Regional Skills Assessment
South of Scotland
Summary Report 2019
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>4</td>
</tr>
<tr>
<td>The South of Scotland Economy</td>
<td>10</td>
</tr>
<tr>
<td>Employment in the South of Scotland</td>
<td>16</td>
</tr>
<tr>
<td>Total Labour Market Requirement in the South of Scotland</td>
<td>25</td>
</tr>
<tr>
<td>Supply of People in the South of Scotland</td>
<td>29</td>
</tr>
<tr>
<td>Skills Shortages, Gaps and Challenges in the South of Scotland</td>
<td>32</td>
</tr>
<tr>
<td>Conclusion</td>
<td>38</td>
</tr>
</tbody>
</table>
Regional Skills Assessments (RSAs)

First launched in 2014, the RSA’s purpose is to provide a robust evidence base to support partners in strategic skills investment planning. They have evolved over time based on an independent review carried out in 2015 and feedback from partners.

To ensure an inclusive approach to their development, dissemination and utilisation, RSAs are produced by Skills Development Scotland (SDS) in partnership with Highlands and Islands Enterprise, Scottish Enterprise, Scottish Government, the Scottish Funding Council (SFC), the Scottish Local Authorities Economic Development Group and the South of Scotland Economic Partnership.

RSAs also include forecast data that has been commissioned through Oxford Economics. A number of caveats need to be applied when using forecast data. The Technical Note provides full detail on this but broadly it should be noted that forecasts are based on what we know now and include past and present trends projected into the future. Their value is in identifying likely directions of travel rather than predicting exact figures. The more disaggregated they become, especially at smaller geographical units, the less reliable they are likely to be. Standard occupational classifications (SOC) and standard industrial classifications (SIC) are used to define occupations and industries. ONS has useful SIC and SOC hierarchy tools that can be used to understand the classifications in more detail.

In addition, we provide analysis by Key Sector. Key Sectors are central to our Skills Investment Planning approach. Each Key Sector has a tailored Skills Investment Plan (SIP) which gives a picture of the economic and labour market situation, trends in skills and qualification supply and employers’ perspectives on the big skills issues affecting sector growth. Regional SIPs have also been developed. SIPs and RSIPs are available on the SDS website.

This year’s RSA is in three parts:
1. This report outlining Demand for Skills, Supply of People; and Skills Mismatches;
2. An infographic detailing key data for the area; and
3. A new interactive RSA Data Matrix that was launched in August 2019 that provides more detailed data.

Finally, in the sections which follow, the numbers and figures in the body of the text are rounded for ease of reference and readability and therefore may differ slightly from:
• The Oxford Economics data in the RSA Data Matrix; and
• The accompanying charts in the report which are also based on the Oxford Economics data.

This RSA report is for the South of Scotland, which covers the Dumfries and Galloway and Scottish Borders local authorities.

1. https://www.skillsdevelopmentscotland.co.uk/what-we-do/skills-planning/regional-skills-assessments/
5. https://www.skillsdevelopmentscotland.co.uk/what-we-do/skills-planning/regional-skills-assessments/
Introduction
Introduction
We live in a world that is complex and is constantly evolving. Scotland’s businesses and people need the skills, knowledge and capabilities, not just to cope with this change but to thrive in it and influence it.

Scotland’s Economy
The latest ‘State of the Economy’ reported that Scotland’s economy continued its recent pattern of strong performance at the start of 2019 with the unemployment rate falling to record lows and strong growth in exports and output. Output growth increased in the first quarter to 0.5 per cent but this was driven partly due to temporary factors such as stockpiling and firms completing orders in anticipation of the original end March Brexit deadline. Short term outlooks for the economy will be dominated by Brexit uncertainty with the likelihood of subdued growth and the potential for more exposure to downturns in international demand and growth.

Labour productivity grew by 0.5 per cent in Q4 2018 and by 3.8 per cent in 2018 as a whole – its fastest pace of growth since 2010. Whilst positive, Scotland’s ranking among Organisation for Economic Co-operation and Development (OECD) countries is 16th of 37 countries, placing it in the second quartile. This ranking of 16th place has been unchanged since 2007. Scottish Government has the aspiration of improving Scotland’s productivity to match the performance of the top quartile of OECD countries.

Boosting productivity is vital for our long-term prosperity

Scotland’s People
Scotland’s population has grown and is projected to grow in future. National Records of Scotland (NRS) confirms that Scotland’s population in 2018 was 5,438,100 and is expected to grow to 5.58 million in 2026 and to 5.69 million by 2041. This estimate for growth is based on a continuation of EU migration at pre-Brexit levels which is not guaranteed.

Despite this past and projected growth, Scotland is facing an ageing demographic structure. Based on the population in 2016, just under one in five people (18 per cent) were aged 65 and over but by 2041, one in four people (25 per cent) are projected to be in this age group.

If we examine dependency ratios for Scotland’s population this shows a growing dependency ratio at Scotland level and indeed some areas – particularly some of Scotland’s rural areas – having much higher rates of dependency than the national average. At Scotland level, the dependency ratio will increase from 55 per cent in 2016 to almost 70 per cent in 2041. Put simply, for every 100 people of working age there will be 70 people dependent by 2041.

This suggests that the supply of labour might contract over the longer term if projections are realised. This points to a tighter labour market and greater competition for skilled labour in the future. Uncertainty regarding the implications of Brexit also remain, and any decisions taken on the free movement of people could exacerbate this further.

A tight labour market will result in more competition for skilled labour – Brexit could exacerbate this

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8 Scottish Government (February 2019) International Comparators of Productivity – Economy Indicator 2017
9 National Records of Scotland (April 2019) Mid-2018 population estimates Scotland
10 All population projections in this RSA are based on 2016. 2018 based projections for Scotland are available from the NRS website. We have used 2016 to maintain consistency with what is available at sub-Scotland level.
11 Dependency ratio is calculated by (a) the number of children aged 0-15 years, plus (b) The number of people of pension age and above – and comparing this total vis-à-vis the working age population
Although we are seeing record levels in relation to high employment and low unemployment and relative economic prosperity since the recession, not everyone is benefitting equally in this prosperity:

• The gender pay gap for women working full-time in Scotland was 5.7 per cent in 2018\(^\text{12}\).
• The unemployment rate was 4.2 per cent for working age people in Scotland, but this increases to 9.9 per cent for 16-24 year olds and to 10.8 per cent for males aged 16-24\(^\text{13}\).
• The employment rate for people aged 16-64 was 74.5 per cent, but 57.4 per cent for people from an ethnic minority and 45.9 per cent for disabled people\(^\text{14}\).

