2023

The key findings are summarized below and a more detailed picture for the South West region as a whole can be found here.

Insulation retrofit

To achieve the high installation rate required to meet the scenarios, mass retraining of personnel across both the servicing and construction of retrofit measures will be required. This is dominated by installers of retrofit measures and especially solid wall insulation. Solid walled properties tend to have been neglected by previous insulation efforts and work is time consuming.

Under the Urgent Action Scenario up to 1,164 additional solid wall insulation installers will need to be trained by 2027, this falls to an additional 525 by 2034 under the Balanced Approach Scenario and an additional 385 by 2036 under the Gradual Intervention Scenario. Under the Balanced Approach Scenario, the size of the installer labour market will need to grow by 2745% by 2034, requiring an additional 44 installers to be trained per year on average.

The requirement for additional labour to install other measures is less severe, owing to the lower installation time and the higher current provision of labour compared to solid wall insulation installers. Cavity wall insulation installers are the second most required skill with an additional 102 required by 2027 under the Urgent Action Scenario; an additional 34 required by 2034 under the Balanced Approach Scenario and an additional 25 required by 2034 under the Gradual Intervention Scenario. Under the Balanced Approach Scenario, the size of the cavity wall insulation installer base will need to grow by 208% by 2034, requiring an additional 3 installers to be trained per year on average.

Low Carbon heating

To facilitate the increased deployment rate of low carbon heating measures, major upskilling of the workforce is required. The most significant skills requirement across all scenarios was for heat pump engineers.

Across the scenarios, an additional 1,486 heat pump engineers are required by 2028 under the Urgent Action Scenario; an additional 910 are required by 2037 under the Balanced Approach Scenario and an additional 749 are required by 2040 under the Gradual Intervention Scenario. This represents significant growth on current labour provision. Under the Balanced Approach Scenario, the heat pump engineer labour market will need to grow by 1904% by 2037, requiring 70 additional engineers to be trained per year on average.

Solar PV

In order to meet targets, there will also need to be an expansion in the deployment of Solar PV. It is estimated that under the Urgent Action Scenario and additional 514 Solar PV installers will be required by 2026, compared to 285 and 208 installers required by 2036 in the Balanced Approach Scenario and the Gradual Intervention Scenario respectively.

16.9 Risk of automation and AI

There is no single, universally agreed definition of artificial intelligence (AI). It can broadly be thought of as technologies that enable computers to simulate elements of human intelligence, such as perception, learning and reasoning[666].

A range of bodies have reported on the potential impact of AI on employment within the UK. The most recent study was published by PWC in 2021[667]. They found that 7% of jobs were at high risk of being automated in the next 5 years, rising to 30% after 20 years. However, the research also reported that many jobs would be created through the AI-related productivity and economic growth. It points out that AI will create many jobs in sectors that are harder to automate – such as health and personal care, which will be in greater demand as higher productivity leads to additional real incomes and spending. The report concludes that the most plausible assumption is that the long term impact of AI on employment levels in the UK is broadly neutral, but that the potential impact is unclear.

PWC also reported on the potential impact of AI across geographic areas with the results visualised in Figure 228. It shows that Gloucestershire is projected to see moderate job losses as a result of AI over the next 20 years. This differs from the picture seen across much of the South West, with most areas (except Swindon and Wiltshire) projected to see an increase in jobs as a result of AI. This difference may be driven in part by the dominance of the manufacturing sector in the county, which is projected to see some of the greatest job losses because of AI and automation.

[666] Potential impact of artificial intelligence on the labour market, House of Commons Library
[667] The Potential Impact of Artificial Intelligence on UK Employment and the Demand for Skills, PWC

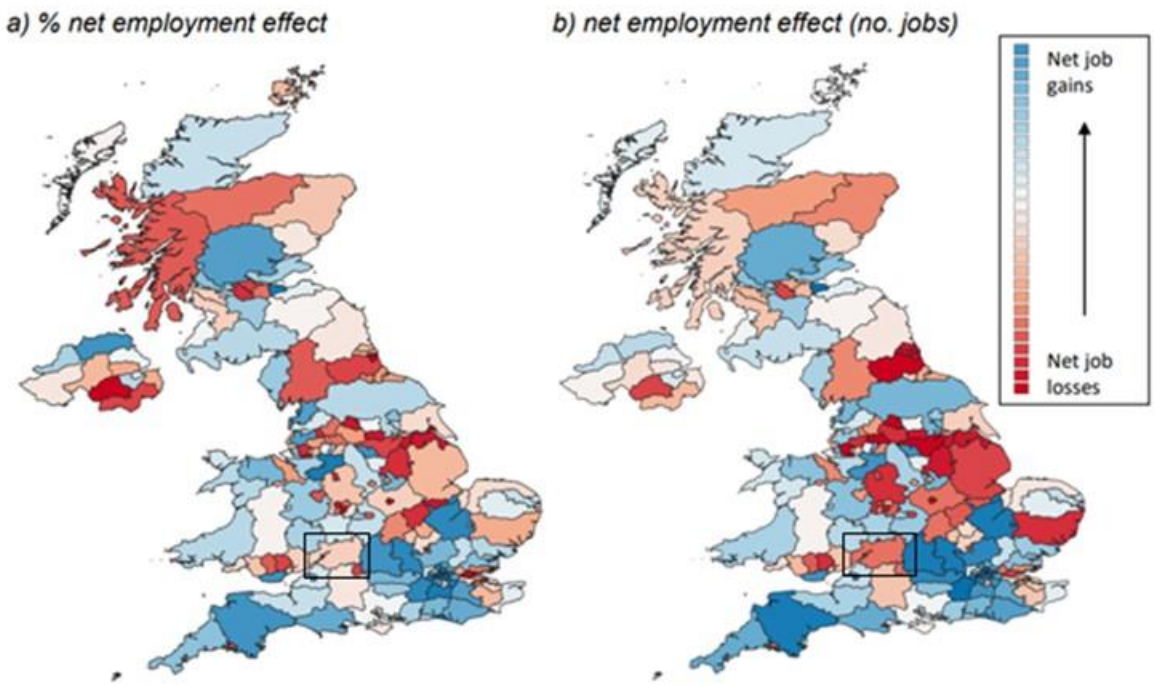


Figure 228: Estimated net employment effects of AI for NUTS 3 regions over 20 years[668]

[668] The Potential Impact of Artificial Intelligence on UK Employment and the Demand for Skills, PWC

Section 4: Business and Enterprise

Section summary

Supporting local businesses is about ensuring the conditions for them to thrive, innovate and become more productive which helps the economy grow.

Business floorspace in Gloucestershire is predominantly industrial, with 61.8% of total space dedicated to industrial use compared to 57.6% in England and 56.9% in the South West. This reflects the county's relative specialisation in Manufacturing. Between 2016-2022 business floorspace in Gloucestershire increased by 0.8%, this was higher than England and Wales (0.5%) but lower than the South West (1.9%). The growth in business floorspace was largely driven by growth in industrial and other floorspace. Conversely, office floorspace declined reflecting the trend seen at regional and national level, while retail floorspace saw minimal growth[669].

In 2021 new businesses accounted for a lower proportion of total businesses in Gloucestershire than the South West and England and Wales. Gloucestershire also fared relatively badly compared to other parts of the county, sitting in the bottom 20% of county and unitary authorities in England and Wales in terms of business start-ups. However, business deaths accounted for a lower proportion of total enterprises in Gloucestershire than England and Wales and compared relatively well to other areas with Gloucestershire sitting in the bottom 40% of authorities across England and Wales for this measure[670].

Gloucestershire has strong business survival rates exceeding the regional and national average for 1 year, 3 year and 5 year survival rates, suggesting its business base is strong and has the right conditions to support them. However, data for the last year shows 1 year and 3 year survival rates fell in Gloucestershire, something which was not reflected at a regional and national level .

It is also worth noting that in 2021 the number of business deaths in Gloucestershire outnumbered business births by 175, for the first time since 2010. This contrasted with the situation at regional and national level where there were more births than deaths[671]. It is unclear whether this is a temporary anomaly or the start of a new trend, but if it continues it will result in a decline in Gloucestershire's overall business base[672].

[669] NDR Business Floorspace
[670] Business Demography, ONS
[671] *Ibid.*
[672] *Ibid.*

High growth businesses are much valued by local economies as they are enterprises which generate strong employment growth. In 2021 4.0% of active enterprises employing more than 10 people in Gloucestershire were classed as high growth enterprises, which was in line with the regional and national average. However, since 2016 the number of high growth businesses in Gloucestershire has fallen by 26.5%, the number of high growth businesses also fell at a regional and national level but to a lesser extent[673]. This suggests this is more of an issue in Gloucestershire than other parts of the county.

Gloucestershire's business profile is fairly similar to the regional and national average, with the majority of enterprises (88.8%) being micro (employing less than 10 people). Large enterprises (employing 250+ people) account for only 0.4% of total enterprises in the county, in line with the figures for the South West and England and Wales. Between 2020-2022 the number of micro enterprises in Gloucestershire fell by 2%, this decline was not observed at a regional or national level[674], which suggests the conditions for them might not be as favorable in Gloucestershire as elsewhere.

The sector profile of businesses in Gloucestershire generally reflects the national average, with Professional, scientific and technical activities accounting for the largest proportion of enterprises followed by Construction and Wholesale and retail trade. However, Gloucestershire does have an over-representation of enterprises in Public administration and defence; Electricity, gas, steam and air conditioning supply; Agriculture, forestry and fishing; and Manufacturing when compared to the national average[675]. These sectors are generally those where the county has higher than average employment.

The legal status of businesses in Gloucestershire also differs slightly from the picture seen across and England and Wales. The county has a higher proportion of enterprises classed as Sole proprietors and partnerships than the national average. In addition, it stands out as having a high proportion of Non-profit body or mutual associations, exceeding the regional and national average and sitting in the top 20% of county and unitary authorities across England and Wales for this measure[676].

Productivity is defined as the amount of goods and services that a worker produces in that same period. The Office for National Statistics preferred measure of productivity is GVA per hour worked. In 2021, Gloucestershire's GVA per hour worked was £37.39, above the South West average (£34.48) but below the England average (£38.91). Between 2016-2021 GVA per hour worked

[673] *Ibid.*

[674] UK Business Counts, ONS

[675] *Ibid.*

[676] *Ibid.*

increased by 17.8% in Gloucestershire, this was higher than the growth seen across the South West (12.8%) and England (14.2%)[677].

Gross Value Added (GVA) is the measure of the value of goods and services produced in an area or sector, which can be used to measure the value of the economy through economic output. Gloucestershire's GVA increased by 18.9% between 2016-2021, this was greater than the growth seen across the South West (14.2%) and England and Wales (14.4%)[678].

The three largest contributors to Gloucestershire's GVA were Manufacturing (14.9%), Wholesale and retail trade (13.8%) and Real estate activities (12.9%). This differs slightly from the picture seen at national level where Real estate is the largest sector (12.8%) followed by Wholesale and retail (10.6%) and Manufacturing in at third (9.7%), this demonstrates the importance of Manufacturing to the county[679].

Between 2016-2021 the Wholesale and retail trade saw the greatest growth in GVA, with an increase of 47.3%. This was followed by Agriculture, forestry and fishing, mining and quarrying and Human health and social work activities. Four sectors, namely Accomodation and food service activities; Transportation and Storage; Activities of households; and Other service activities saw a decline in GVA, this was also reflected at a regional and national level[680].

Economic projections suggest that over the medium term (2021-2031) Gloucestershire's GVA will increase by 16.7% this is slightly lower than the regional (18.2%) and national average (18.4%). Over the longer period (2021-2050) Gloucestershire's GVA is projected to increase by 48.1%, lower than the growth projected at a regional (52.0%) and national level (56.0%)[681].

Looking over the 10 years 2021-2031 the three-sectors projected to see the greatest growth in GVA in Gloucestershire are Accommodation and food service activities; Administrative and support service activities; and Arts, entertainment and recreation. Mining and quarrying is the only sector projected to see a decline in GVA during this period. Looking over the longer period 2021-2050 the three sectors projected to see the greatest growth in GVA in Gloucestershire are Information and communication; Administrative and support service activities; and Accommodation and food service activities. Mining and quarrying is once again the only sector forecast to see a decline in GVA[682].

Exports play a significant role in Gloucestershire's economy. In 2021 the total value of goods and services exported from Gloucestershire was £10.5 billion.

[677] Subregional productivity, ONS

[678] Regional gross value added (balanced) by industry, ONS

[679] *Ibid.*

[680] *Ibid.*

[681] Oxford Economics

[682] *Ibid.*

Goods make up the majority of exports from the county (82%), with services accounting for the remaining 18%, this reflects the role of Manufacturing in the county. Between 2016-2021, Gloucestershire saw a 50.3% increase in the value of goods exported, far higher than the increase seen across the South west (15.3%) and England and Wales (8.5%). Conversely the value of services exported from the county fell by 24.2%, this reflected a decline seen across the South West (14.2%), however nationally the value of services exported increased by 22.4%[683].

Innovate UK is the UK's national innovation agency that provides funding and support for businesses to innovate and grow. Innovate UK has received a total of 205 applications for projects from Gloucestershire businesses and organisations between 1st April 2016 and 31st March 2021. The total value of Innovate UK funding over the period was £59,672,976, supporting total project investment of £122,639,629 including match funding from recipients. These investments are targeted at unlocking future private sector innovation activity and investment [684].

Overall Gloucestershire has a prosperous and resilient economy. It has a diverse industrial base, not overly reliant on any one large company or sector for employment or GVA. Business survival rates are high, and the county has strengths in exporting. However, there are challenges particularly around recruitment which are likely to become a greater issue in the coming years.

17. Business floorspace

Business floorspace serves as a crucial component of a vibrant economy. It provides physical locations for businesses to operate and generate economic activity. Business floorspace includes retail stores, office spaces, manufacturing facilities, warehouses, and other commercial establishments. These spaces create job opportunities, attract investment, and contribute to local economic growth.

An increase in business floorspace can be seen as a positive measure, indicating growth and expansion, which often correlates with increased business activity and revenue. Expanding floorspace can lead to increased job opportunities, stimulating local employment and potentially attracting more investment into an area.

17.1 Total floorspace

Gloucestershire has a total of 6.7 million m^2 in business floorspace, which is broken down by retail, office, industrial and other[685]. Figure 229 shows the breakdown of total floorspace across each of Gloucestershire's six districts.

[683] International trade in UK nations, regions and cities, ONS

[684] Innovate UK, 13th April 2022 Extract

[685] 'other' refers to floorspace that does not fall into the retail, office or industrial categories

Gloucester can be seen to have the largest volume of total floorspace with 1.4 million m^2 and the Forest of Dean the smallest with 870,000 m^2.

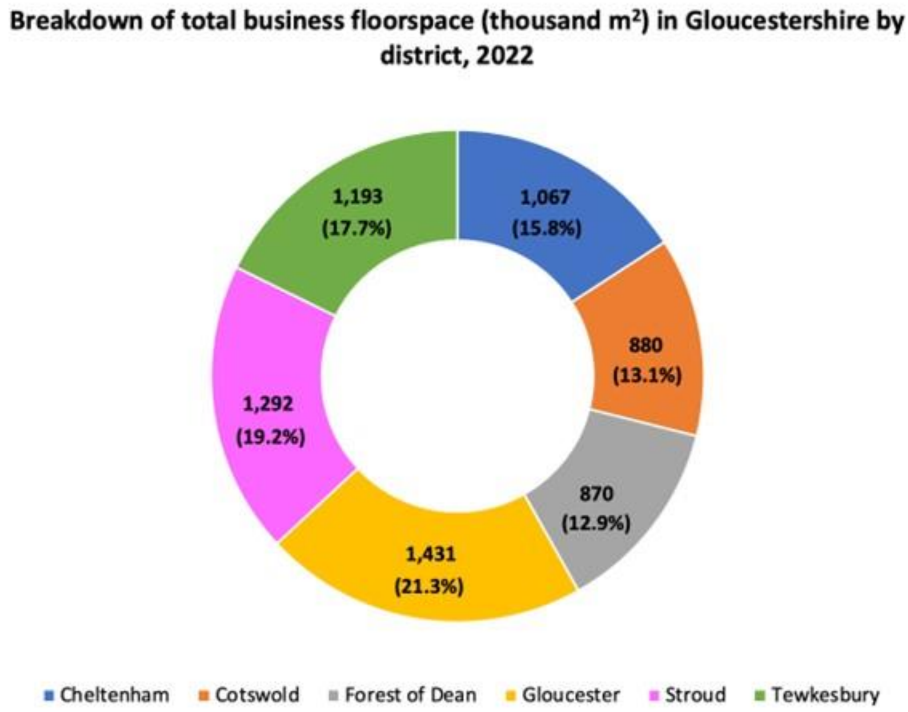


Figure 229: Breakdown of total business floorspace (thousand m2) in Gloucestershire by district, 2022[686]

Figure 230 shows the change in total business floorspace between 2016 and 2022 comparing Gloucestershire and its districts with the South West and England and Wales. Overall Gloucestershire has seen a fairly modest 0.8% increase in total business floorspace since 2016, which is slightly higher than England and Wales (0.5%) but lower than the South West (1.9%).

[686] NDR Business Floorspace

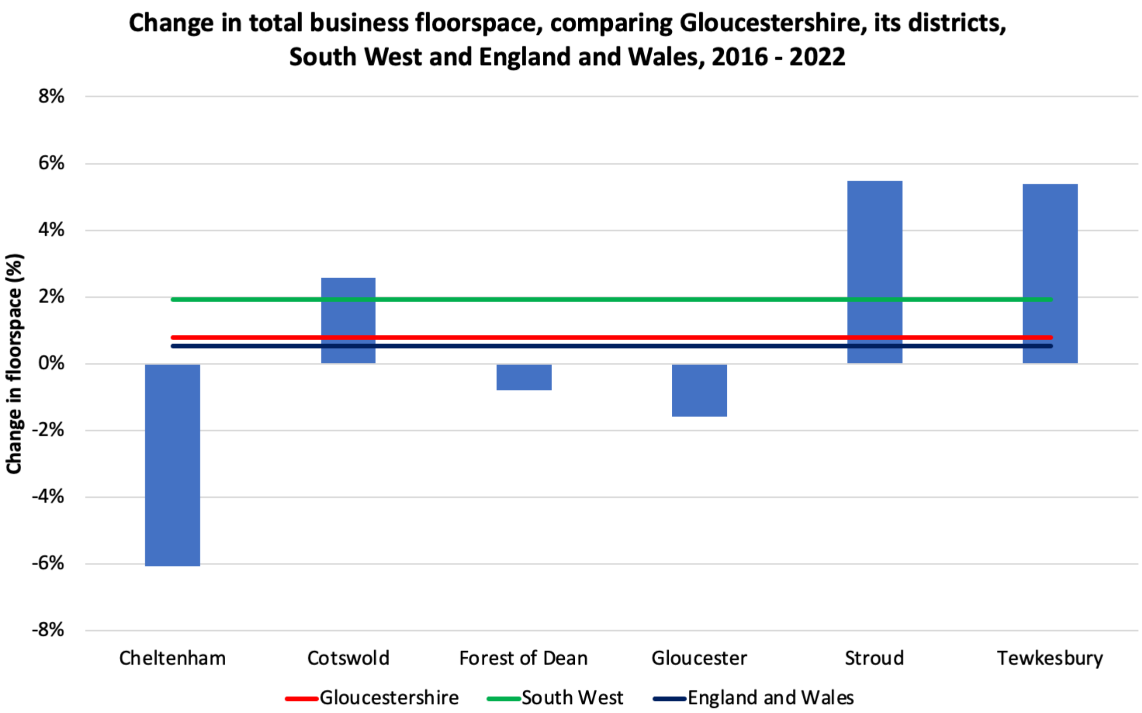


Figure 230: Change in total business floorspace, comparing Gloucestershire, its districts, South West and England and Wales, 2016-2022[687]

Compared to its geographic and statistical neighbours, Gloucestershire is placed in the bottom 40% of both comparator areas in terms of growth in floorspace.

Figure 230 shows at district level Cotswold (2.6%), Stroud (5.5%) and Tewkesbury (5.4%) saw a growth in the amount of industrial floorspace. Whilst Cheltenham (6.1%), the Forest of Dean (0.8%) and Gloucester (1.6%) saw a decrease. The decline in floorspace observed in Cheltenham saw it sit in the bottom 20% of district and unitary authorities across the country in terms of growth in floorspace, with a rank of 307 out of 331. Conversely Stroud and Tewkesbury sat in the top 20% of district and unitary authorities in the country for this measure.

17.2 Floorspace by type

Figure 231 shows in Gloucestershire business floorspace is predominantly industrial, with 61.8% of total space dedicated to industrial use compared to 57.7% in England and Wales and 56.9% in the South West. This reflects the county's relative specialisation in manufacturing, and the relative availability of rural land for industrial business parks.

Retail floorspace accounts for a slightly lower proportion of total floorspace in Gloucestershire (16.7%), compared to the South West (20.1%) and England and Wales (18.0%). While office floorspace accounts for a higher proportion of floorspace in Gloucestershire (13.4%) than the South West (12.3%), but it is

[687] NDR Business Floorspace, 2022

lower than that seen in England and Wales (14.6%). When looking at other floorspace, Gloucestershire (8.1%) has a slightly lower proportion than both the South West (10.7%) and England and Wales (9.7%).

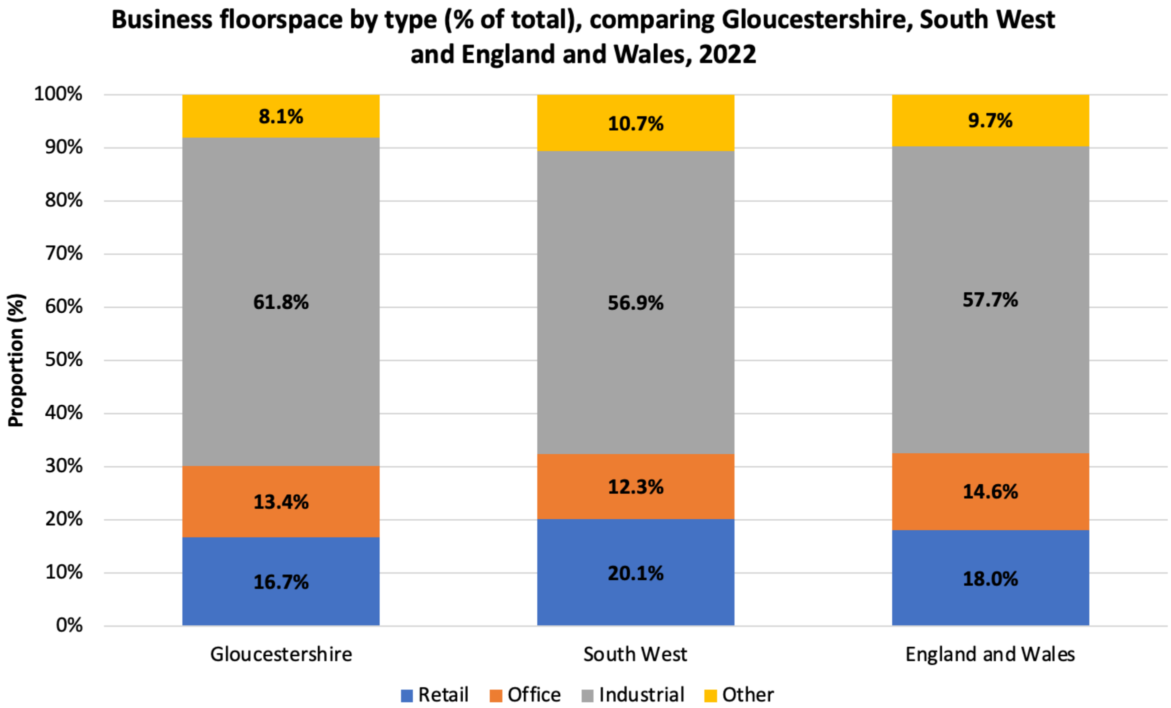


Figure 231: Business floorspace by type (% of total), comparing Gloucestershire, South West and England and Wales, 2022[688]

Compared to its geographical and statistical neighbours, Gloucestershire has a similar makeup, with Figure 232 and Figure 233 showing industrial floorspace is the most prominent in all areas. It also has a similar amount of industrial floorspace to its neighbours, sitting in the middle of both comparator groups.

688 *Ibid.*

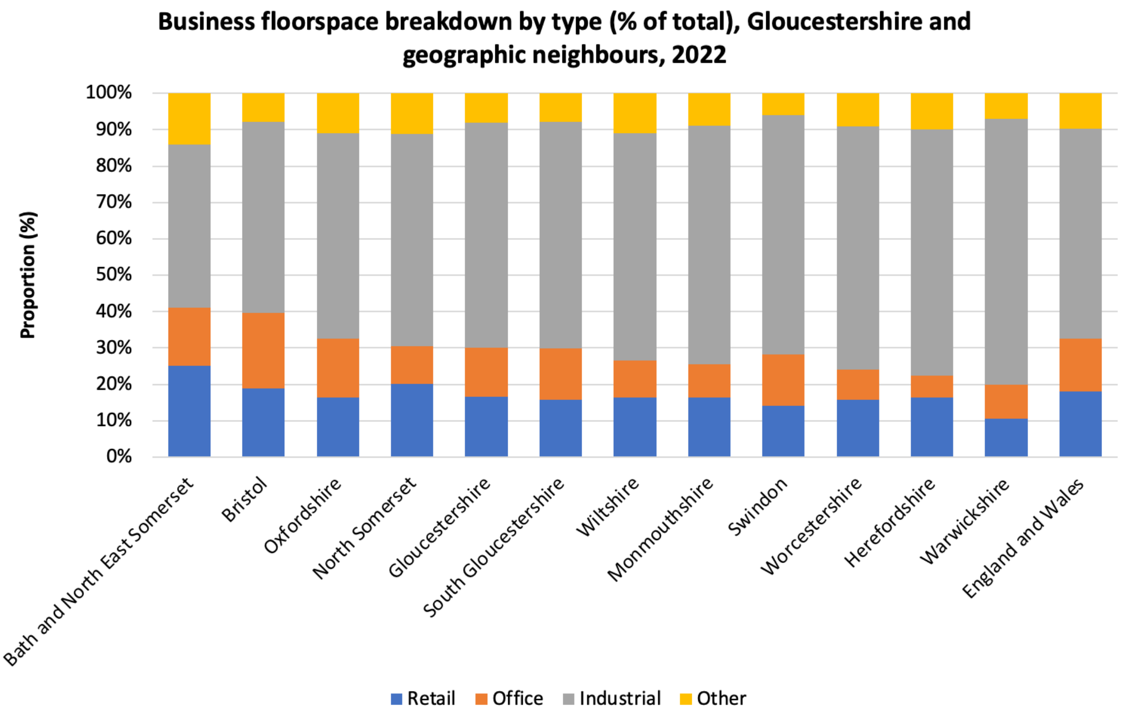


Figure 232: Business floorspace breakdown by type (% of total), Gloucestershire and geographic neighbours, 2022[689]

[689] *Ibid.*

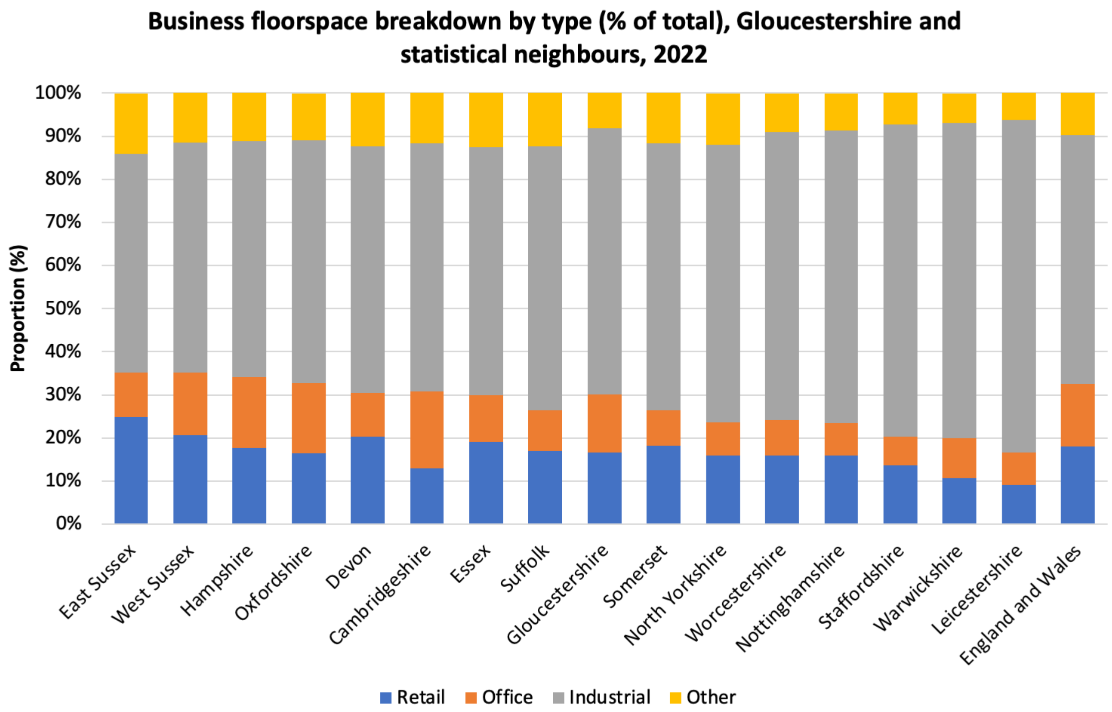


Figure 233: Business floorspace breakdown by type (% of total), Gloucestershire and statistical neighbours, 2022 [690]

Figure 234 shows the urban areas of Cheltenham and Gloucester have more mixed floorspace composition than the county as a whole. They are also the only two districts with less than 50% of floorspace being industrial. Both Cheltenham (31.7%) and Gloucester (25.3%) have a higher proportion of retail floorspace, exceeding the average for the county (16.7%), the South West (20.1%) and England and Wales (18.0%) and sitting in the top 20% of district and unitary authorities across the country. Cheltenham and Gloucester also have a higher proportion of office floorspace, at 24.9% and 18.7% respectively. This is higher than the Gloucestershire average (13.4%), the South West (12.3%) and England and Wales (14.6%) and sees the authorities sit in the top 20% of authorities across England and Wales.

Industrial floorspace accounts for a significantly high proportion of total floorspace in the Forest of Dean (80.1%), Tewkesbury 76.4% and Stroud 75.4%. This is higher than the Gloucestershire average (61.8%) and the South West (56.9%) and England and Wales (57.7%). It also sees all the districts sit in the top 10% of district and unitary authorities across England and Wales in terms of the proportion of industrial floorspace . Retail floorspace is less prominent in these areas with the Forest of Dean (7.6%), Tewkesbury (11.4%) and Stroud (10.0%) all seeing a smaller share of retail floorspace when compared to the rest

690 *Ibid.*

of the county. Stroud and Tewkesbury also have a lower proportion of office floor space than the county as a whole.

In Cotswold Other floorspace accounts for a higher proportion of floorspace (11.3%) than the other districts, Gloucestershire (8.1%), South West (10.7%) and England and Wales (9.7%).

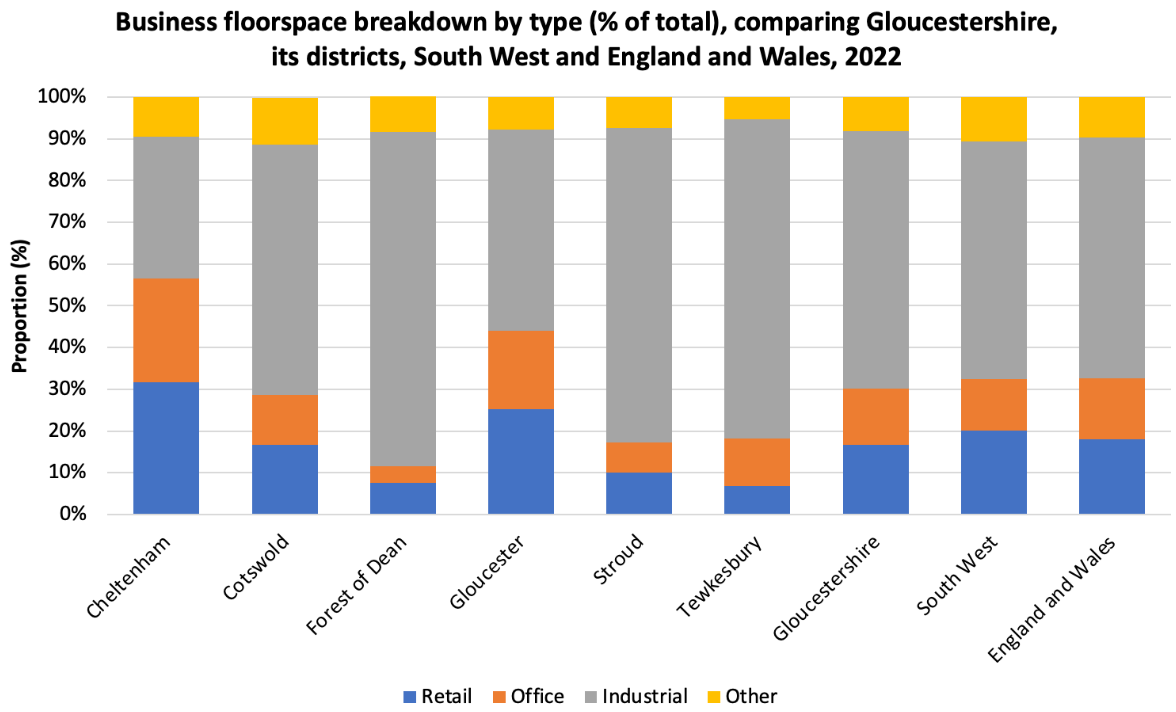


Figure 234: Business floorspace breakdown by type (% of total), comparing Gloucestershire, its districts, South West and England and Wales, 2022[691]

Figure 235 shows the change in business floorspace by type between 2016 and 2022. Gloucestershire has seen small increases in retail (0.4%), industrial (1.5%) and other (2.3%) business floorspace. Conversely the amount of office floorspace fell by 2.8%.

The increase in industrial floorspace seen across the county was also reflected at a regional (4.6%) and national level (2.6%), although it is worth noting these areas saw greater growth than the county. The growth in retail floorspace observed in Gloucestershire was also seen across the South West (0.2%), however England and Wales (-0.7%) saw a decline in retail floorspace. The increase in other floorspace observed across the county was also observed at a national level (1.2%), but across the South West (-0.6%) there was a decline other floorspace. There was a decline in office floorspace at a national (5.9%)

[691] *Ibid.*

and regional level (4.5%), but to a greater extent than observed in Gloucestershire.

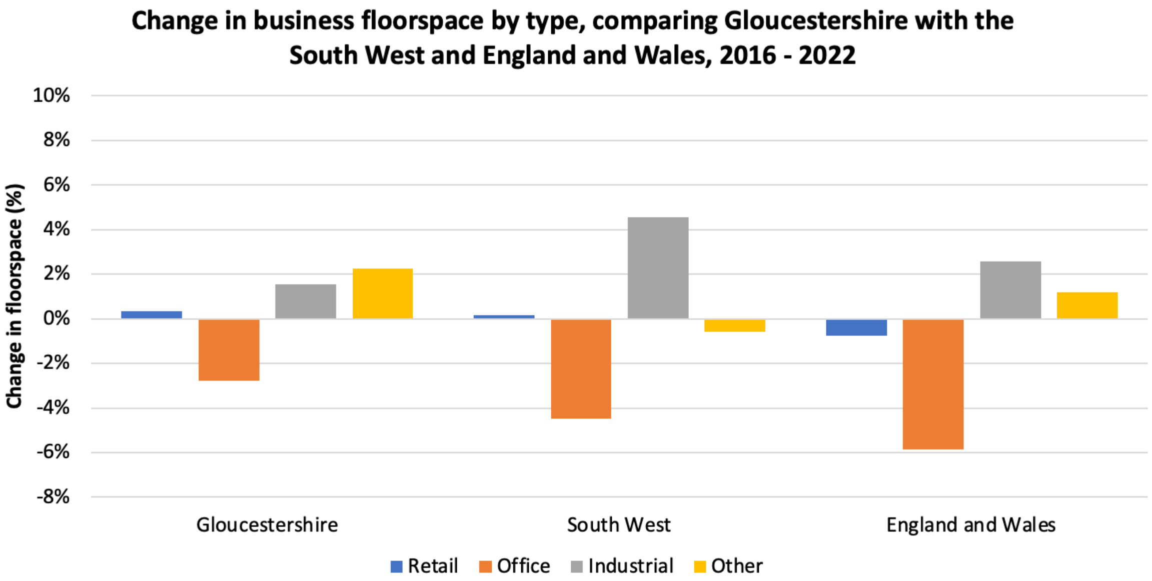
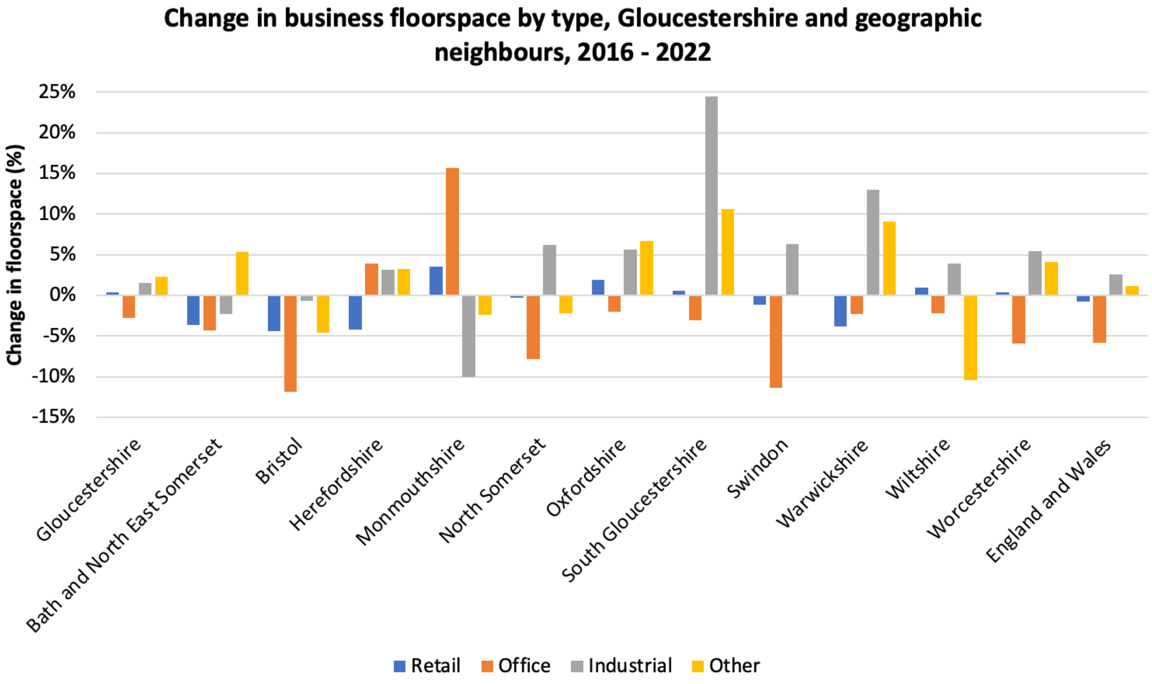


Figure 235: Change in business floorspace by type, comparing Gloucestershire with the South West and England and Wales, 2016-2022[692]

When compared to its statistical and geographical neighbours, Gloucestershire was fairly similar, with Figure 236 and Figure 237 showing the majority of areas saw a decline in office floorspace and growth in industrial and other floorspace.



[692] *Ibid.*

Figure 236: Change in business floorspace by type, Gloucestershire and geographic neighbours, 2016-2022[693]

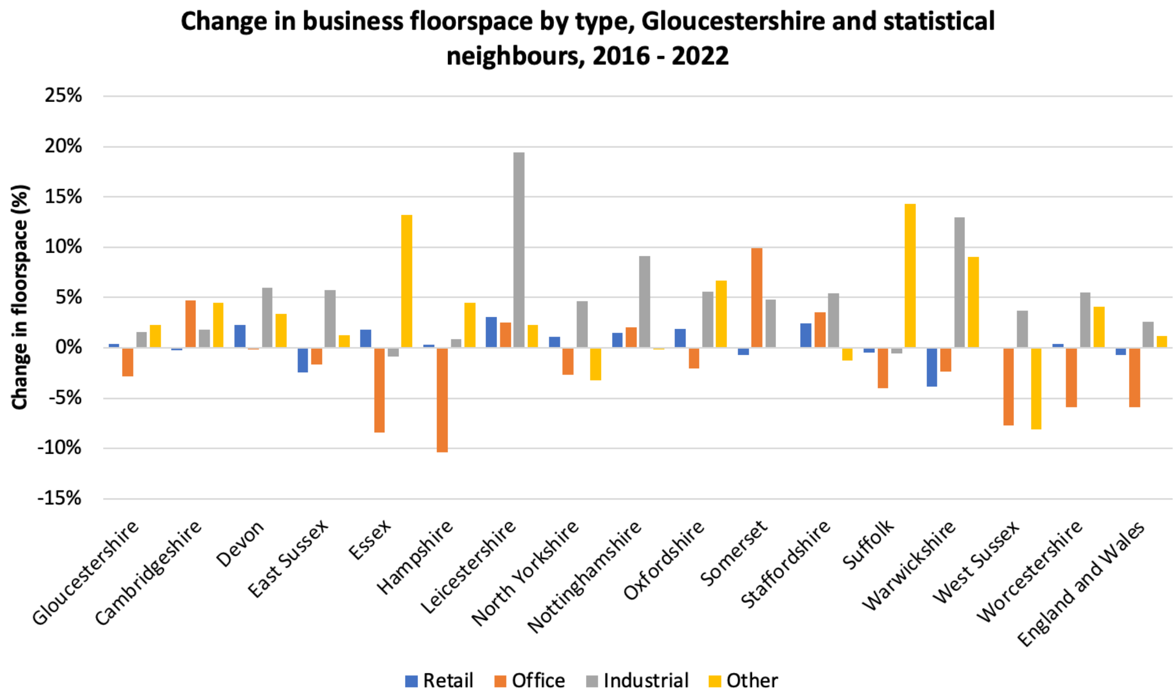


Figure 237: Change in business floorspace by type, Gloucestershire and statistical neighbours, 2016-2022[694]

Figure 238 shows the change in business floorspace by type at district level. Cheltenham has seen a 9.8% decrease in office floorspace, a 9.7% decrease in industrial floorspace and a 1.5% decrease in retail floor space. The declines in these floorspace types was greater in Cheltenham than Gloucestershire, the South West and England and Wales. Conversely the district saw a 5.2% increase in other floorspace, which exceeded the growth seen at a county, regional and national level.