There are disparities in regional performance across Scotland. Based on an assessment of employment growth, productivity, earnings and unemployment, recovery since the recession has been stronger in Scotland’s urban areas and weaker in rural areas.

Since the recession we have seen a rise in ‘nonstandard’ jobs (such as part time and temporary employment), low wage growth and continued ‘in work’ poverty:

• Self-employment has risen by 22 per cent, compared to one per cent for full-time employment since the recession\(^\text{15}\).
• Median weekly earnings (gross) grew by 19 per cent in the five years leading up to the financial crash in 2008. A slower rate of 11 per cent has occurred over the past five years\(^\text{16}\).
• More than half a million (550,000) people in Scotland were living in relative poverty (after housing costs) in a household where at least one adult was in paid employment\(^\text{17}\).

Both people and place are considerations when working towards a more inclusive labour market.

Our growth needs to be inclusive

Scotland’s Response to the Climate Emergency

In April 2019, Scotland’s First Minister declared a climate change emergency with targets being set to reduce greenhouse gas emissions to net-zero by 2045. In May 2019, Scotland’s Climate Change Secretary set out Scotland’s response to the climate change emergency including action such as:

• A change in approach to airport departure tax;
• Funding to strengthen the rail freight industry and reduce the amount of freight that travels by road; and
• A new farmer-led initiative to drive low-carbon, environmentally sustainable farming practices.

The Cabinet Secretary for Environment, Climate Change and Land Reform confirmed that Scottish Government will be “placing climate change at the heart of everything we do”\(^\text{18}\) and this is at the core of the recently published Programme for Government.


\(^{13}\) Annual Population Survey (April 2018-March 2019)

\(^{14}\) Annual Population Survey (April 2018-March 2019), EA core disabled has been used for the employment rate of disabled people.


All parts of Government will be expected to play a role in achieving these ambitious targets and SDS is to develop a Climate Emergency Skills Action Plan, as outlined in the Programme for Government. The development of appropriate skills will have a significant part to play in enabling this transition to a low carbon economy.

**Our growth needs to be sustainable**

**Scotland’s Resilience**

The world of work is constantly changing and the rate of change is rapid. Technological and societal disruptions are occurring at an increasing pace. Whilst we cannot predict the future, we can prepare for a future that is increasingly unpredictable. SDS has developed a Skills 4.0 model that focuses on developing ‘meta-skills’ to equip people with skills in resilience to thrive in a complex and ever-changing world (see **Figure 1**).

**We need skills for resilience to thrive in a complex and ever-changing world**

[Figure 1: Skills 4.0 model](https://www.skillsdevelopmentscotland.co.uk/what-we-do/skills-planning/skills4-0/)
**Issues and Challenges**
A fit for purpose, skilled workforce will be essential to address the challenges facing Scotland (see Figure 2).

The development of skills that are fit for Scotland now and in the future is essential to achieving a high performing, inclusive and sustainable labour market. To meet these challenges, a step change in how we align skills provision to meet labour market demand is planned.

**Figure 2: Drivers for change**

<table>
<thead>
<tr>
<th>Scotland’s Economy</th>
<th>Scotland’s People</th>
<th>Scotland’s Climate Change Emergency</th>
<th>Scotland’s Resilience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boosting productivity is vital for our long-term prosperity</td>
<td>A tight labour market</td>
<td>Our growth needs to be sustainable</td>
<td>We need skills for resilience to thrive in a complex and ever-changing world</td>
</tr>
</tbody>
</table>

**Scotland’s Skills Issues**
- We need innovative workplaces and skills to boost productivity with employers and employees as active participants in the skills system
- We need to maximise Scotland’s indigenous talent and attract new talent to fill jobs in future. We need to enable all of Scotland’s people to share in the nation’s prosperity
- We need to develop fit for purpose skills to enable Scotland to achieve its ambitious target for greenhouse gas emissions
- We need to develop sector specific skills for the economy and skills for resilience – ‘meta skills’

**To support this we will need:**
- Greater flexibility and responsiveness in skills provision to better align with the needs of employers and the Scottish economy
- Investment in upskilling and reskilling throughout individual’s careers to respond to a rapidly changing environment
- More personalised, relevant and flexible work-based pathways

Source: Skills Development Scotland
Scotland’s Skills Alignment Ambition  
Skills Alignment (one of the workstreams in the Scottish Government’s Future Skills Action Plan) is focused on improving the skills system in Scotland.

Its purpose is “to ensure that Scotland’s people and businesses are equipped with the right skills to succeed in the economy, not just now but in the future.” To achieve this end, a new joint planning process is in development to align the relevant functions of SDS and the SFC (see Figure 3).

To lead this process a Director of Skills Alignment has recently been appointed and three pilot projects have been established to test approaches in:
- Regions – Glasgow College region; and
- Sectors – Early Years and Child Care and Financial and Professional Services.

Having a robust evidence base is crucial if we are to ensure a fit for purpose skills system. SDS and partners are working to develop evidence on the key strategic issues and challenges for Scotland. This and the evidence contained in the RSAs will help inform Step 1 of this model – the Demand Assessment.

Figure 3:  
Five-step Skills Alignment model

1. Demand Assessment
2. Provision Planning
3. Outcome Agreements/Commissioning
4. Performance Management/Monitoring
5. Review and Evaluation

Source: Skills Development Scotland
The South of Scotland Economy
The South of Scotland Economy

Current Economic Performance

Gross Value Added (GVA) is a measure of the value of goods and services produced in an area and is an indicator of the economy’s health.

GVA in the South of Scotland in 2019 was £4.7bn, three per cent of Scotland’s output (£138.8bn).

This share of GVA ranks South of Scotland as the fourth smallest contributing RSA region to the Scottish economy.