Interestingly Cotswold saw a 2.9% increase in office floorspace, despite this floorspace type declining at a county, regional and national level. Cotswold also saw a 2.8% increase in retail floorspace which was greater than the rate of growth seen in Gloucestershire, South West and England and Wales and saw it sit in the top 20% of district and unitary authorities in the country in terms of growth in retail floorspace. Industrial floor space increased by 2.7% in Cotswold this was lower than the rate of growth seen across the South West and England and Wales but higher than the growth seen across the county. The amount of Other floorspace remained unchanged in the district despite increasing in Gloucestershire and England and Wales and declining across the South West.

693 *Ibid.*

694 *Ibid.*

Like Cotswold the Forest of Dean saw a significant increase in office floorspace between 2016-2021 in opposition of the picture seen at a county, regional and national level. The growth in office floorspace in the district saw it sit in the top 20% of authorities across the country in terms of this measure. The Forest of Dean also saw a greater increase in retail floorspace than Gloucestershire, South West and England and Wales. The amount of industrial floorspace declined in the Forest of Dean, despite Gloucestershire, South West and England and Wales seeing a growth in this type of floorspace. Other floorspace also declined in the district despite increasing at a county and national level.

Gloucester saw a 6.3% decrease in office floorspace, a 1.6% decrease in industrial floorspace and a 0.5% decrease in retail floorspace. Other floorspace increased by 6.3%, exceeding the growth seen at a county, regional or national level and putting it in the top 20% of authorities across the country for this measure.

Other floorspace, industrial floorspace and office floorspace all increased in Stroud. The increase in industrial floorspace exceeded the growth seen at a county and national level. The growth in other floorspace also exceeded the county and regional average and saw Stroud sit in the top 20% of authorities across the country in terms of growth in other floorspace. The growth in industrial floorspace observed in Stroud differed from the picture seen across Gloucestershire, the South West and England and Wales which saw a decline in industrial floorspace.

Tewkesbury has seen large increases in retail (10.8%), office (8.8%) and industrial (5.3%) floorspace. With growth in these areas exceeding the growth seen at a county, regional and national level. Growth in retail and office floorspace also saw the district sit in the top 20% of district and unitary authorities across the country in terms of these measures. However, the amount of Other floorspace fell in the district despite increasing at a county and national level.

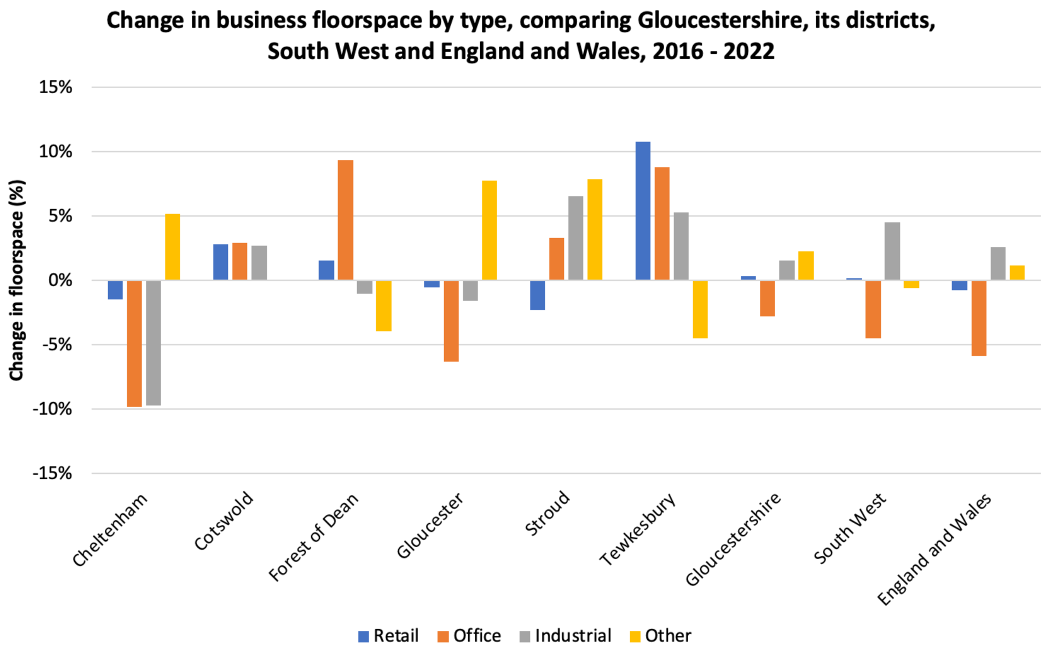


Figure 238: Change in business floorspace by type, comparing Gloucestershire, its districts, South West and England and Wales, 2016-2022[695]

18. Business stock

18.1 Active enterprises

A strong business base and entrepreneurial growth are said to be some of the necessary requisites for the maintenance of a healthy and competitive economy. Labour demand is determined by the businesses within an area.

In 2021 there were around 30,075 active enterprises in Gloucestershire. This equates to a rate of 765.0 active enterprises per 10,000 working age population, which was higher than the regional and national averages of 683.4 and 719.8 per 10,000 population respectively.

[695] *Ibid.*

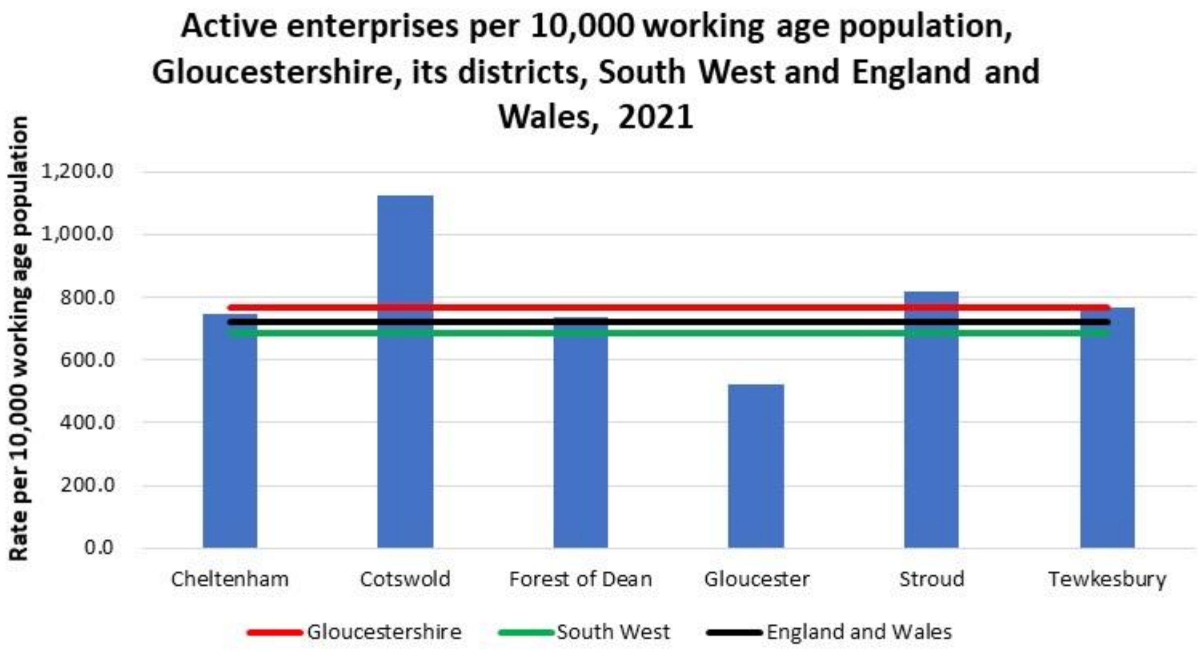


Figure 239: Active enterprises per 10,000 working age population, Gloucestershire, its districts, South West and England and Wales, 2021[696]

When compared to its statistical and geographic neighbours, Gloucestershire is fairly average in terms of the rate of active enterprises per 10,000 working age population, sitting in the middle of both cohorts. When compared to the 174 county and unitary authorities in England and Wales, Gloucestershire has a rank of 49 putting it in the top 40% of local authorities across the country.

Across the county there is considerable variation in the number and rate of active enterprises. The greatest number of active enterprises is in Cotswold, with the district accounting for 19.8% of active enterprises. This was closely followed by Stroud which accounted for 19.7% of active enterprises. Conversely the Forest of Dean has the lowest number of active enterprises accounting for 12.6% of the total.

Figure 239 shows when expressed as a rate per 10,000 working age population, Cotswold has the highest rate of active enterprises with 1,126 active enterprises per 10,000 working age population. This was considerably higher than the national, regional and county averages. Cotswold also compares well to other district and unitary authorities across England and Wales with a rank of 13 out of 331 authorities, this puts it in the top 10% of authorities across the country. Of the 12 authorities which ranked higher than Cotswold only 1 (Bromsgrove) was not located in London or the surrounding areas.

Gloucester had the lowest rate of active enterprises per 10,000 working age population with a rate of 522.5 per 10,000 working age population. This was

[696] Business Demography, ONS and Mid 2021 Population Estimates, ONS

lower than the county, regional and national average and ranked it at 281 out of 331 district and unitary authorities across England and Wales, putting it in the bottom 20% of authorities.

Since 2016 the number of active enterprises across Gloucestershire has increased by 1,295 or 4.5%. This was higher than the rate of growth seen across the South West (2.7%) but lower than the rate of growth seen across England and Wales (6.4%).

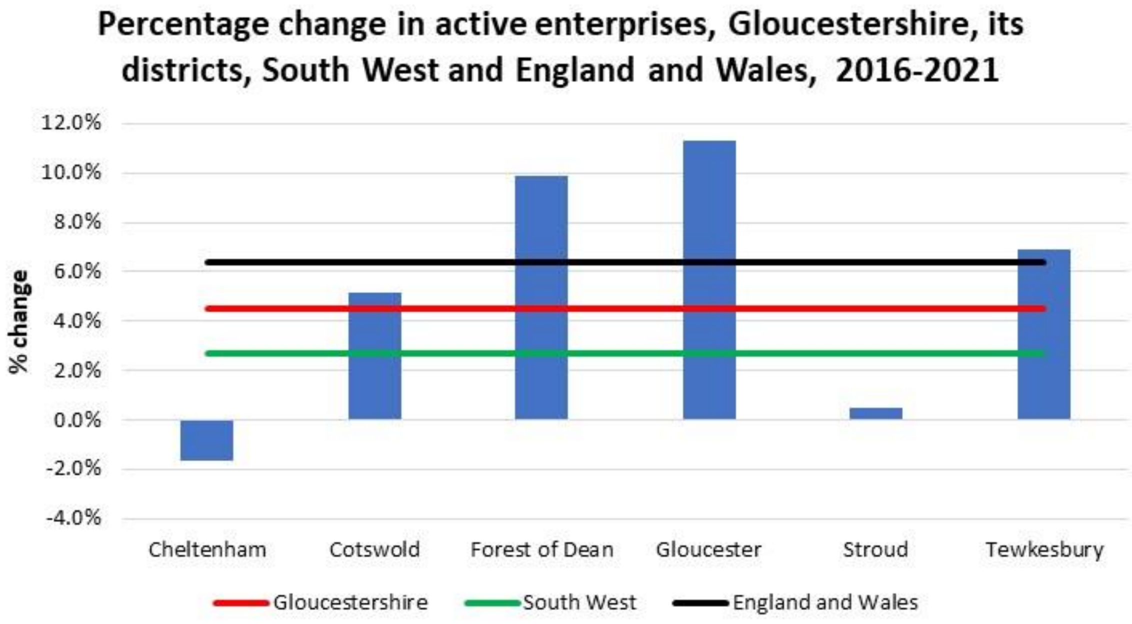


Figure 240: Percentage change in active enterprises, Gloucestershire, its districts, South West and England and Wales, 2016-2021[697]

When compared to its geographic neighbours, Gloucestershire is fairly similar to most areas with a rank of 6th. It has seen much less growth than Worcestershire, but fares much better than Wiltshire which has seen a significant decline. When compared to its statistical neighbours Gloucestershire does not fair quite as well, with a rank of 11th. It also sits in the bottom 40% of county and unitary authorities across England and Wales with a rank of 111 out of 169 areas, suggesting business growth is an area where the county is lagging behind.

[697] Business Demography, ONS

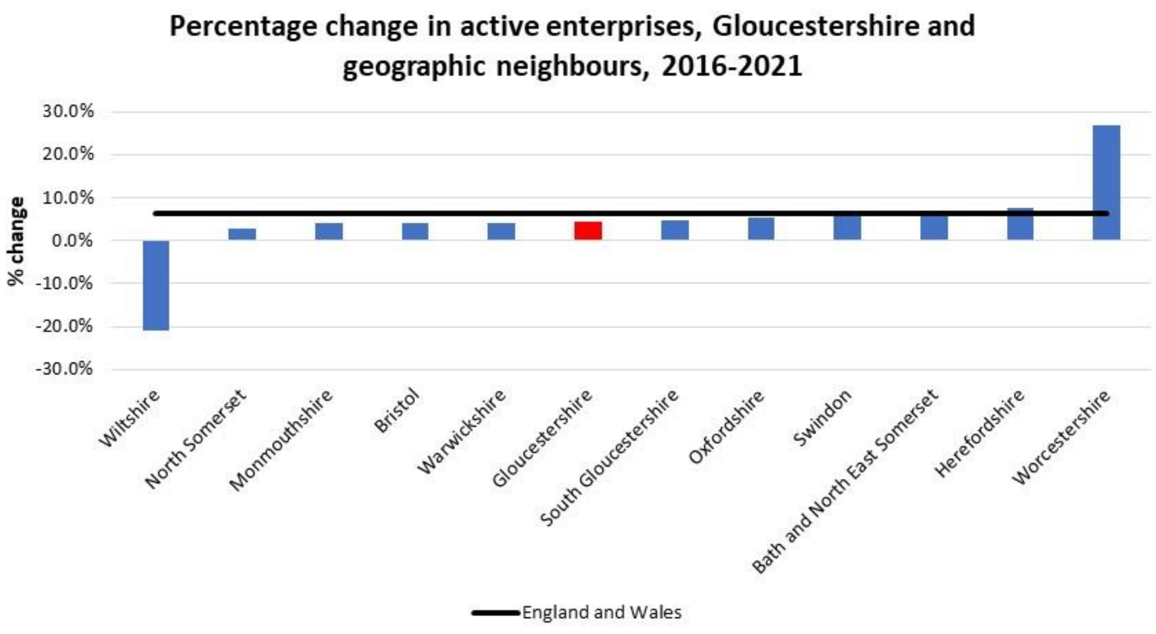


Figure 241: Percentage change in active enterprises, Gloucestershire and geographic neighbours, 2016-2021[698]

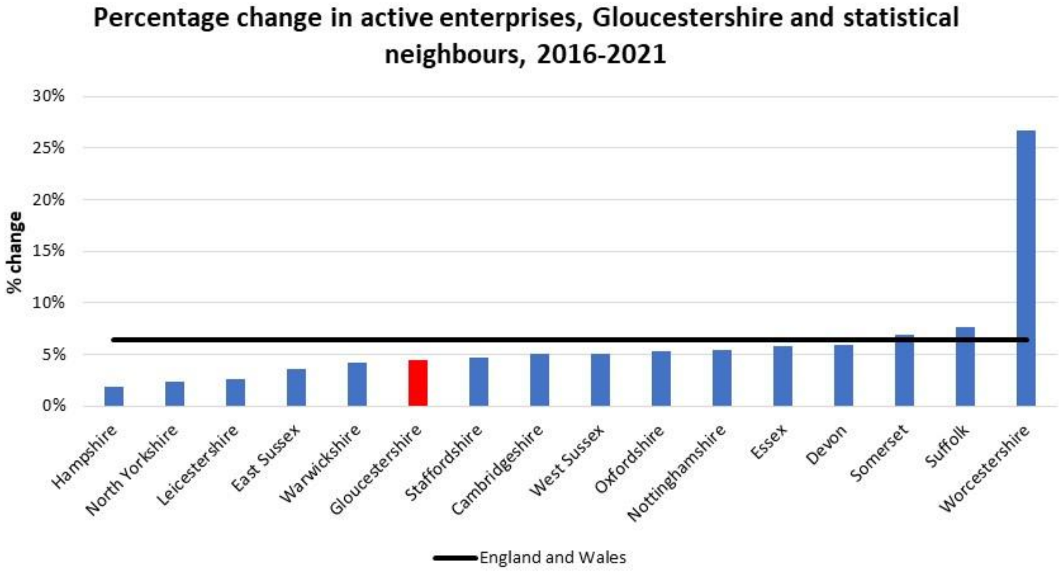


Figure 242: Percentage change in active enterprises, Gloucestershire and statistical neighbours, 2016-2021[699]

Figure 240 shows there was considerable variation at district level. Cheltenham saw a decline of 95 businesses between 2016-2021.This equates to a decline of 1.7%, which saw it sit in the bottom 20% of district and unitary authorities across England and Wales. Stroud also sat in this quintile seeing minimal growth of

[698] *Ibid.*

[699] *Ibid.*

0.5%. Conversely the number of active enterprises in Gloucester increased by 450 or 11.3%, putting it in the top 20% of authorities across England and Wales.

18.2 Business start-ups

The birth of new enterprises is often seen as an indication of the dynamism of an economy as enterprises are considered as drivers of job creation and economic growth.

In 2021, 2,980 new businesses were created in Gloucestershire. This represents 9.9% of active enterprises, which was lower than the regional average of 10.9% and the national average of 12.5%.

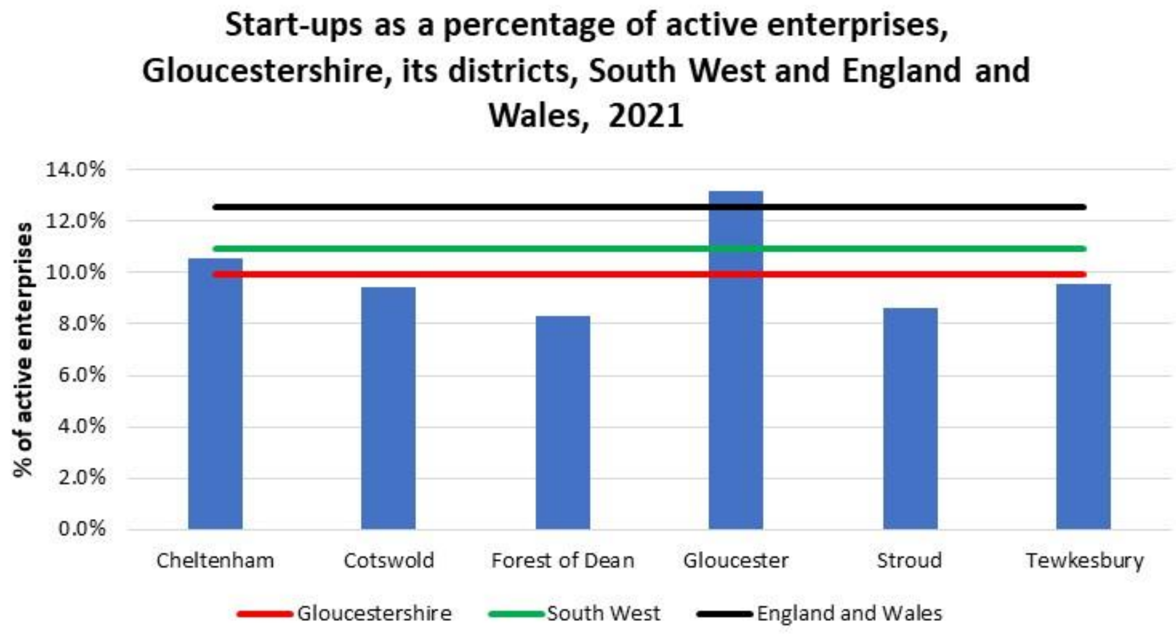


Figure 243: Start-ups as a percentage of active enterprises, Gloucestershire, its districts, South West and England and Wales, 2021[700]

Figure 244 and Figure 245 show new start-ups also accounted for a lower proportion of total businesses in Gloucestershire than the majority of its statistical and geographical neighbours. It also compared badly to other county and unitary authorities across England and Wales, ranking 155 out of 174, putting it in the bottom 20% of authorities in England and Wales in terms of business start-ups.

[700] *Ibid.*

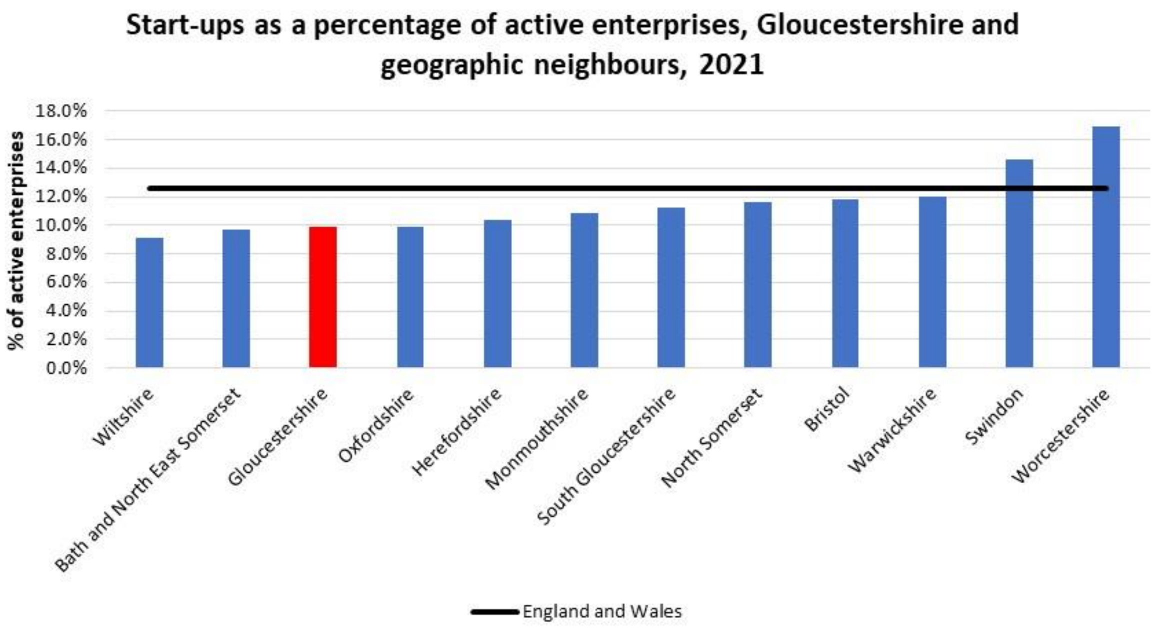


Figure 244: Start-ups as a percentage of active enterprises, Gloucestershire and geographic neighbours, 2021[701]

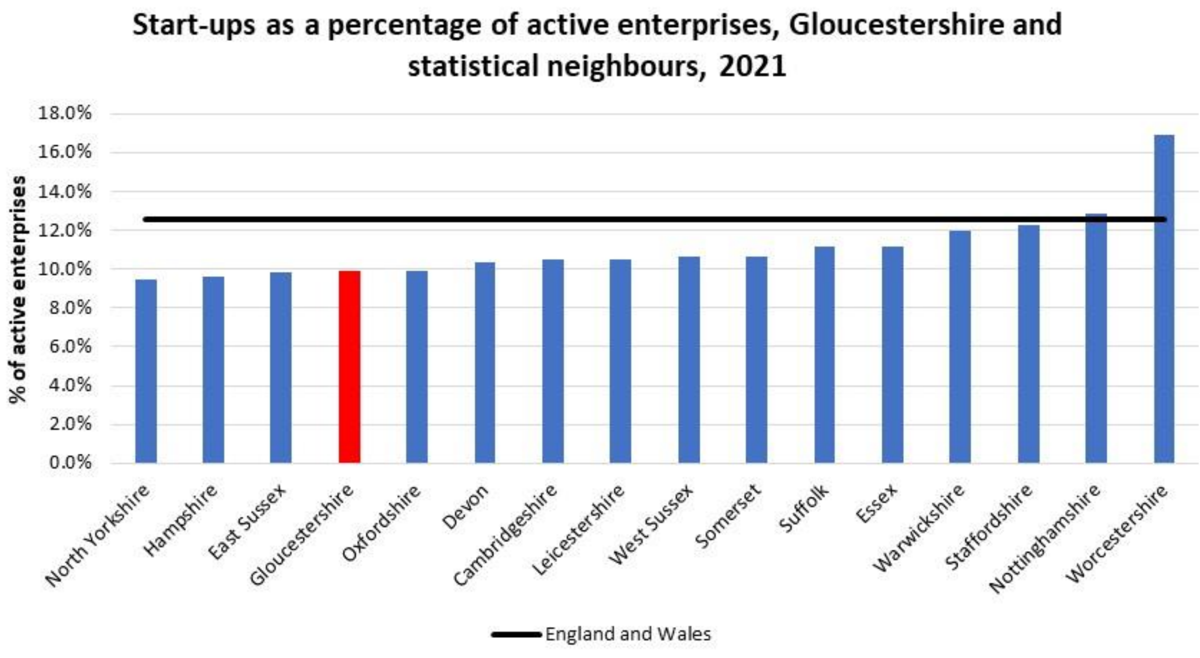


Figure 245: Start-ups as percentage of active enterprises, Gloucestershire and statistical neighbours, 2021[702]

Across the county there is considerable variation in the number and rate of start-ups. The greatest number of start-ups in 2021 was in Cheltenham, with the

[701] *Ibid.*

[702] *Ibid.*

district accounting for 20.0% of start-ups. Conversely the Forest of Dean has the lowest number of start-ups accounting for 10.6% of the total.

Figure 243 shows when expressed as a percentage of total enterprises Gloucester has the highest start-up rate, with new start-ups accounting for 13.2% of total enterprises, higher than the national, regional and county averages. Gloucester also compares relatively well to other district and unitary authorities across England and Wales, sitting in the top 40% of authorities across the country. Start-ups as a percentage of total enterprises was lowest in the Forest of Dean (8.3%) closely followed by Stroud (8.6%). The rate in both of these areas was lower than the county, regional and national average and saw them sit in the bottom 20% of authorities across England and Wales.

The number of new businesses per 10,000 working age population is a good measure of entrepreneurship. In 2021 there were 75.8 business start-ups per 10,000 working age population in Gloucestershire. This was broadly in line with the regional average of 74.8 but lower than the national average of 90.3.

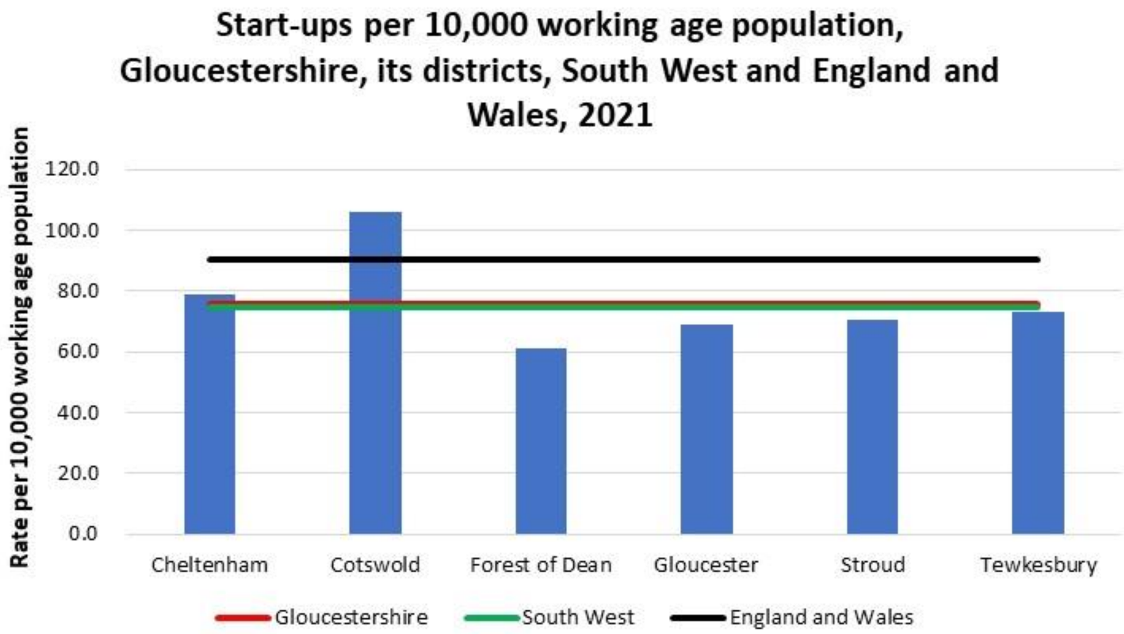


Figure 246: Start-ups per 10,000 working age population, Gloucestershire, its districts, South West and England and Wales, 2021[703]

When compared to its geographic and statistical neighbours Gloucestershire is fairly similar to most areas, sitting in the middle of both comparator groups. It also sits in the middle 20% of county and unitary authorities across England and Wales.

[703] Business Demography, ONS and Mid 2021 Population Estimates, ONS

Figure 246 shows that at district level Cotswold stands out as having a high start-up rate, with 106.1 start-ups per 10,000 working age population. This is higher than the county, regional and national average and all other districts in the county. It also compares well to other authorities across England and Wales with a rank of 46 out of 331 district and unitary authorities, putting it in the top 20% nationally. Conversely the Forest of Dean has a rate of 61.4 start-ups per 10,000 working age population, putting it in the bottom 20% of authorities across the country.

Since 2016 the number of start-ups in Gloucestershire has decreased by 40 or 1.3%. The number of start-ups across the South West and England and Wales also fell but to a greater extent with declines of 15.9% and 9.5% respectively. The ONS suggests these declines may be a result of financial uncertainty following Brexit as well as the impact of the COVID19 pandemic.

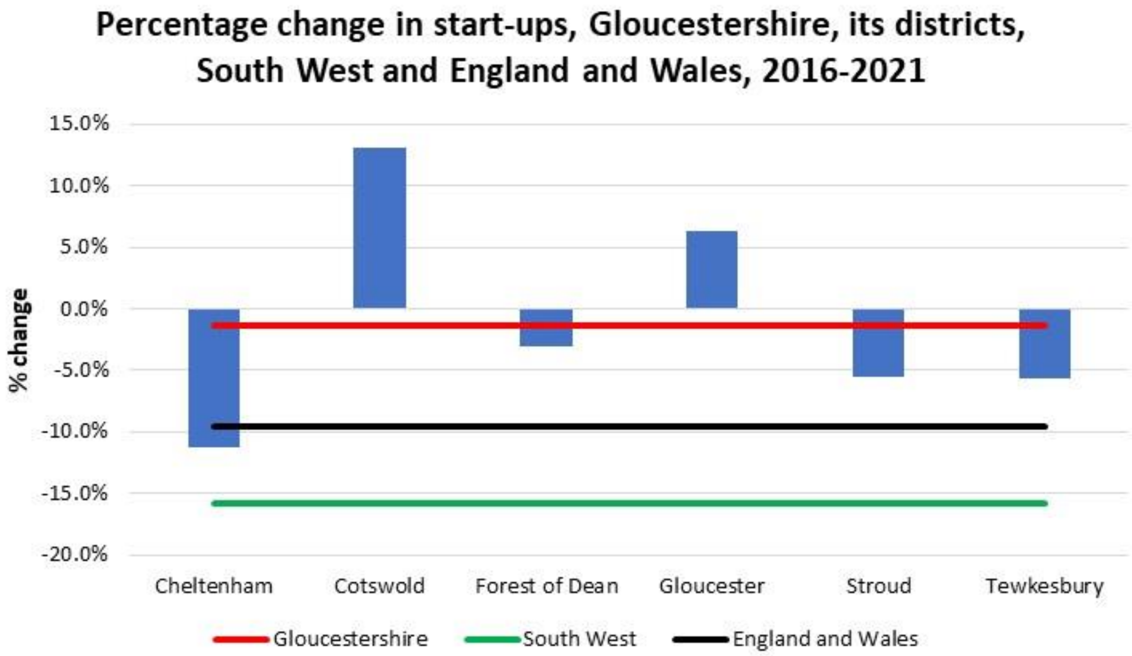


Figure 247: Percentage change in start-ups, Gloucestershire, its districts, South West and England and Wales, 2016-2021[704]

When compared to its geographic and statistical neighbours Gloucestershire has seen a similar change in start-ups to most areas, sitting in the middle of both comparator groups. It also sits in the middle 20% of county and unitary authorities across England and Wales in terms of change in business start-ups.

Figure 247 shows across the county there is some variation. Contrary to the decline seen at a county, regional and national level, Cotswold saw a 13.1% increase in the number of new businesses between 2016 and 2021. This put it in the top 40% of authorities across England and Wales in terms of the growth of

[704] Business Demography, ONS

new businesses. Conversely Cheltenham saw an 11.2% decline in the number of new businesses, greater than the decline seen at a county and national average and putting it in the bottom 40% of authorities across England and Wales.

18.3 Business deaths

Deaths of enterprises are generally caused by an enterprise's lack of economic success, or structural problems within the economy that make it impossible for the business to survive.

In 2021, there were 3,155 business deaths in Gloucestershire, this represents 10.5% of active enterprises. This was higher than the regional average of 9.8% but lower than the national average of 11.2%.

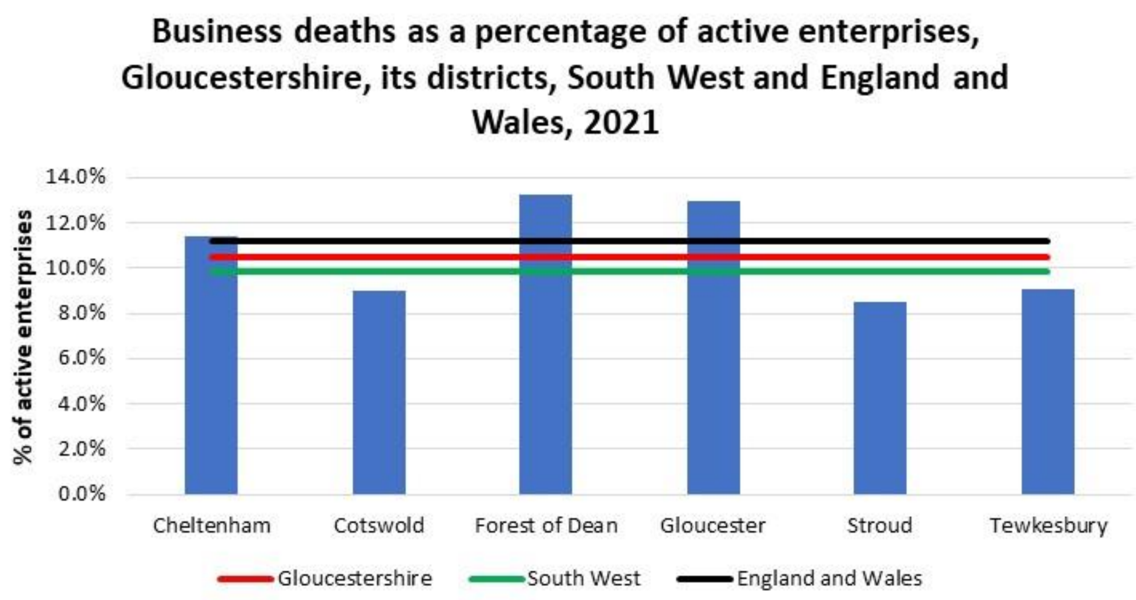


Figure 248: Business deaths as a percentage of active enterprises, Gloucestershire, its districts, South West and England and Wales, 2021[705]

When compared to its geographical and statistical neighbours, business deaths generally accounted for a similar proportion of total businesses in Gloucestershire than elsewhere. Gloucestershire sits in the bottom 40% of authorities across England and Wales in terms of business deaths, suggesting it is not a key issue for the county.

Across the county there is considerable variation in the number and rate of business deaths. The greatest number of business deaths is in Cheltenham, with the district accounting for 20.4% of deaths, conversely Tewkesbury has the lowest number of deaths accounting for 12.5% of the total.

Figure 248 shows when expressed as a percentage of total enterprises, the Forest of Dean has the highest rate of business deaths. Business deaths

[705] *Ibid.*

accounted for 13.2% of total enterprises in the Forest of Dean, this was closely followed by Gloucester which had a rate of 13.0%. These figures were higher than the national, regional and county averages. Gloucester and the Forest of Dean also compare badly to other district and unitary authorities across England and Wales with both areas sitting in the top 20% of authorities across the country. Stroud had the lowest business death rate (8.5%) in the county, closely followed by Cotswold (9.0%). These figures were lower than the county, regional and national average and means Stroud and Cotswold sit in the bottom 20% of authorities across England and Wales.

Since 2016 the number of business deaths across Gloucestershire increased by 625 or 24.7%. The number of business deaths also increased across the South West and England and Wales but to a lesser extent with increases of 13.3% and 22.5% respectively.

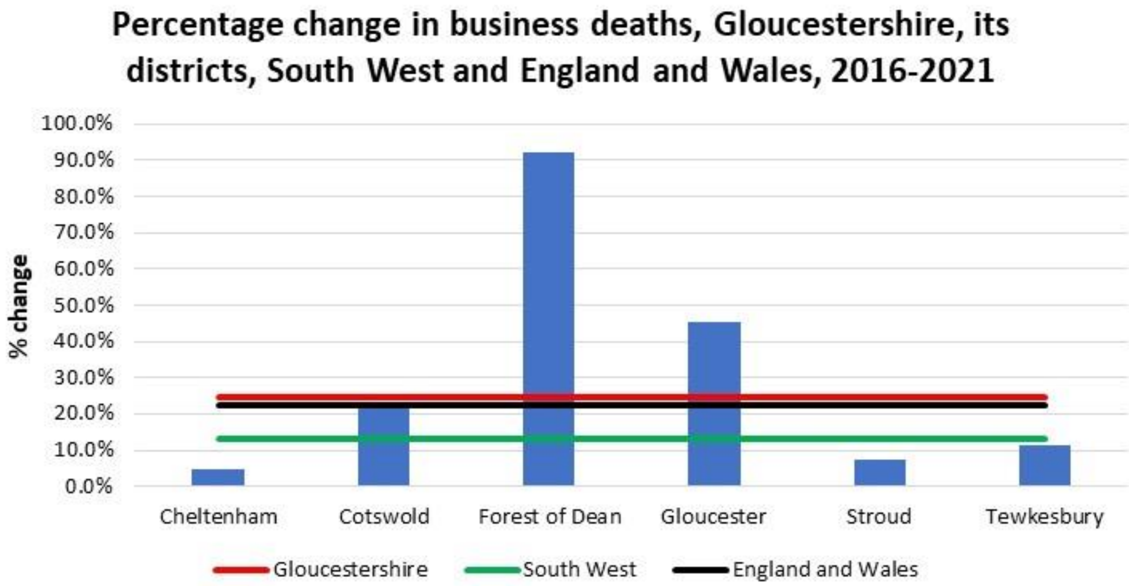


Figure 249: Percentage change in business deaths, Gloucestershire, its districts, South West and England and Wales, 2016-2021[706]

When compared to its geographic neighbours, Gloucestershire sits in the middle of the comparator groups. When looking at its statistical neighbours Gloucestershire sits in the top 3rd of authorities with a rank of 5th. It also sits in the middle 20% of county and unitary authorities across England and Wales, showing its increase in death rate is not unusual compared to other areas.

[706] *Ibid.*

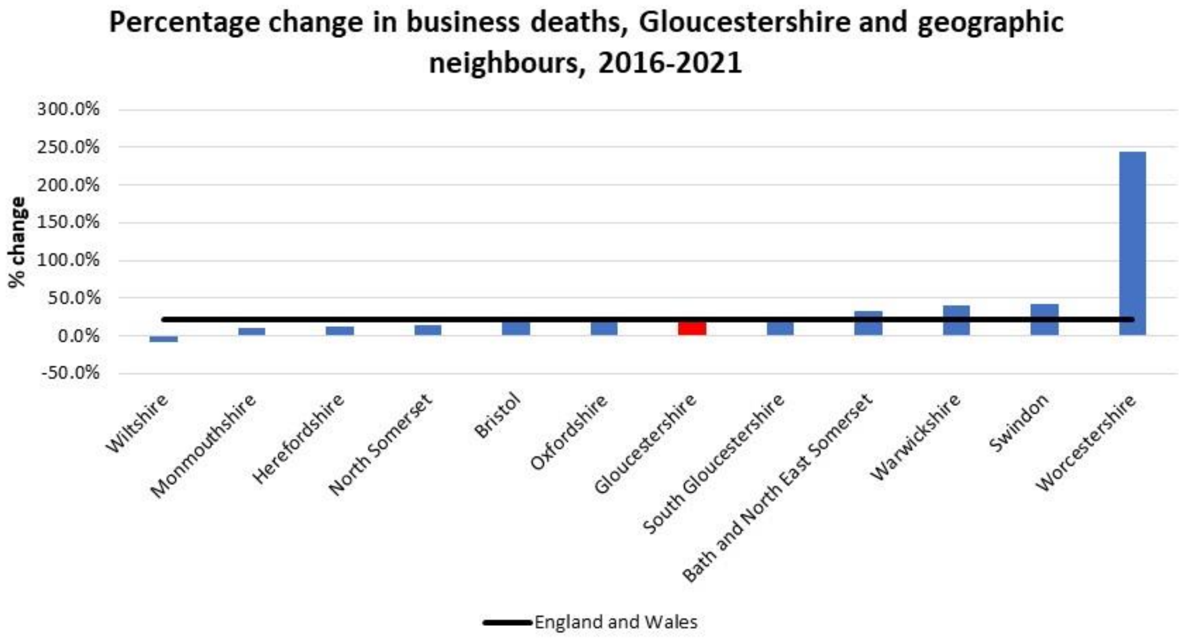


Figure 250: Percentage change in business deaths, Gloucestershire and geographic neighbours, 2016-2021[707]

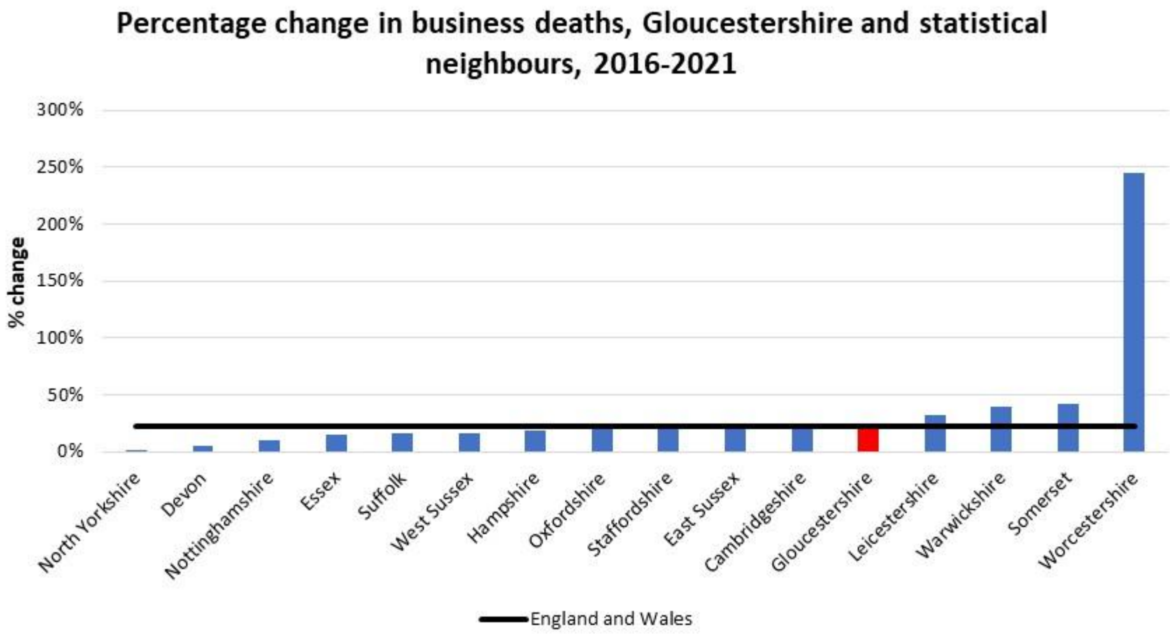


Figure 251: Percentage change in business deaths, Gloucestershire and statistical neighbours, 2016-2021[708]

Across the county there is some variation. Figure 249 shows all districts saw an increase in business deaths between 2016 and 2021. The greatest increase occurred in the Forest of Dean which saw business deaths increase by 92.3%.

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[707] *Ibid.*

[708] *Ibid.*

This saw the Forest of Dean rank 11th out 323 district and unitary authorities across England and Wales in terms of growth in business deaths, putting it in the top 10% nationally. Conversely Cheltenham saw a much smaller increase of 4.9%, putting it in the bottom 40% of authorities across England and Wales along with Stroud and Tewkesbury.

18.4 Comparison between business births and business deaths

In 2021 the number of business deaths in Gloucestershire outnumbered business births by 175. This was the first time business deaths had outnumbered births since 2010 and contrasted with the situation at regional and national level where there were more business births than deaths.

In order to compare with other areas, the difference in percentage points between the business birth and deaths rates has been used. In Gloucestershire the difference was -0.6 percentage points, this compares to +1.1 percentage points in the South West and +1.3 percentage points across England and Wales.

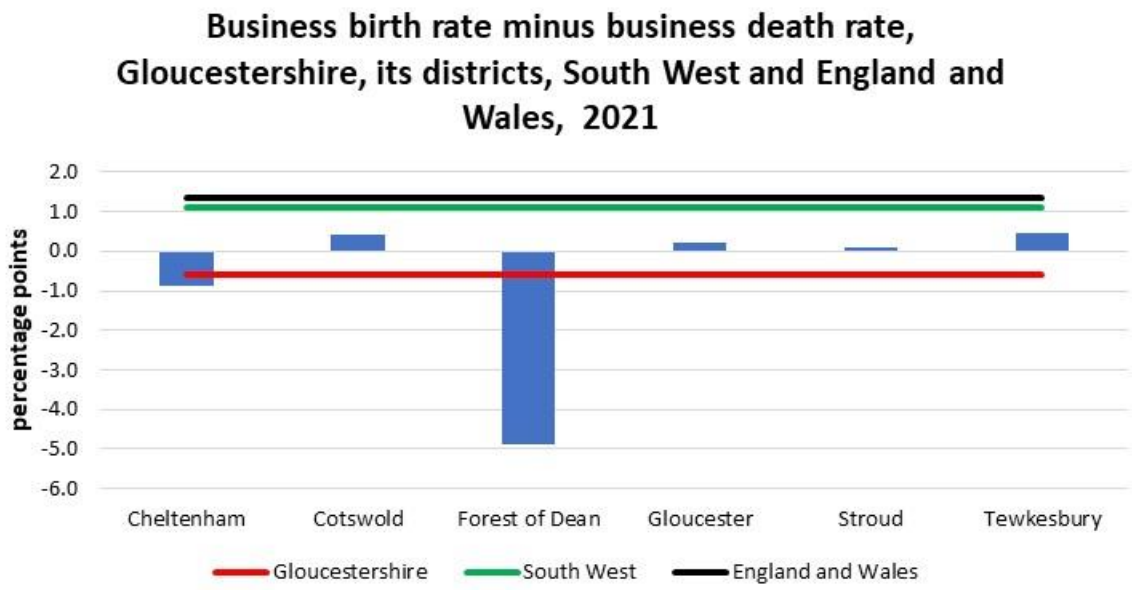

Figure 252: Business birth rate minus business death rate, Gloucestershire, its districts, South West and England and Wales, 2021[709]

When compared to our geographic neighbours only Worcestershire had a greater negative percentage point gap, meaning it had a larger deficit between the business birth and death rate. Gloucestershire also compared badly to our statistical neighbours with only Worcestershire and Hampshire having a greater negative percentage point gap. The county also sat in the bottom 20% of authorities across England and Wales for this measure, with a rank of 148 out of 174 county and unitary authorities, showing it is an area where the county is currently performing badly.

[709] *Ibid.*

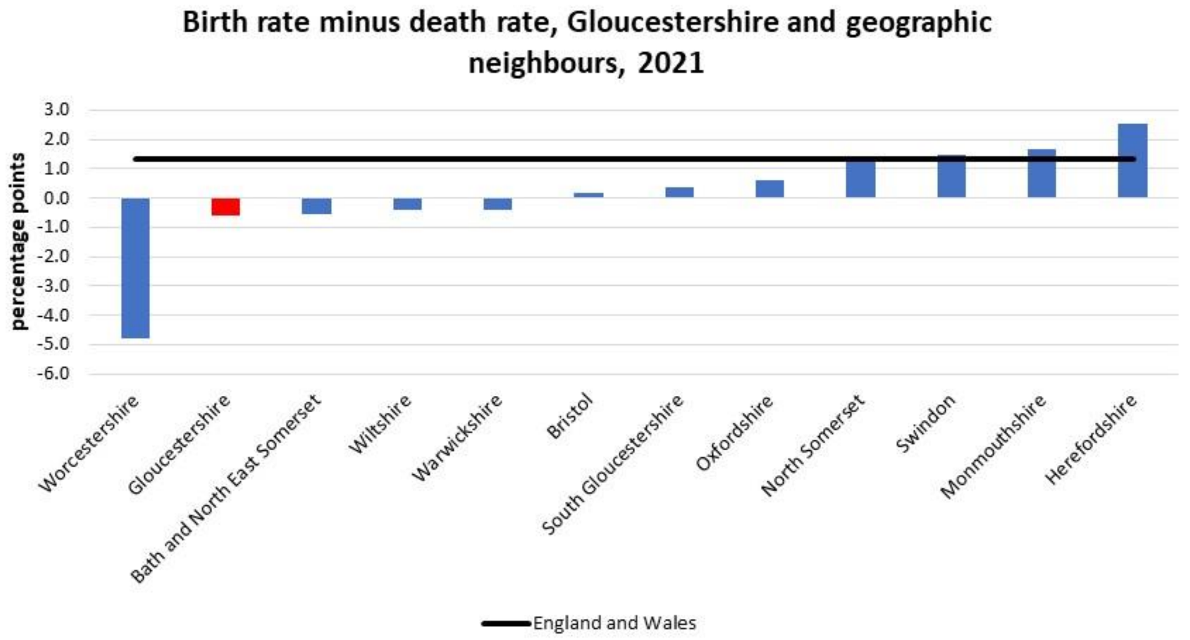

Figure 253: Birth rate minus death rate, Gloucestershire and geographic neighbours, 2021[710]

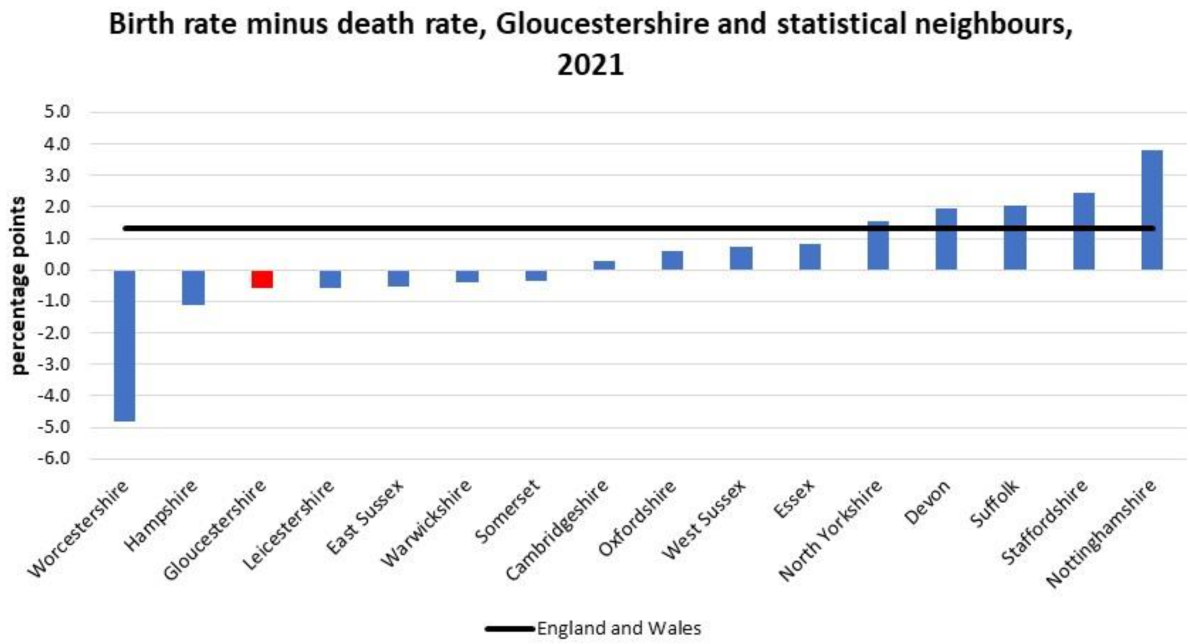

Figure 254: Birth rate minus death rate, Gloucestershire and statistical neighbours, 2021[711]

At district level Cheltenham and the Forest of Dean saw more business births than deaths in both 2020 and 2021. The gap between business births and deaths

[710] *Ibid.*

[711] Ibid.

was greatest in the Forest of Dean which had a percentage point gap of -4.9 percentage points. In Cotswold, Gloucester, Stroud and Tewkesbury there were more business births than deaths, but the difference was minimal. The greatest positive percentage point gap occurred in Tewkesbury (+0.5 percentage points). This meant that all of Gloucestershire's districts sat in the bottom 40% of district and unitary authorities for this measure, with Cheltenham and the Forest of Dean sitting in the bottom 20%.

It is unclear whether this is a temporary anomaly or the start of a new trend, but if it continues it will result in a decline in Gloucestershire's overall business base.

18.5 Survival rates

Survival rates give an indication of the strength of businesses within an area and the conditions available to support them.

18.5.1 One year survival rates

Generally, Gloucestershire has higher than average survival rates. Figure 255 shows 93.8% of businesses born in 2020 survived one year, slightly exceeding the regional figure of 93.4% and the national figure of 92.4%.

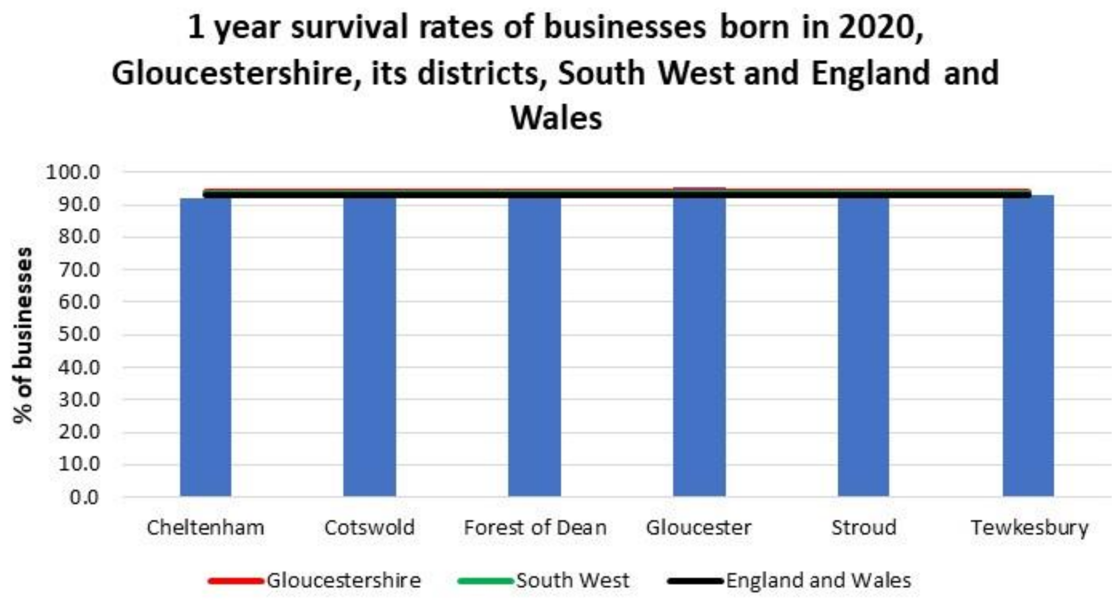

Figure 255: 1 year survival rates of businesses born in 2020, Gloucestershire, its districts, South West and England and Wales[712]

When compared to its geographic neighbours Gloucestershire ranked 4th putting it in the top third of authorities. It did not compare as well against its statistical neighbours, ranking 10th, putting it in the bottom 50% of the comparator group. When compared to all county and unitary authorities across England and Wales it ranked 78th out of 169, putting it in the middle 20% of authorities.

[712] *Ibid.*

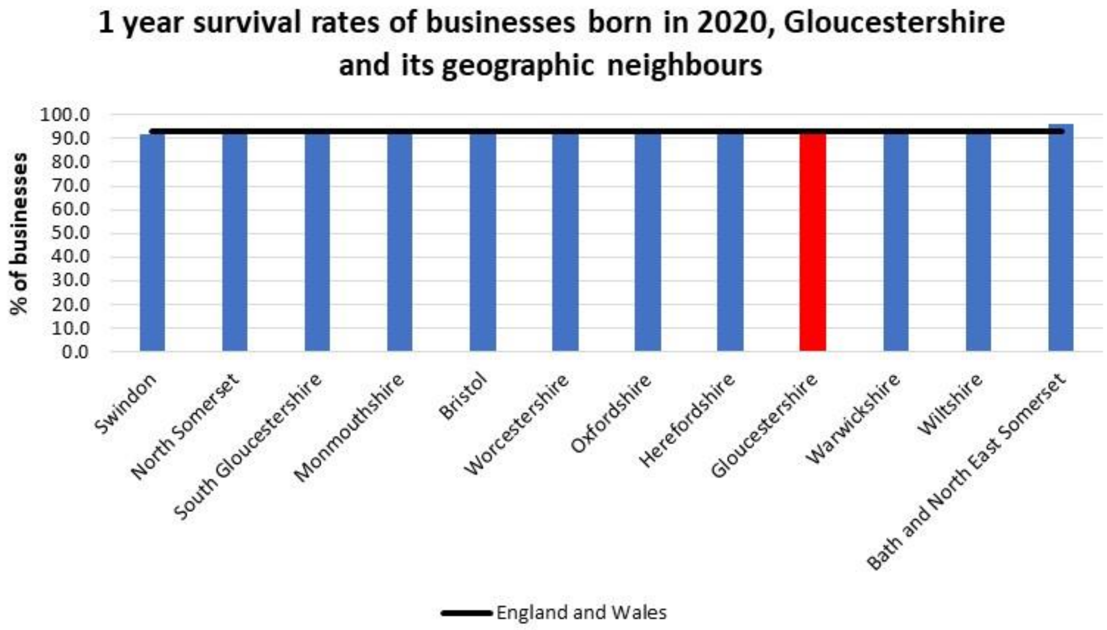

Figure 256: 1 year survival rates of businesses born in 2020, Gloucestershire and its geographic neighbours[713]

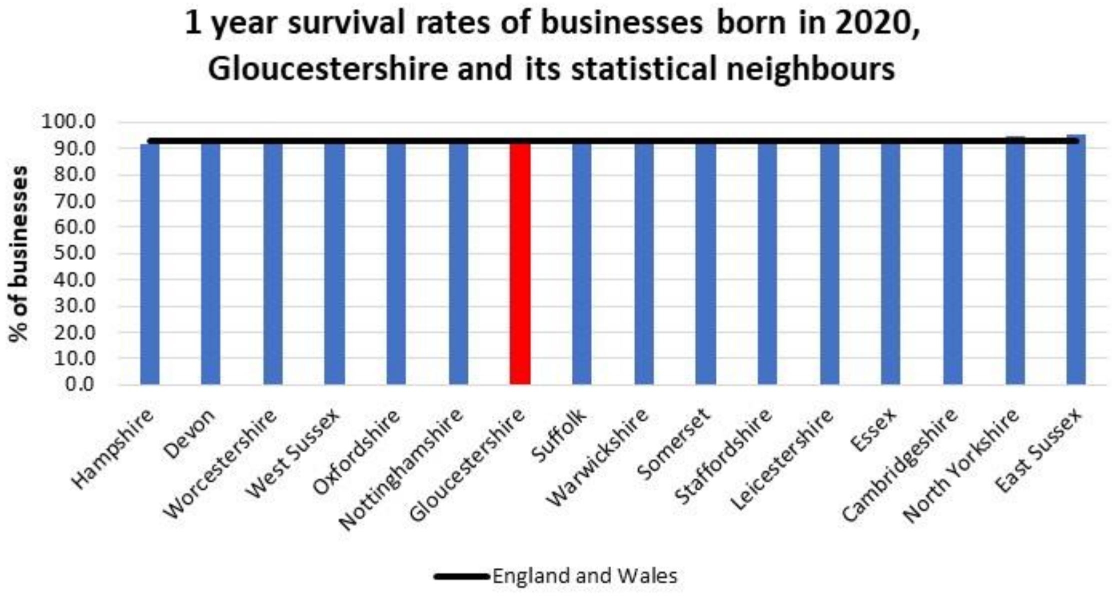

Figure 257: 1 year survival rates of businesses born in 2020, Gloucestershire and its statistical neighbours[714]

Figure 255 shows at district level one year survival rates were highest in Gloucester with 95.4% of businesses born in 2020 surviving one year. This puts Gloucester in the top 20% of district and unitary authorities across England and Wales in terms of survival rates. Conversely one year survival rates were lowest

[713] *Ibid.*

[714] *Ibid.*

in Cheltenham where 91.8% of businesses born in 2020 survived one year, which put Cheltenham in the bottom 20% of authorities across nationally.

It is worth noting that one year survival rates in Gloucestershire fell between 2020 and 2021. In 2020, 95.8% of businesses born in Gloucestershire in 2019 survived one year, this compared to 93.8% born in 2020 surviving to 2021. This fall was also observed at a regional and national level and amongst many authorities across the UK, however Gloucestershire appears to have been more affected than other areas. Gloucestershire ranked 15th out of 169 county and unitary authorities in England and Wales in terms of the one year survival rate of companies born in 2019, so its position of 78th for companies born in 2020 marks a significant decline.

All of Gloucestershire's districts saw a decline in one year survival rates between 2020 and 2021. The greatest declines in one year survival rates were in Cheltenham and Tewkesbury. These areas were ranked 40th and 21st out of 323 authorities in terms of one year survival rates of business born in 2019 but fell to 279th and 203rd when looking at survival rates of businesses born in 2020.

18.5.2 Three year survival rates

Gloucestershire also has relatively good three year survival rates. Figure 258 shows 62.6% of businesses born in 2018 in Gloucestershire survived three years, which was in line with the regional figure of 62.4% and higher than the national figure of 57.4%.

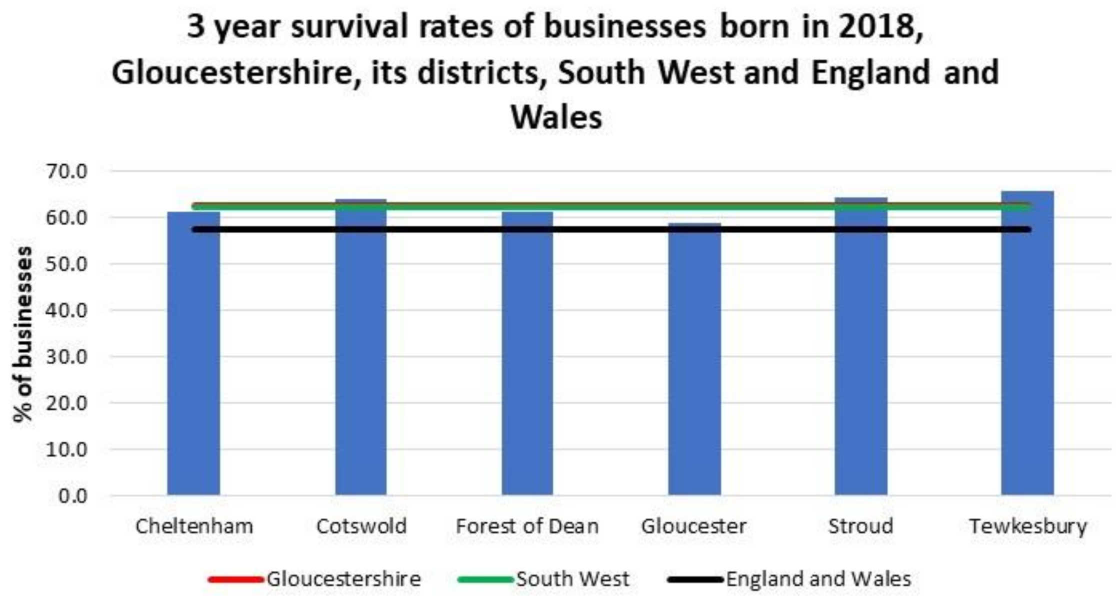

Figure 258: 3 year survival rates of businesses born in 2019, Gloucestershire, its districts, South West and England and Wales[715]

[715] *Ibid.*

When compared to its geographic neighbours, Gloucestershire ranked 6th, sitting in the middle of its comparator group for three year survival rates. It was ranked 4th out of its statistical neighbours putting it in the top third of this group. When compared to all county and unitary authorities across England and Wales it ranked 29th out of 169, putting it in the top 20% of authorities across the country.

At district level three year survival rates were highest in Tewkesbury with 65.8% of businesses born in 2018 surviving three years. This puts Tewkesbury in the top 20% of district and unitary authorities across England and Wales. Conversely three year survival rates were lowest in Gloucester where 58.6% of businesses born in 2018 survived three years. This put Gloucester in the bottom 40% of authorities across England and Wales.

As with one year survival rates, three year survival rates have also fallen in Gloucestershire. Of businesses born in 2017, 64.5% survived three years, higher than the figure of 62.6% for businesses born in 2018. This fall was not reflected at a regional and national level which actually saw an increase in three year survival rates.

Gloucestershire’s ranking relative to other areas also fell. The county was ranked 13th out of 169 county and unitary authorities in England and Wales in terms of the three year survival rate of companies born in 2017, so its position of 29th for companies born in 2018 marks a decline.

Cotswold, Forest of Dean and Gloucester all reflected the picture at county level with declining three year survival rates. The greatest decline was in the Forest of Dean which saw three year survival rates fall from 68.1% of businesses born in 2017 to 61.4% of businesses born in 2018. This saw the Forest of Dean's ranking out of the 323 district and unitary authorities change from 7th to 127th. Cheltenham, Tewkesbury and Stroud saw an increase in the three year survival rates. The greatest increase occurred in Stroud which saw an increase in three year survival rates from 62.9% of businesses born in 2017 to 64.3% of businesses born in 2018, this saw Stroud's ranking relative to the other 323 district and unitary authorities change from 98th to 56th.

18.5.3 Five year survival rates

Gloucestershire's five year survival rate stood at 47.2% of businesses born in 2016 surviving for five years. Figure 259 shows this was considerably higher than the regional average of 37.1% and the national average of 38.1%.

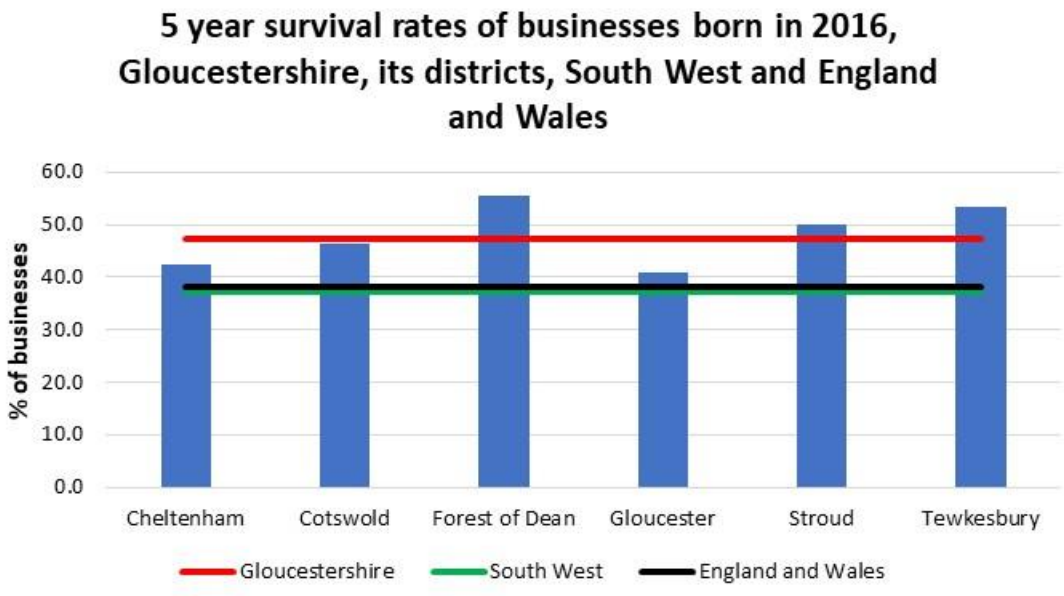

Figure 259: 5 year survival rate of businesses born in 2016, Gloucestershire, its districts, South West and England and Wales[716]

Gloucestershire also compares well to its geographic and statistical neighbours, having one of the highest survival rates of both comparator groups. It also sits in the top 20% of county and unitary authorities across England and Wales with a rank of 14 out of 169 authorities.

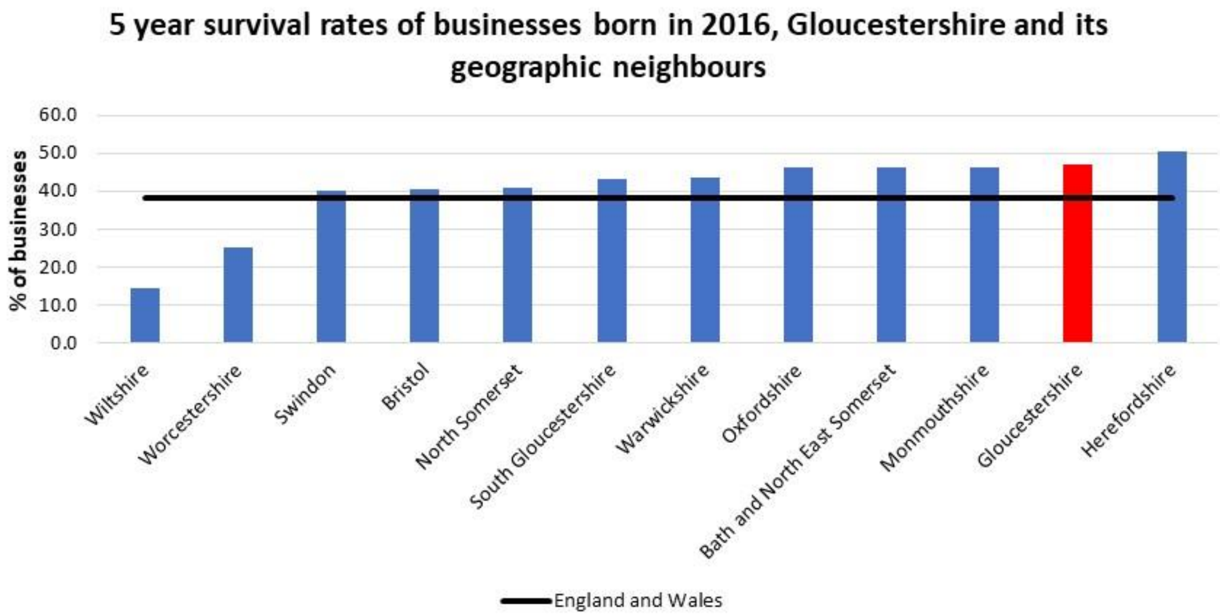

Figure 260: 5 year survival rates of businesses born in 2016, Gloucestershire and its geographic neighbours[717]

[716] *Ibid.*

[717] *Ibid.*

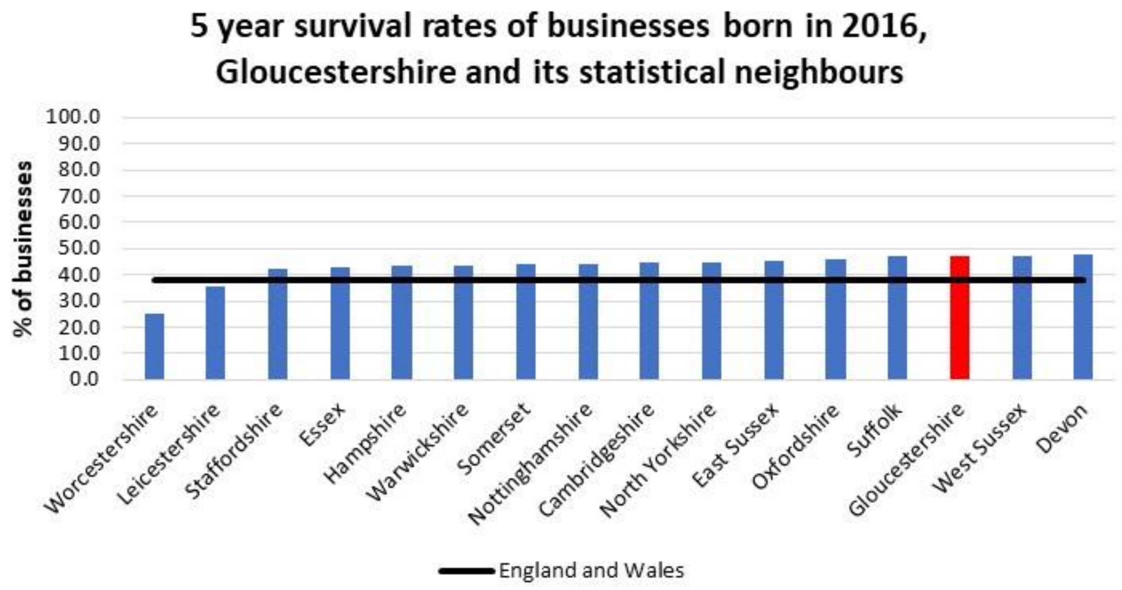

Figure 261: 5 year survival rates of businesses born in 2016, Gloucestershire and its statistical neighbours[718]

Figure 259 shows all districts in the county had higher five year survival rates than the regional and national averages. The Forest of Dean and Tewkesbury have the highest five year survival rates at 55.4% and 53.4% respectively. When compared to other district authorities across England and Wales, the Forest of Dean had the second highest five survival rate in the country behind the Isles of Scilly. Tewkesbury had the fourth highest five year survival rate in the country behind the Isles of Scilly, the Forest of Dean and Ceredigion. Gloucester had the lowest five year survival rate in Gloucestershire with 40.9% of businesses born in 2016 surviving five years, however it still sat in the middle 20% of authorities across England and Wales. This shows five year survival rates are currently a strength across the county, however the recent decline in one year and three year survival rates may threaten this in the future.

18.6 High growth businesses

High growth businesses can be defined in a number of ways. One approach, measures businesses with an average growth in employment of greater than 20%, per annum, over a three-year period. The size threshold used to identify these businesses is that they have 10 or more employees.

In 2021 there were 125 high growth businesses in Gloucestershire, this represents 4.0% of active enterprises employing more than 10 people. This was broadly in line with the regional average of 3.8% and the national average of 3.9%.

[718] *Ibid.*

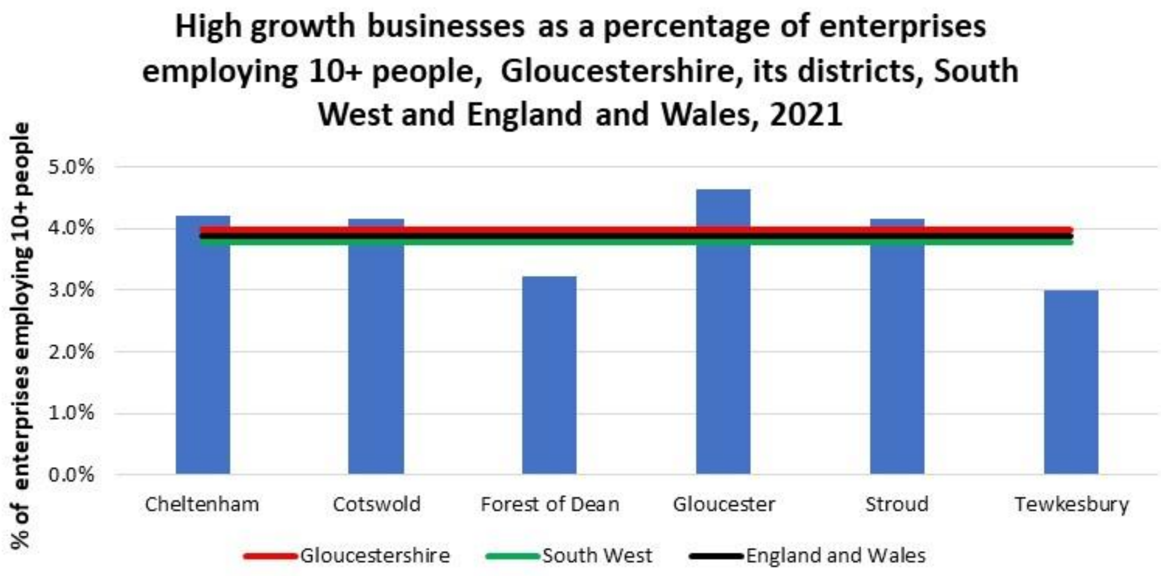

Figure 262: High growth businesses as a percentage of enterprises employing 10+ people, Gloucestershire, its districts, South West and England and Wales, 2021[719]

Interestingly when compared to its geographic neighbours, Gloucestershire is ranked 8th, putting it in the bottom half of local authorities. However, when compared to its statistical neighbours, Gloucestershire had the 3rd highest percentage of high growth enterprises. Gloucestershire also compares well to other county and unitary authorities across the country, sitting in the top 40% nationally.

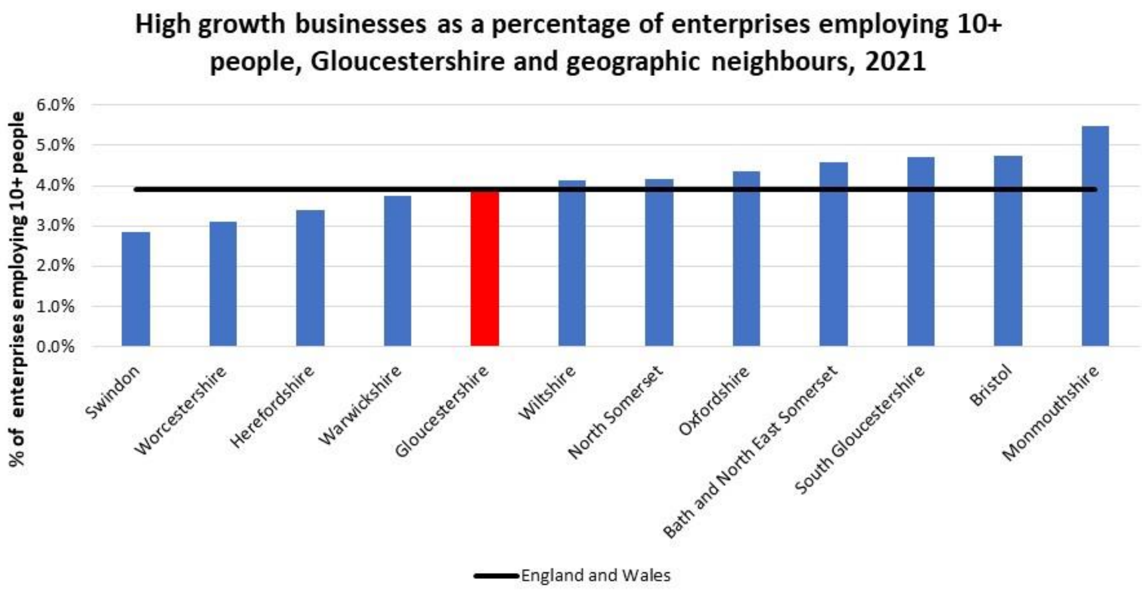

Figure 263: High growth businesses as a percentage of enterprises employing 10+people, Gloucestershire and geographic neighbours[720]

[719] *Ibid.*

[720] *Ibid.*

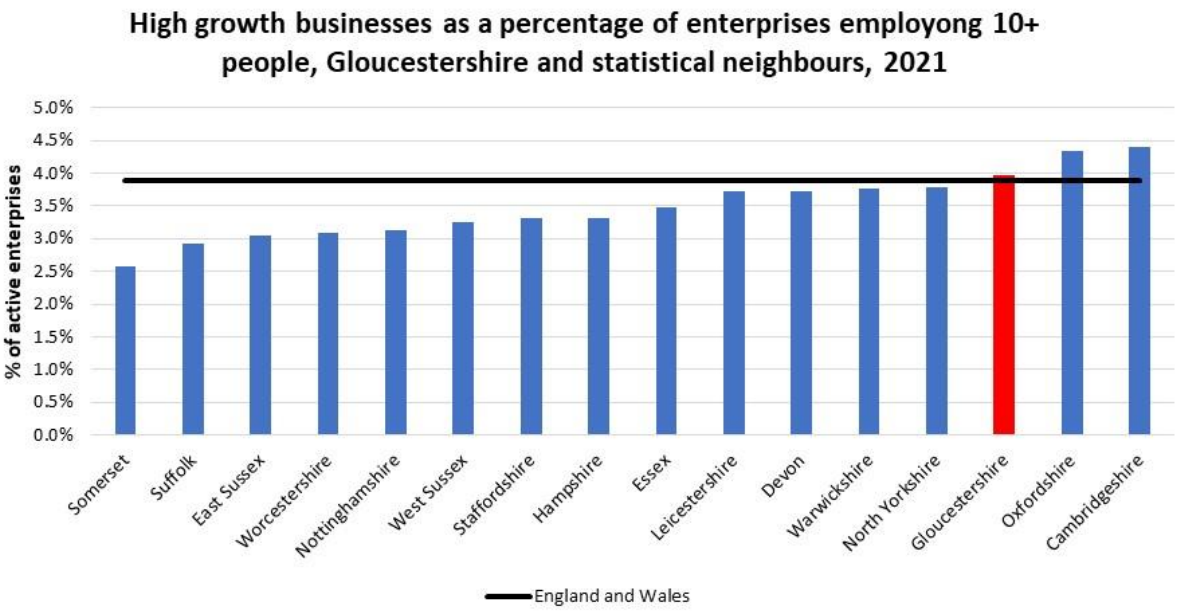

Figure 264: High growth businesses as a percentage of enterprises employing 10+ people, Gloucestershire and statistical neighbours, 2021[721]

Across the county there is some variation in the number and rate of high growth businesses. Cheltenham, Cotswold, Gloucester and Stroud all have 25 high growth businesses each accounting for 20.0% of the county's total. The Forest of Dean has the lowest number of high growth businesses, accounting for 8.0% of the county's total.

Figure 262 shows when expressed as a percentage of total enterprises employing 10+ people, Gloucester has the highest rate (4.6%) of high growth businesses. This was closely followed by Cotswold, Stroud and Cheltenham which all had a rate of 4.2%. These figures were higher than the national, regional and county averages and means Gloucester sits in the top 20% of district and unitary authorities across England and Wales, while Cheltenham, Cotswold and Stroud sit in the top 40% of authorities. Tewkesbury has the lowest rate of high growth businesses (3.0%) closely followed by the Forest of Dean (3.2%). This was lower than the county, regional and national average and means both of these areas sit in the bottom 40% of authorities across England and Wales.

Since 2016 the number of high growth businesses in Gloucestershire has decreased by 45 or 26.5%. The number of high growth businesses also fell in the South West and England and Wales but to a lesser extent, with decreases of 21.6% and 20.1% respectively.

[721] *Ibid.*

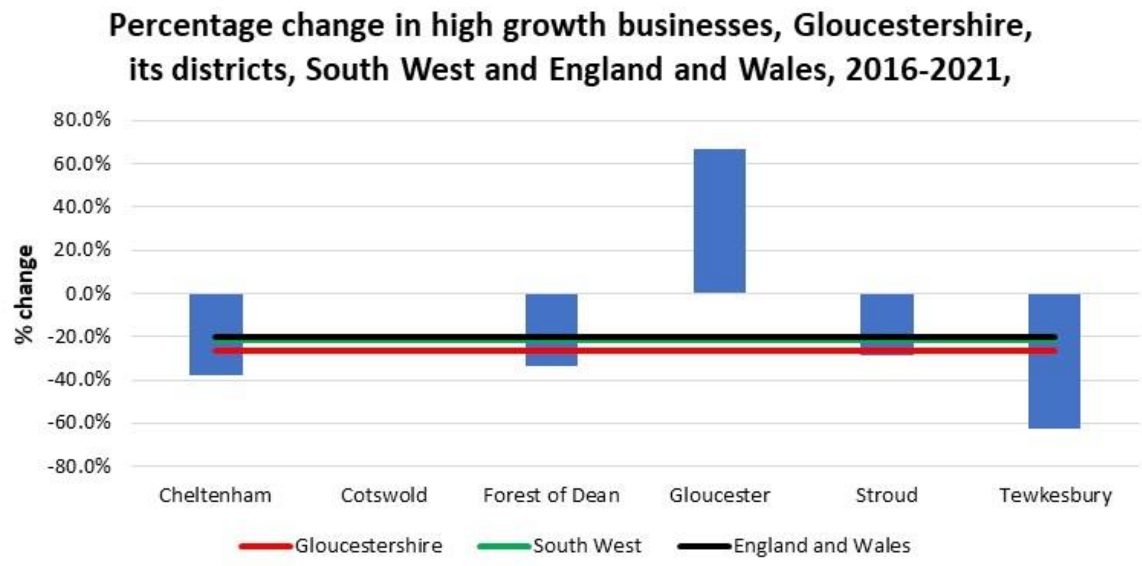

Figure 265: Percentage change in high growth businesses, Gloucestershire, its districts, South West and England and Wales, 2016-2021[722]

When compared to its geographic neighbours, Gloucestershire has the second highest rate of decline in high growth businesses with only Swindon seeing a greater fall. When looking at statistical neighbours, Gloucestershire sits in the middle of authorities, with a rank of 9th. It sits in the bottom 40% of county and unitary authorities across England and Wales with a rank of 102 out of 167 areas.