In 2019, the highest value sectors in the South of Scotland were:
- Manufacturing, £0.7bn;
- Real Estate Activities, £0.7bn;
- Human Health and Social Work, £0.5bn;
- Wholesale and Retail Trade, £0.4bn; and
- Agriculture, Forestry and Fishing, £0.4bn.

Past Economic Performance

From 2009 to 2019 the South of Scotland economy, measured by GVA, grew by 1.7 per cent on average each year. This was a faster rate of growth than Scotland, which over the same period experienced average annual growth of 1.4 per cent.

Future Economic Performance

GVA in the South of Scotland is forecast to grow by 1.4 per cent on average each year from 2019 to 2029. This rate of growth would be below that of Scotland (1.7 per cent) and the UK (2.0 per cent), and it would be slower than the average annual growth rate that South of Scotland experienced from 2009 to 2019.

Economic growth across Scotland is expected to be relatively modest in the short term, as businesses show their reluctance to invest while operating under Brexit-related uncertainties. Slower GVA growth in Scotland is largely explained by its industrial mix, and specifically, the most dynamic sectors such as high value business services and digital sectors being underrepresented in Scotland compared to the UK.

GVA growth in the South of Scotland is expected to be driven by the Real Estate sector from 2019 to 2029, the GVA produced by the sector is expected to increase by £139.0m. The GVA output from the Real Estate sector is however inflated by owner-occupier imputed rent. Imputed rent captures, economically, the value of the service homeowners are providing to themselves by owning and living in their own home.

In addition to Real Estate, sectors forecast to have the greatest increases in GVA output are:
- Manufacturing, £69.1m;
- Wholesale and Retail Trade, £62.4m;
- Human Health and Social Work, £61.5m; and
- Professional, Scientific and Technical Activities, £55.6m.

When compared to GVA output in 2019, it can be seen that most of the sectors that had the greatest GVA output in 2019 are expected to have the greatest actual growth from 2019 to 2029.

Percentage change provides an alternative viewpoint for considering the future GVA contribution from sectors. This approach captures sectors that might make smaller GVA contributions but are forecast to grow at a faster rate. The Professional, Scientific and Technical Activities sector is expected to have a greatest rate of GVA growth from 2019, averaging 2.5 per cent each year up to 2029. Information and Communication and Administrative and Support Service Activities are also expected to have a fast rate of growth from 2019 to 2029. These were smaller sectors in 2019 (in economic terms) but are forecast to have average annual growth rates of 2.3 per cent each.
Fiscal policy is likely to remain tight over the forecast period and, as a result, will weigh on the economic growth prospects for the Public Sector. Public Administration and Defence Activities is expected to contract each year from 2019 to 2029 in the South of Scotland. The forecast average annual rate of contraction is 1.0 per cent. While, the Education and Human Health and Social Work sectors are forecast to have GVA growth, growing by 0.1 per cent and 1.1 per cent per year over the forecast period respectively (see Figure 4). This will be as a result of increased demand for these services due to changes in the region’s population structure.

**Figure 4**

Forecast average annual GVA change by Industry (%) (2019 - 2029), South of Scotland

Source: Oxford Economics
The key sectors contributing most to GVA growth in the South of Scotland from 2019 to 2029 are expected to be Health and Social Care, Financial and Business Services, Energy, Construction and Food and Drink (see Figure 5). These sectors are expected to have a higher overall contribution to growth as they have a relatively large presence in the regional economy already.

![Figure 5: Forecast absolute GVA growth by Key Sector (£m) (2019 - 2029), South of Scotland](image)

Source: Oxford Economics
Looking instead at percentage change for the key sectors for 2019 to 2029, Child-Day Care Activities is forecast to be the fastest growing. It is forecast to grow 3.5 per cent each year on average. This strong outlook reflects the Scottish Government’s childcare policy to double the number of hours of funded childcare by 2020. However, its small size in absolute terms means that its impact on overall growth is limited.

Relatively fast growth is also forecast in the Financial and Business Services, Creative Industries, Digital and Life Science sectors. However, like Child-Day Care Activities the overall contribution of Creative Industries, Digital and Life Sciences will be lower due to due to their smaller size relative to the much larger, dominant key sectors in the region currently (see Figure 6).

Figure 6
Forecast average annual GVA growth by Key Sector (%) (2019 - 2029), South of Scotland

- Child-day care activities: 3.5%
- Financial and business services: 2.3%
- Creative industries: 2.0%
- Digital: 1.8%
- Life sciences: 1.7%
- Energy: 1.5%
- Tourism: 1.3%
- Health and social care: 1.1%
- Engineering: 0.8%
- Construction: 0.8%
- Chemical sciences: 0.8%
- Food and drink: 0.7%

Source: Oxford Economics
Productivity

Productivity is the measure of goods and services produced per unit of labour input. Productivity has been calculated by dividing total regional GVA by total regional employment (measured by jobs).

The productivity of a region is influenced by the industrial mix that is present. Within the same industries productivity may differ from business to business.

Office for National Statistics (ONS) analysis tells us that:

GVA per worker [productivity] is generally lower in the accommodation and food service activities, administrative and support services activities, and wholesale and retail trade industries than in most other industries. The production sector, by contrast, has relatively high productivity.

Among the service sectors, the professional, scientific and technical activities, financial and insurance activities, and the information and communication sector also tend to have relatively high-productivity. Therefore, a relatively high aggregate productivity in a region may sometimes be a reflection of a relatively large share of more productive industries in that location.

In 2019, productivity in the South of Scotland was £38,700. This was lower than the Scottish average of £50,400 (see Figure 7).

From 2009 to 2019, productivity in the South of Scotland grew by 1.6 per cent on average each year. This rate of growth was faster than what occurred across Scotland. Average annual productivity growth across Scotland was 1.3 per cent over the period. The equivalent for the UK was 0.8 per cent.

Productivity in the South of Scotland is forecast to grow at an average of 1.4 per cent per year from 2019 to 2029. This is in line with the growth rate expected for Scotland as a whole (1.4 per cent), and below that of the UK (1.5 per cent).

![Figure 7: Productivity (2019)](source: Oxford Economics)

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20 ONS (2019) Understanding spatial labour productivity in the UK
Employment in the South of Scotland
Employment in the South of Scotland

Current Employment

Total employment in the South of Scotland (measured by jobs) was estimated to be 120,500 in 2019, four per cent of Scottish employment.