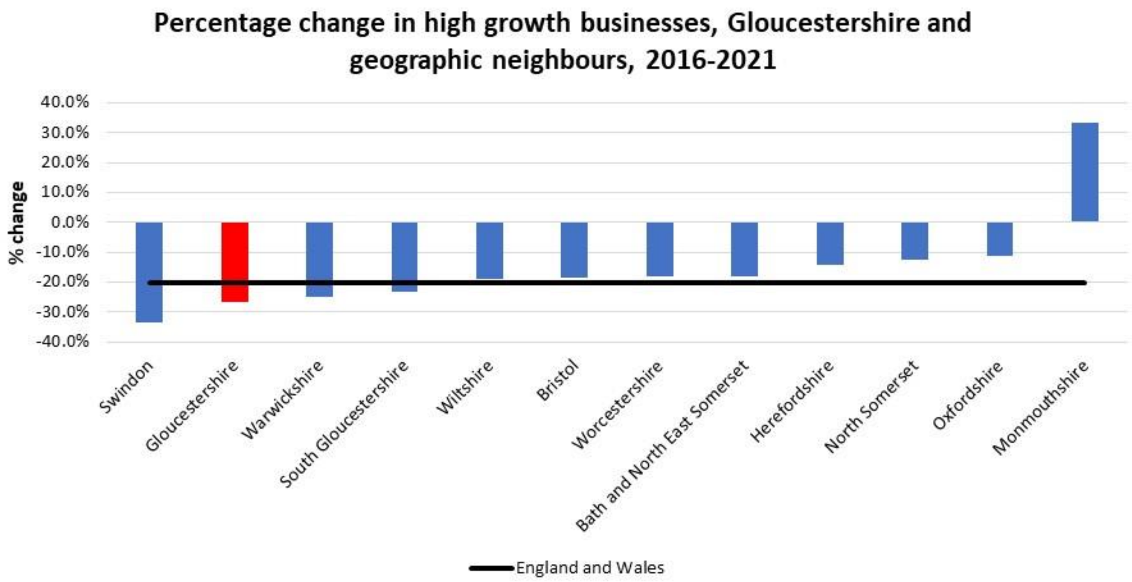

Figure 266: Percentage change in high growth businesses, Gloucestershire and geographic neighbours, 2016-2021[723]

[722] *Ibid.*

[723] *Ibid.*

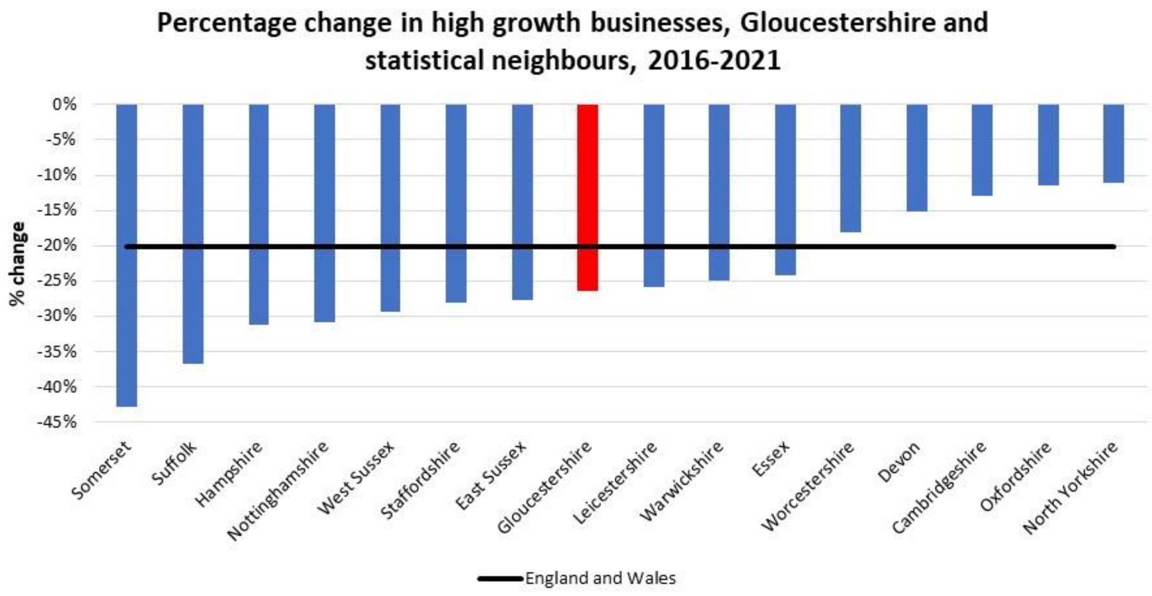

Figure 267: Percentage change in high growth businesses, Gloucestershire and statistical neighbours, 2016-2021[724]

Across the county there is some variation. Figure 265 shows Gloucester saw a 66.7% increase in the number of high growth businesses. This meant it had the 3rd highest rate of growth across all district and unitary authorities in England and Wales, behind High Peak and Vale of Glamorgan. Cotswold saw no change in the number of high growth businesses. Cheltenham, Forest of Dean, Stroud and Tewkesbury all saw a decline in the number of high growth businesses. The greatest decrease occurred in Tewkesbury, which saw the number of high growth businesses decrease by 62.5%. This saw Tewkesbury sit in the bottom 10% of district and unitary authorities nationally in terms of change in high growth businesses.

18.7 Businesses by size

In 2022, 88.8% of Gloucestershire enterprises were micro (employing 0-9 people), this was broadly in line with the regional average of 89.2% and national average of 89.6%.

[724] *Ibid.*

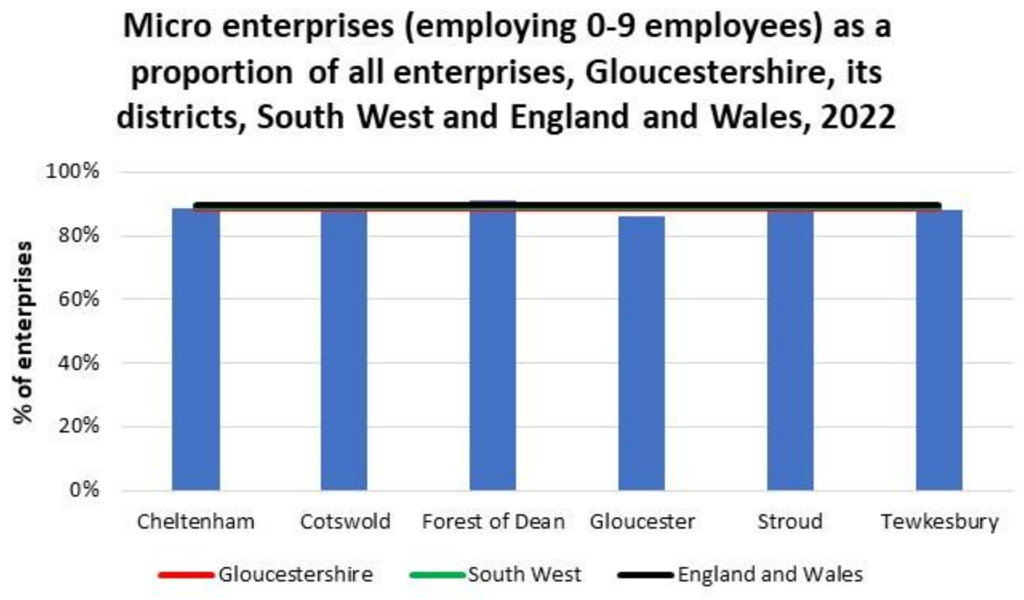

Figure 268: Micro enterprises (employing 0-9 employees) as a proportion of all enterprises, Gloucestershire, its districts, South West and England and Wales, 2022[725]

Overall differences between Gloucestershire and its geographic and statistical neighbours were minimal. However, Figure 269 and Figure 270 show Gloucestershire does have one of the smallest proportions of micro businesses when compared to its neighbours. It is also in the bottom 40% of county and unitary authorities across England and Wales in terms of its proportion of micro businesses. This difference is due to Gloucestershire having a slightly higher proportion of small (employing 10-49 people) and medium (employing 50-249 people) enterprises when compared to the regional and national average, its geographic and statistical neighbours and other county and unitary authorities across England and Wales.

[725] UK Business Counts, ONS

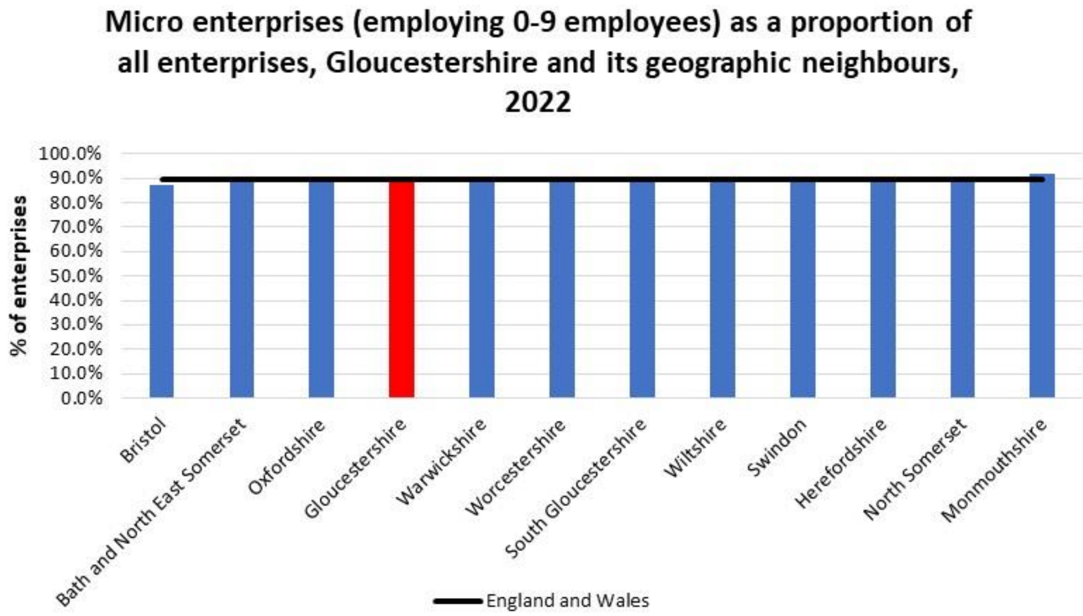

Figure 269: Micro enterprises (employing 0-9 employees) as a proportion of all enterprises, Gloucestershire and its geographic neighbours, 2022[726]

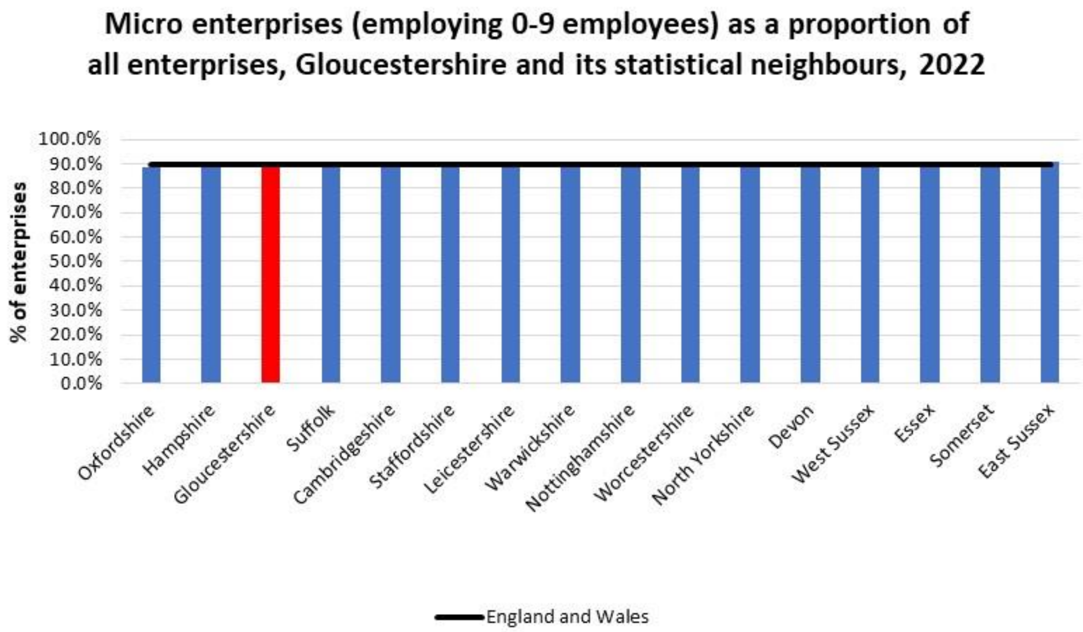

Figure 270: Micro enterprises (employing 0-9 employees) as a proportion of all enterprises, Gloucestershire and its statistical neighbours, 2022[727]

There were 105 large (employing 250+ people) enterprises in the county, equating to 0.4% of total enterprises. This was broadly in line with the regional and national averages of 0.3% and 0.4% respectively.

[726] *Ibid.*

[727] *Ibid.*

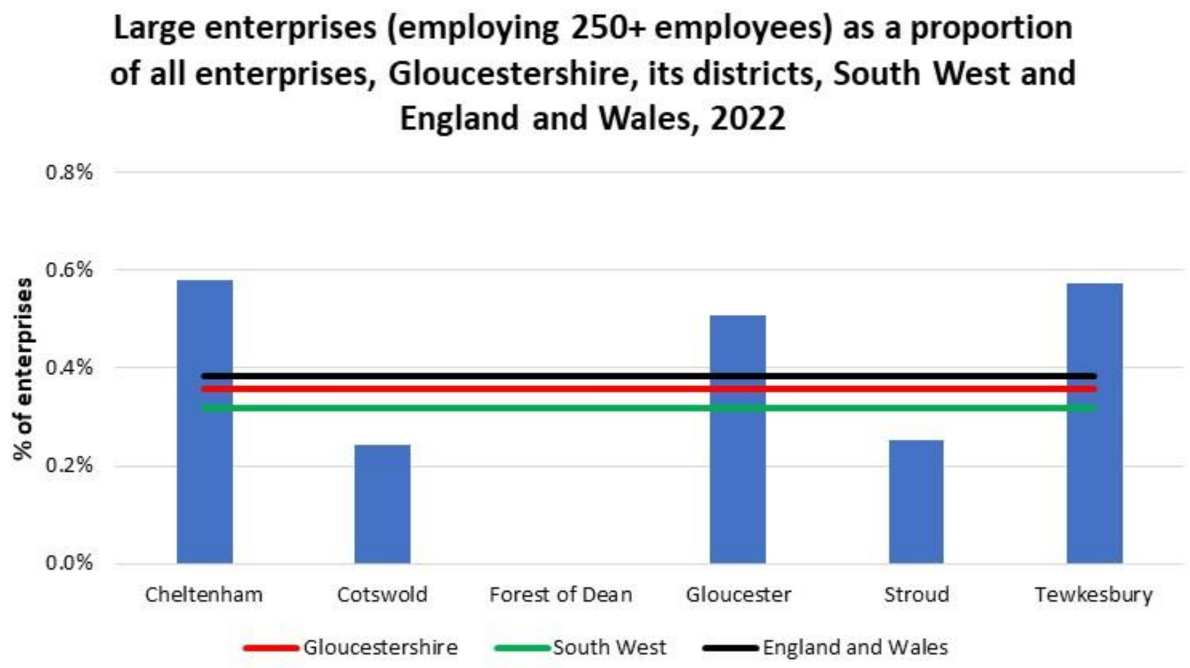

Figure 271: Large enterprises (employing 250+ employees) as a proportion of all enterprises, Gloucestershire, its districts, South West and England and Wales, 2022[728]

When compared to its statistical and geographic neighbours and other county and unitary authorities across England and Wales, Gloucestershire is average, sitting in the middle of these three cohorts in terms of the proportion of large enterprises.

At district level the Forest of Dean stands out as having a higher proportion of micro enterprises than the county, regional and national average. Over 90% of enterprises in the district fall into this category, putting it in the top 20% of district and unitary authorities across England and Wales in terms of its micro enterprises. Conversely it has a small proportion of small and large enterprises, with no enterprises falling into the large category, putting the district in the bottom 10% of authorities across England and Wales.

Cheltenham, Tewkesbury and Gloucester stand out as having a higher proportion of large enterprises than other areas. These districts all exceed the county, regional and national average and sit in the top 20% of district and unitary authorities across England and Wales. In addition, Gloucester has a higher proportion of small and medium enterprises than the county, regional and national average and most other authorities across England and Wales. Conversely it has a lower proportion of micro enterprises, sitting below the county, national and regional average and in the bottom 20% of authorities across England and Wales.

[728] *Ibid.*

The observed decline in active enterprises seen since 2020 was also reflected in data around business size, which shows this decline continued into 2022. This decline was not observed at a regional or national level, with the number of enterprises in these areas increasing.

Figure 272 shows the decline in enterprises observed in Gloucestershire was largely driven by a fall in the number of micro enterprises. The number of micro enterprises fell by 2% or 520 enterprises between 2020 and 2022. This decline was not observed at a regional or national level where the number of micro enterprises increased. The decline in micro enterprises was also observed across all Gloucestershire districts with the exception of Gloucester, which saw an increase of 2.9% or 95 enterprises.

In contrast the number of small enterprises in Gloucestershire increased between 2020 and 2022, while the number of medium and large enterprises fell slightly between 2020 and 2021 and have since been unchanged.

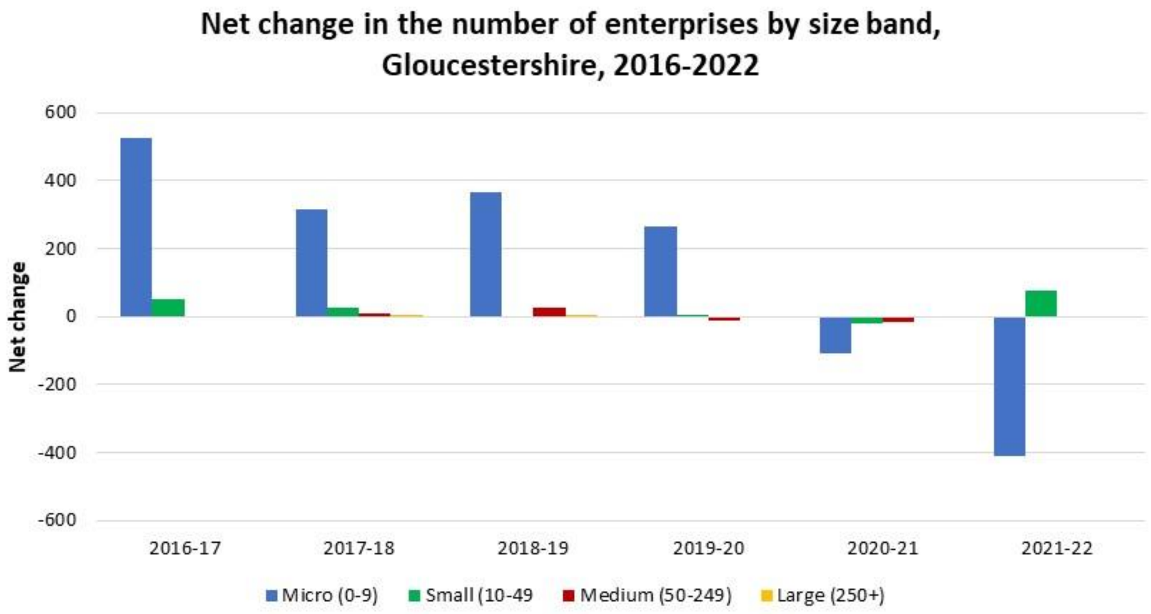

Figure 272: Net change in the number of enterprises by size band, Gloucestershire, 2016-2022[729]

18.8 Businesses by sector

Figure 273 shows in 2022, Professional, scientific and technical activities accounted for the largest proportion of total enterprises (16.3%) in Gloucestershire, this was followed by Construction (13.5%) and Wholesale and retail trade (13.2%). This reflects the picture seen at a national level and is broadly in line with the picture across the South West, with the only difference being Construction is the largest sector at a regional level.

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[729] *Ibid.*

Gloucestershire has an over-representation of enterprises in Public Administration and defence; Electricity, gas, steam and air conditioning supply; Agriculture, forestry and fishing; and Manufacturing when compared to the national average. Conversely it has an under-representation of enterprises in Transport and storage.

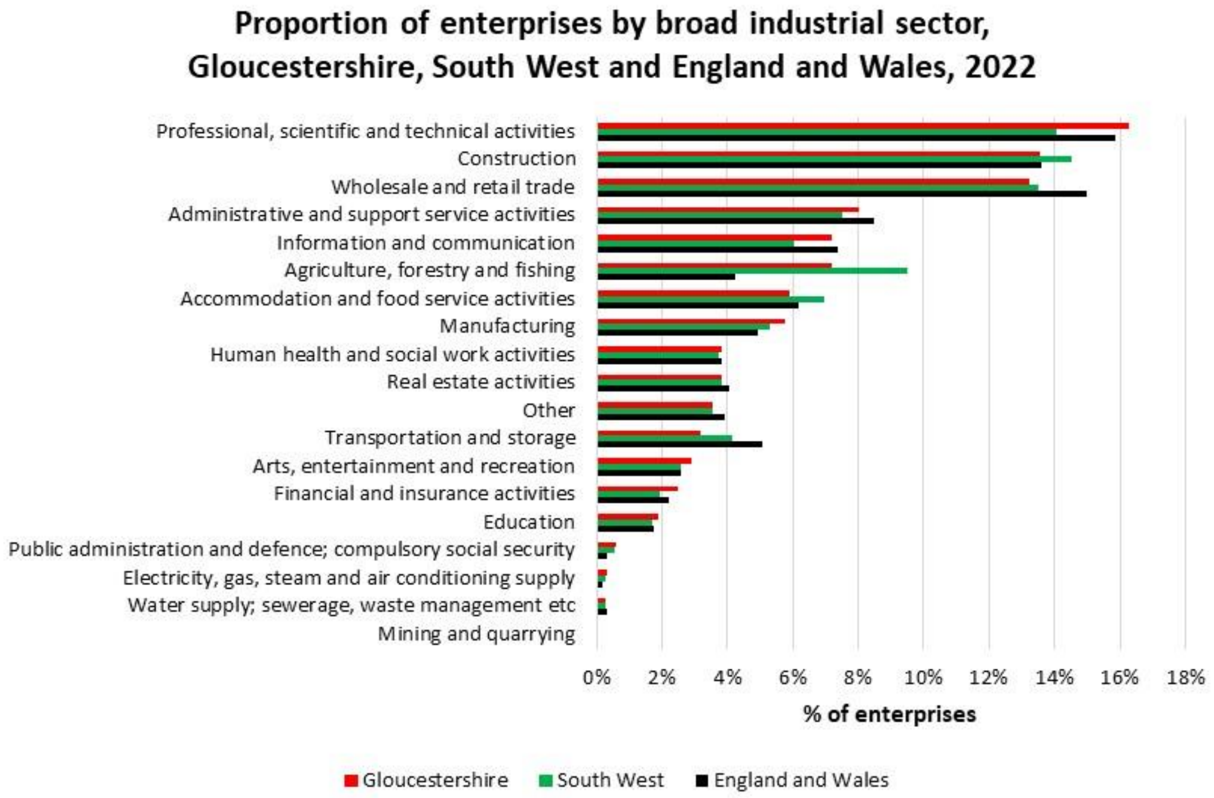

Figure 273: Proportion of enterprises by broad industrial sector, Gloucestershire, South West and England and Wales, 2022[730]

When compared to its geographic neighbours, Gloucestershire stands out as having a higher proportion of enterprises in Agriculture, forestry and fishing; Electricity, gas, steam and air conditioning supply; Manufacturing; and Finance and insurance activities. Conversely it has a lower proportion of enterprises in Transport and storage.

[730] *Ibid.*

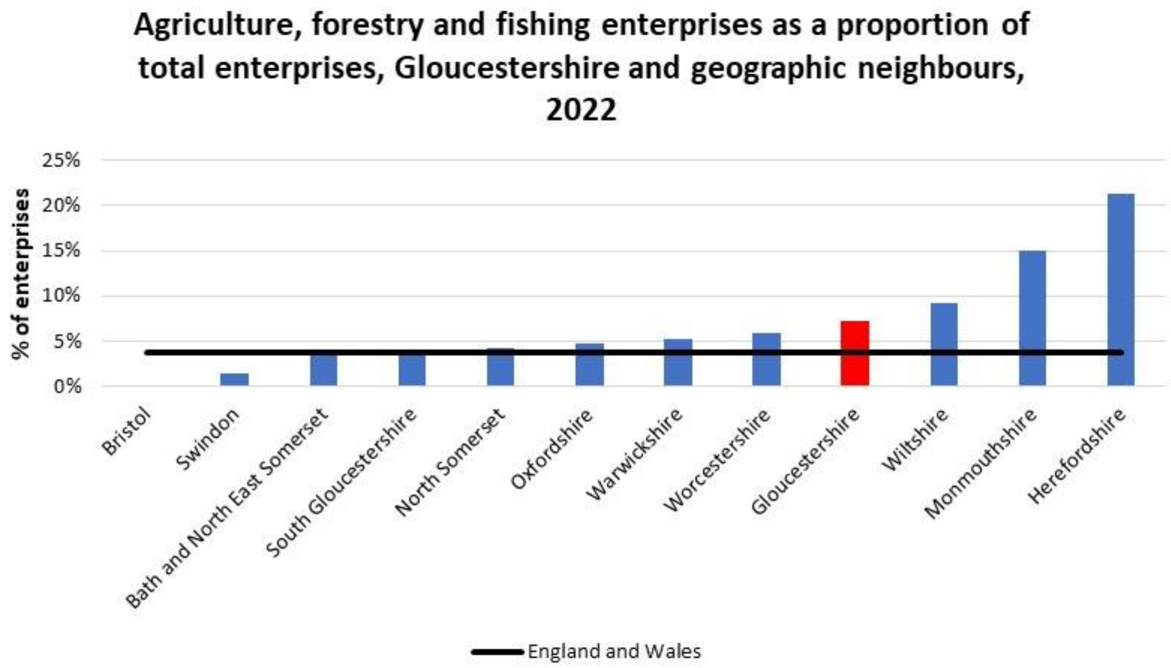

Figure 274: Agriculture, forestry and fishing enterprises as a proportion of total enterprises, Gloucestershire and geographic neighbours, 2022[731]

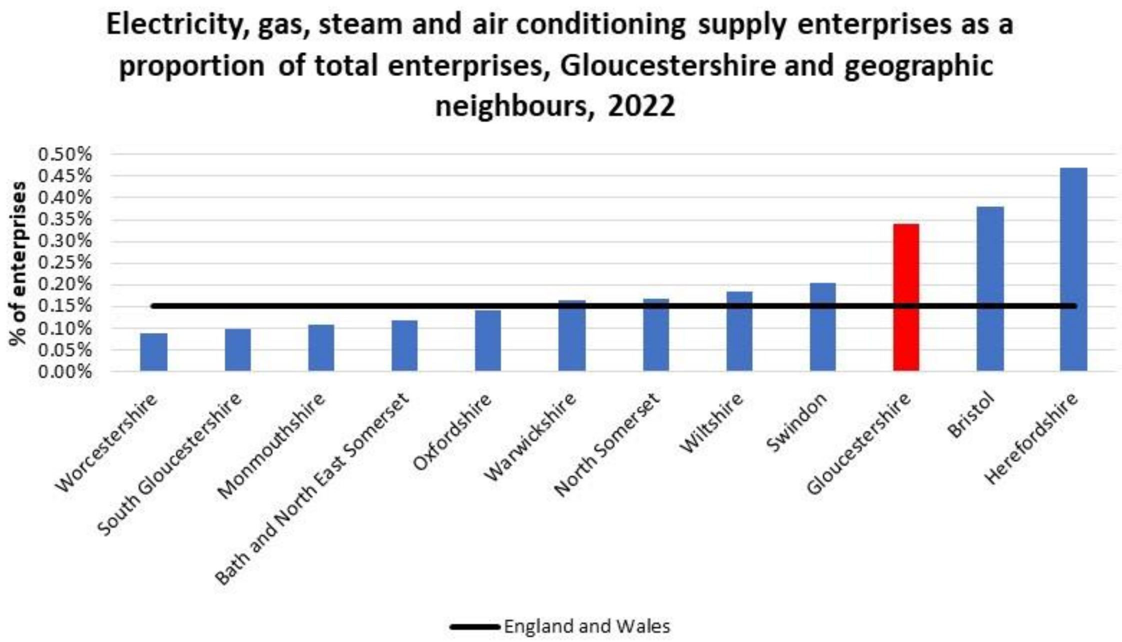

Figure 275: Electricity, gas, steam and air conditioning supply enterprises as a proportion of total enterprises, Gloucestershire and geographic neighbours, 2022[732]

[731] *Ibid.*

[732] *Ibid.*

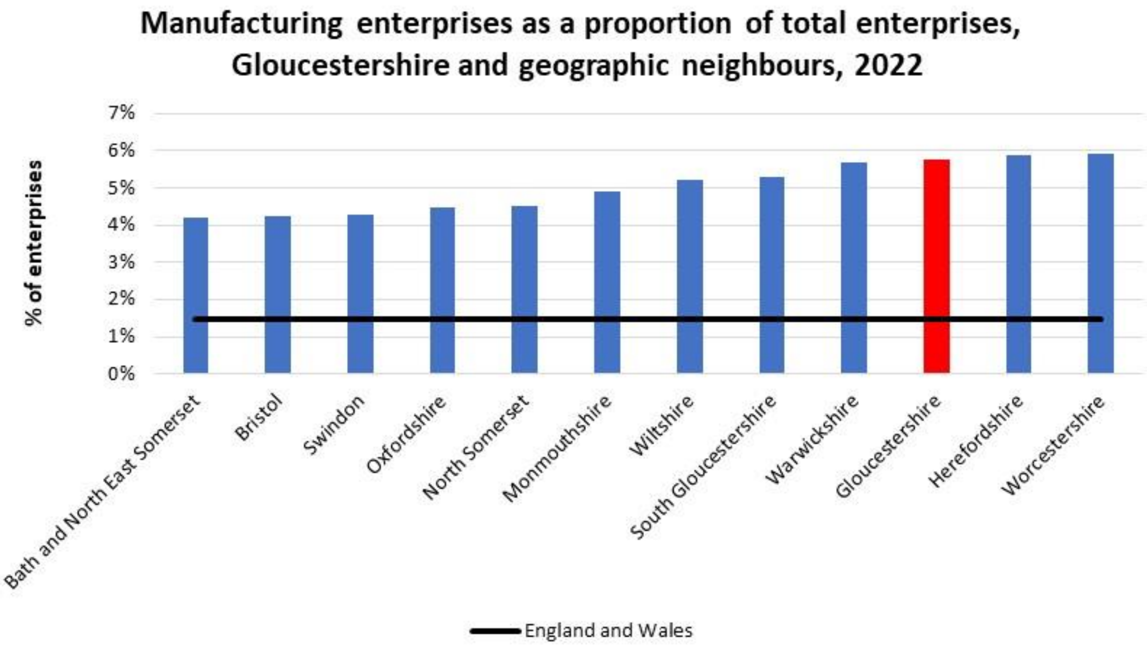

Figure 276: Manufacturing enterprises as a proportion of total enterprises, Gloucestershire and geographic neighbours, 2022[733]

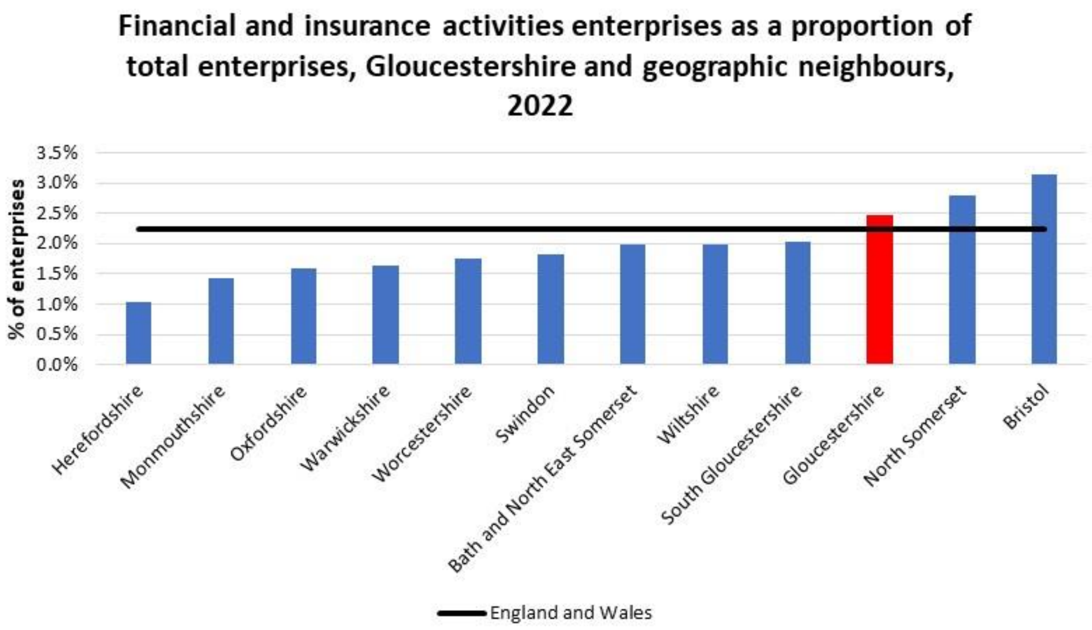

Figure 277: Financial and insurance activities enterprises as a proportion of total enterprises, Gloucestershire and geographic neighbours, 2022[734]

[733] *Ibid.*

[734] *Ibid.*

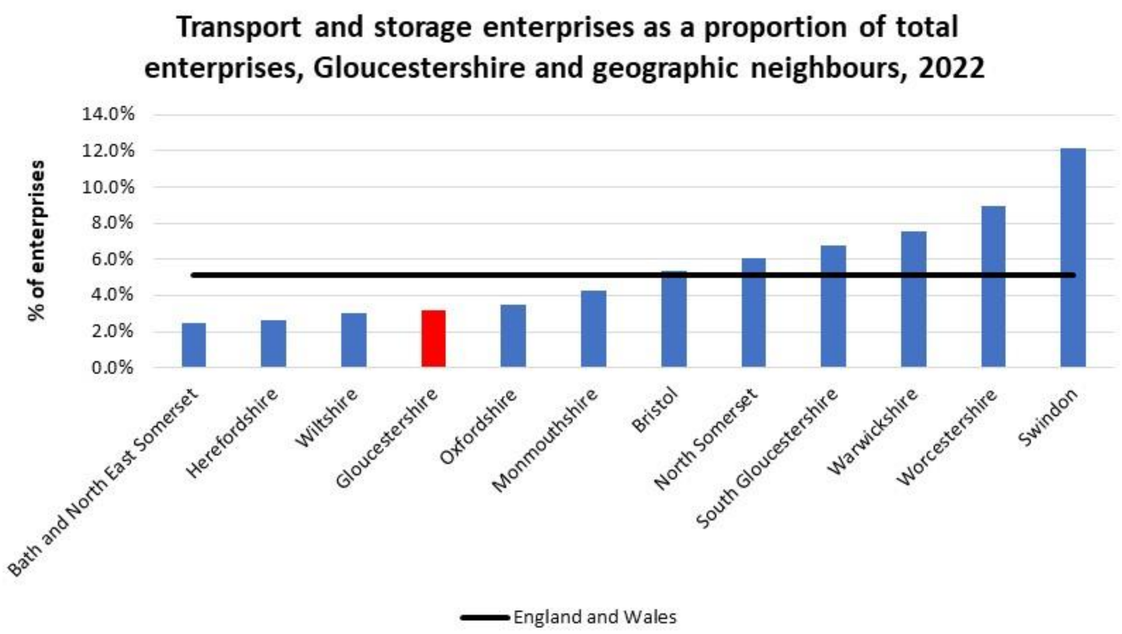

Figure 278: Transport and storage enterprises as a proportion of total enterprises, Gloucestershire and geographic neighbours, 2022[735]

When compared to its statistical neighbours, Gloucestershire has a similar proportion of enterprises in Agriculture, forestry and fishing and Manufacturing, but it has a higher proportion of enterprises in Electricity, gas, steam and air conditioning supply and Finance and insurance. It also has an under-representation of enterprises in Transport and storage when compared to this cohort.

[735] *Ibid.*

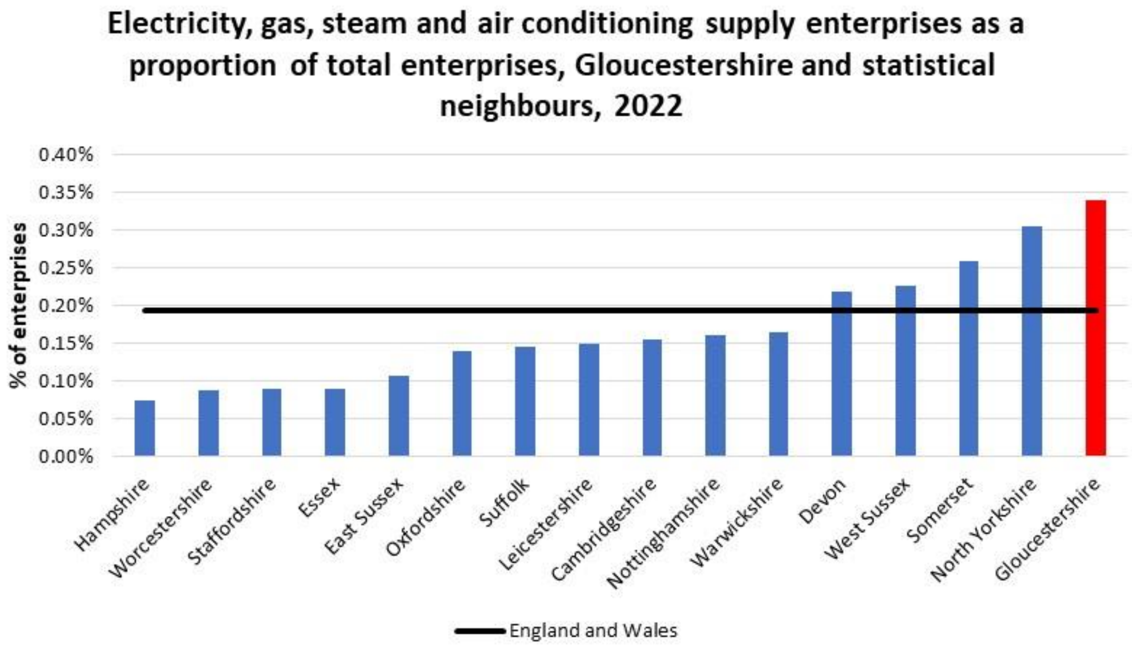

Figure 279: Electricity, gas, steam and air conditioning supply enterprises as a proportion of total enterprises, Gloucestershire and statistical neighbours, 2022[736]

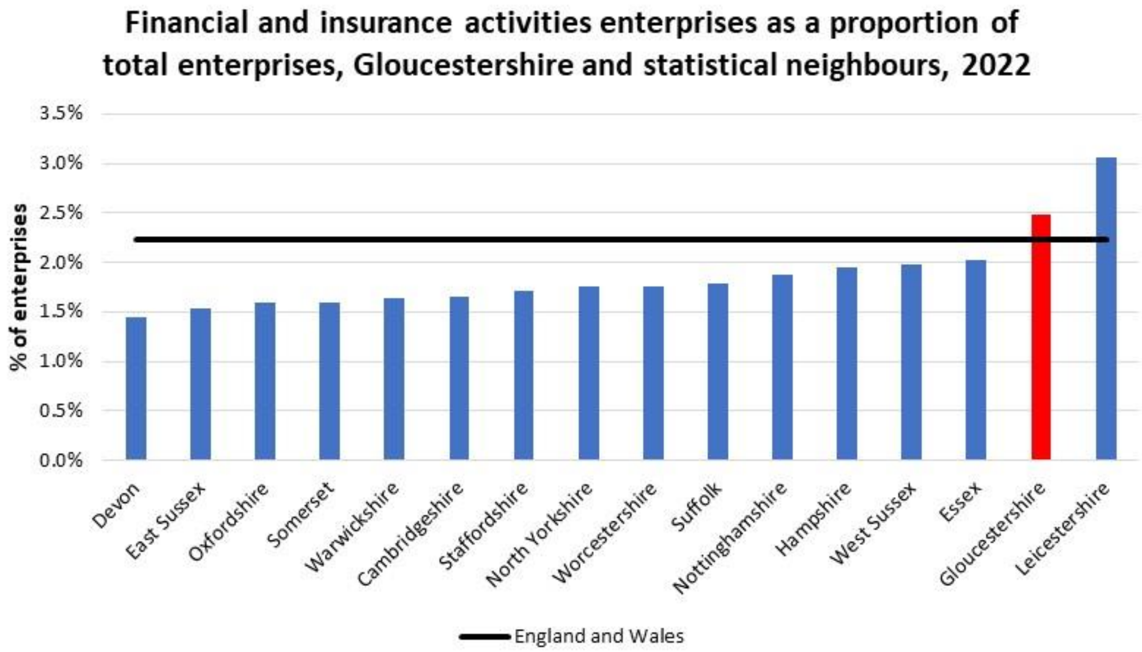

Figure 280: Financial and insurance activities enterprises as a proportion of total enterprises, Gloucestershire and statistical neighbours, 2022[737]

[736] *Ibid.*

[737] *Ibid.*

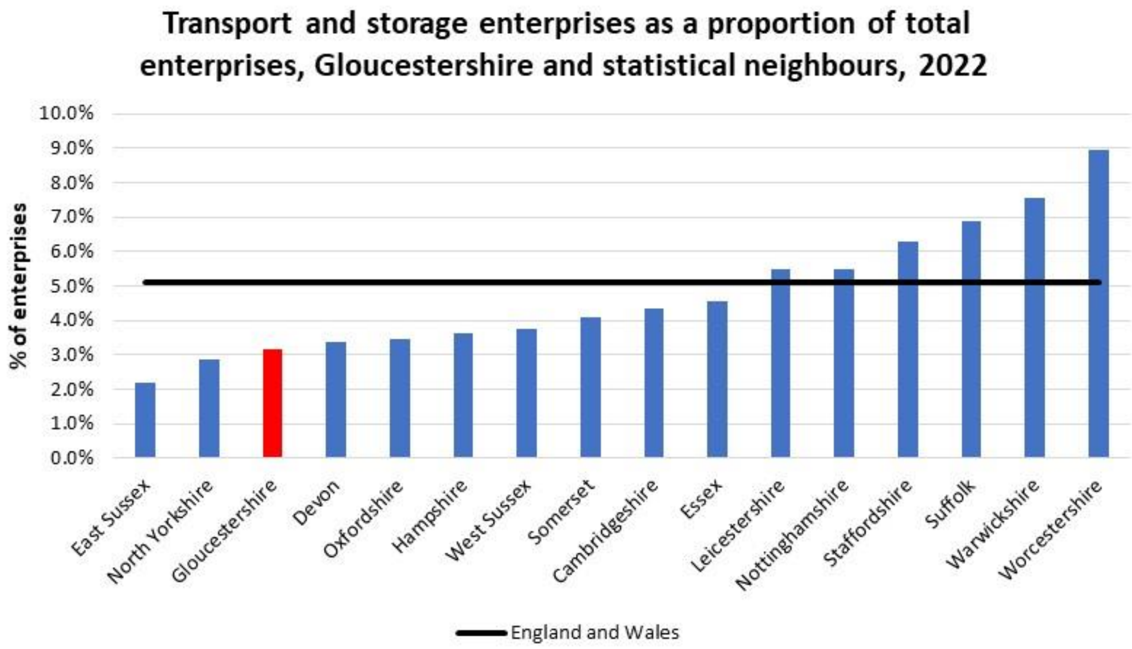

Figure 281: Transport and storage enterprises as a proportion of total enterprises, Gloucestershire and statistical neighbours, 2022[738]

Given how it compares to the national average and its geographic and statistical neighbours, it is unsurprising that Gloucestershire is in the top 20% of county and unitary authorities across England and Wales in terms of the proportion of enterprises in Agriculture, forestry and fishing; Electricity, gas, steam and air conditioning supply; Finance and insurance; and Public Administration and defence. Conversely it is in the bottom 20% of authorities in terms of the proportion of enterprises in Transport and storage and Other services.

Figure 282 shows at district level there is considerable variation, Cheltenham has a higher proportion of enterprises in Information and communication; Financial and insurance activities; Professional, scientific and technical activities; Real estate; Education; and Human, health and social work activities than England and Wales, the South West, Gloucestershire and all other districts in the county. It also sits in the top 20% of district and unitary authorities across England and Wales in terms of the proportion of enterprises in these sectors. Conversely it has an under-representation of enterprises in Wholesale and retail trade and Transport and storage when compared to other areas.

Cotswold has a higher proportion of enterprises in Agriculture, forestry and fishing; Professional, scientific and technical activities; and Arts, entertainment and recreation than the county, regional and national average. It sits in the top 20% of district and unitary authorities across England and Wales in terms of the proportion of enterprises in Agriculture, forestry and fishing; Arts, entertainment and recreation; and Public administration and defence. Cotswold has an under-

738 *Ibid.*

representation of enterprises in Construction and Transport and storage when compared to other areas.

The Forest of Dean stands out as having a higher proportion of enterprises in Agriculture, forestry and fishing; Manufacturing; Construction; and Public administration and defence than the county, region and national average. It sits in the top 20% of district and unitary authorities across England and Wales for all of these sectors except Construction where it is in the middle 20% of authorities. Information and communication; Finance and insurance activities; and Professional, scientific and technical activities are particularly under-represented when compared to the county and national average.

Gloucester has a higher proportion of enterprises in Manufacturing; Construction; Accommodation and food service activities; and Human health and social work activities than the county, regional and national average. It sits in the top 20% of authorities across England and Wales for all of these sectors except Manufacturing where it sits in the top 40% of authorities. Gloucester has an under-representation of enterprises in Agriculture, forestry and fishing and Professional, scientific and technical activities when compared to other areas.

Stroud stands out as having a higher proportion of enterprises in Agriculture, forestry and fishing; Electricity, gas, steam and air conditioning supply; Manufacturing; and Professional, scientific and technical activities than the county, region and country. Conversely it has a lower proportion of enterprises in the Transport and storage sector and Accommodation and food services activities than at a county or national level.

Agriculture, forestry and fishing; Manufacturing and Construction account for a higher proportion of enterprises in Tewkesbury than Gloucestershire and England and Wales. Tewkesbury has a lower proportion of enterprises in the Accommodation and food service activities than the county and country.

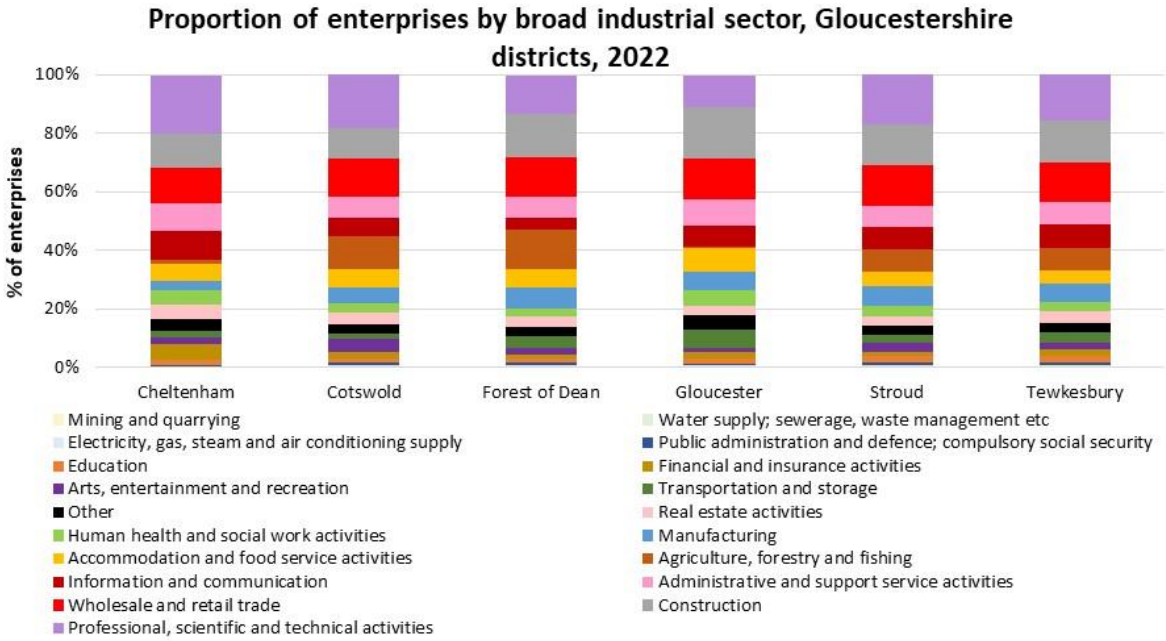

Figure 282: Proportion of enterprises by broad industrial sector, Gloucestershire districts, 2022[739]

Figure 283 shows the overall decline in the number of enterprises in Gloucestershire in recent years appears to be largely driven by a significant decline in the number of enterprises in the Mining and quarrying; Transport and storage; Information and communication; Professional, scientific and technical activities sector; and Administrative and support service activities sectors.

It is worth noting the South West and England and Wales also saw a significant fall in the number of enterprises in the Professional, scientific and technical activities and Information and communication sectors. The decline in enterprises in Transport and storage was minimal for the region and country while the number of enterprises in the Administrative and support service activities sector fell slightly across England and Wales but increased across the South West.

[739] *Ibid.*

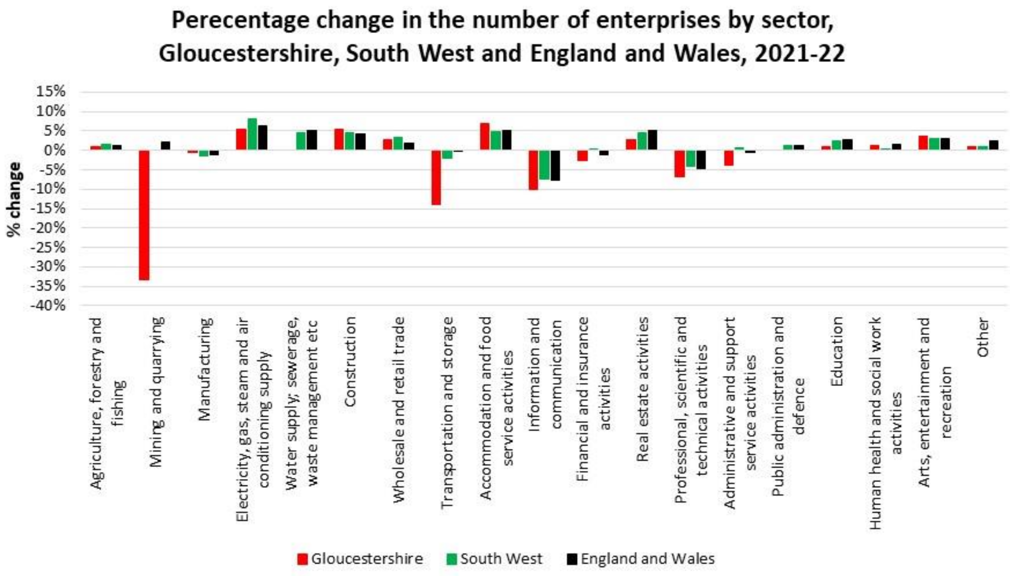

Figure 283: Percentage change in the number of enterprises by sector, Gloucestershire, South West and England and Wales, 2021-22[740]

18.9 Businesses by legal status

Companies can take a range of legal forms, including Public Limited Companies, Private Limited Companies, Limited Liability Partnerships, and others such as public corporations and nationalised bodies.

In 2022, 99.2% of Gloucestershire enterprises were private sector enterprises, this was in line with the South Wet (99.3%) and national average (99.5%.)

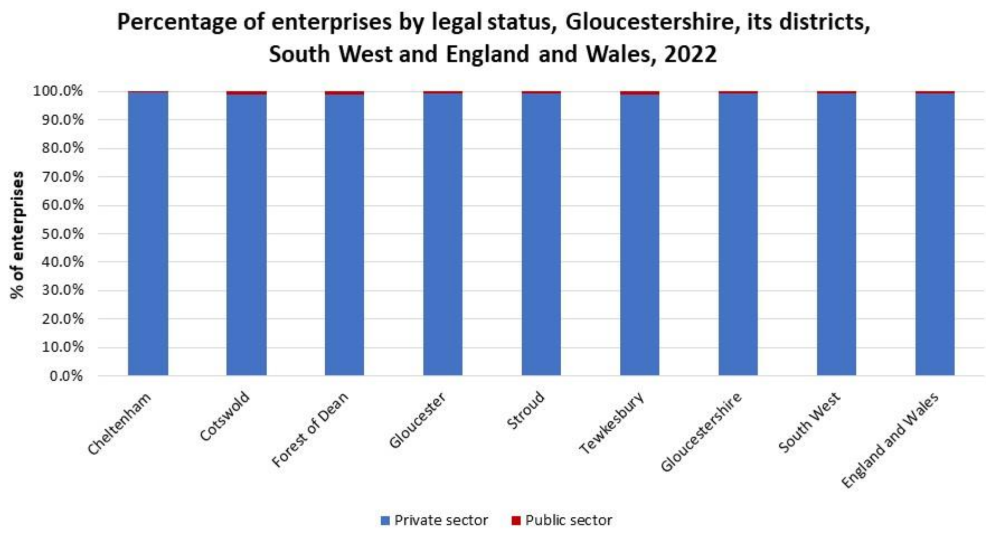

Figure 284: Percentage of enterprises by legal status, Gloucestershire, its districts, South West and England and Wales, 2022[741]

[740] *Ibid.*

[741] *Ibid.*

Overall differences between Gloucestershire and its geographic and statistical neighbours were minimal. However, Gloucestershire does have one of the smallest proportions of private sector enterprises when compared to both groups of neighbours. It is also in the bottom 20% of county and unitary authorities across England and Wales in terms of its proportion of private sector enterprises, conversely it has a higher proportion of public sector enterprises, sitting in the top 20% of authorities for this measure.

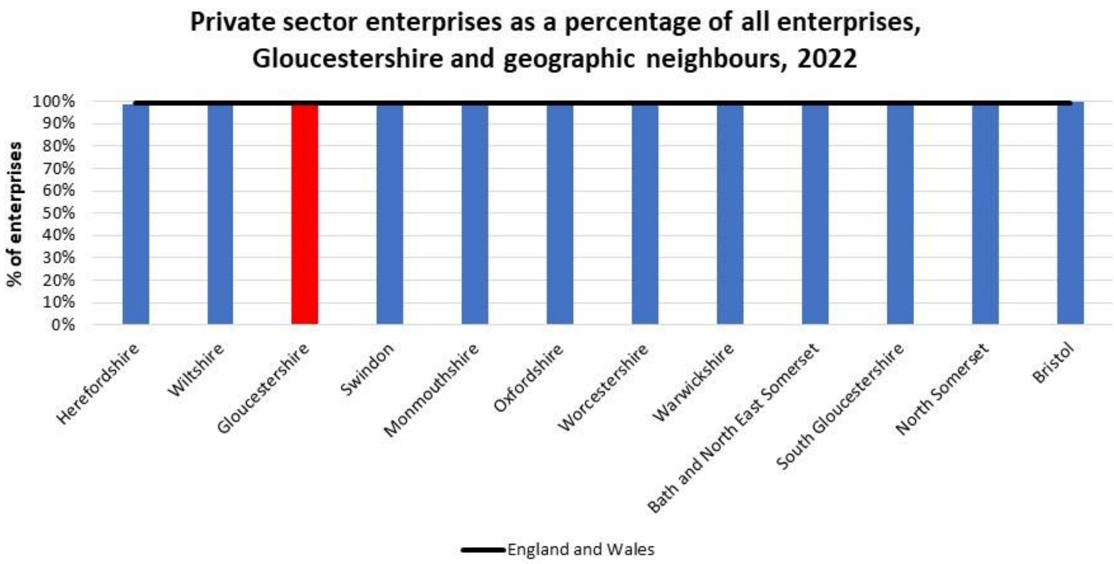

Figure 285: Private sector enterprises as a percentage of all enterprises, Gloucestershire and geographic neighbours, 2022[742]

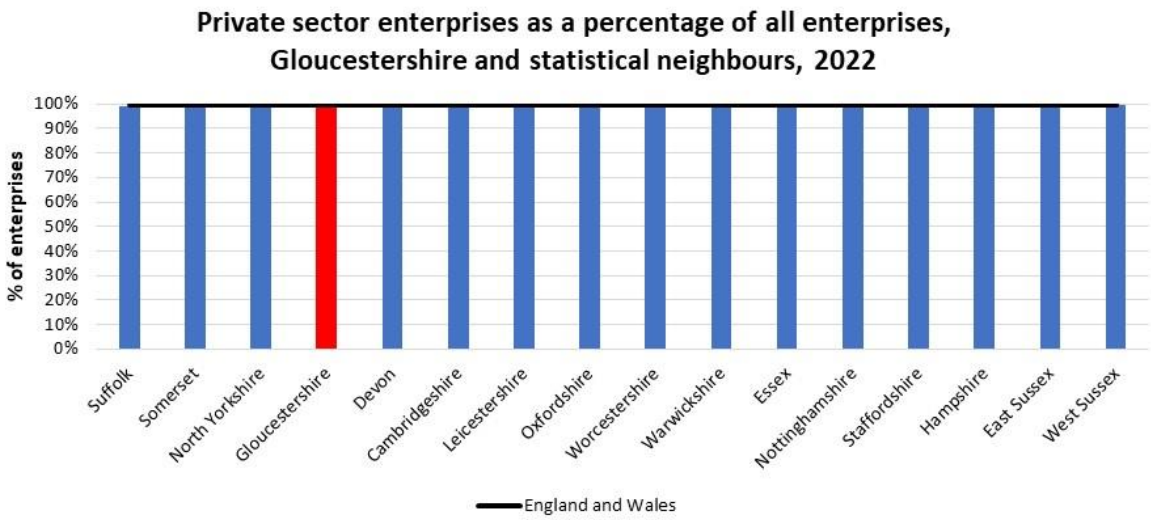

Figure 286: Private sector enterprises as a percentage of all enterprises, Gloucestershire and statistical neighbours, 2022[743]

[742] *Ibid.*

[743] *Ibid.*

Figure 284 shows at district level the differences in the proportion of private sector enterprises is minimal. The Forest of Dean has the lowest proportion of private sector enterprises at 98.8%, closely followed by Tewkesbury at 98.9%. Both of these districts are below the county, national and regional average and sit in the bottom 10% of authorities across England and Wales. Cheltenham has the highest proportion of private sector enterprises at 99.6% exceeding the county, regional and national average.

18.9.1 Private sector enterprises

Private sector enterprises can be broken down into Companies, Sole Proprietors, Partnerships and Non-profit body or mutual associations. Gloucestershire has a higher proportion of Sole Proprietors and Partnerships when compared to the national average, while conversely it has a lower proportion of Companies. When compared to the average for the South West the reverse is true, it has a lower proportion of Sole Proprietors and Partnerships and a higher proportion of Companies.

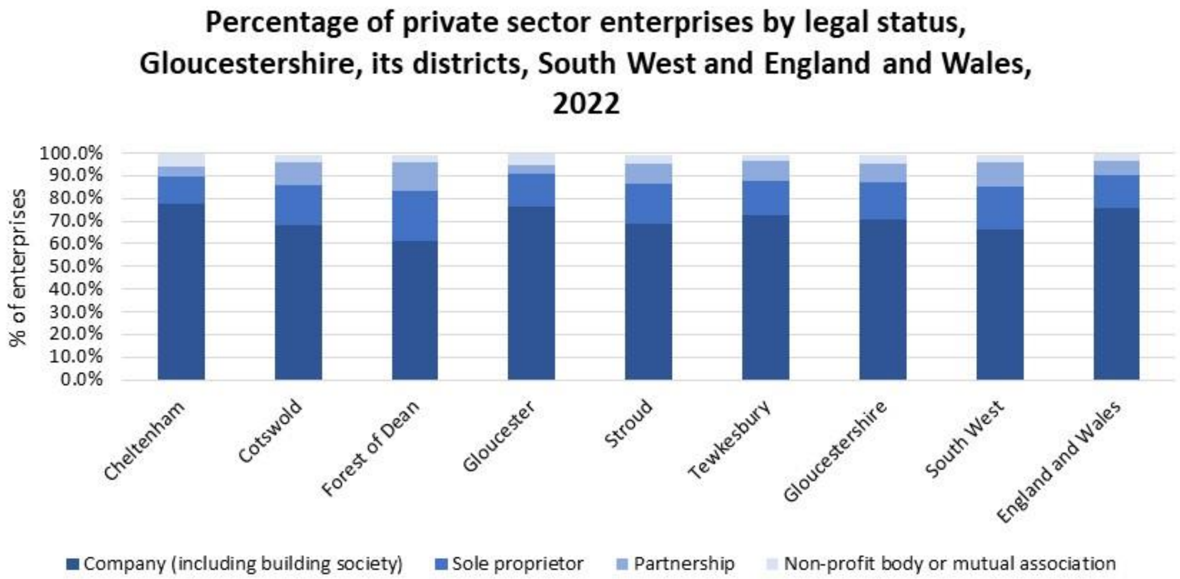

Figure 287: Percentage of private sector enterprises by legal status, Gloucestershire, its districts, South West and England and Wales, 2022[744]

When compared to geographic and statistical neighbours and other authorities across England and Wales, Gloucestershire has a higher proportion of Sole Proprietors and Partnerships than many areas and a lower proportion of companies.

Where Gloucestershire stands out is the proportion of Non-profit body or mutual associations, with this category accounting for 3.9% of enterprises, higher than the national average of 3.0% and the regional average of 3.4%. Gloucestershire

[744] *Ibid.*

has the highest proportion of Non-profit body or mutual associations of all statistical neighbours and all geographic neighbours with the exception of Bristol. It also sits in the top 20% of county and unitary authorities across England and Wales in terms of the proportion of Non-profit body or mutual associations.

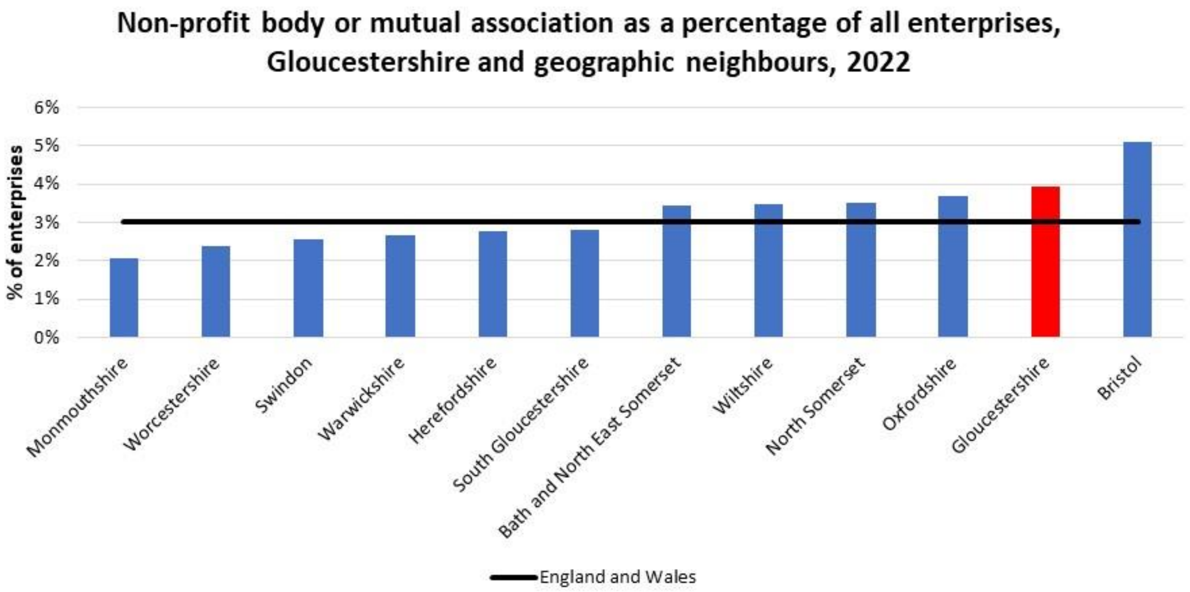

Figure 288: Non-profit body or mutual association as a percentage of all enterprises, Gloucestershire and geographic neighbours, 2022[745]

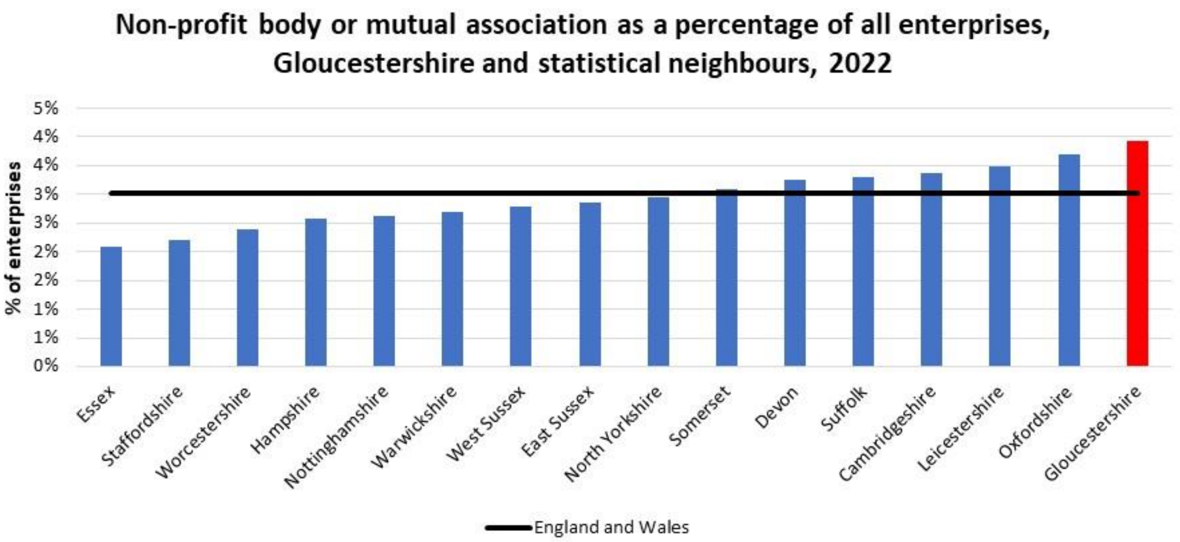

Figure 289: Non-profit body or mutual association as a percentage of all enterprises, Gloucestershire and statistical neighbours, 2022[746]

[745] *Ibid.*

[746] *Ibid.*

Figure 287 shows at district level Cheltenham and Gloucester have the highest proportion of Companies, exceeding the county, regional and national average. The Forest of Dean has the lowest proportion of companies with 61.2% of enterprises classed as companies. This puts it in the bottom 20% of district and unitary authorities across England and Wales. The Forest of Dean has a higher proportion of Sole Proprietors and Partnerships than the county, regional and national average and sits in the top 20% of authorities across England and Wales for these measures. Interestingly Cheltenham and Gloucester have the highest proportion of Non-profit body or mutual associations at 5.9% and 4.8% respectively. This puts these districts in the top 10% of district and unitary authorities across England and Wales.

The decline in the total number of enterprises observed in Gloucestershire in recent years appears to be driven by a decline in the number of Companies, Sole Proprietors and Partnerships. The number of Sole Proprietors and Partnerships has been declining in Gloucestershire year on year since 2016. This is broadly reflective of the picture seen at a regional and national level, although it is worth noting the number of sole proprietors increased slightly across England and Wales between 2021 and 2022. The number of Companies in Gloucestershire declined between 2021 and 2022, this was the first time they had declined over the last 6 years and differs from the picture seen nationally and across the South West where they saw a slight growth.

Non-profit body or mutual associations increased year on year in Gloucestershire, with the exception of 2021. This differs from the picture seen nationally where the number of Non-profit body or mutual associations fell between 2018 and 2021 before increasing between 2021 and 2022.

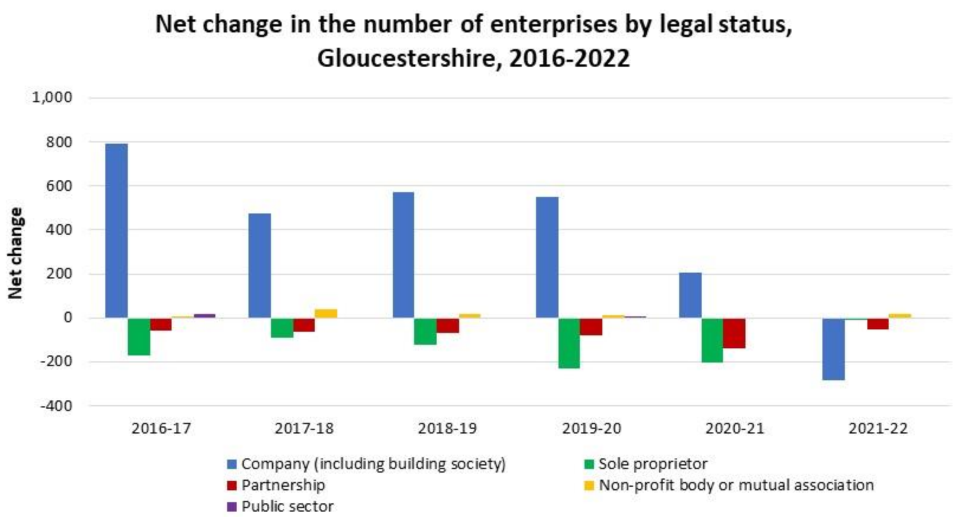

Figure 290: Net change in the number of enterprises by legal status, Gloucestershire, 2016-2022[747]

[747] *Ibid.*

Generally, the districts follow a similar trend to the county. The most notable exceptions are that unlike the county, Cotswold and Stroud saw an increase in Companies between 2021 and 2022 while Cheltenham and Stroud saw an increase in Sole Proprietors.

18.10 Businesses by turnover

In 2022, enterprises with a turnover of £100,000 to £999,000 accounted for the largest proportion of enterprises in Gloucestershire at 51.1%. This was in line with the national average of 51.0% and the regional average of 51.2%. Enterprises with a turnover of £0-99,000 accounted for the second largest proportion of Gloucestershire enterprises at 39.8%, which again was in line with the figure for England and Wales (39.9%) but slightly lower than the figure for the South West (40.8%). Conversely Gloucestershire has a slightly higher proportion of enterprises with a turnover of £1,000,000 to £9,999,000 (8.0%) than the South West (7.2%) but was broadly in line with the national average (7.8%). Enterprises with a turnover of £10,000,000+ accounted for the smallest proportion of enterprises at 1.1% in Gloucestershire, in line with the regional and national average of 0.9% and 1.3% respectively.

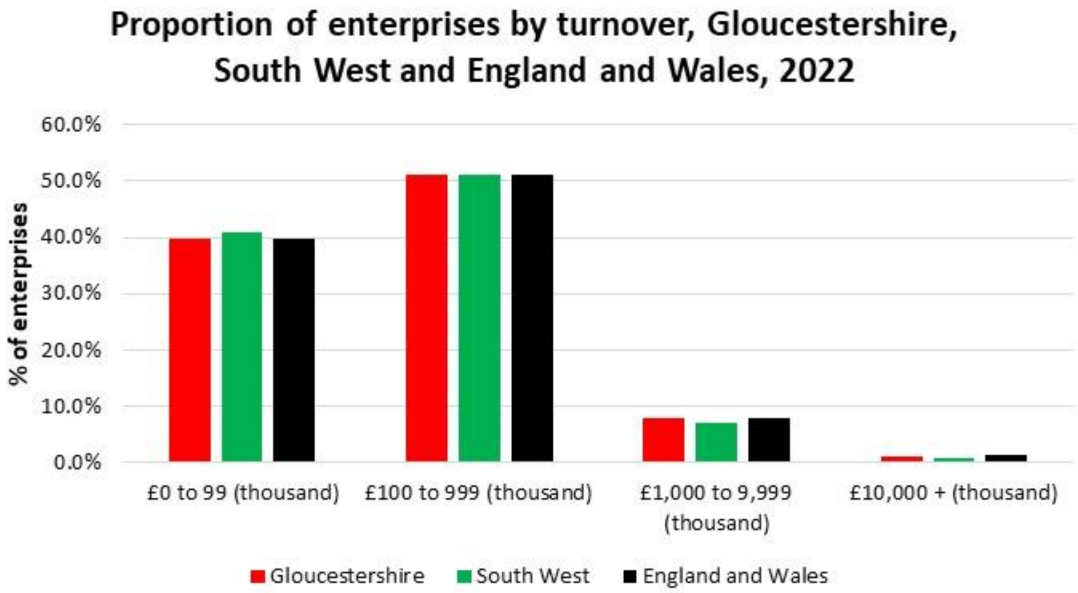

Figure 291: Proportion of enterprises by turnover, Gloucestershire, South West and England and Wales,2022[748]

Differences between Gloucestershire and its statistical neighbours were minimal. However, Gloucestershire does have one of the largest proportions of enterprises with a turnover of £100,000-£999,000 and £1,000,000 to £9,999,000 when compared to its geographic neighbours. It is also in the top 40% of county and unitary authorities across England and Wales in terms of its proportion of

[748] *Ibid.*

enterprises with a turnover of £1,000,000 to £9,999,000. This suggests it has a higher proportion of enterprises with high turnovers than many other areas.

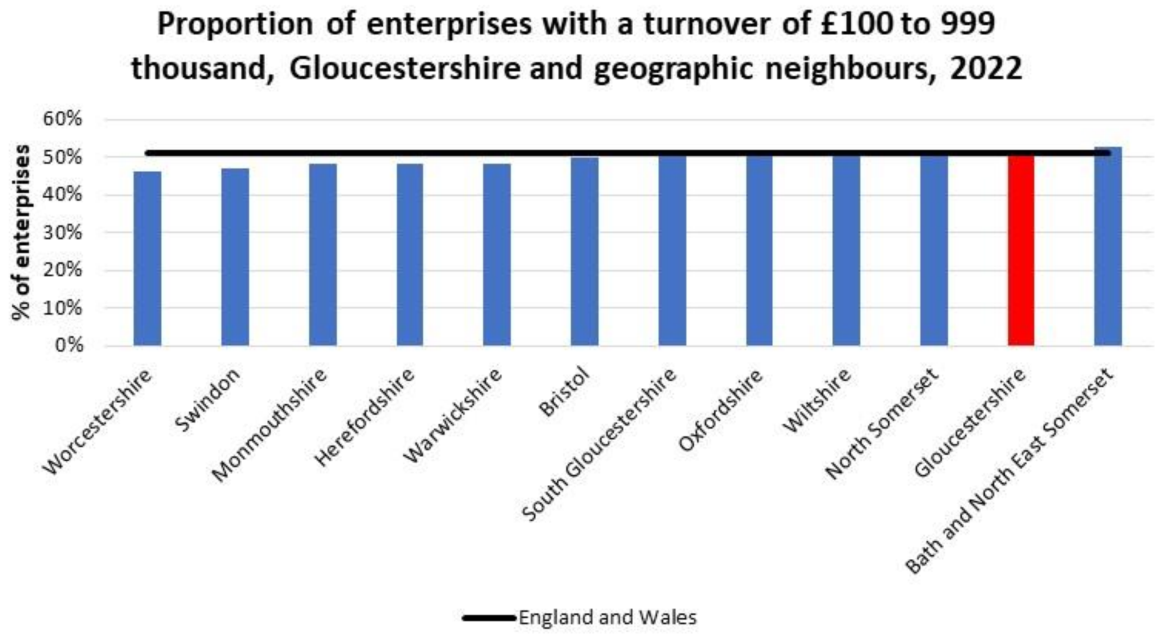

Figure 292: Proportion of enterprises with a turnover of £100 to 999 thousand, Gloucestershire and geographic neighbours, 2022[749]

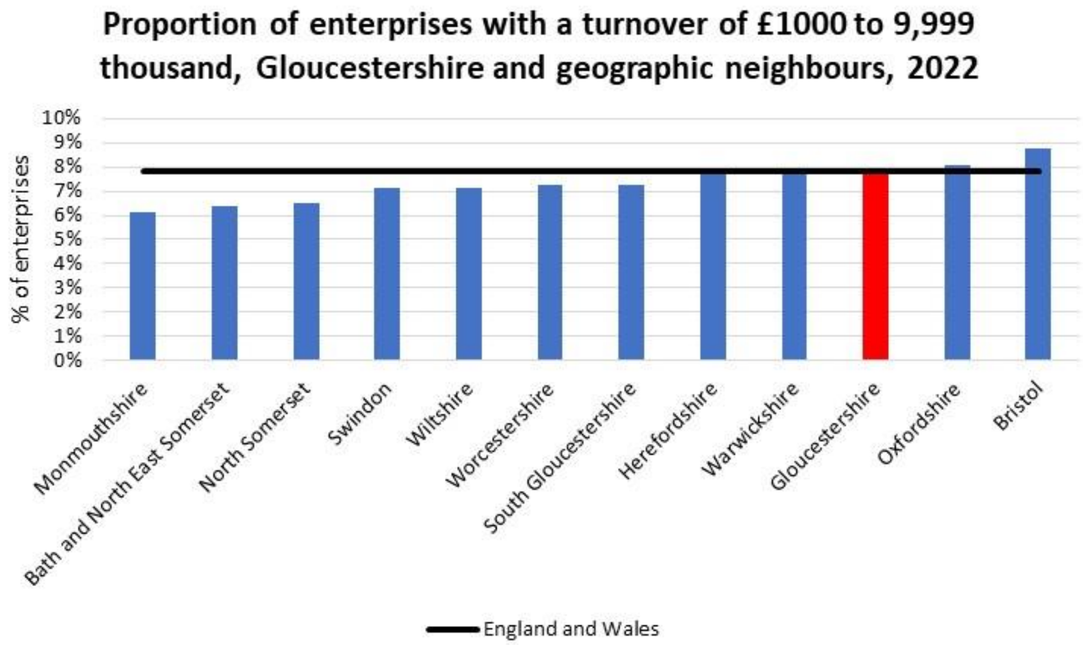

Figure 293: Proportion of enterprises with a turnover of £1000 to 9,999 thousand, Gloucestershire and geographic neighbours, 2022[750]

[749] *Ibid.*

[750] *Ibid.*

At district level the Forest of Dean and Stroud stand out as having a higher proportion of enterprises with low turnover in the band £0-99,000 than the county, region or England and Wales. This puts them in the top 20% of district and unitary authorities across England and Wales for this measure. At the other end of the scale Gloucester and Tewkesbury have higher proportions of enterprises with a high turnover of £1,000,000 to £9,999,000 and £10,000,000+. Both districts exceed the county, regional and national averages and sit in the top 20% of district and unitary authorities across England and Wales for both of these measures.

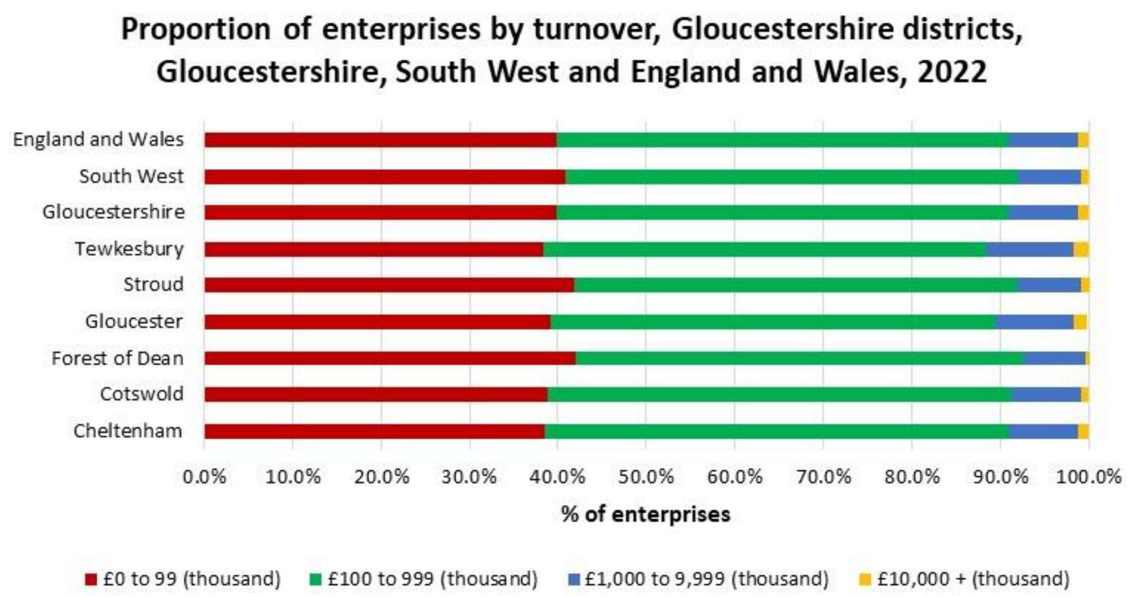

Figure 294: Proportion of enterprises by turnover, Gloucestershire districts, Gloucestershire, South West and England and Wales, 2022[751]

The decline in the total number of enterprises in Gloucestershire in recent years appears to be driven by a decline in the number of enterprises with a turnover of £100,000- £999,000. The only growth between 2021 and 2022 in the county was in the number of enterprises with a turnover of £0- £99,000. This is in line with the picture seen at a national and regional level, however while nationally and regionally this decline was off-set by growth in enterprises with a turnover of £0- £99,000, the growth in enterprises with this turnover was not significant to prevent an overall decline in business stock in Gloucestershire.

[751] *Ibid.*

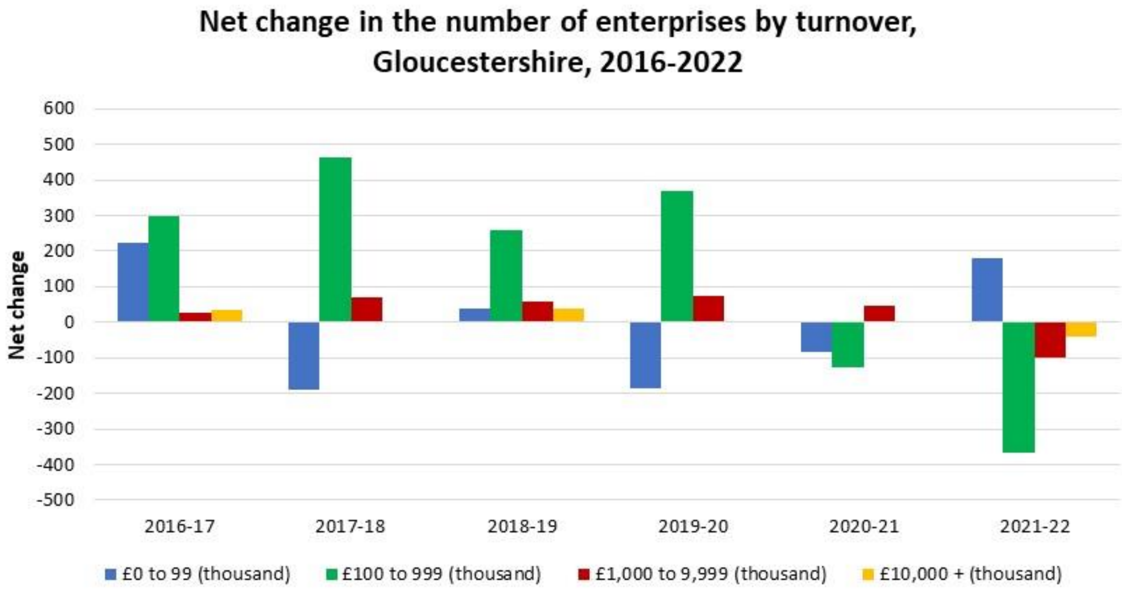

Figure 295: Net change in the number of enterprises by turnover, Gloucestershire, 2016-2022[752]

Generally, the districts follow a similar trend to the county, the most notable exceptions are that unlike the county, Cheltenham and the Forest of Dean saw a decline in all turnover bands between 2021 and 2022. This explains why the growth in enterprises in the £0-99,000 may be less significant in Gloucestershire than other parts of the country.

19. GVA and productivity

19.1 Productivity

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. 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. Labour productivity can be calculated as output per worker, output per job or output per hour; with the latter being the more conventional approach.

19.1.1 GVA per hour worked

Figure 296 compares Gloucestershire and its districts GVA per hour with the South West and England in 2021. It shows that Gloucestershire's GVA per hour

[752] *Ibid.*

worked was £37.39, which was above the South West average of £34.48, but 4.1% below England average of £38.91.

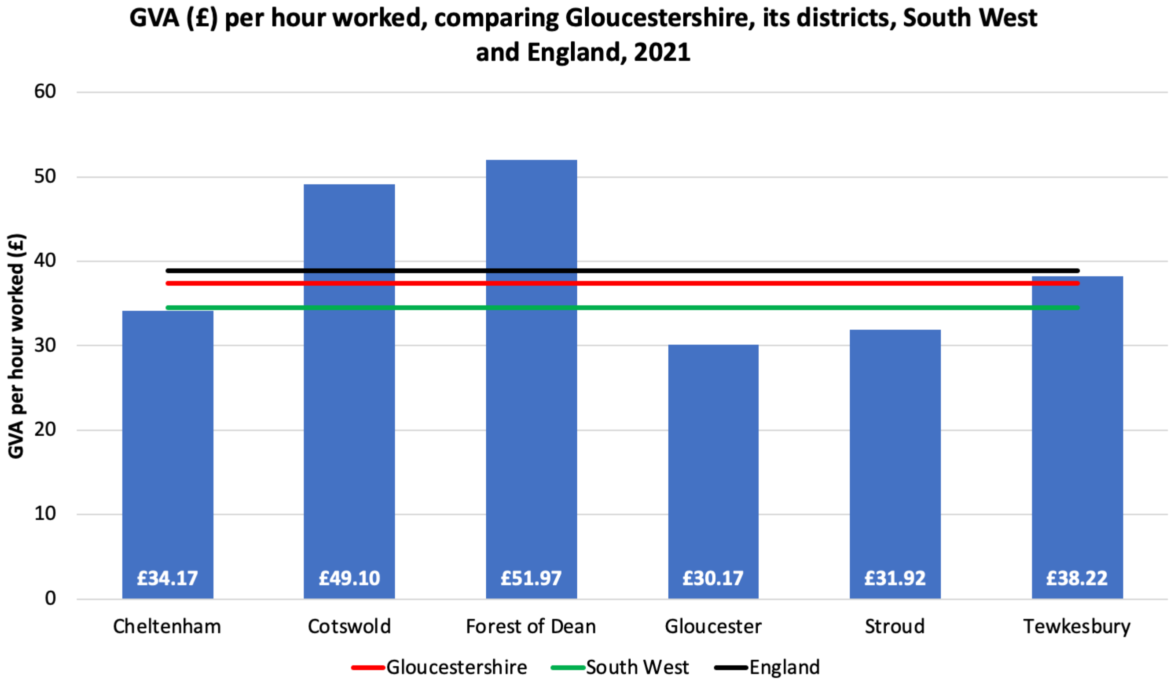

Figure 296: GVA (£) per hour worked, comparing Gloucestershire, its districts, South West and England, 2021[753]

Figure 297 and Figure 298 show how Gloucestershire compares in terms of GVA per hour worked to its geographic and statistical neighbours. Gloucestershire is well placed, ranking 5th out of its geographic neighbours and 4th out of its statistical neighbours[754].