The employment rate for the working age population (aged 16-64) in the South of Scotland was 74.0 per cent, which was below the rate for Scotland (74.5 per cent). Compared to Scotland, the region had below average employment rates for:

- Young people (aged 16-24), 58.2 per cent compared to 58.3 per cent;
- Males, 77.3 per cent compared to 78.1 per cent; and
- Females, 70.8 per cent compared to 71.1 per cent.

The employment rate for disabled people was higher in the South of Scotland compared to Scotland, 48.0 per cent compared to 45.9 per cent. The employment rate was also higher for ethnic minorities in the South of Scotland compared to Scotland, 65.0 per cent compared to 57.4 per cent.

The region’s overall employment rate means that approximately one in four of the region’s working age population were unemployed (3.0 per cent) or economically inactive (23.7 per cent). Inactivity includes people who are studying, retired or looking after their family or home.

Across Scotland and within the region full-time jobs were most numerous, 82,400 jobs (68 per cent) were full-time in the South of Scotland in 2019. Full-time jobs accounted for the same percentage share across Scotland. Within the region two thirds of full-time jobs (54,300; 66 per cent) were held by males, and the remaining one third (28,100; 34 per cent) were held by females.

Part-time jobs accounted for 32 per cent of employment in the region and across Scotland. Overall there were 38,100 part-time jobs in the South of Scotland, females accounted for almost three quarters (27,100; 71 per cent). Whilst males accounted for 29 per cent, 11,100 jobs (see Figure 8).

Figure 8
Employment by gender and full-time/part-time (2019), South of Scotland

Source: Oxford Economics

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21 Equalities Act (EA) Core Disabled
22 Employment rate figures from Annual Population Survey, April 2018 – March 2019
23 Employment rate, unemployment rate and economic inactivity rate may not sum to 100 due to rounding.
In the South of Scotland, the largest employing sectors, and their regional share of employment, in 2019 were (see Figure 9):
• Human Health and Social Work, 16 per cent;
• Wholesale and Retail Trade, 16 per cent;
• Manufacturing, ten per cent;
• Agriculture, Forestry and Fishing, eight per cent; and
• Education, eight per cent.

Real Estate Activities, the sector that made the second greatest GVA contribution in 2019 (irrespective of the imputed rent consideration) accounted for a small share of regional employment. The sector accounted for 2,000 jobs, a two per cent share.

**Figure 9**
Employment by Industry and share of total employment (2019), South of Scotland

Source: Oxford Economics
Large sectors are an important source of jobs, however regions also have sectoral strengths that make them unique. It means that smaller sectors can be more important than their size suggests as they are more concentrated in the region compared to the national average. In the South of Scotland, Agriculture, Forestry and Fishing was the greatest specialism with the percentage of employment in this sector more than four times greater than the Scottish average. Other sectors that had above average concentrations in the South of Scotland were Manufacturing (1.5 times more concentrated), Real Estates (1.2 times more concentrated) and Wholesale and Retail Trade (1.2 times more concentrated).

Of the key sectors, Health and Social Care, as might be expected given the sectoral insight above, was the largest in the South of Scotland in 2019. The sector accounted for 19,400 jobs. Food and Drink was the second largest with a total of 13,000 jobs (see Figure 10).

**Figure 10**
Employment by Key Sector and share of total employment (2019), South of Scotland

- Health and social care: 19,400, 16%
- Food and drink: 13,000, 11%
- Construction: 10,400, 9%
- Tourism: 10,400, 9%
- Financial and business services: 6,200, 5%
- Engineering: 4,100, 3%
- Creative industries: 2,600, 2%
- Digital: 1,500, 1%
- Energy: 1,500, 1%
- Child-day care activities: 800, 1%
- Life sciences: 400, 0%
- Chemical sciences: 300, 0%

Source: Oxford Economics
Sectors tell us about the industries that people work in, and occupations provide insight on the type of jobs people do. In 2019, more than one-third of all occupations (35 per cent) in the South of Scotland were ‘higher level’, 35 per cent were ‘mid-level’ and 30 per cent were ‘lower level’. Compared to Scotland, the occupational structure of South of Scotland had a greater percentage of the workforce in ‘mid-level’ occupations and the same percentage of workforce in ‘lower level’ occupations. Scotland had a greater percentage in ‘higher level’ (45 per cent) but fewer in ‘mid-level’ (25 per cent) occupations.

A detailed look at the occupational structure shows that the largest occupations in the region in 2019 were (see Figure 11):
- Caring Personal Service Occupations, nine per cent;
- Clerical and Services Elementary Occupations, also nine per cent;
- Sales Occupations, seven per cent;
- Administrative Occupations, seven per cent; and
- Health Professionals, six per cent.

### Figure 11

**Employment by occupation and share of total employment (2019), South of Scotland**
Past Employment
Employment in the South of Scotland increased by 0.8 per cent from 2009 to 2019. This was largely caused by growth in prominent, large employing sectors including:

- Administrative and Support Service Activities, 1,800 jobs;
- Professional, Scientific and Technological Activities, 1,500 jobs; and
- Arts, Entertainment and Recreation, 600 jobs.

Whilst these sectors experienced growth, other sectors contracted. The greatest absolute decrease occurred in the Human, Health and Social Work sector in the South of Scotland. Compared to 2009, there were 1,900 fewer jobs in the sector in 2019. Decline also occurred in Agriculture, Forestry and Fishing (-1,100 jobs) and Manufacturing (-400 jobs).

Beyond the sectors, other shifts in the region’s labour market have occurred. Both full-time and part-time employment increased by 800 jobs and 100 jobs from 2009 to 2019 respectively. Male employment also increased by 4,200 jobs whilst female employment decreased by 3,300 jobs.

Employment Forecast
The employment growth that has occurred in the South of Scotland in the past is not forecast to continue. From 2019 to 2029, employment is forecast to stay the same. Whilst, a three per cent increase in employment, or 0.3 per cent growth annually, over the forecast period is expected for Scotland. The growth rate for the UK is greater still, a five per cent increase, or 0.5 per cent annual change, is forecast.

The employment forecast for the local authorities within the South of Scotland shows a variable outlook. Scottish Borders is forecast to have a net increase in the number of jobs, with an annual average increase of 0.2 per cent. While, employment decline is forecast in Dumfries and Galloway (-0.1 per cent per year).

Over the period to 2029, full-time employment is expected to increase in the South of Scotland with 100 more full-time jobs in 2029 compared to 2019. This is expected to be driven by growth in male full-time employment (200 jobs) whilst female full-time employment will stay the same. Part-time employment is expected to decline by 100 jobs. Female part-time employment is forecast to decline by 700 jobs, but some of this decline is expected to be offset by growth of 500 jobs in male part-time employment (see Figure 12).

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24 Figures are rounded to the nearest 100 and as a result totals may not equal the sum of the constituent parts.
Although employment is not forecast to change in the South of Scotland from 2019 to 2029, performance will vary across sectors. The greatest growth in jobs is forecast in Professional, Scientific and Technical Activities, with 700 more jobs expected in the sector by 2029 compared to 2019. Other sectors forecast to have growth in excess of 500 over the forecast period are Construction (600 jobs) and Administration and Support Services (600 jobs).

Job losses in the South of Scotland are also forecast in some sectors, notably in production sectors and the public sector. Manufacturing is the sector forecast to have the greatest number of job losses from 2019 to 2029. During the forecast period a decline of 1,800 jobs is anticipated. This reflects the general trend of more capital intensive and higher value-added activity in the sector, which requires less labour-intensive methods (see Figure 13).

Figure 13
Forecast employment change by Industry (2019 - 2029), South of Scotland

Source: Oxford Economics
Employment is also forecast to fall overall in the South of Scotland’s public services sector with Public Administration and Defence forecast to contract by 600 jobs over the forecast period due to continued pressure on public finances. The Education sector is also expected to contract but by a lesser amount, -100 jobs. Human Health and Social Care is the only part of the public sector expected to grow, the sector is forecast to have 100 more jobs in 2029 compared to 2019.

The growth and contraction of employment by sector means that private services are expected to account for a larger share of jobs in the South of Scotland over the forecast period. The percentage is forecast to rise from 46 per cent in 2019 to 47 per cent in 2029. In 2019 the Construction sector accounted for seven per cent of employment and this share is expected to be maintained in 2029. The share that the public services, primary industries and Manufacturing sectors each account for is expected to decline by one percentage point over the forecast period to 27 per cent, nine per cent and nine per cent in 2029 respectively.

Looking ahead, the outlook for the key sectors largely echoes the broad sector trends summarised above – with Financial and Business Services and Construction forecast to have the greatest growth (500 jobs each). A number of other key sectors will experience growth over the forecast period, including:

- Tourism, 400 jobs;
- Child-Day Care Activities, 200 jobs; and
- Health and Social Care, 100 jobs.

Food and Drink is the key sector forecast to have the greatest employment decline in the South of Scotland, with 500 fewer jobs in 2029 compared to 2019 expected (see Figure 14).

### Figure 14
**Forecast employment change by Key Sector (2019 - 2029), South of Scotland**

<table>
<thead>
<tr>
<th>Sector</th>
<th>Change (Jobs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial and business</td>
<td>500</td>
</tr>
<tr>
<td>Construction</td>
<td>500</td>
</tr>
<tr>
<td>Tourism</td>
<td>400</td>
</tr>
<tr>
<td>Child-day care activities</td>
<td>200</td>
</tr>
<tr>
<td>Health and social care</td>
<td>100</td>
</tr>
<tr>
<td>Creative industries</td>
<td>-100</td>
</tr>
<tr>
<td>Life sciences</td>
<td>-100</td>
</tr>
<tr>
<td>Chemical sciences</td>
<td>-100</td>
</tr>
<tr>
<td>Digital</td>
<td>-100</td>
</tr>
<tr>
<td>Energy</td>
<td>-100</td>
</tr>
<tr>
<td>Engineering</td>
<td>-100</td>
</tr>
<tr>
<td>Food and drink</td>
<td>-500</td>
</tr>
</tbody>
</table>

Source: Oxford Economics
By occupation, Skilled Construction and Building Trades Occupations are forecast to experience the greatest increase in employment in the South of Scotland from 2019 to 2029 (of 300 workers). Growth in these occupations is closely related to the forecast rise in employment in the Construction sector. Other occupations anticipated to have an increase that is relatively large for the region are:

- Culture Media and Sports Occupations, 200 workers;
- Business and Public Service Professionals, 200 workers; and
- Caring Personal Service Occupations, 200 workers.

Growth in these occupations is closely related to the forecast rise in employment by sector.

Occupations likely to contract over the next decade tend to be those most closely associated with Manufacturing and Public Administration and Defence, reflecting the declining numbers of jobs in each of these sectors. Examples include Process, Plant and Machine Operatives (-400 jobs), Skilled Metal and Electrical Trades (-300 people) and Administrative Occupations (-300 people) (see Figure 15).

![Figure 15: Forecast employment change by occupation (2019 - 2029), South of Scotland](source: Oxford Economics)
Total Labour Market Requirement in the South of Scotland
Total Labour Market Requirement in the South of Scotland

Total Requirement

In the previous sections we presented what has happened, is happening and what is forecast to happen in the South of Scotland economy and labour market. When looking at the labour market, we have until this section focused on how many jobs there will be in any given year and how that compares to another year. However, the labour market is more complex than this.

In this section, we provide greater insight on job openings. To do this we consider the jobs that will be created or lost due to expansion or contraction in the labour market and the jobs that will arise due to people leaving the labour market. People leave the labour market and jobs become vacant for a variety of reasons, retirement being the most common cause. This is called the replacement requirement.

In the South of Scotland, 39,800 job openings are forecast from 2019 to 2029. These will arise almost completely due to the replacement requirement, which will create 39,700 openings. As shown in the previous chapter the number of jobs in the South of Scotland is forecast to stay the same from 2019 to 2029 due to no jobs growth.

These opportunities are expected to be concentrated in a small number of sectors, with four sectors in the South of Scotland forecast to account for almost two thirds (60 per cent) of the requirement. These are (see Figure 16):

- Wholesale and Retail Trade, 9,100 jobs;
- Agriculture, Forestry and Fishing, 6,900 jobs;
- Accommodation and Food Services, 4,100 jobs;

These sectors were the largest in the region in 2019 expect for Agriculture, Forestry and Fishing. This sector was however a clear specialism within the region accounting for more than four times the number of jobs compared to Scottish average.