[753] Subregional productivity, ONS

[754] Data is not available for 4 statistical neighbours (West Sussex, Leicestershire, Nottinghamshire and Hampshire.

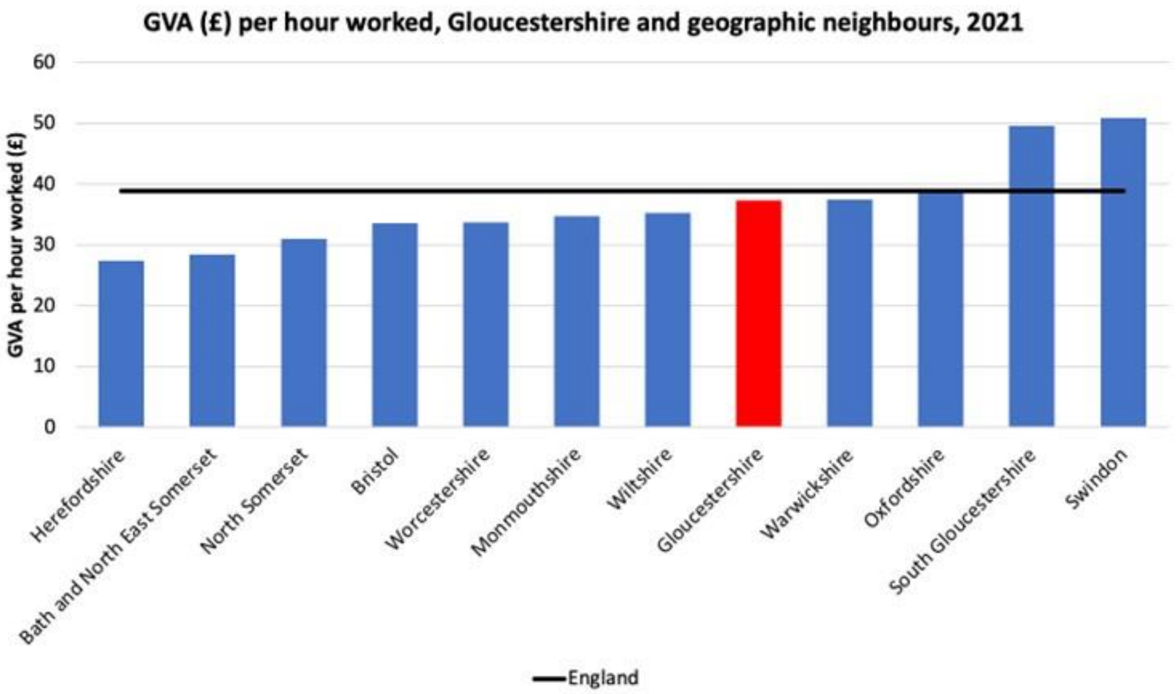

Figure 297: GVA (£) per hour worked, Gloucestershire and geographic neighbours, 2021[755]

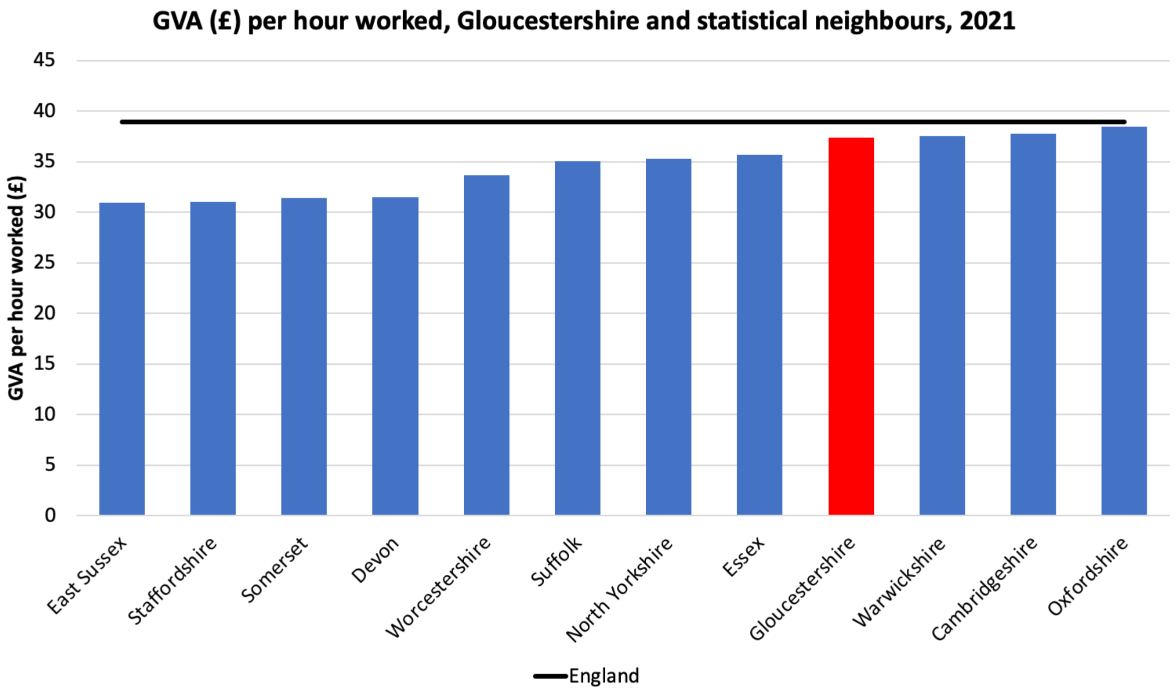

Figure 298: GVA (£) per hour worked, Gloucestershire and statistical neighbours, 2021[756]

[755] Subregional productivity, ONS
[756] *Ibid.*

When comparing each of Gloucestershire's six districts with the Gloucestershire, South West and England average, Figure 296 shows the Forest of Dean (£51.97) and Cotswold (£49.10) have the highest GVA per hour worked in the county, exceeding the Gloucestershire (£37.39), South West (£34.48),and England (£38.91) average. This puts both of these areas in the top 10% of district and unitary authorities in England and Wales in terms of GVA per hour worked. Conversely, Gloucester has the lowest GVA per hour worked (£30.17) in the county, falling below the Gloucestershire, South West and England average. This is followed by Stroud (£31.92) and Cheltenham (£34.17) which also fall below the Gloucestershire, South West and England average. Gloucester and Stroud both sit in the bottom 40% of district and unitary authorities across England and Wales. This shows there are large discrepancies across the county with two authorities performing exceptionally well in this measure while others are performing below average.

Figure 299 shows the percentage change in GVA per hour worked between 2016 and 2021, comparing Gloucestershire and its districts with the South West and England. Overall Gloucestershire saw a 17.8% increase, which was higher than that seen in both the South West (12.8%) and England (14.2%).

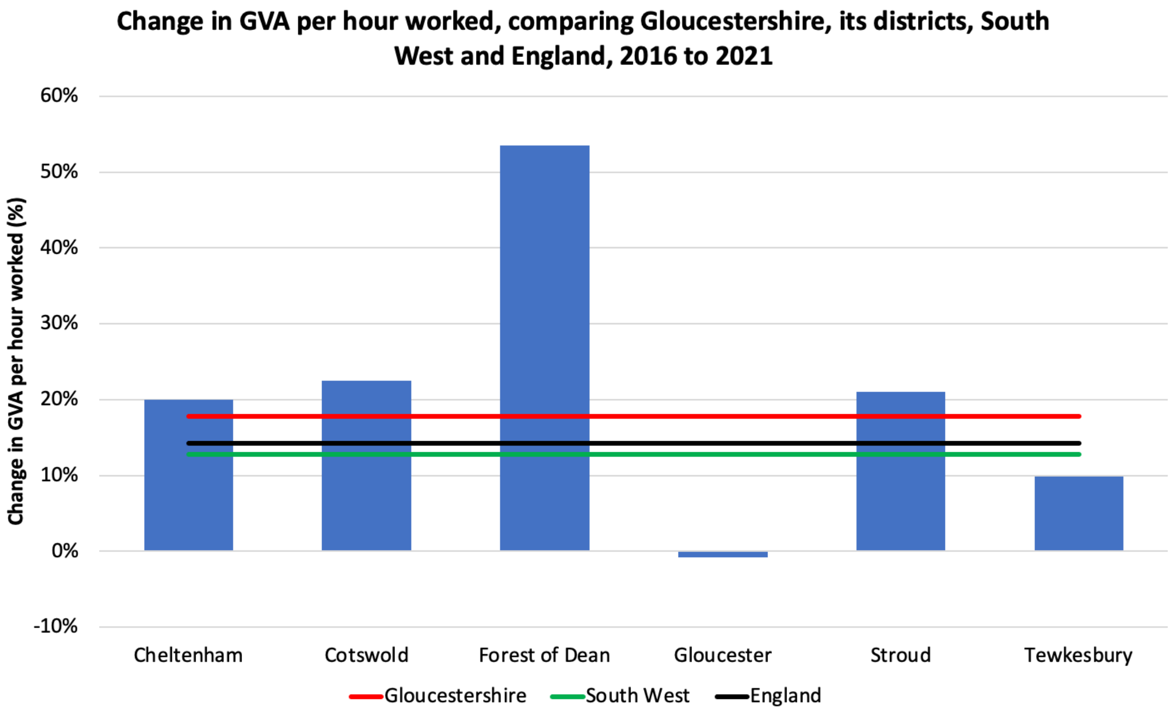

Figure 299: Change in GVA per hour worked, comparing Gloucestershire, its districts, South West and England, 2016 to 2021[757]

At district level, all areas have seen an increase, except for Gloucester which saw a 0.8% decrease. Tewkesbury saw the smallest increase at 9.8%, which was below that seen at a county, regional and national level. All other districts

[757] *Ibid.*

saw a greater increase than that observed in Gloucestershire, South West and England. The Forest of Dean stands out as seeing exceptionally high growth with an increase of (53.5%).

19.1.2 GVA per job filled

Figure 300 compares Gloucestershire and its districts GVA per job filled with the South West and England in 2021. It shows that Gloucestershire's GVA per job filled stood at, £56,817, which was above the South West average of £50,770, but 4.3% below the England average of £59,286.

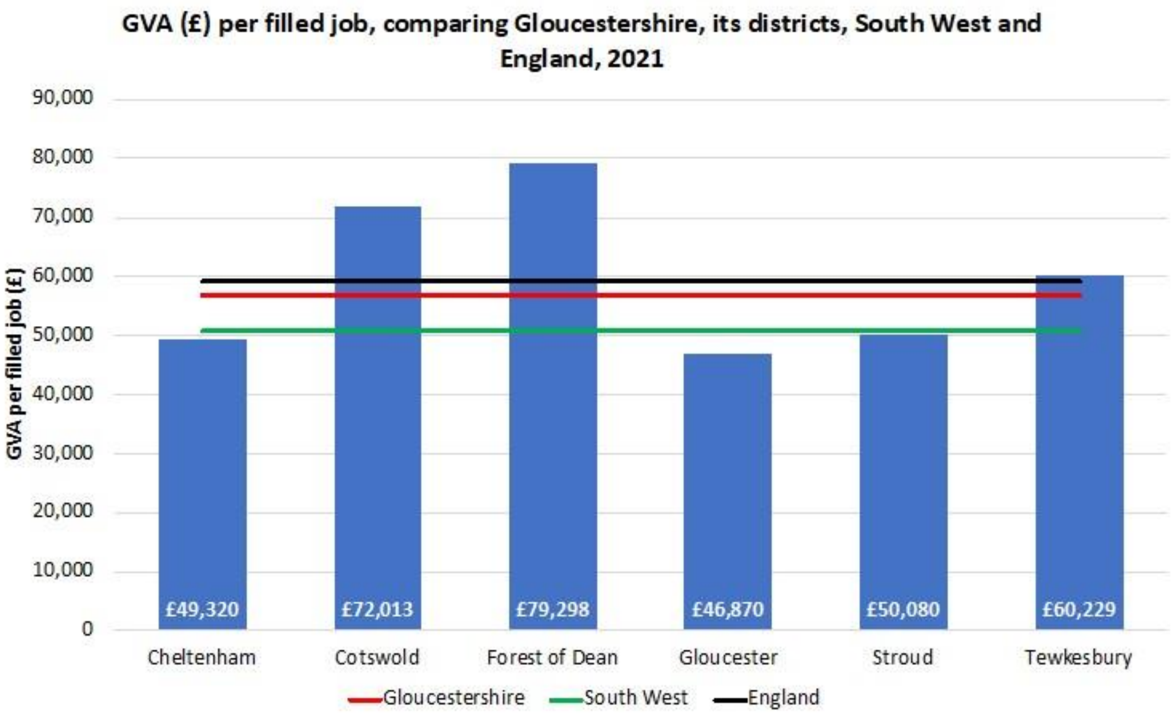

Figure 300: GVA (£) per filled job, comparing Gloucestershire, its districts, South West and England, 2021[758]

Figure 301 and Figure 302 show how Gloucestershire compares with both its geographic and statistical neighbours in terms of GVA per job filled. As with GVA per hour worked Gloucestershire is well placed, ranking 5th out of 12 its geographic neighbours and 4th out of the statistical neighbours data is available for[759].

758 *Ibid*

759 Data is not available for 4 statistical neighbours (West Sussex, Leicestershire, Nottinghamshire and Hampshire.

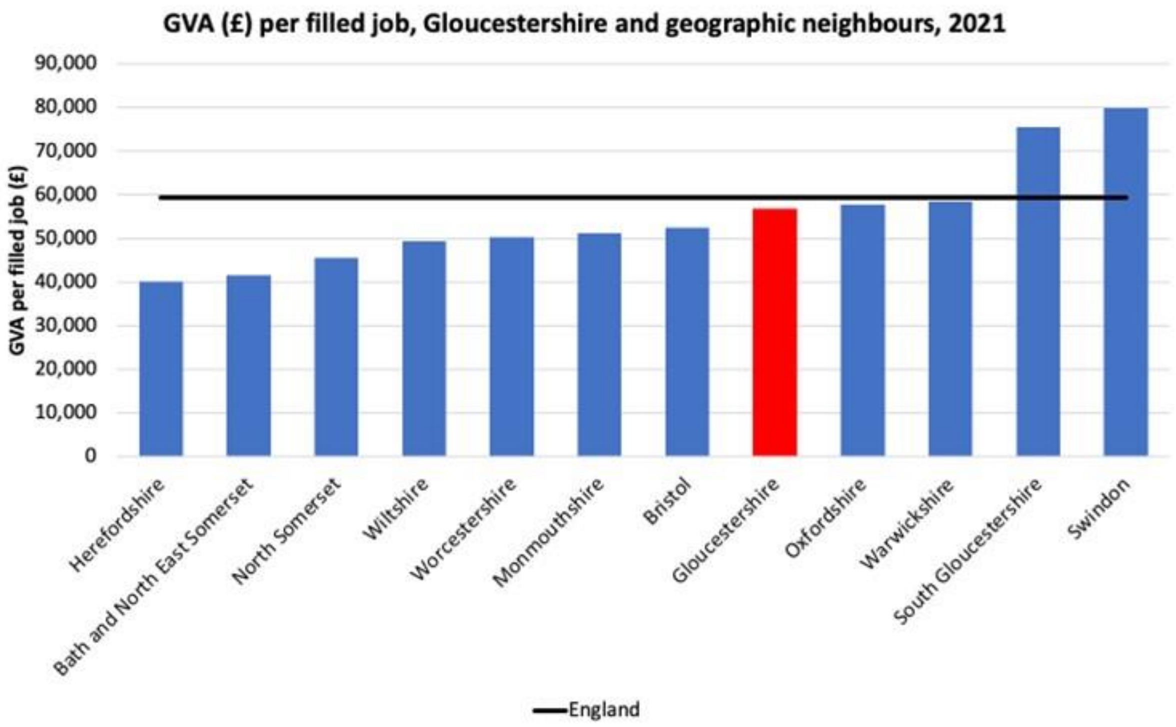

Figure 301: GVA (£) per filled job, Gloucestershire and geographic neighbours, 2021[760]

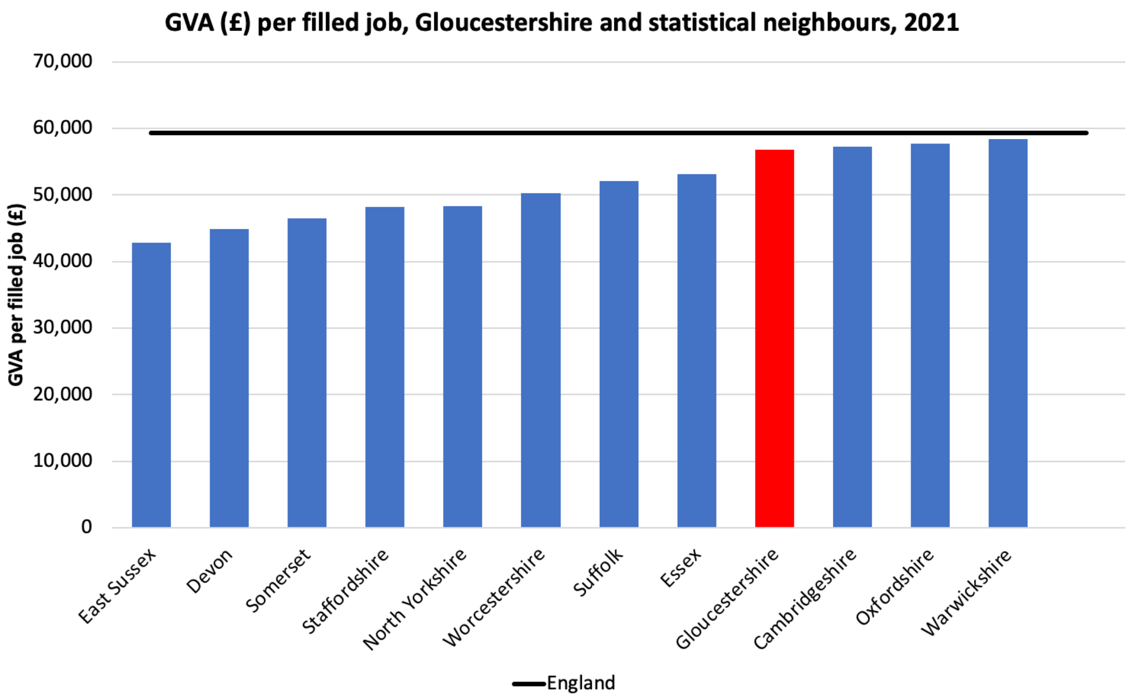

Figure 302: GVA (£) per filled job, Gloucestershire and statistical neighbours, 2021[761]

760 Subregional productivity, ONS
761 *Ibid.*

When comparing each of Gloucestershire's six districts with the Gloucestershire, South West and England average, Figure 300 shows the Forest of Dean (£79,298) and Cotswold (£72,013) have the highest GVA per filled job, exceeding the Gloucestershire (£56,817), South West (£50,770) and England (£59,286) average. This saw the Forest of Dean sit in the top 10% of district and unitary authorities across England and Wales and Cotswold sit in the top 20%. Tewkesbury (£60,229) also exceeded the Gloucestershire, national and regional average for this measure but not to the extent observed in Cotswold or the Forest of Dean. Conversely, as with GVA per hour worked, Gloucester has the lowest GVA per filled job (£46,870), falling below the Gloucestershire, South West and England average. This is followed by Cheltenham (£49,320) and Stroud (£50,080) which are also behind the Gloucestershire, South West and England average.

In order to understand how productivity has changed over time Figure 303 shows the percentage change in GVA per job filled between 2016 and 2021. Overall Gloucestershire saw an 11.0% increase, which as with GVA per hour worked was higher than that seen in both the South West (7.3%) and England (7.9%). When looking at each of the districts, the trend is similar to that seen with GVA per hour worked, with Gloucester seeing a 3.5% decrease and other areas seeing an increase. Tewkesbury saw a 2.8% increase, below that seen in Gloucestershire, the South West region and England. All other districts saw greater growth in GVA per filled job than the county, region or country. The Forest of Dean saw the greatest growth at 47.1%

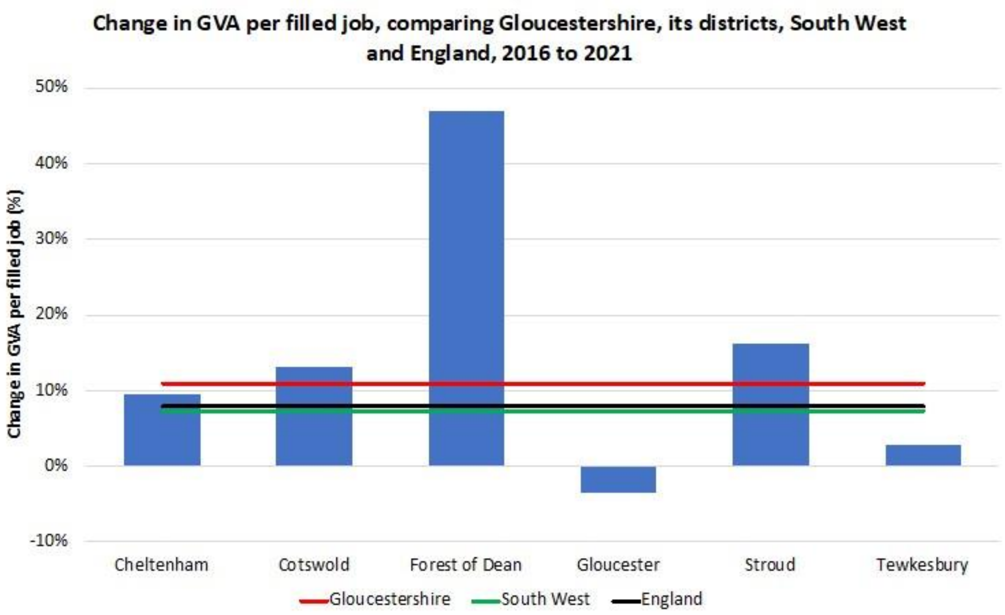

Figure 303: Change in GVA per filled job, comparing Gloucestershire, its districts, South West and England, 2016 to 2021[762]

[762] *Ibid.*

19.2 Current total GVA

Gross Value Added (GVA) is the measure of the value of goods and services produced in an area, industry or sector, which can be used to measure the value of the economy through economic output.

The total output of the Gloucestershire economy (GVA) was approximately £19.12 billion[763] in 2021, representing 12.8% of the output of the South West region and 1.0% of England and Wales total output.

At district level, Cotswold made the greatest contribution to Gloucestershire's economy, with GVA totaling £3.81 billion. This was followed by Cheltenham (£3.57 billion), Gloucester (£3.41 billion), Tewkesbury (£3.16 billion) and Stroud (£2.84 billion) with the Forest of Dean making the smallest contribution totaling £2.34 billion.

Between 2016 and 2021 Gloucestershire saw an 18.9% increase in total GVA, this was greater than that seen in the South West (14.2%) and England and Wales (14.4%).

At district level, the Forest of Dean saw the greatest increase in total GVA in Gloucestershire with a 61.1% increase. This saw it rank 2nd out of all 331 district and unitary authorities in England and Wales, placing it in the top 10% of authorities nationally in terms of growth in GVA. Cotswold sits in the top 20% of authorities nationally, ranking 64th out of 331 district and unitary authorities with a 20.5% increase in total GVA. Cheltenham is ranked 125th out of 331 district and unitary authorities, placing it in the top 40% nationally. In addition both Tewkesbury and Stroud are placed in the middle 20% of district and unitary authorities across England and Wales in terms of growth in GVA. Tewkesbury saw a 15.1% increase in GVA and Stroud saw a 13.4% increase. Gloucester has seen the smallest growth in total GVA with an increase of 8.2%, placing it in the bottom 40% of authorities across England and Wales.

19.3 Future total GVA

Economic projections are only available for Gloucestershire, its districts, the South West and UK. This means it is not possible to compare to other areas and the UK has been used as the national average rather than England and Wales.

19.3.1 2021-2031

Economic projections generated by Oxford Economics, provide an indication of future economic growth and predict potential changes in GVA. These projections are presented as a guide, they do not take into account the impact of current policies and initiatives. According to Oxford Economics, GVA in Gloucestershire is set to increase by £3.043 billion between 2021 and 2031. This equates to a

[763] Regional gross value added (balanced) by industry, ONS

growth of 16.7%, slightly lower than the South West and UK average of 18.2% and 18.4% respectively.

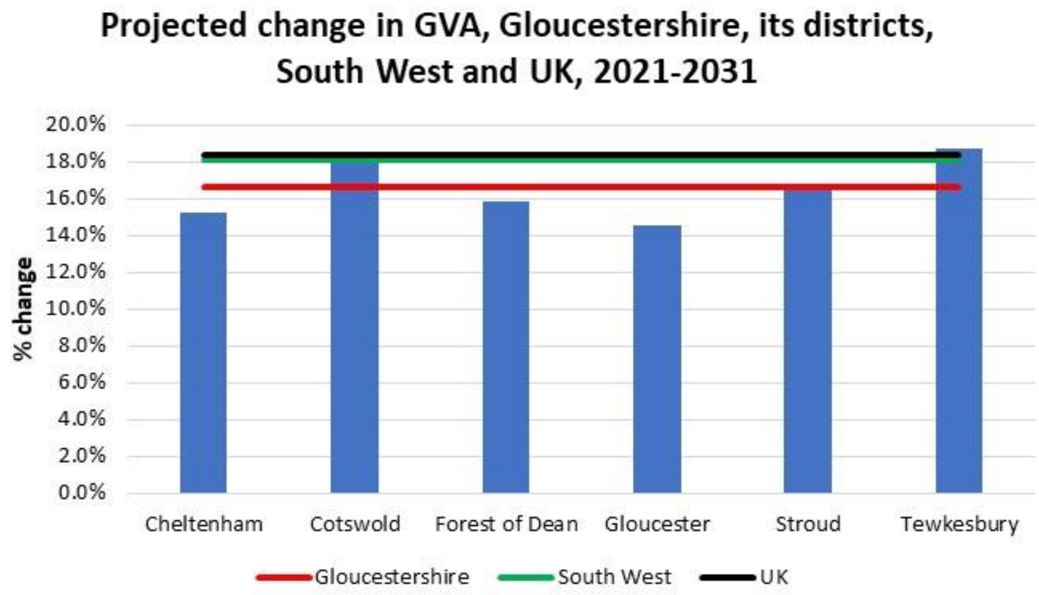

Figure 304: Projected change in GVA, Gloucestershire, its districts, South West and UK, 2021-2031[764]

At district level growth in GVA is projected to be highest in Tewkesbury (18.8%) and Cotswold (18.4%) where growth is expected to exceed the county, regional and national average. Conversely growth in GVA is projected to be lowest in Gloucester (14.6%) and Cheltenham (15.3%).

19.3.2 2021-2050

Over the longer period of 2021 to 2050, GVA in Gloucestershire is projected to increase by £8.782 billion. This equates to a growth of 48.1%, which as with growth in GVA between 2021 and 2031, was lower than the regional (52.0%) and national average (56.0%). The difference between Gloucestershire and the South West and UK has increased over the longer time period, suggesting growth in Gloucestershire is expected to slow over time.

[764] *Oxford Economics*

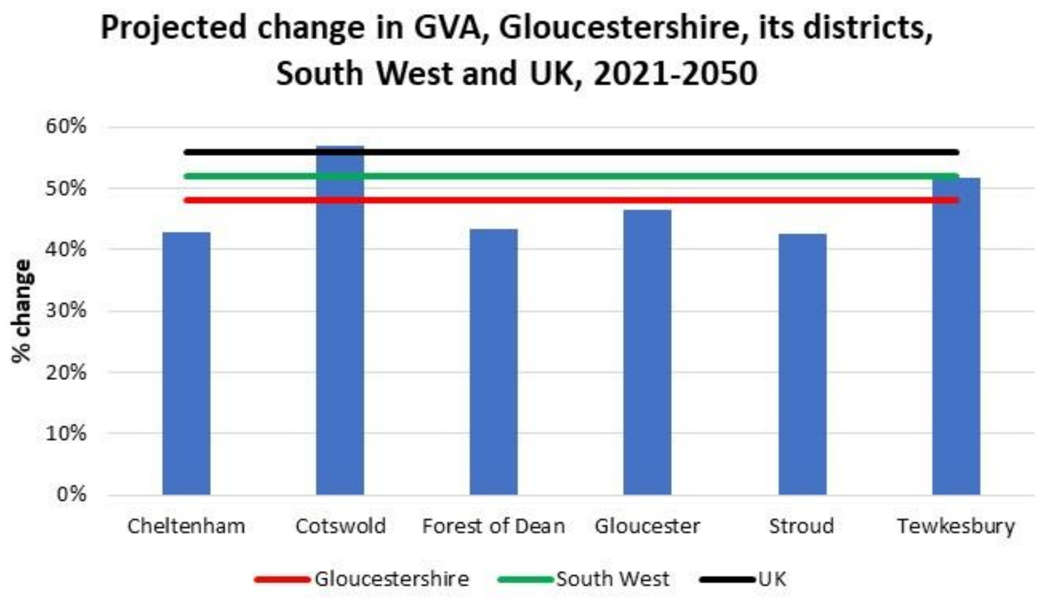

Figure 305: Projected change in GVA, Gloucestershire, its districts, South West and UK, 2021-2050[765]

Figure 305 shows that at district level, the greatest growth in GVA is projected to be in Cotswold (57.0%) which is the only district in the county expected to see greater growth in GVA than the UK as a whole. Stroud (42.6%) and Cheltenham (42.7%) are expected to see the lowest growth in GVA between 2021 and 2050, differing from the picture seen between 2021 and 2031.

19.4 Current GVA by sector

GVA data can be broken by sector, giving an insight into which sectors make the greatest contribution to the economy.

Figure 306 shows in 2021 Manufacturing was the largest sector in Gloucestershire and accounting for 14.9% of total output, greater than that seen in the South West (10.5%) and England and Wales (9.7%). This was followed by Wholesale and retail trade, accounting for 13.8% of total output, higher than the South West (10.7%) and England and Wales (10.6%). Real estate activities was the third largest sector in Gloucestershire, accounting for 12.9% of total output, which was below the South West (14.7%) but above that seen in England and Wales (12.8%). These three sectors contributed a combined £7.96 billion to Gloucestershire's total GVA. These three sectors were also the top three sectors in the South West and England and Wales. However, at a national and regional level Real estate activities made the greatest contribution to GVA, followed by Wholesale and retail trade, with Manufacturing making the third largest

765 *Ibid.*

contribution, this difference shows the importance of the Manufacturing sector to Gloucestershire relative to other areas.

The Financial and insurance activities sector accounts for 9.2% of Gloucestershire's total output, which is greater than the South West (5.9%) but in line with England and Wales. The Agriculture, forestry and fishing; mining and quarrying sector (1.3%) accounts for a greater proportion of Gloucestershire's GVA than England and Wales (0.8%), reflecting of the county's rural setting, however the sector it is slightly under-represented in Gloucestershire when compared with the South West.

Conversely, Administrative and support service activities is under-represented in the county accounting for 2.5% of Gloucestershire's total GVA, below both the South West (5.4%) and England and Wales (5.3%).

Other sectors that appear to be under-represented compared to the South West and England and Wales are Transport and storage (1.8%); and Professional, scientific and technical activities (4.6%).

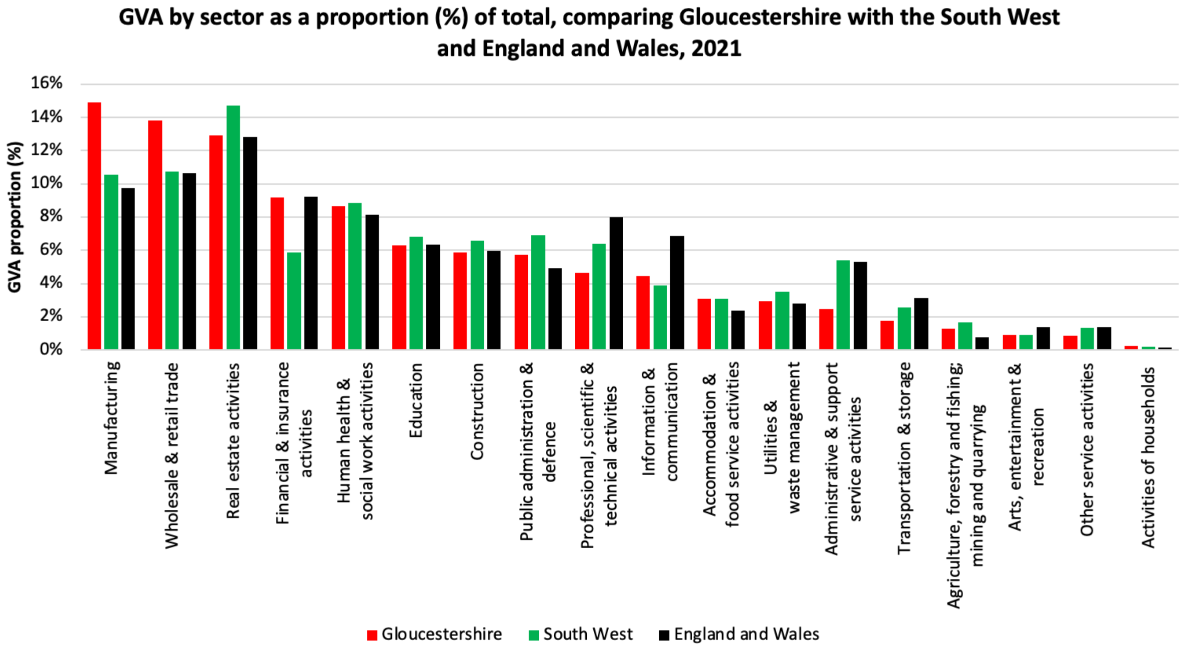

Figure 306: GVA by sector as a proportion (%) of total, comparing Gloucestershire with the South West and England and Wales, 2021[766]

As highlighted in Figure 306, the Manufacturing sector is over-represented in Gloucestershire compared to the South West and England and Wales, Figure

[766] Regional gross value added (balanced) by industry, ONS

307 and Figure 308 show it is also a strength when compared to other areas. The county ranks 5th out of both its geographical[767] and statistical[768] neighbours.

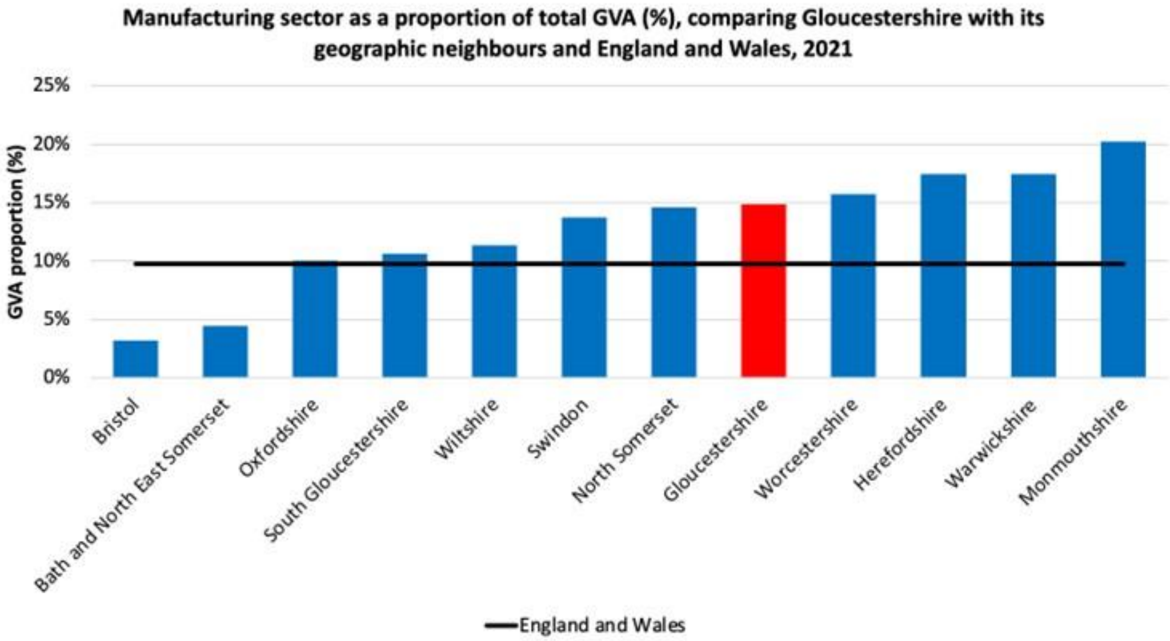

Figure 307: Manufacturing sector as a proportion of total GVA (%), comparing Gloucestershire with its geographic neighbours and England and Wales, 2021[769]

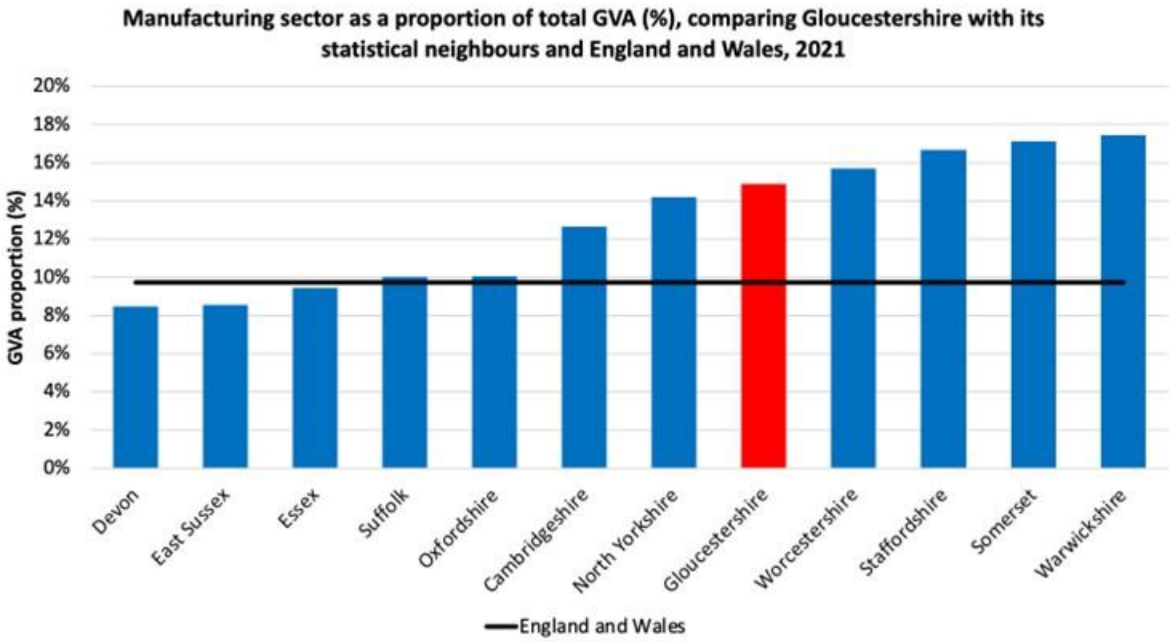

Figure 308: Manufacturing sector as a proportion of total GVA (%), comparing Gloucestershire with its statistical neighbours and England and Wales, 2021[770]

[767] Monmouthshire is not available for comparison.
[768] West Sussex, Leicestershire, Nottinghamshire and Hampshire are not available for comparison.
[769] Regional gross value added (balanced) by industry, ONS
[770] *Ibid.*

Gloucestershire also compares well in terms of the contribution to GVA made by the Wholesale and retail sector. Figure 309 shows it is ranked 1st out of its geographic neighbours while Figure 310 shows it is ranked 2nd out of its statistical neighbours where data is available. This places Gloucestershire in the top 20% for both comparator groups, in terms of the contribution the Wholesale and retail trade sectors makes to total GVA.