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27 Job openings can be full or part time and the job openings forecast could be higher or lower in reality. Please note that throughout this section totals may not equal the sum of constituent parts due to rounding.
28 Figures are rounded to the nearest 100 and as a result totals may not equal the sum of the constituent parts.
Figure 16
Forecast net requirement by Industry (2019 - 2029), South of Scotland

- Wholesale and retail trade
- Agriculture, forestry and fishing
- Accommodation and food service activities
- Human health and social work
- Administrative and support service activities
- Education
- Construction
- Transportation and storage
- Arts, entertainment and recreation
- Public administration and defence
- Water supply, sewerage and waste management
- Professional, scientific and technical activities
- Electricity, gas and steam
- Other service activities
- Real estate activities
- Information and communication
- Mining and quarrying
- Financial and insurance activities
- Manufacturing

Source: Oxford Economics
To fill these jobs, and others, there is a forecast requirement for 36,700 people in the region from 2019 to 2029. The difference between the people and job requirements is due to some people having more than one job, for example someone who has two part-time jobs. Although the number of jobs is forecast to stay the same in the South of Scotland over the forecast period, the number of people working is expected to decline by 200. The replacement requirement of 36,900 people however creates a need for labour.

By occupation, the greatest number of people are forecast to be required in (see Figure 17):

- Clerical and Service Elementary Occupations, 4,800 people;
- Sales Occupations, 4,600 people;
- Trades, Plant and Storage Elementary Occupations, 4,300 people;
- Teaching and Research Professions, 3,700 people; and
- Skilled Agricultural Trades, 2,600 people.

Figure 17
Forecast net requirement by occupation (2019 - 2029), South of Scotland

Source: Oxford Economics
Supply of People in the South of Scotland
Supply of People in the South of Scotland

Projection of Total Population

NRS produce population estimates for Scotland biennially. Their 2016 based forecasts cover the period up to 2041, so in this chapter we present a longer forecast period than the previous chapters.

In 2016, the population of South of Scotland was 264,100, five per cent of Scotland’s population.

By age, the largest group in the South of Scotland were people of working age (16-64 years). There were 157,300 people in this age group, 60 per cent of the region’s population. Whilst it was the largest group, people of working age across Scotland accounted for a larger share of the population overall (65 per cent).

The number of people of working age compared to those of non-working age has implications for the region’s dependency ratio. The dependency ratio is important when considering the demand for public services, for example schools and healthcare services, and the funds available to provide these services, the income from taxes and National Insurance. In 2016, the dependency ratio in the South of Scotland was 68 per cent. This means that for every 100 people of working age, there were 68 people of non-working age. Across Scotland it was 55 per cent.

Of those who were in age groups thought to be dependent, the oldest age group was the largest. There were 64,200 people aged 65 or older who accounted for 24 per cent of the region’s population. Across Scotland those aged 65 or older accounted for 18 per cent of the population, which suggests an overall older population South of Scotland. The region accounts for six per cent of Scotland’s population aged 65 or over compared to five per cent for all ages.

Children and young people (0-15 years) accounted for the remaining 16 per cent, there were 42,600 individuals in this age group (see Figure 18).

Figure 18
Population by age (2016), South of Scotland and Scotland

Source: National Records of Scotland
Brexit has placed an increased focus on the nationality of people living and working in the UK. It has the potential to discourage EU migrants from coming to the UK to live and work, either through choice or eligibility. Migration is important to Scotland as without it the population would be declining. In the South of Scotland, there were 9,000 people who were born in the EU and a further 6,000 from the rest of the world in 2018. The EU born population accounted for three per cent of the region’s population, and two per cent of the region’s population were born elsewhere in the world. Compared to Scotland a smaller percentage of the region’s population were born in the EU or elsewhere in the world. Across Scotland four per cent of the population were born in the EU, and four per cent were born in other countries outside of the EU.

From 2016 to 2041, the population of South of Scotland is projected to decline by approximately 4,900 people. Equating to a two per cent decrease, this contrasts with the projected growth rate for Scotland of five per cent over the same period.

The age structure of the region’s population is projected to change over the coming decades, with the percentage of the population who are of working age expected to fall from 60 per cent in 2016 to 51 per cent in 2041; a projected decrease of 24,100 people.

The largest increases are expected in the 65 or older age groups, with a 73 per cent increase projected for those aged 75+ (an additional 20,700 people) and four per cent among those aged 65-74 (an additional 1,400 people). There is a forecast decline in all other age groups over the period, with the most substantial decline of 16 per cent projected for those aged 30-64, a projected fall of 19,600 people.

These shifts suggest that the region could have a smaller and generally older population by 2041. This has implications for the region’s dependency ratio. Brexit may also affect the population structure and exacerbate any challenges. By 2041, the region’s dependency ratio is expected to increase to 95 per cent (see Figure 19). Ranging across the region from 94 per cent in Dumfries and Galloway to 95 per cent in the Scottish Borders. Across Scotland the dependency ratio is expected to rise to 70 per cent.

**Figure 19**

Dependency ratio (2016 and 2041)

Source: National Records of Scotland
Skills Shortages, Gaps and Challenges in the South of Scotland
Skills Shortages, Gaps and Challenges in the South of Scotland

The Employer Skills Survey (ESS) gathered information on the skills challenges that employers encountered when recruiting, and any challenges that they had within their existing workforces. It is the primary source for this insight as it has taken a consistent approach across sectors and regions. The survey covered:

- Recruitment and skill-shortage vacancies;
- Skills gaps in the existing workforce;
- Skills under-utilisation;
- Upskilling - the need for staff to acquire new skills or knowledge;
- Training and workforce development; and
- High Performance Working practices.

The insight presented here is from the 2017 ESS which covered Scotland, England, Wales and Northern Ireland. The next ESS will be published in 2020 and unlike previous years, Scotland’s results will be published by the Scottish Government. Future ESS results for England, Wales and Northern Ireland will still be available and will be published by the UK Government.

Skills Shortages

Skills shortages are challenges that arise when employers are recruiting but are unable to find applicants with the required skills. When a vacancy cannot be filled due to a shortage of skills it is a skill-shortage vacancy (SSV). SSVs impact on the workplace and workforce in a number of ways, including:

- Increasing the workload for other staff;
- Creating difficulties when trying to meet customer service objectives; and
- Increasing operating costs.

In 2018, skills shortages were estimated to have cost Scottish employers £361.3 million, roughly £17,000 per organisation.

To understand the scale of the challenge that they present we can consider their incidence (how many employers are experiencing the challenge) and their density (how many vacancies are affected).

In 2017, the number of employers reporting at least one SSV in the South of Scotland was four per cent, compared to six per cent for Scotland. This suggests a challenge that is less prevalent in the region’s labour market compared to Scotland’s. The incidence of SSVs in the region and across Scotland has remained the same (four and six per cent, respectively) from 2015 to 2017.

Density, which indicates how many vacancies were SSVs, was higher in the South of Scotland than Scotland in 2017 and 2015. In 2017, density in the region was 30 per cent, down from 44 per cent in 2015. Across Scotland, density was 24 per cent in 2015 and 2017. This suggests that employers in the region were facing difficulties across a number of roles, and although fewer employers in the region experienced SSVs (incidence) those that did had a greater number of roles affected compared to the Scottish average (see Figure 20).
Across Scotland, to overcome SSVs, the most common responses employers took were to:
• Increase their expenditure on advertising and recruitment;
• Use new recruitment methods; and
• Redefine existing jobs.

Skills are not the only reason employers can find it difficult to fill vacancies. Other factors like hours, location and the availability of cost-effective transport, particularly so in a rural region like South of Scotland, can make it hard to fill vacancies. In the South of Scotland, 62 per cent of employers tried to recruit non-UK nationals to overcome hard to fill vacancies, compared to 41 per cent across Scotland. Across Scotland, of the employers who sought to recruit non-UK nationals, 89 per cent tried to recruit EU nationals as a response to recruitment challenges, equivalent data for South of Scotland is not available. Any changes to migration policy as a result of Brexit will affect all regions in Scotland.

Most employers took action to overcome SSVs, however 11 per cent of Scottish employers in 2017 took no action.

Figure 20
Skills Shortage Vacancies (2015 and 2017), South of Scotland

Source: Employer Skills Survey
Skills Gaps
Skills gaps arise when existing employees are not fully proficient as they do not have all the skills necessary for their role—these can be people, personal, practical and/or technical skills. Similar to skills shortages, we consider the incidence (how many employers have at least one person not fully proficient) and density (how many employees are not fully proficient). Skills gaps have similar impacts to SSVs and can slow down innovation in the workplace. Across Scotland, the most common causes of skills gaps were:
- Employees being new to their role, or training being incomplete;
- A lack of staff motivation; and
- An inability to recruit staff with the required skills, creating a need to upskill employees/recruits.

In 2017, the number of employers who reported a skills gap in at least one employee was 13 per cent in the South of Scotland, compared to 16 per cent for Scotland. Of the 13 regions, South of Scotland had one of the lowest incidences of skills gaps. Since 2015, the incidence of skills gaps in the region has increased. In 2015, 12 per cent of employers experienced skills gaps, which at the time was a smaller percentage than Scotland (13 per cent).

Overall, 5.0 per cent of the workforce in the South of Scotland had a skills gap in 2017, which was the same across Scotland. This was an increase from 4.0 per cent and 4.9 per cent in 2015 for the region and Scotland respectively. This, alongside the insight on incidence, suggests that skills gaps were not as far reaching in the South of Scotland and the scale of skills gaps in the region’s workforce was similar to Scotland (see Figure 21).

Across Scotland employers responded to skills gaps by:
- Increasing their expenditure on training, expanding trainee programmes and/or increasing training activity;
- Implementing more staff supervision; and
- Implementing a mentoring or buddy scheme.

Figure 21
Skills Gaps (2015 and 2017), South of Scotland

<table>
<thead>
<tr>
<th>Percentage of employers with a Skills Gap</th>
<th>Percentage of the workforce with a Skills Gap</th>
</tr>
</thead>
<tbody>
<tr>
<td>12%</td>
<td>4.0%</td>
</tr>
<tr>
<td>13%</td>
<td>5.0%</td>
</tr>
</tbody>
</table>

Source: Employer Skills Survey
Most employers in the South of Scotland acted to overcome skills gaps, and ten per cent sought to recruit non-UK nationals as a response, compared to 15 per cent across Scotland. Across Scotland, most employers (93 per cent) who sought to recruit non-UK nationals considered EU nationals, equivalent data for South of Scotland is not available.

Most employers took action to overcome SSVs, however 15 per cent of Scottish employers took no action in 2017.

**Skills Under-Utilisation**

Employees are under-utilised if they have skills and qualifications more advanced than what is needed for their role. Addressing skills under-utilisation is important. In 2012 the economic cost to the UK of skills under-utilisation was estimated to be between £12-25bn. If skills-utilisation was on a par with the levels observed in Germany or France, UK GDP would be £5-9bn higher\(^{30}\). There are implications for individuals too, having their skills under-utilised can impact on their income, health and wellbeing\(^{31}\).

Similar to SSVs and skills gaps we can understand the incidence (how many employers have under-utilised employees) and density of the challenge (how many employees are under-utilised).

The number of employers reporting skills under-utilisation in their workforce was higher in the South of Scotland in 2017 compared to Scotland, 40 per cent and 35 per cent respectively. This suggests that more than one third of employers in the region had skills and talent going unused. The percentage of employers reporting skills mismatch has risen and skills under-utilisation increased in the region and across Scotland from 2015 to 2017, from 28 per cent and 32 per cent respectively.

The proportion of staff under-utilised has increased in the region, from 6.1 per cent in 2015 to 11.8 per cent in 2017. This suggests that more employers in the region are experiencing skills under-utilisation and the number of their employees under-utilised has increased. Across Scotland, the percentage of staff under-utilised increased from 7.9 per cent to 9.2 per cent which suggests a skills challenge that is growing in the region and across Scotland (see Figure 22).