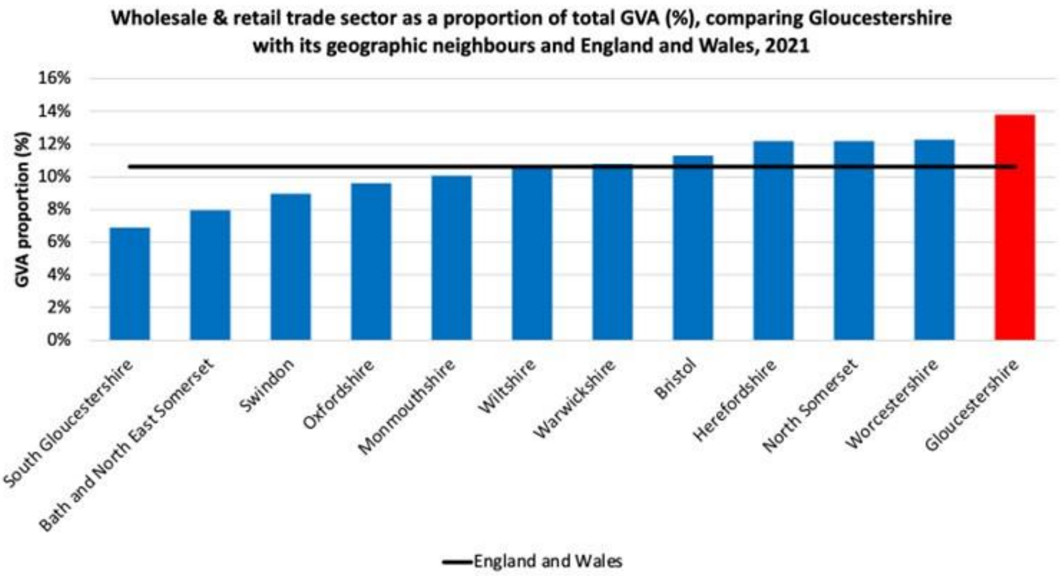

Figure 309: Wholesale & retail trade sector as a proportion of total GVA (%),Gloucestershire its geographic neighbours and England and Wales, 2021[771]

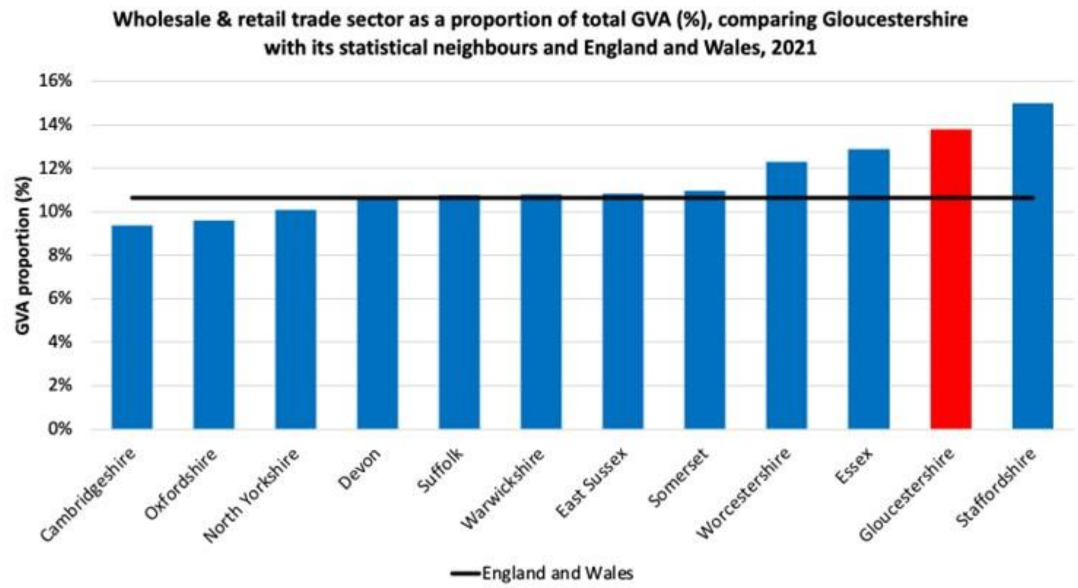

Figure 310: Wholesale & retail trade sector as a proportion of total GVA (%),Gloucestershire its statistical neighbours and England and Wales, 2021[772]

[771] *Ibid.*
[772] *Ibid.*

When compared to the national average Gloucestershire does not have a particular specialism in the Financial and insurance activities sector. However, the sector is a strength in Gloucestershire relative to other areas. Gloucestershire sits in the top 20% when compared to both statistical and geographic neighbours in terms of contribution the sector makes to GVA.

Administrative and support services which were under-represented in Gloucestershire when compared to the South West and England and Wales, was also under-represented when compared to Gloucestershire's statistical and geographic neighbours, sitting in the bottom 20% of both cohorts.

Transport and storage and Other services were also under-represented when compared to comparator. Gloucestershire sat in the bottom 20% of its statistical neighbours and the bottom 40% compared to its geographic neighbours, in terms of the contribution made by the Transport and storage sector. The picture is similar with Other service activities (0.9%) where Gloucestershire is placed in the bottom 20% when compared to its statistical neighbours, and the bottom 40% compared to its geographic neighbours.

Figure 311 shows the contribution of GVA by sector for each district, showing how each district's total GVA is distributed across 17 sectors773.

The manufacturing sector is a particular strength in Tewkesbury, contributing 32.7% of the districts total GVA. It is also a strength in Stroud with the sector contributing 30.0% to the districts total GVA. When compared to all 331 district and unitary authorities in England and Wales, both areas are placed in the top 20% with Tewkesbury ranked 11th out of 331 and Stroud ranked 14th.

The Wholesale and retail sector is strong in the Forest of Dean, accounting for 47.6% of its GVA. This saw the district sit 1st out of all 331 district and unitary authorities in England and Wales in terms of the contribution the Wholesale and retail sector made to total GVA. Conversely, Cheltenham, Cotswold and Tewkesbury are placed in the bottom 20% in terms of the sectors contribution to GVA.

The Finance and insurance activities sector stands out in in Cotswold, contributing 38.4% to the district's GVA. This saw the district rank 4th out of all 331 district and unitary authorities in England and Wales in terms of the sectors contribution to GVA. Gloucester also performs well in this sector and is placed in the top 40% of authorities nationally.

The Human health and social work activities sector makes the greatest contribution to GVA in in Cheltenham and Gloucester, which sit in the top 20% of district and unitary authorities across England and Wales in terms of the proportion of GVA accounted for by this sector. Conversely the sector is under-

[773] The breakdown of 18 sectors is not available at district level.

represented in Cotswold and the Forest of Dean which sit in the bottom 20% of authorities nationally.

The Agriculture, mining, electricity, gas, water and waste sector is strongest in Gloucester, where it sits in the top 20% and is ranked of 29th when compared to all 331 district and unitary authorities in England and Wales. This is likely to be because of the presence of a strong energy sector in the district. Stroud and Cotswold also have a strong Agriculture, mining, electricity, gas, water and waste sector sitting in the top 40% of district and unitary authorities in England and Wales.

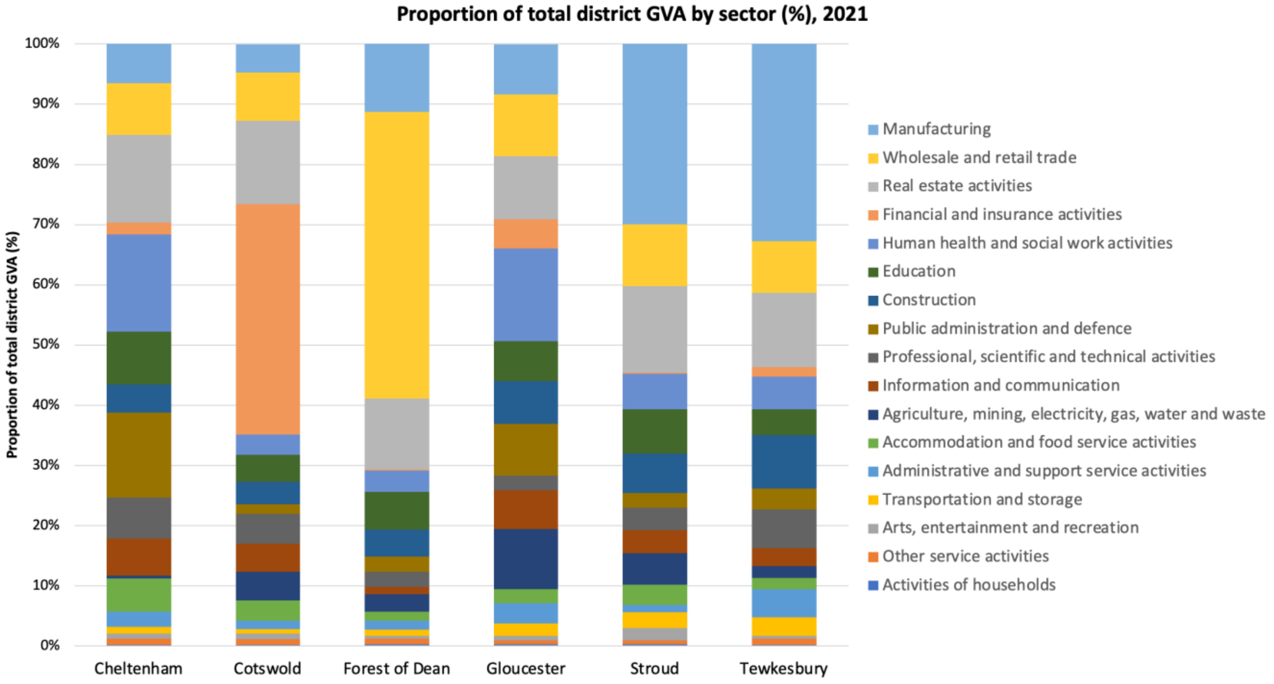

Figure 311: Proportion of total district GVA by sector (%), 2021 [774]

Figure 312 shows the change in GVA across all 18 sectors, comparing Gloucestershire with the South West and England and Wales. The biggest increase in Gloucestershire was in the Wholesale and retail trade sector, which saw a 47.3% increase in GVA, compared to a 21.0% increase in the South West and a 20.5% increase in England and Wales.

Agriculture, forestry and fishing; mining and quarrying also saw strong growth with a 42.9% increase in Gloucestershire, which was again greater than that seen in the South West (30.6%) and England and Wales (35.8%).

Gloucestershire saw greater increases in GVA than the South West and England and Wales in Manufacturing; Financial and insurance activities; Real estate activities; and Human health and social work activities.

[774] Regional gross value added (balanced) by industry, ONS

Six sectors namely: Construction; Information and communication; Professional, scientific and technical activities; Administrative and support service activities; Public administration and defence; and Education, saw growth in GVA in Gloucestershire but to a lesser extent than observed at a regional and national level. While two sectors, Utilities and waste management and Arts, entertainment and recreation saw greater growth in Gloucestershire than the South West but less growth when compared to England and Wales.

Conversely, four sectors Transport and storage; Accommodation and food service activities; Other services; and Activities of households saw declining GVA in Gloucestershire and England and Wales, with the South West seeing declining GVA in all of these sectors except Activities of households. Gloucestershire saw a smaller decline in GVA than England and Wales in Transport and storage; Accommodation and food service activities; and Activities of households, but a greater decline in GVA from Other services. When compared to the South West, Gloucestershire saw a greater decline in Transport and storage and Other services, but a smaller decline in Accommodation and food service activities.

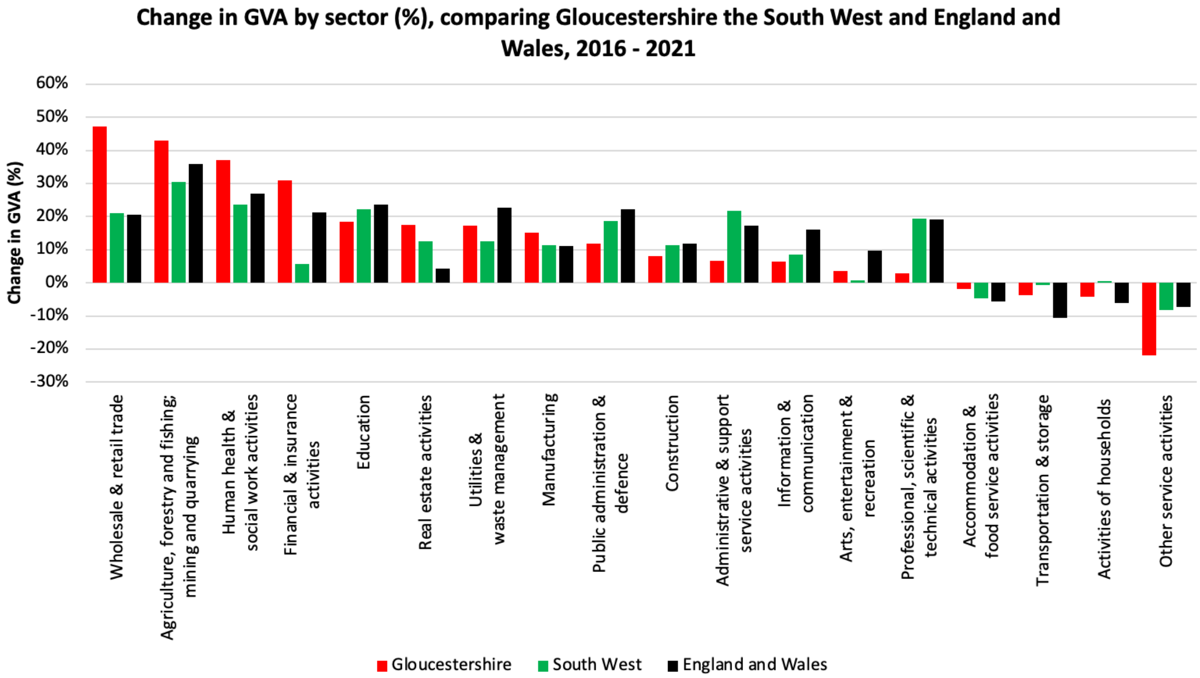

Figure 312: Change in GVA by sector (%), comparing Gloucestershire the South West and England and Wales, 2016 – 2021[775]

As well as seeing greater growth in GVA in the Wholesale and retail sector than the South West and England and Wales, Figure 313 and Figure 314 show Gloucestershire also compares well to other areas. Gloucestershire is ranked 1st

[775] *Ibid.*

in terms of growth when compared to both its geographical and statistical neighbours.

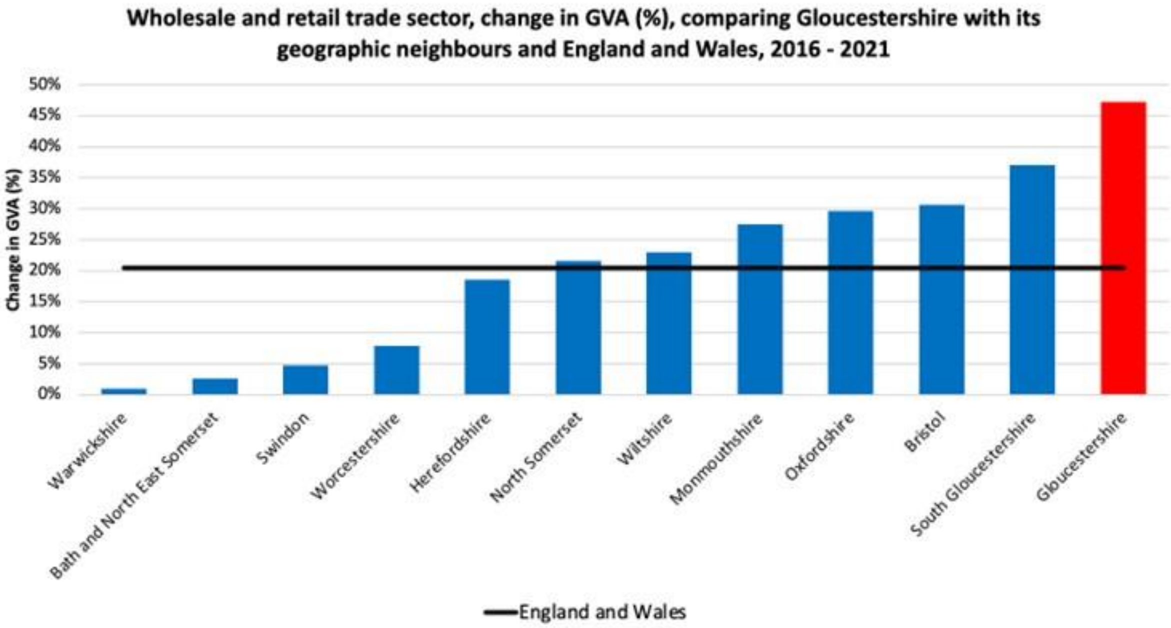

Figure 313: Wholesale and retail trade sector, change in GVA (%), comparing Gloucestershire with its geographic neighbours and England and Wales, 2021[776]

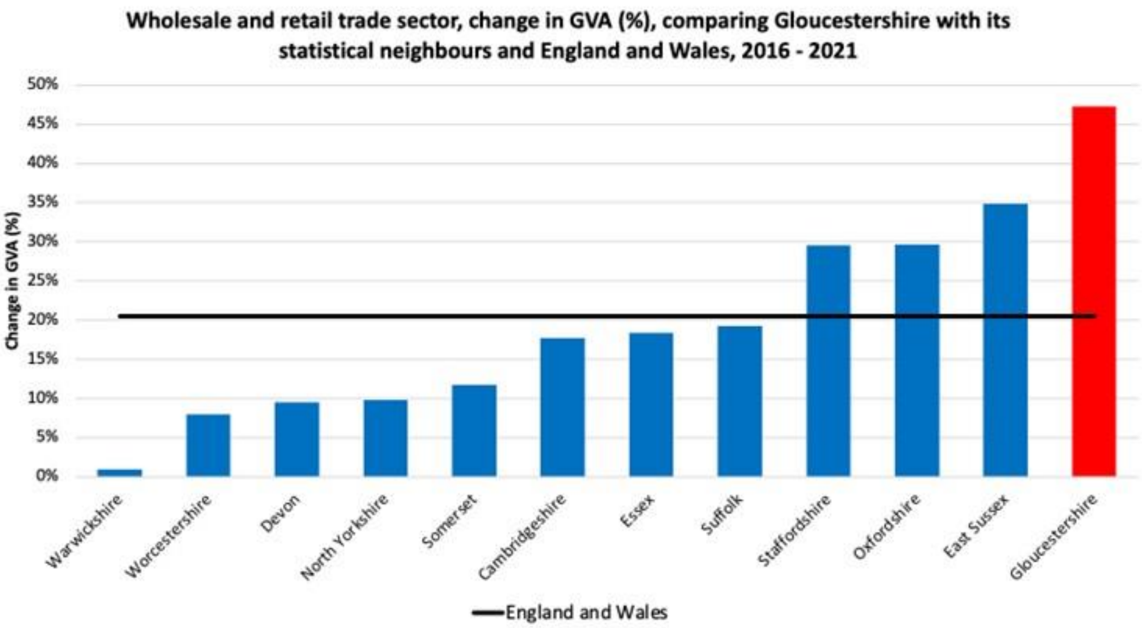

Figure 314: Wholesale and retail trade sector, change in GVA (%), comparing Gloucestershire with its statistical neighbours and England and Wales, 2016 - 2021[777]

[776] *Ibid.*
[777] *Ibid.*

When compared to geographical and statistical neighbours Gloucestershire also stood out in terms of growth in the Real estate activities sector. It ranked 3rd when compared to its geographical neighbours, placing it in the top 40% and ranked in the top 20% when compared to its statistical neighbours.

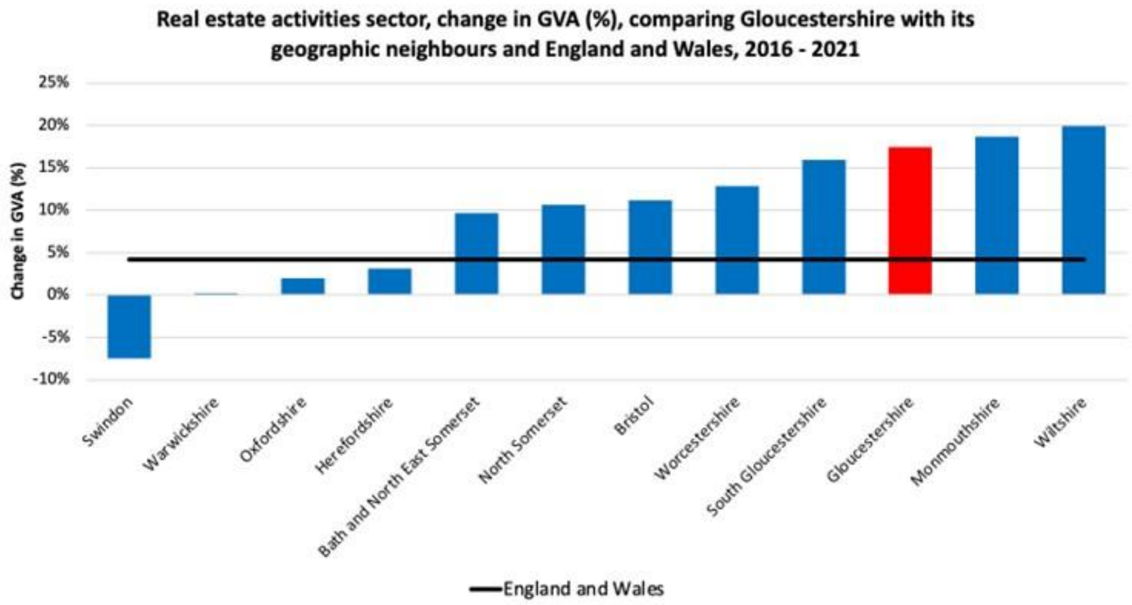

Figure 315: Real estate activities sector, change in GVA (%), comparing Gloucestershire with its geographic neighbours and England and Wales, 2016 - 2021[778]

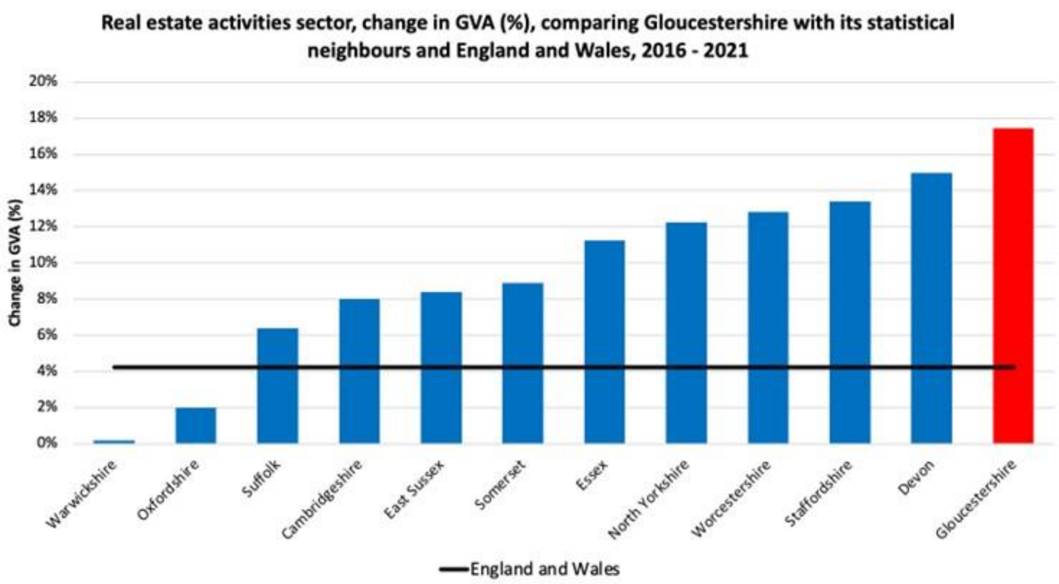

Figure 316: Real estate activities sector, change in GVA (%), comparing Gloucestershire with its statistical neighbours and England and Wales, 2016 - 2021[779]

778 *Ibid.*
779 *Ibid.*

Despite seeing a decline in GVA, Gloucestershire compared relatively well to other areas in terms of change in GVA in the Transport and storage sector. It ranked 4th in terms of change in the sector when compared to geographic neighbours. When compared to its statistical neighbours, Gloucestershire is ranked 8th and just falls just inside the bottom 50%.

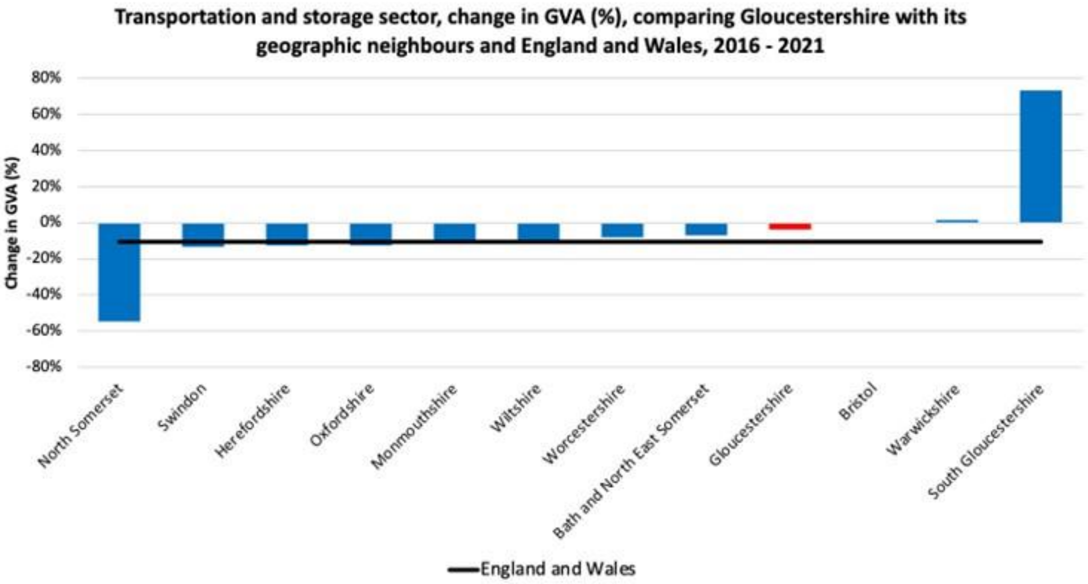

Figure 317: Transportation and storage sector, change in GVA (%), Gloucestershire with its geographic neighbours and England and Wales, 2016 - 2021[780]

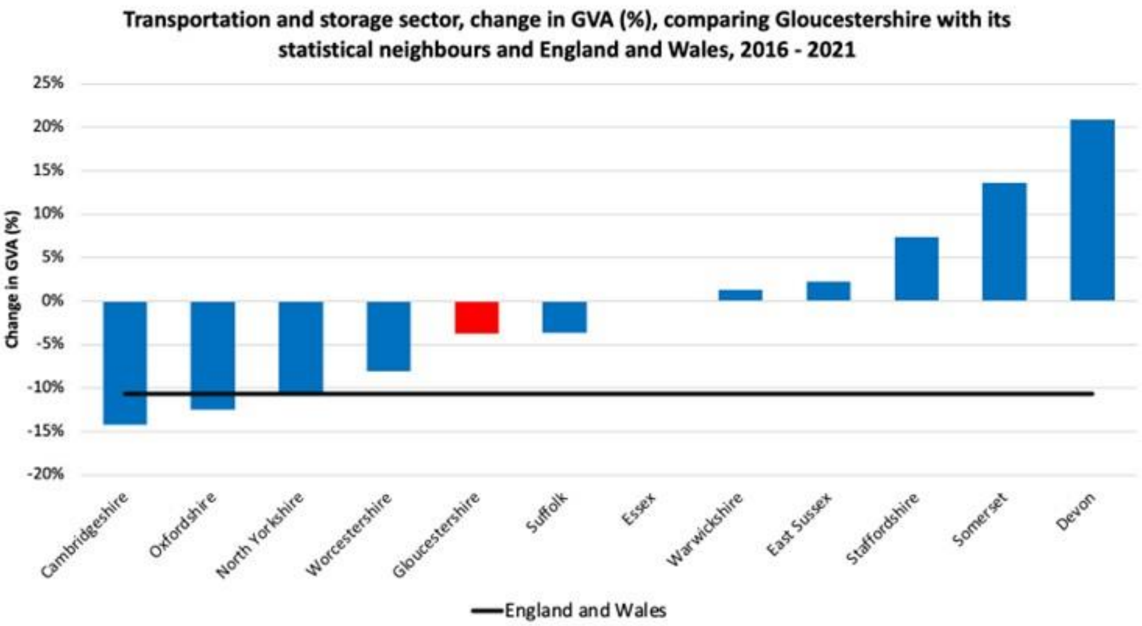

Figure 318: Transportation and storage sector, change in GVA (%),Gloucestershire with its statistical neighbours and England and Wales, 2016 – 2021[781]

[780] *Ibid*
[781] *Ibid*

Figure 319 looks at the change in GVA at district level across the 17 sectors from 2016 to 2021.

The Forest of Dean stands out with a 220.4% increase in the Wholesale and retail trade sector, this was far higher than all other areas and placed it 2nd out of all 331 district and unitary authorities in England and Wales in terms of growth in this sector. Conversely Cotswold saw a 21.5% decrease in this sector and placing it in the bottom 20% in terms of growth when compared to all 331 district and unitary authorities in England and Wales.

Cotswold saw a large increase in the Financial and insurance activities sector (84.1%), while other districts saw a decrease. Stroud and Tewkesbury both saw the largest decrease with Stroud seeing a decrease of 78.1% and Tewkesbury a decrease of 72.8%.

The Agriculture, mining, electricity, gas, water and waste sector saw growth in all districts, but the greatest growth was in Cheltenham where it saw a 114.3% increase. Cheltenham also stood out in terms of growth in the Human health and social work activities sector where it saw a 69.9% increase, which exceeded the growth seen by all other districts. While Tewkesbury has seen higher growth in the Administrative and support service activities sector than all other districts in the county, and most notably from Cheltenham and Stroud which saw a decline.

Cotswold and the Forest of Dean saw decline in GVA in Public Administration and defence sector. While all other districts saw growth. The decline observed in Cotswold placed it in bottom 10% of all 331 district and unitary authorities in England and Wales in terms of growth in GVA in the Public administration and defence sector. Cotswold also saw declining GVA in the Education sector, and as with Public administration and defence it sat in the bottom 10% of all 331 district and unitary authorities in England and Wales. Conversely all other districts in the county saw growth in GVA in the Education sector, this was largest in Tewkesbury (39.6%) and placing it in the top 10% of all 331 district and unitary authorities in England and Wales.

The picture when looking at the Transport and storage sector was mixed. Cheltenham saw a 31.3% increase in GVA in this sector. Cotswold, the Forest of Dean and Gloucester saw a decrease in GVA reflecting the picture at county, regional and national level, while Stroud and Tewkesbury saw little or no change.

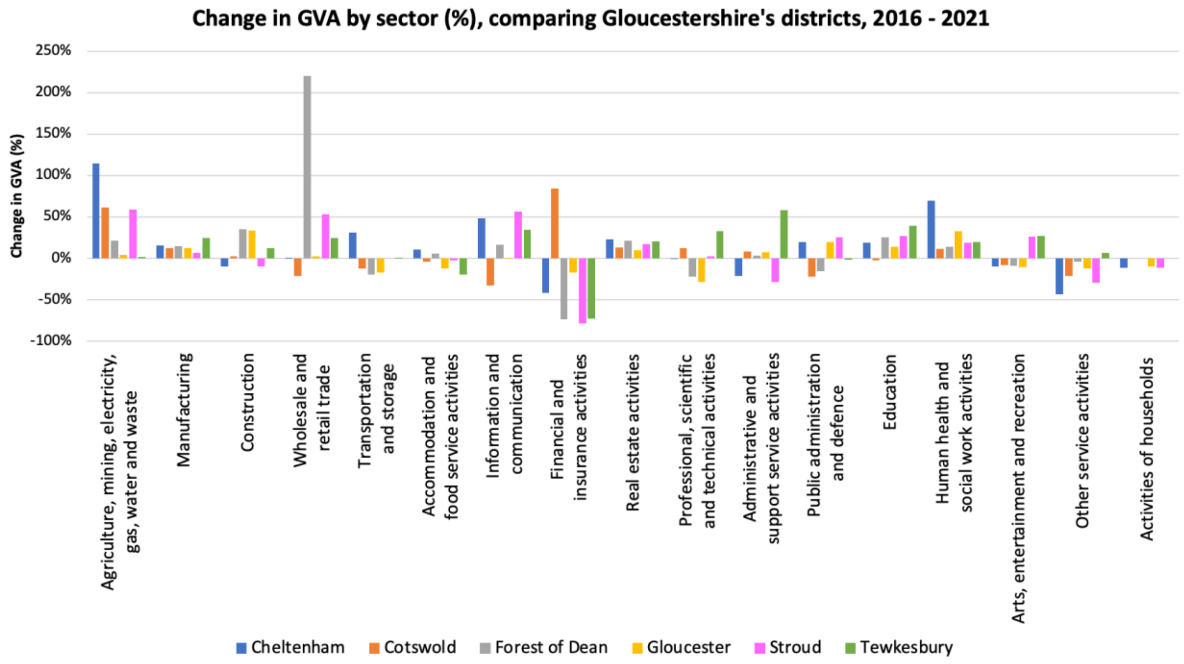

Figure 319: Change in GVA by sector (%), comparing Gloucestershire's districts, 2016 - 2021[782]

19.5 Future GVA by sector

19.5.1 2021-2031

Looking over the 10 years 2021-2031, the three sectors projected to see the greatest growth in GVA in Gloucestershire are Accommodation and food service activities; Administrative and support service activities; and Arts, entertainment and recreation. These sectors are also expected to see some of the greatest growth at a regional level, while across the UK the Information and communication sector is expected to see the second largest growth in GVA. Accommodation and food service activities and Administrative and support service activities are expected to see slightly greater growth across Gloucestershire than the UK as a whole.

One sector, Mining and quarrying is projected to see a decline in GVA between 2021 and 2031. This sector is also forecast to be the only declining sector at a national and regional level and in all districts within Gloucestershire.

In absolute numbers the greatest increase in GVA in Gloucestershire is expected to be in the Wholesale and retail trade.

[782] *Ibid*

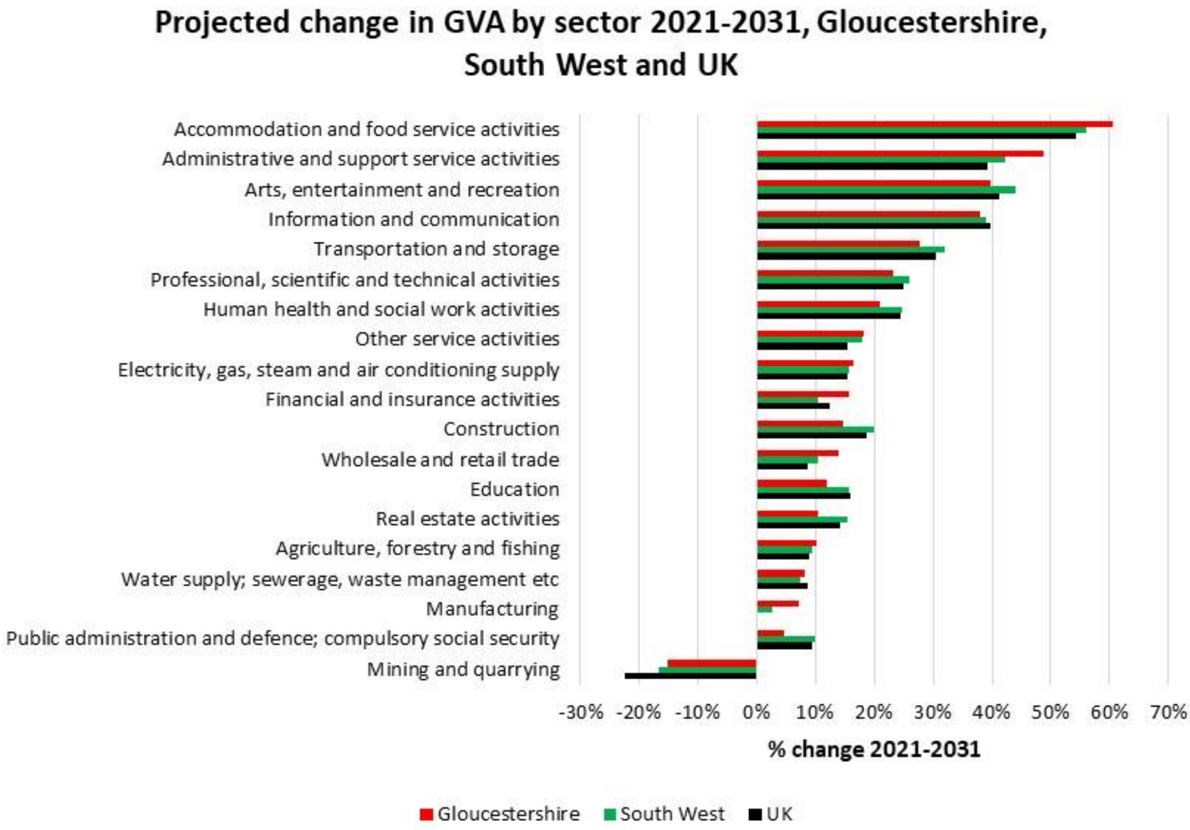

Figure 320: Projected change in GVA by sector 2021-2031, Gloucestershire, South West and UK[783]

The districts largely reflect the situation at county level, with the main difference being in Cheltenham, Gloucester, Stroud and Tewkesbury, Information and communication is in the top three fastest growing sectors, reflecting the picture seen at national level.

[783] Oxford Economics

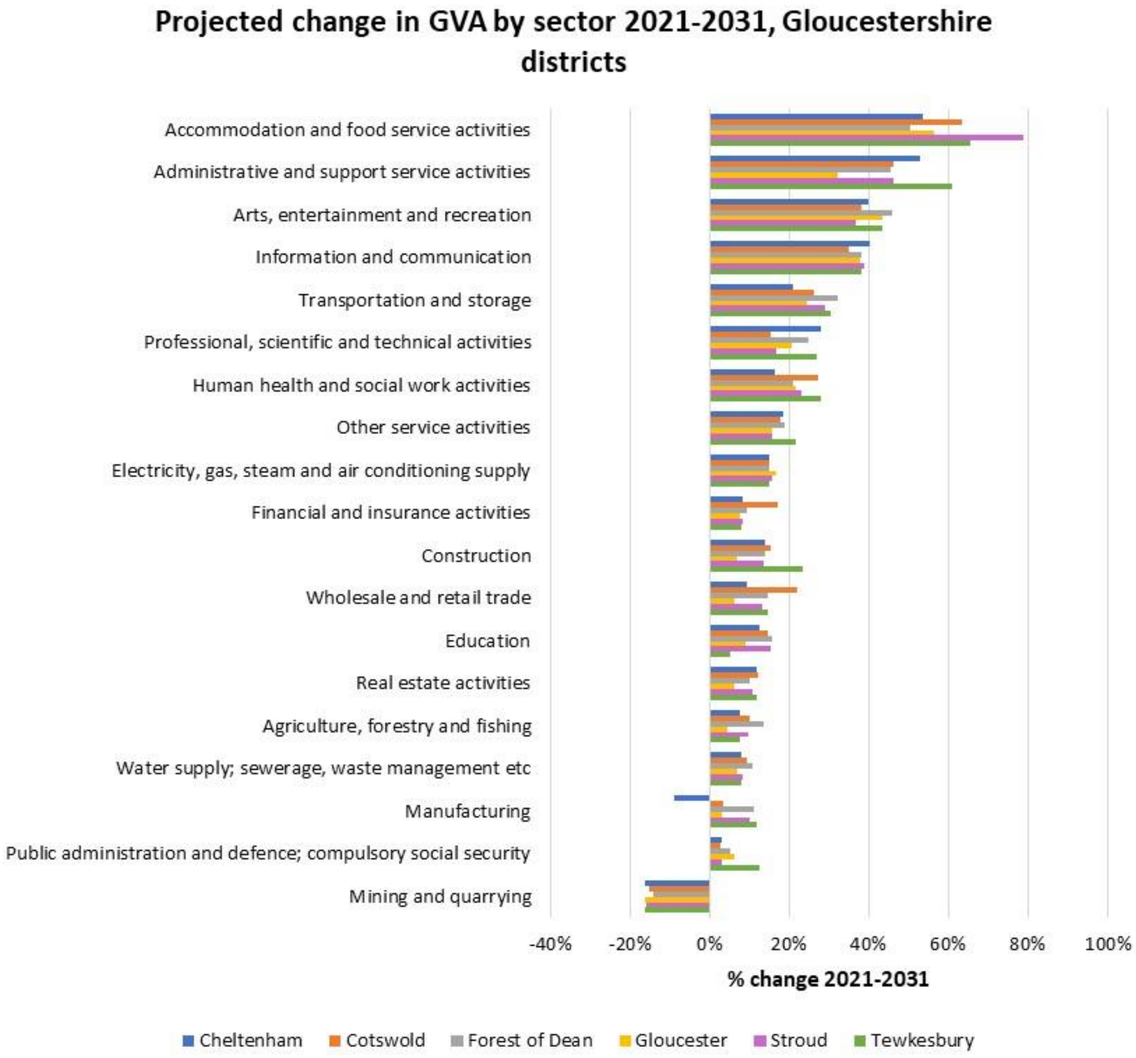

Figure 321: Projected change in GVA by sector 2021-2031, Gloucestershire districts[784]

19.5.1 2021-2050

Looking over the period 2021-2050, the three sectors projected to see the greatest growth in GVA in Gloucestershire are Information and communication; Administrative and support service activities; and Accommodation and food service activities. These sectors are also forecast to see the greatest growth at a national and regional level. However, Gloucestershire is forecast to see greater growth in Administrative and support service activities and Accommodation and food service activities than the South West and UK and conversely lower growth in Information and communication.

[784] *Ibid.*

One sector Mining and quarrying is projected to see a decline in GVA between 2021 and 2050; this sector is also forecast to be the only declining sector at a national and regional level and all districts within Gloucestershire.

In absolute numbers the greatest increase in GVA in Gloucestershire is expected to be in Financial and insurance activities.

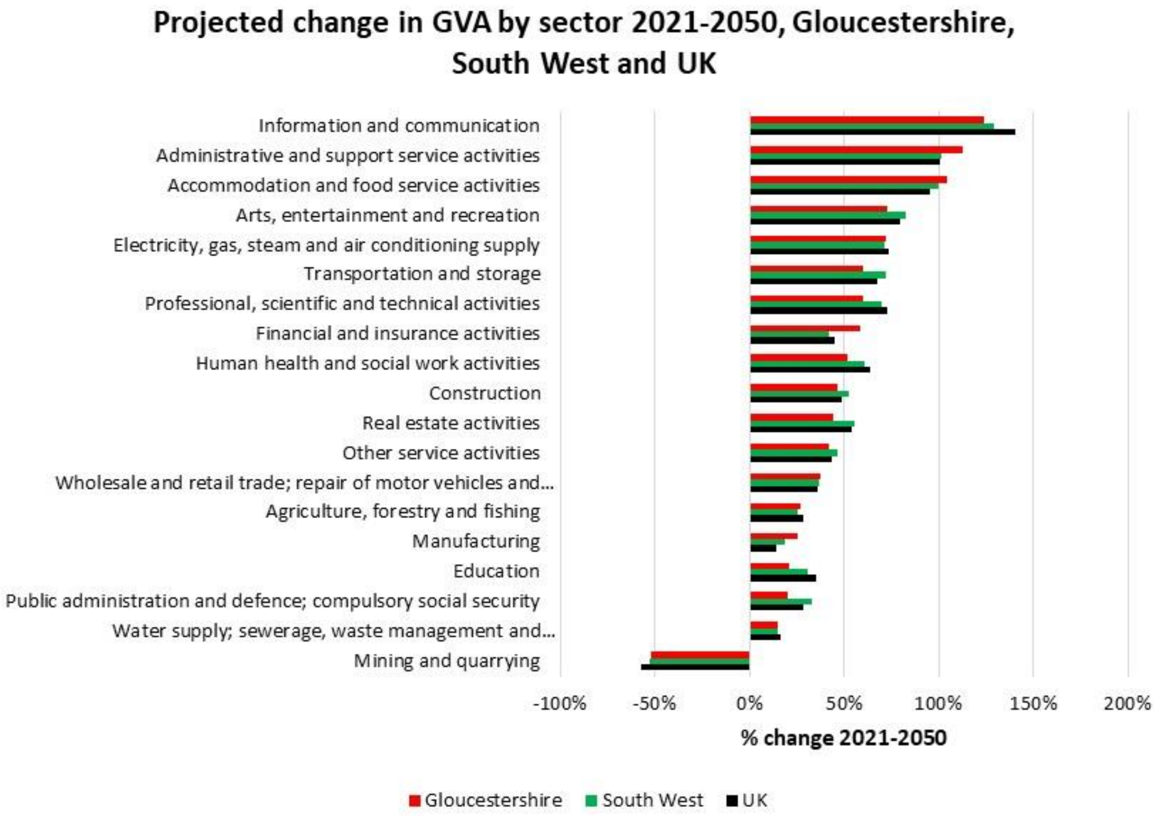

Figure 322: Projected change in GVA by sector 2021-2050, Gloucestershire, South West and UK[785]

The districts largely reflect the situation at county level and national level, with the Information and communication sector seeing the greatest growth in GVA and Mining and quarrying the only decline.