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**Figure 22**

**Skills Under-Utilisation (2015 and 2017), South of Scotland**

![Percentage of employers reporting Skills Under-Utilisation](image)

![Percentage of the workforce Under-Utilised](image)

Source: Employer Skills Survey

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Upskilling
Skills are gained throughout life, and a need to upskill can arise due to:
- New legislative or regulatory requirements;
- The introduction of new technologies, equipment or working practices;
- Increased competitive pressure;
- The development of new products and services; and more recently
- The UK’s decision to leave the EU.

A need to upskill employees in the next 12 months was anticipated by 56 per cent of employers in the South of Scotland (as of 2017). This was lower than the percentage of employers across Scotland who anticipated a need to upskill (69 per cent). Within the region, operational skills were the most commonly mentioned development area. More than two thirds of the employers who identified development needs mentioned operational skills (70 per cent). The need to upskill operational skills was higher in the region compared to Scotland (57 per cent). Fewer employers in the region expected a need to upskill the complex analytical and digital skills of their employees (33 per cent and 41 percent respectively). The need to upskill complex analytical and digital skills was lower in the region than across Scotland (44 per cent and 49 per cent respectively) (see Figure 23). The evidence suggests that, compared to Scotland, fewer employers in the South of Scotland expect to upskill their workforce in the next twelve months and the upskilling requirement was greatest for operational skills.

Figure 23
Employers anticipating a need to upskill by type of skill (2017), South of Scotland and Scotland

- Complex analytical skills: 33% in South of Scotland, 44% in Scotland
- Operational skills: 70% in South of Scotland, 57% in Scotland
- Digital skills: 41% in South of Scotland, 49% in Scotland

Source: Employer Skills Survey
Conclusion
Conclusion

In 2019, South of Scotland made a GVA contribution to the Scottish economy of £4.7bn, three per cent of Scotland’s output (£138.8bn). Looking ahead, the economy is forecast to grow by 1.4 per cent on average each year up to 2029. This would be slower growth than what is forecast across Scotland, and it would be slower than the average annual growth rate that the South of Scotland experienced from 2009 to 2019. The forecast however reflects a point in time and the high levels of economic uncertainty could change the outlook.

Total employment in South of Scotland (measured by jobs) was estimated to be 120,500 in 2019, four per cent of Scottish employment. Employment in the region increased from 2009 to 2019, and the forecast suggests that employment will stay at the current level in the future from 2019 to 2029. Although employment is not forecast to change, sectors will have varying performance. The greatest growth in jobs is forecast in three sectors:

- Professional, Scientific and Technical Activities, 700 jobs;
- Construction, 600 jobs; and
- Administration and Support Services, 600 jobs.

As the region’s share of Scotland’s employment was higher in 2019 than its share of GVA productivity performance was below average. Productivity was £38,700 in South of Scotland compared to £50,400 across Scotland.

Whilst employment is forecast to stay the same from 2019 to 2029, the need to replace workers leaving the labour market will create 39,700 opportunities.

To fill these jobs, and others, there is a forecast requirement for 36,700 people in the region from 2019 to 2029. The difference between the people and job requirements is due to some people having more than one job, for example someone who has two part-time jobs.

By occupation, the greatest number of people are forecast to be required in:

- Clerical and Service Elementary Occupations, 4,800 people;
- Sales Occupations, 4,600 people;
- Trades, Plant and Storage Elementary Occupations, 4,300 people;
- Teaching and Research Professions, 3,700 people; and
- Skilled Agricultural Trades, 2,600 people.

Whilst there will be demand for people to fill jobs, the population projection suggests that South of Scotland could have a smaller and generally older population by 2041. This presents a number of challenges:

- Skills challenges could be exacerbated by a deficit of talent, created due to the growth of people reaching retirement age being greater than growth of the working age population;
- Pressures on public finances and services could increase due to a growing dependency ratio, the region’s dependency ratio is expected to reach 95 per cent by 2041, up from 68 per cent in 2016; and
- Migration has been a driver of population growth across Scotland and an important source of skilled labour. With de-population forecast in the region and six per cent of the region’s population were born outside of the UK, changes to migration policy arising from Brexit could adversely affect future migration to the region and also impact on those who have already settled.

To address the current and future challenges in the labour market, and to make the most of the region’s strengths SDS is working in partnership with others on a range of actions.
The Scottish Government confirmed in Phase 2 of the Enterprise and Skills Review, that a new South of Scotland Enterprise (SOSE) agency be established to address the economic challenges of the area and driving inclusive growth. This new statutory body will begin its formal legislative operation from 1st April 2020.

In the interim the South of Scotland Economic Partnership (SOSEP) has been established to respond to the economic needs and opportunities of the South of Scotland in advance of the establishment of the new agency and an operating plan has been developed. SOSEP is laying the foundations for the new agency and ensuring that the area benefits from a new approach to economic development with a clearly prioritized work plan. SOSEP brings together the private, third, further and higher education sectors, as well as the seven key public-sector organizations supporting economic development in the South of Scotland which includes SDS.

Seven theme groups have been established under SOSEP including an Education and Skills theme group chaired by a member of the SOSEP Board.

SOSEP has a three-fold focus to:
• develop and deliver a clear and prioritized work programme, aligning existing activity and piloting new approaches to benefit the South of Scotland;
• influence the design of the new South of Scotland Enterprise agency; and
• deliver a strong programme of engagement with stakeholders across the South of Scotland to inform the proposals for the new agency.

SDS has worked closely with the SOSEP Education and Skills group to jointly develop a new Regional Skills Investment Plan for the South of Scotland. This new RSIP has a series of actions which will:
• improve access to education, skills and training;
• better meet the needs of all employers;
• grow and develop the workforce;
• focus on a region for young people;
• create a culture of enterprise and innovation; and
• future proof the skills system.

There are a number of initiatives to address the challenges in the South in Scotland. In addition to the work of SOSEP and the new agency there is a Borderlands proposition which will benefit the South of Scotland and the four neighboring English counties. The Scottish Borders will also benefit from the Edinburgh and South East Scotland City Region Deal projects. Including the Integrated Regional Employability and Skills projects that are part of the City Deal.

There is now increased focus across a range of partners in the South of Scotland to address the economic, productivity and skills challenges which have been outlined above. In light of this the forecast picture may change as new approaches and investment become more targeted and embedded.

Contact Us: If you have any feedback or comments on this report, please email rsa@sds.co.uk