[785] *Ibid.*

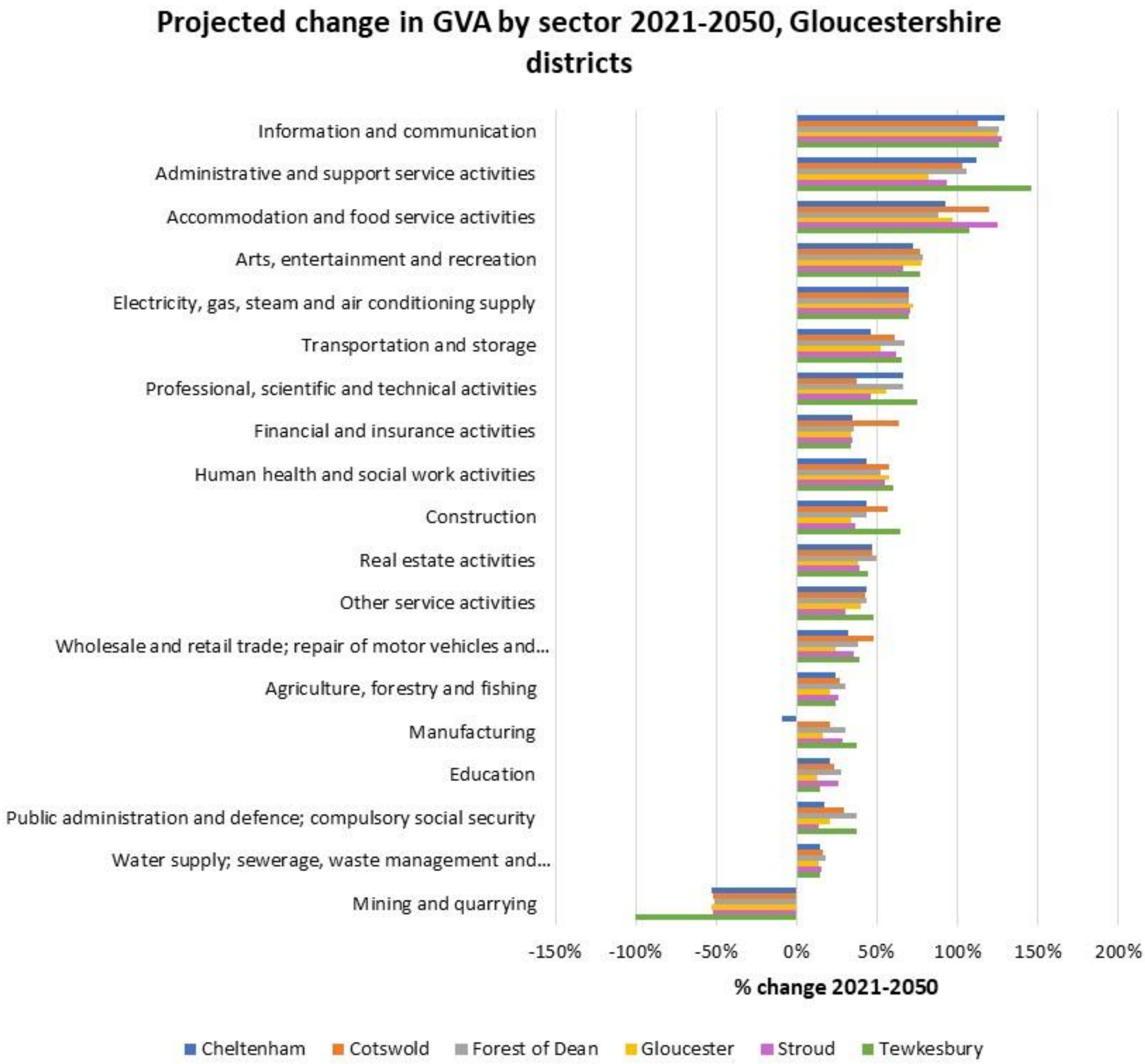

Figure 323: Projected change in GVA by sector 2021-2050, Gloucestershire districts[786]

20. Exports

Exports of goods and services refer to the economic transactions involving the sale of goods and services produced within a country's borders to foreign individuals, businesses, or governments.

The export of goods includes physical items that are produced within a country and sold to foreign markets. Goods can range from raw materials and agricultural products to manufactured goods and machinery. Examples of goods exports can include cars, electronics, textiles, agricultural products like grains and fruits, and natural resources like oil and minerals.

[786] *Ibid.*

The export of services includes economic activities that are provided by individuals, businesses, or government agencies within a country and delivered to customers in other countries. Service exports encompass a wide variety of sectors, such as financial services, tourism, education, consulting, software development, and transportation services.

20.1 Value of goods and services exports

International trade and investment play a key role in Gloucestershire's economy, which is reflected in the county's high value of goods and services exported.

Gloucestershire has an important cluster of product manufacturing inputs including hydraulics, valves, pumps, and associated electronic components. This translates to a specialisation of high value product exports, reflected in the county's well performing exports of goods. Gloucestershire also has an established services sector, including cyber, financial services and insurance activities, these however account for a smaller proportion of total exports.

The total value of goods and services exported from Gloucestershire in 2021 was £10.5 billion. Almost 83% of Gloucestershire's exports were goods, equivalent to £8.7 billion. Goods exported from Gloucestershire account for around 3.4% of goods exported from England and Wales and 39.7% of goods exported from the South West region. The exports of services from Gloucestershire were smaller, totalling £1.9 billion and accounting for 0.6% of all services exported from England and Wales and 14.2% of all services exported from the South West region.

Figure 324 shows that Gloucestershire had the highest value of total exports in 2021 when compared to its geographic neighbours[787]. This was mostly down to the large value of goods exported, which was higher than the other areas shown, reflecting Gloucestershire's strong manufacturing sector.

Service exports for Gloucestershire were smaller, but still placing Gloucestershire in the top 40% when compared to its geographic neighbours.

[787] Data is not available for Bath and North East Somerset, Monmouthshire, North Somerset or South Gloucestershire

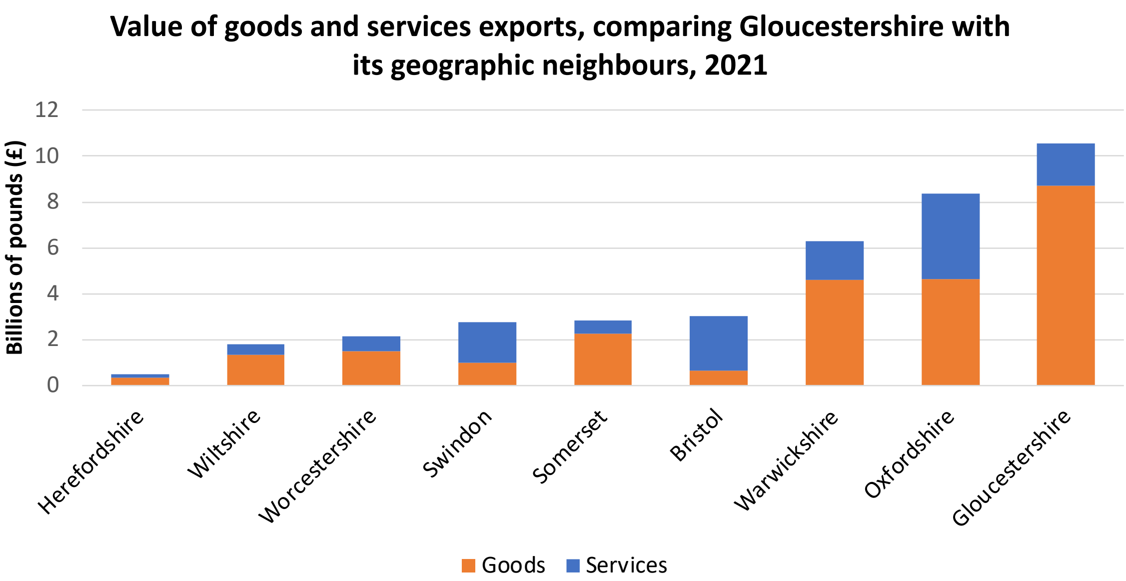

Figure 324: Value of goods and services exports, comparing Gloucestershire with its geographic neighbours, 2021[788]

Figure 325 compares the value of goods and services exports in Gloucestershire with its statistical neighbours[789] in 2021. This shows that Gloucestershire is still performing well against its comparators, with the highest value of goods exported, but is ranked 2nd when looking at the total value of goods and services exported.

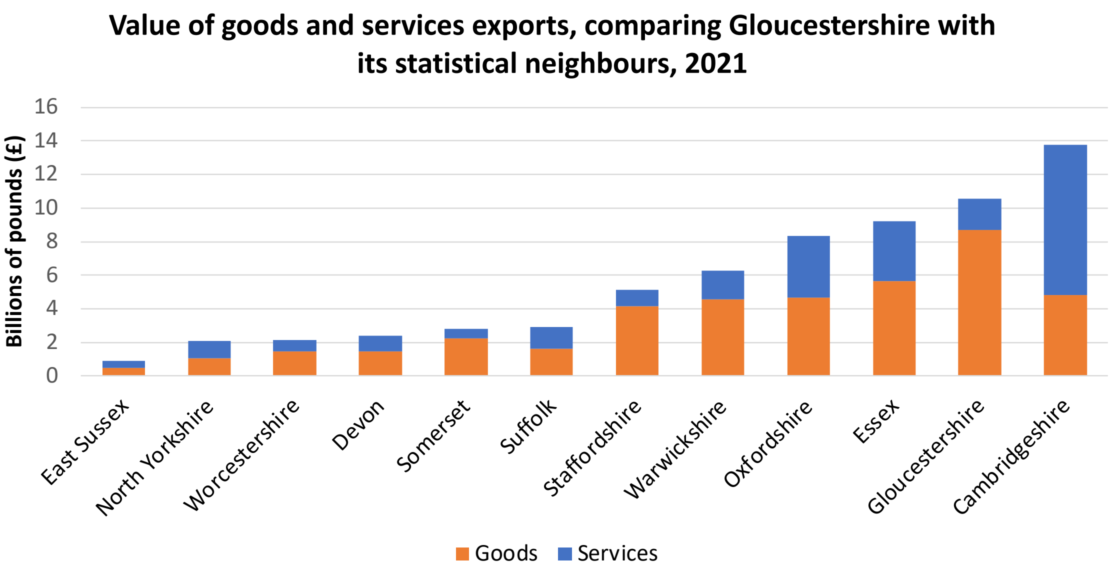

Figure 325: Value of goods and services exports, comparing Gloucestershire with its statistical neighbours, 2021[790]

788 International trade in UK nations, regions and cities: 2021, ONS

789 Data is not available for Hampshire, Leicestershire, Nottinghamshire or West Sussex

790 International trade in UK nations, regions and cities: 2021, ONS

20.2 Change in value of goods exports

Between 2016 and 2021, Gloucestershire saw a 50.3% increase in the value of goods exported. This was considerably higher than the increase seen across the South West (15.3%) and England and Wales (8.5%).

Figure 326 and Figure 327 show the change in the value of goods exported from 2016 to 2021, comparing Gloucestershire with its geographic and statistical neighbours and England and Wales. Gloucestershire is well placed when compared to its geographic neighbours, with a 50.3% increase it is ahead of the other areas shown. When compared to its statistical neighbours, Gloucestershire is still shown to be performing well and falls in the top 30% of the areas shown.

Figure 326: Change in value (%) of goods exports, comparing Gloucestershire, its geographic neighbours and England and Wales, 2016 - 2021[791]

[791] *Ibid.*

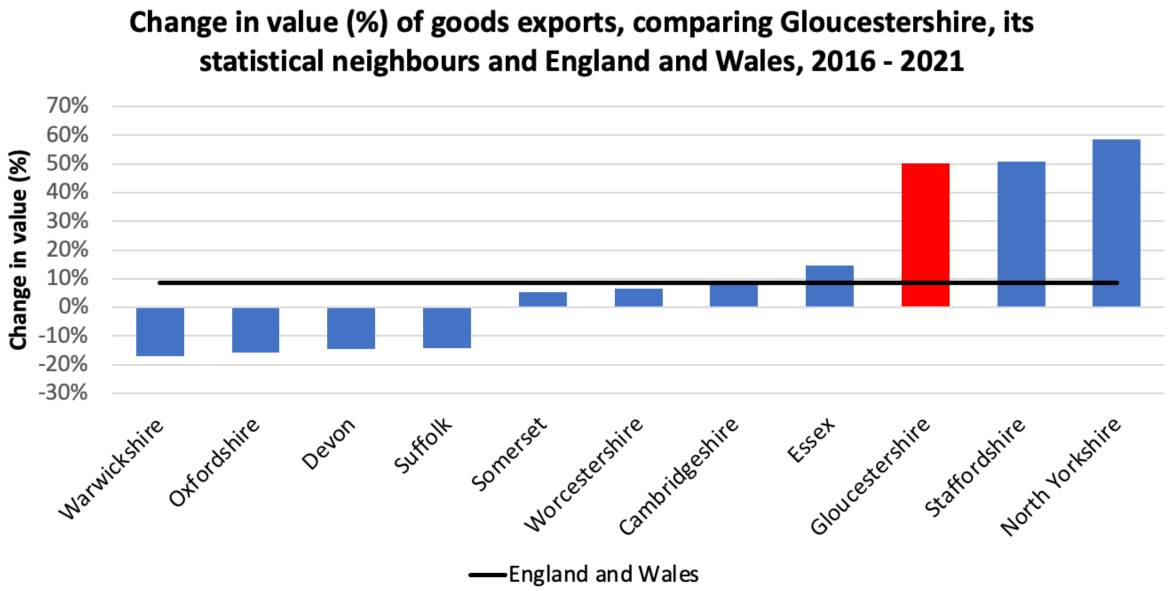

Figure 327: Change in value (%) of goods exports, comparing Gloucestershire, its statistical neighbours and England and Wales, 2016 – 2021[792]

20.3 Change in value of services exports

Between 2016 and 2021, Gloucestershire saw a 24.2% decrease in the value of services exported. The value of services exported also fell across the South West but by the smaller amount of 14.1%. Nationally the value of exports increased by 22.4%.

Figure 328 and Figure 329 show the change in the value of services exported from 2016 to 2021, comparing Gloucestershire with its geographic and statistical neighbours. When compared to both its geographic and statistical neighbours, Gloucestershire is placed in the bottom 50% of the areas shown with its 24.2% decrease in services exported.

[792] *Ibid.*

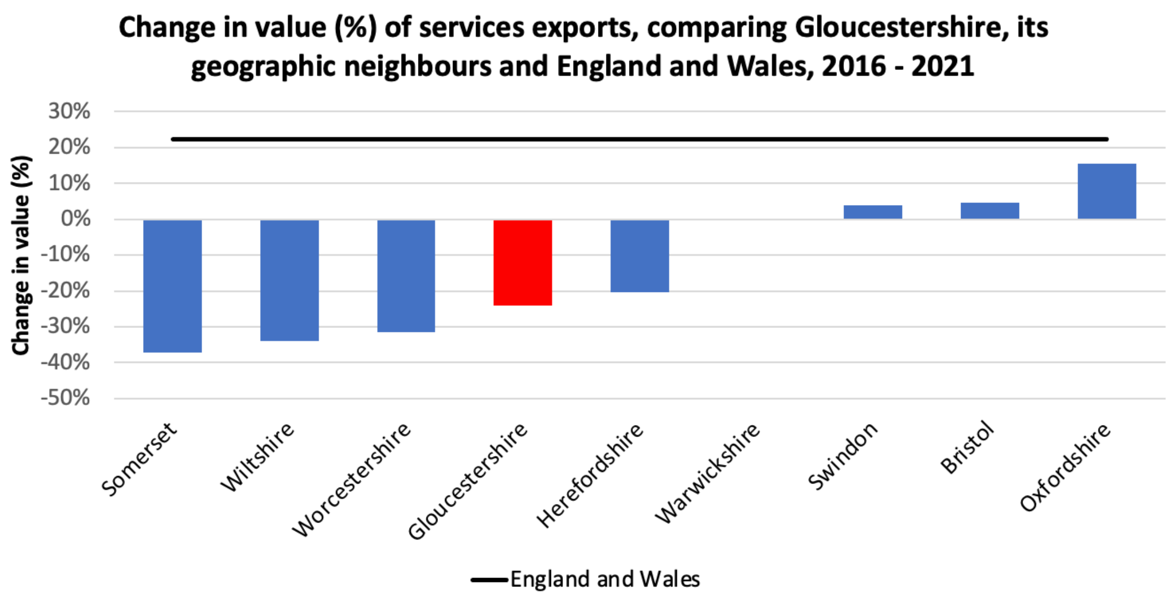

Figure 328: Change in value (%) of services exports, comparing Gloucestershire, its geographic neighbours and England and Wales, 2016 - 2021[793]

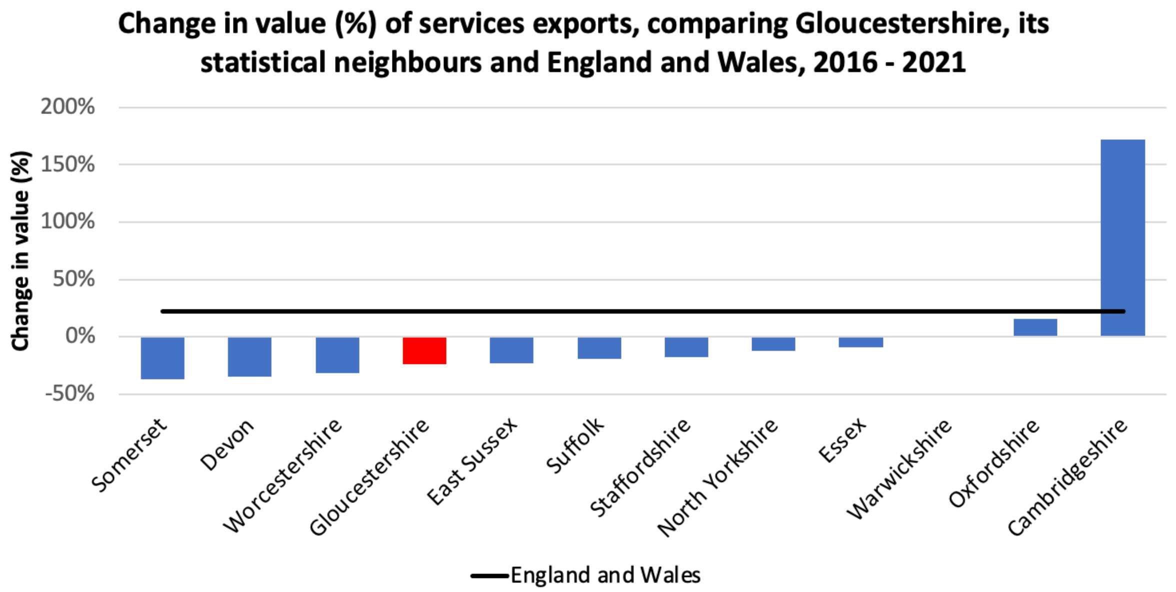

Figure 329: Change in value (%) of services exports, comparing Gloucestershire, its statistical neighbours and England and Wales, 2016 – 2021[794]

[793] *Ibid.*

[794] *Ibid.*

21. Innovation

In economic terms, innovation describes the development and application of ideas and technologies that improve goods and services or make their production more efficient.

One of the major benefits of innovation is its contribution to economic growth. Simply put, innovation can lead to higher productivity, meaning that the same input generates a greater output. As productivity rises, more goods and services are produced – in other words, the economy grows.

Innovation and productivity growth bring vast benefits for consumers and businesses. As productivity rises, the wages of workers increase. They have more money in their pockets, and so can buy more goods and services. At the same time, businesses become more profitable, which enables them to invest and hire more employees[795].

21.1 Innovate UK

Innovate UK is the UK's national innovation agency that provides funding and support for businesses to innovate and grow, formerly known as the Technology Strategy Board. The agency works with businesses to identify areas where innovation can drive economic growth, and then provides funding and support to help those businesses develop new products, services, and technologies. Innovate UK also provides advice and guidance to businesses on a range of topics, including funding, commercialisation, and business growth. The government's vision is for the UK to be a global hub for innovation by 2035.

Innovate UK has received a total of 205 applications for projects from Gloucestershire businesses and organisations between 1st April 2016 and 31st March 2021[796]. The total value of Innovate UK funding over the period was £59,672,976, supporting total project investment of £122,639,629[797] including match funding from recipients. The total value of Innovate UK funding seen in Gloucestershire represented 9.0% of the South West total and 0.9% of that seen in England and Wales overall. These investments are targeted at unlocking future private sector innovation activity and investment.

21.2 Innovate UK applications in Gloucestershire.

Table 5 shows the distribution of Innovate UK applications for projects in Gloucestershire from 1st April 2016 to 31st March 2021, with the number of applications and value of projects listed by district.

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[795] European Central Bank

[796] Projects listed on Innovate UK as having a start date between 1st April 2016 and 31st March 2021

[797] Data was extracted from Innovate UK on May 11th, 2023, and is updated monthly. Total investment includes match funding from recipients.

There is a large concentration of total investment in Tewkesbury with the district accounting for 60% of the county's total investment. Interestingly Stroud and Cotswold have seen more applications than Tewkesbury but with a smaller total investment.

Table 5: Distribution of Innovate UK applications and total investment in Gloucestershire, 1st April 2016 to 31st March 2021[798]

District	Number of applications	Total Investment	Share of Gloucestershire total
Tewkesbury	41	£73,504,344	**60%**
Stroud	53	£32,697,267	**27%**
Cheltenham	34	£6,954,144	**6%**
Cotswold	47	£5,772,106	**5%**
Forest of Dean	18	£2,163,457	**2%**
Gloucester	12	£1,548,311	**1%**

Figure 330 looks at the average value of investment per application across each of Gloucestershire's six districts. Tewkesbury has the highest average value of £1.7 million per application when compared to the other districts in Gloucestershire.

Gloucester has seen the lowest total investment (£1.5 million) and lowest number of applications (12); however, it is placed above Cotswold and the Forest of Dean when looking at the average value of applications received for the area.

[798] Innovate UK, May 2023

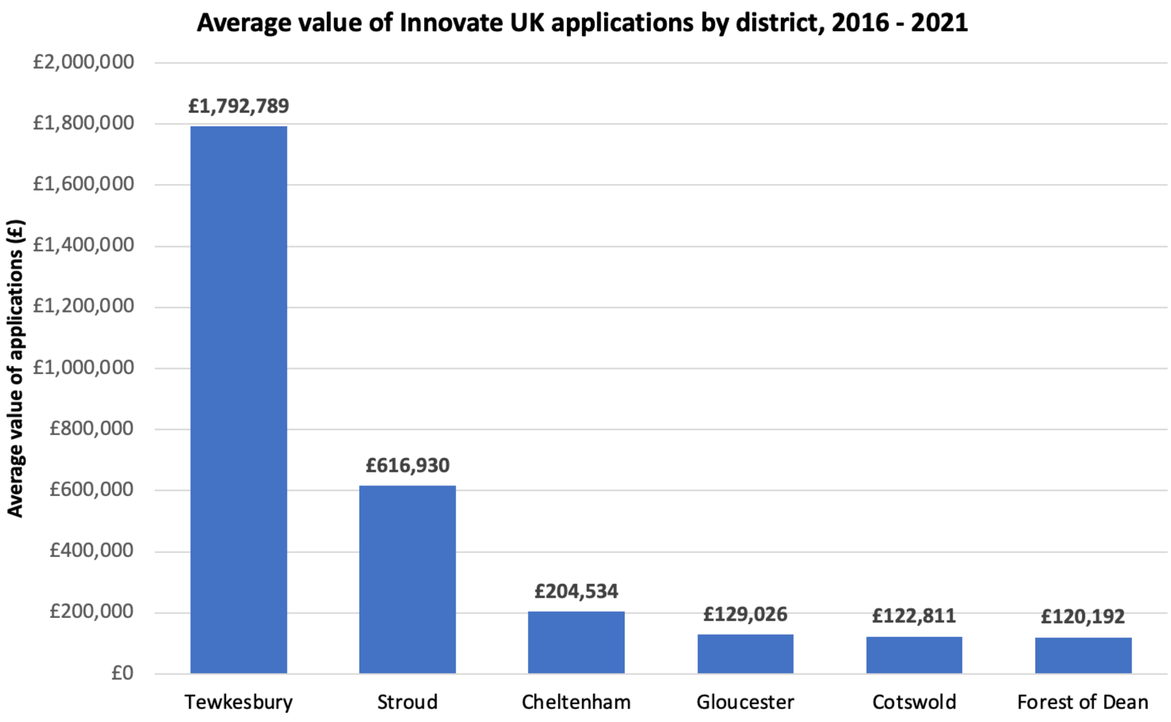

Figure 330: Average value of Innovate UK applications by district, 1st April 2016 to 31st March 2021[799]

21.2.1 Applications by enterprise size

Figure 331 shows the total number of Innovate UK applications by enterprise size in Gloucestershire, between 1st April 2016 and 31st March 2021. The largest number of applications have come from micro/small enterprises with a total of 65 applications, followed by large enterprises with 53 applications and medium and micro enterprises which have each seen a total of 28 applications.

Applications to innovate UK from Public Sector Organisations in Gloucestershire have come from Gloucestershire Hospitals NHS Foundation Trust, located in Cheltenham. While applications from Research & Technology Organisations have been from Campden BRI (Chipping Campden) located in Cotswold.

[799] *Ibid.*

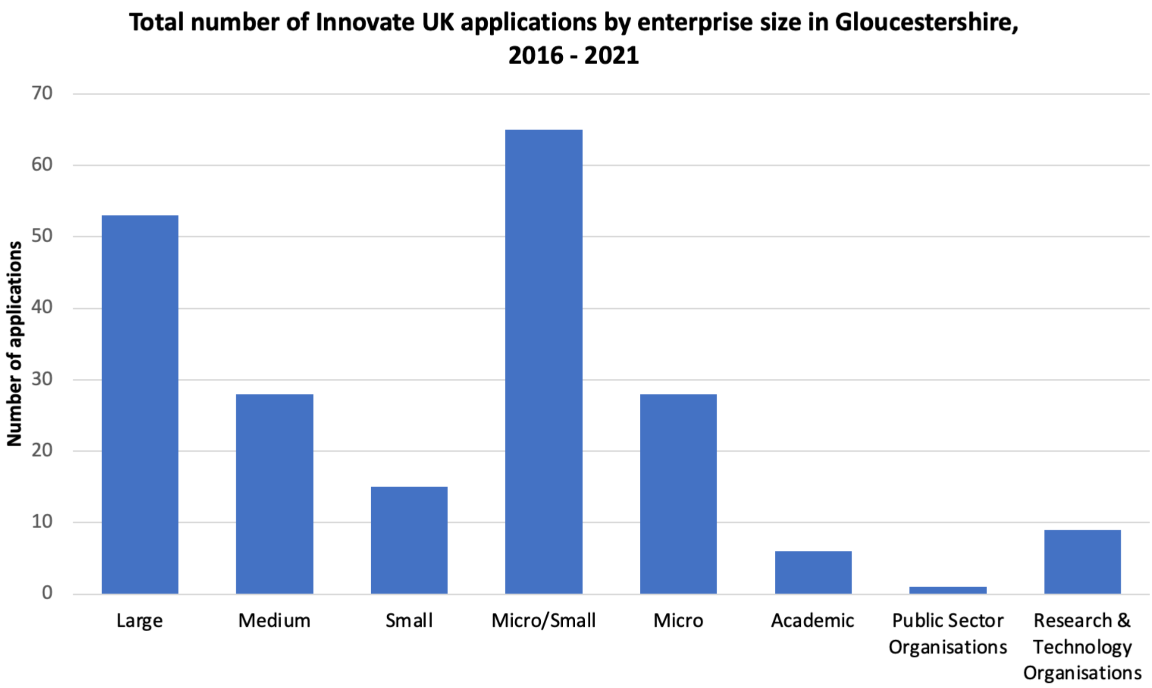

Figure 331: Total number of Innovate UK applications by enterprise size in Gloucestershire, 1st April 2016 to 31st March 2021[800]

Figure 332 provides an overview of applications received by Innovate UK by enterprise size and broken down by each of Gloucestershire's six districts, between 1st April 2016 and 31st March 2021.

In Cheltenham, Cotswold and Stroud applications from micro/small enterprises account for the largest proportion of enterprises. Small enterprises account for the largest proportion of applications in the Forest of Dean, while in Gloucester medium enterprises account for the most applications. In Tewkesbury large enterprises account for the majority of applications.

[800] *Ibid.*

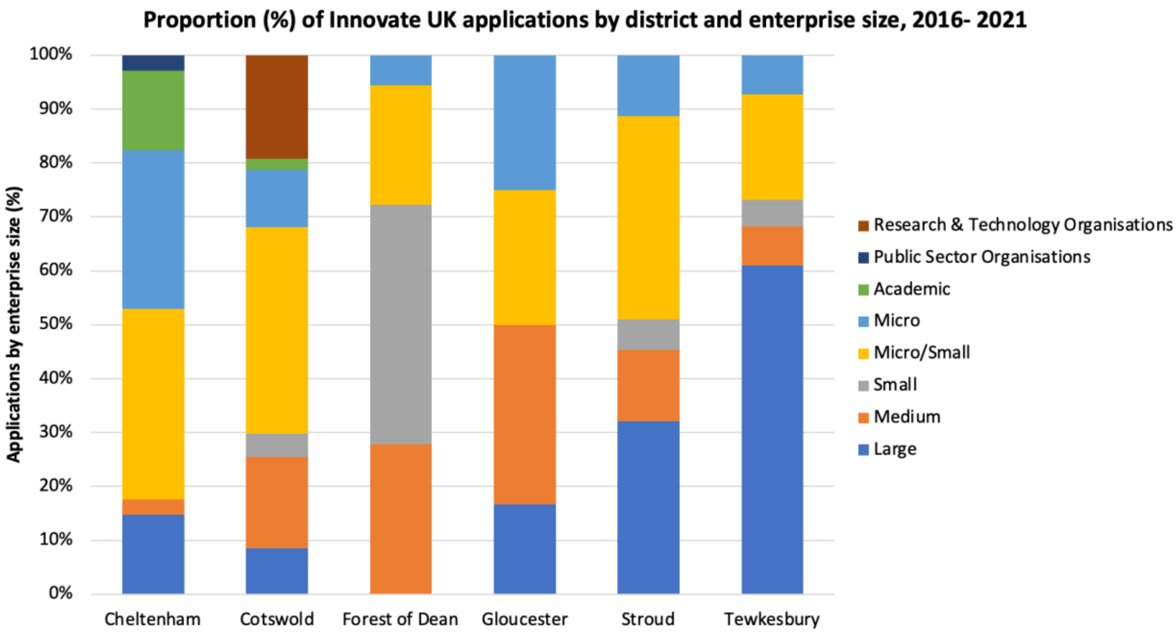

Figure 332: Proportion (%) of Innovate UK applications by enterprise size and district, 1st April 2016 to 31st March 2021[801]

21.2.2 Applications by sector

Figure 333 shows the spread of Innovate UK applications by Innovate UK sector in Gloucestershire, between 1st April 2016 and 31st March 2021.

The largest number of applications have been from the Responsive sector[802] (73) and the Manufacturing, Materials & Mobility sector (72). The other sectors have seen a smaller number of applications, with Clean Growth & Infrastructure seeing 20 applications, followed by Ageing Society, Health & Nutrition with 21 applications[803].

[801] *Ibid.*

[802] Innovate UK categorises applications from the Responsive sector as projects from open competitions or proposals, that are in response to urgent needs or requests.

[803] Applications from the Strategy sector refer to projects from programmes centred on key strategies that are not specific to any one technology, such as Women in Innovation.

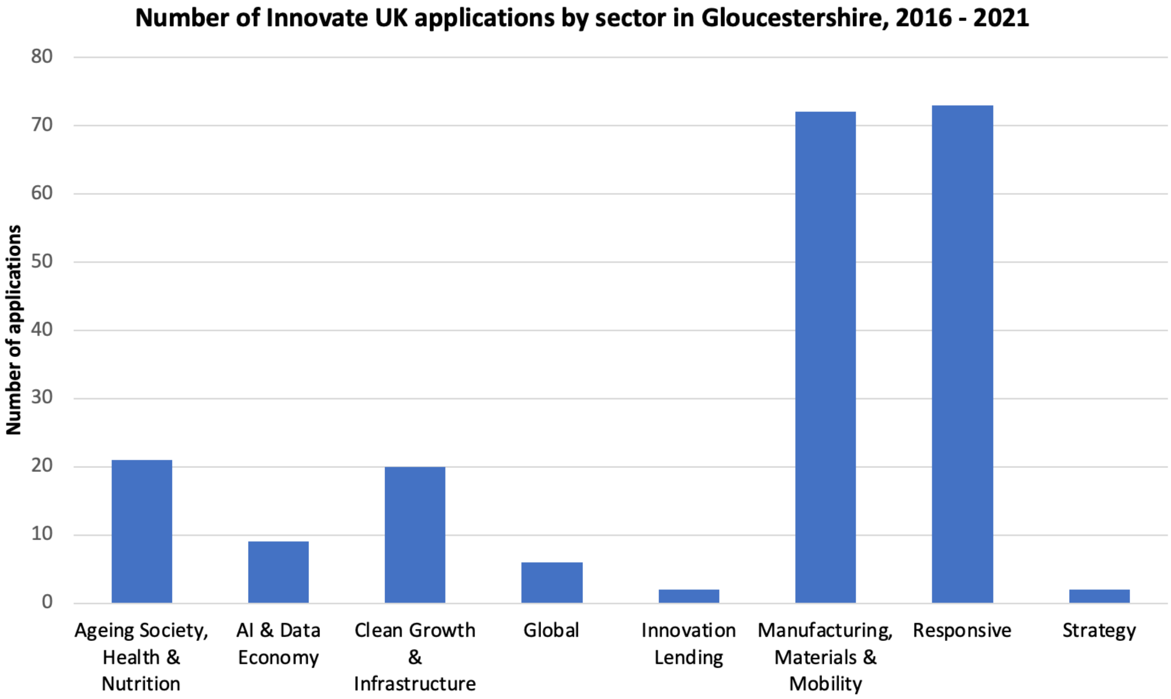

Figure 333: Number of Innovate UK applications by sector in Gloucestershire, 1st April 2016 to 31st March 2021[804]

Figure 334 provides an overview of applications received by Innovate UK and the sector they have come from, broken down by each of Gloucestershire's six districts between 1st April 2016 and 31st March 2021.

The Responsive sector accounts for the largest proportion of applications in Cheltenham, Stroud, Cotswold and Gloucester. In Tewkesbury the Manufacturing, Materials & Mobility sector accounts for the largest proportion of applications. In the Forest of Dean there was a similar proportion of applications in the Manufacturing, Materials and Mobility and the Responsive sector.

Cotswold stands out as having a considerably higher proportion of applications from the Ageing Society, Health & Nutrition sector than other areas. While Cheltenham and Stroud had higher proportion of applications in the Clean Growth & Infrastructure sector than the other districts.

[804] Innovate UK, May 2023

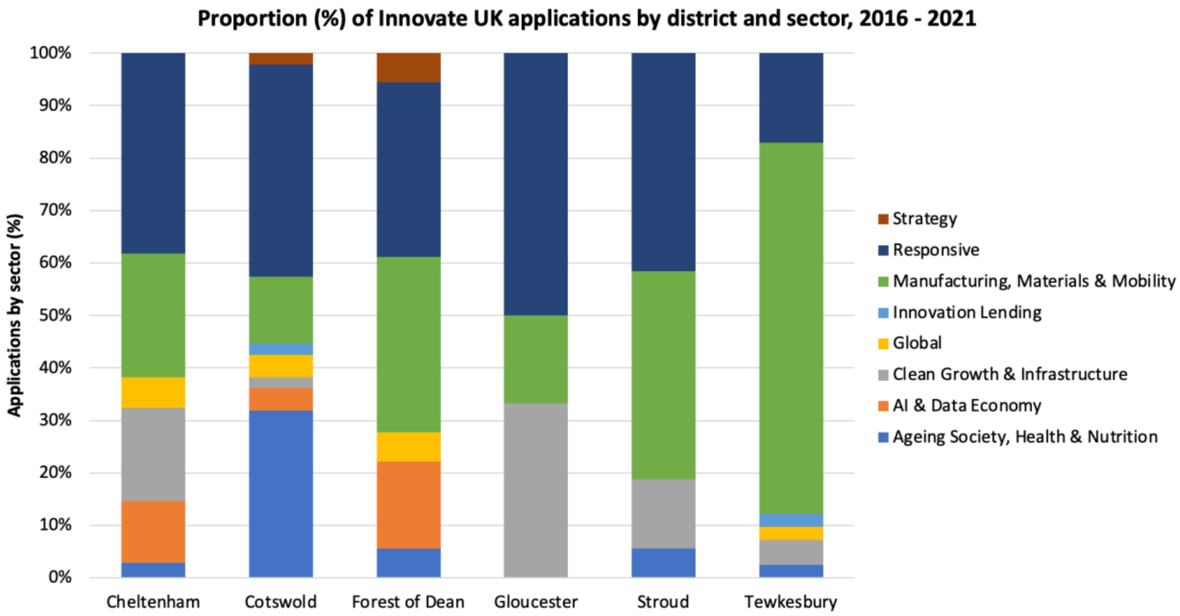

Figure 334: Proportion (%) of Innovate UK applications by sector and district, 1st April 2016 to 31st March 2021[805]

21.3 Key Innovate UK investments, 2016 – 2021

Table 6 lists the top ten key organisations in Gloucestershire receiving higher levels of investment on a company basis from 2016 to 2021, showing the highly innovative companies within Gloucestershire, which qualified for Innovate UK funding.

[805] *Ibid.*

Table 6: Distribution of Innovate UK applications and total investment in Gloucestershire, 1st April 2016 to 31st March 2021[806]

Company	Company location[807]	Total Investment
GE Aviation Systems Limited	Tewkesbury	£36,599,898
Renishaw PLC	Stroud	£27,265,872
Safran Landing Systems UK Limited	Tewkesbury	£21,113,562
Moog Controls Limited	Tewkesbury	£9,162,685
Trackwise Designs Limited	Tewkesbury	£2,070,417
Albright Product Design Limited	Cheltenham	£1,924,244
Green Fuels Research Limited	Cheltenham	£1,749,994
Future Advanced Manufacture Limited	Tewkesbury	£1,303,359
Urban Electric Networks Limited	Cotswold	£1,120,275
Campden BRI (Chipping Campden) Limited	Cotswold	£1,036,348

[806] *Ibid.*

[807] Company location is based on information provided within Innovate UK data and may not reflect location of business premises.

1. Appendix 1 – Lightcast green skills

Code	Skills (Has Any)
Qualification	Certified Energy Manager
Specialized Skill	Marine Conservation
Specialized Skill	Environment Management
Specialized Skill	Thermal Modelling
Qualification	NABCEP Certified Energy Practitioner
Specialized Skill	Conservation Biology
Specialized Skill	Wildlife Conservation
Specialized Skill	Conservation Planning
Specialized Skill	Climate Variability and Change
Specialized Skill	Conservation Science
Specialized Skill	Ecological Restoration
Specialized Skill	Energy Supply
Specialized Skill	Geographic Information Systems
Specialized Skill	Air Quality
Specialized Skill	Battery Pack
Specialized Skill	Biological Hazards
Specialized Skill	Biomass
Specialized Skill	Building Management Systems
Specialized Skill	Built Environment
Qualification	Certified Hazardous Materials Manager
Specialized Skill	Corporate Sustainability
Specialized Skill	Recycling
Specialized Skill	Water Wells
Specialized Skill	Energy Demand Management
Specialized Skill	Development Management

Specialized Skill	Ecology
Specialized Skill	High Voltage
Specialized Skill	Occupational Safety and Health
Specialized Skill	Energy Conservation
Specialized Skill	Energy Technology
Specialized Skill	Environmental Engineering
Specialized Skill	Environmental Health
Specialized Skill	Environmental Laws
Specialized Skill	Environmentalism
Specialized Skill	Environmental Impact Assessments
Specialized Skill	Environmental Auditing
Specialized Skill	Environmental Chemistry
Specialized Skill	Environmental Compliance
Specialized Skill	Environmental Consulting
Specialized Skill	Environmental Design
Specialized Skill	Environmental Economics
Specialized Skill	Environmental Education
Specialized Skill	Environmental Issue
Specialized Skill	Environmental Resource Management
Specialized Skill	Environmental Management Systems
Specialized Skill	Environmental Mitigation
Specialized Skill	Environmental Monitoring
Specialized Skill	Environmental Planning
Specialized Skill	Environmental Reporting
Specialized Skill	Environmental Science
Specialized Skill	Environmental Studies
Specialized Skill	Environmental Tests
Specialized Skill	Environmental Toxicology
Specialized Skill	Pollution Prevention

Specialized Skill	Field Surveys
Specialized Skill	Forestry
Specialized Skill	Geochemistry
Specialized Skill	Geography
Specialized Skill	Geology
Specialized Skill	Geotechnical Engineering
Specialized Skill	Earth Science
Specialized Skill	Geotechnical Investigation
Specialized Skill	Greenhouse Gas
Specialized Skill	Green Building
Specialized Skill	Renewable Energy
Specialized Skill	Grid Connections
Specialized Skill	Groundwater
Specialized Skill	Hydrogeology
Specialized Skill	Hydrology
Specialized Skill	Turbines
Specialized Skill	Occupational Hygiene
Specialized Skill	Waste Management
Specialized Skill	ISO 14000 Series
Specialized Skill	Land Management
Specialized Skill	Land Use
Specialized Skill	Land Tenure
Specialized Skill	Liquefied Petroleum Gas
Specialized Skill	Materials Recovery Facility
Specialized Skill	Wastewater
Specialized Skill	OHSAS 18001 Standard
Specialized Skill	Passive Solar Building Design
Specialized Skill	Photovoltaic Systems
Specialized Skill	Planning Permission

Specialized Skill	Water Pumps
Specialized Skill	Waste Collection
Specialized Skill	Safety Culture
Specialized Skill	Sewage Treatments
Specialized Skill	Sediment
Specialized Skill	Soil Science
Specialized Skill	Solar Energy
Specialized Skill	Solar Systems
Specialized Skill	Surface Water
Specialized Skill	Sustainable Design
Specialized Skill	Sustainable Development
Specialized Skill	Toxicology
Specialized Skill	Water Resource Management
Specialized Skill	Water Quality
Specialized Skill	Water Services
Specialized Skill	Water Treatment
Specialized Skill	Wind Farming
Specialized Skill	Wind Turbines
Specialized Skill	Zoology
Specialized Skill	Hazardous Waste Operations and Emergency Response Standard (HAZWOPER)
Specialized Skill	Environment Health and Safety
Specialized Skill	Energy Policy
Specialized Skill	Transfer Station
Specialized Skill	Water Consumption
Specialized Skill	Wind Power