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IPPR SCOTLAND

JOBS AND SKILLS IN SCOTLAND

ADDRESSING PRODUCTIVITY, PROGRESSION AND IN-WORK POVERTY

REPORT

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and Mark McGeoghegan

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Institute for Public Policy Research

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IPPR Scotland is IPPR's dedicated cross-party progressive thinktank for Scotland, based in Edinburgh. Our research, together with our stimulating and varied events programme, seeks to produce innovative policy ideas for a fair, democratic and sustainable Scotland.

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SUMMARY

This report looks at the jobs recovery in Scotland since 2010, the current jobs market and the implications for the skills system in Scotland of changes to Scotland's economy. Scotland's jobs recovery has been well balanced between services and manufacturing, while youth employment has improved, and there has been a narrowing in differences in pay and productivity between Scotland and the UK. However, job growth in Scotland has been lower than in the UK as a whole, and the sectors that have expanded in terms of jobs are generally lower skilled than the sectors that have lost jobs over the same period.

Scotland, like the UK, has a problem in relation to career progression. Although productivity and pay rates have improved against the UK, the UK has had a poor record on both. Additionally, there is a large and worrying mismatch between the skills system in Scotland and labour market demand.

This report forms the foundation for IPPR Scotland's forthcoming research this year in relation to skills in Scotland. Overall, **the Scottish skills system needs to more clearly show how it successfully contributes to improving rates of progression, productivity and reducing in-work poverty in Scotland**.

KEY FINDINGS

The last few years have been a period of substantial change for parts of the skills system in Scotland. College mergers and regionalisation, the introduction of outcome agreements for further and higher education provision, a new youth employment strategy following the Commission on Developing Scotland's Young Workforce, and the effects of the financial crisis and recession of 2008 have seen a number of changes to the skills system in Scotland.

Labour market recovery

Scotland has enjoyed a jobs recovery between 2010 and 2015, creating 118,000 additional jobs, with employment close to or surpassing its pre-2008 peak in recent months. However, the jobs recovery in Scotland has been weaker than in the UK as a whole:

- In 2007, the Scottish employment rate stood at 73.9 per cent, the UK rate at 72.4 per cent.
- In 2015, the Scottish rate was 73.1 per cent, the UK rate was 73.5 per cent.

The youth employment rate is higher in Scotland than the UK and has consistently been so throughout the downturn and recovery:

- In 2015 the Scottish youth employment rate was 56.2 per cent, the UK's was 53.5 per cent.

Jobs growth has been more balanced between services and manufacturing in Scotland than in the UK:

- Between 2010 and 2015, 54 per cent of new jobs in Scotland have come from the service sector, compared to 87 per cent in the UK.

The sectors that have lost jobs in Scotland have been of higher skill than the sectors that have expanded:

- For example, Scotland has seen a contraction in its important financial and insurance activities sector of 9.6 per cent between 2010 and 2015.

Pay, progression and productivity

Between 2010 and 2015, pay rates in Scotland have caught up with the UK – though pay in Scotland and the UK has fallen in real terms over recent years:

- In 2015, median weekly earnings were £425.10 in Scotland and £425.80 across the UK.

The proportion of workers progressing from low-skilled jobs to mid- or high-skill jobs is lower in Scotland than the UK (excluding Northern Ireland) as a whole:

- Between 2010 and 2015, 4.4 per cent of workers in low-skilled roles progressed to higher-skill roles each quarter in Scotland, compared to 5.1 per cent in the UK as a whole.

While productivity has improved in Scotland against the UK-wide rate, productivity across the UK has stalled in recent years:

- Between 2008 and 2014, Scottish gross value added (GVA) per hour worked increased from 94.1 per cent to 97.6 per cent of the UK level, however total UK GVA per hour worked increased by only 1.3 per cent over this time.

Skills mismatch

Crucially, the skills system in Scotland is not well matched to current labour market demand or future labour market demand:

- Comparing entry-level mid-skill vacancies in 2014 to the number of mid-skill qualifiers from the skills system we estimate there is an aggregate gap between skills demand and supply of 29,000 people annually.

KEY RECOMMENDATIONS

This report marks the start of a series of IPPR Scotland reports on the skills system in Scotland and sets out our priorities for this forthcoming work.

Overall, **the skills system needs to more clearly show how it successfully contributes to improving rates of progression, productivity and reducing in-work poverty in Scotland**.

1. **Greater engagement at the individual learner level, from employers and employees, could help to address the skills mismatch displayed by the skills system in Scotland.**

The significant skills mismatch in Scotland is a failure of engagement between employers, employees/learners and skills providers. The skills system needs to develop further ways to stimulate learner demand, informing learners' choices in accessing the skills system. Better data in relation to labour market demand could be crucial. In addition, working with employers, in return for public investment in skills provision, to more closely link successful learning outcomes with successful career progression, could be a powerful driver of employer engagement and both employer and learner demand for skills provision.

2. **The skills system needs to be better prepared for learners with multiple careers, stop-start learning, and more flexible learning routes.**

With an ageing population, technological change and an extended working life, many more workers will have multiple careers in the future. This will likely require a skills system that can work with employees/learners and employers throughout a lifetime of learning, making it possible for learners to pick up and drop learning with very flexible modes of delivery. In our future work we will consider whether the skills system will require a greater focus on modularised learning, on a common spine, allowing learners and employees to build suites of learning tailored to their needs.

3. **New regional approaches are needed to bring the whole of the skills system together in planning and investing in skills provision.**

We would like to consider in our future work whether the skills system should be brought together into single regional groupings for the post-16 skills system as a whole. This could begin with a focus on the post-school and sub-degree elements of the skills system. New regional approaches that consider the full range of the skills system could bring budget considerations together in one place, alongside decisions in relation to provision, enabling greater engagement and involvement from employers and learners.

1. INTRODUCTION

Following the 2008 financial crash and recession across the UK, Scotland's economy has been growing and recovering. The Scottish economy has experienced a long and sustained period of economic growth over this time, and unemployment has been falling. However, without question the economy and labour market have changed markedly since the financial crash and through the recovery. Furthermore, the short- and long-term challenges facing Scotland will mean a very different labour market in the future is required to meet the needs of Scotland as a whole.

This report first considers the labour market recovery in Scotland since 2010. It considers where this growth has come from, from which sectors and what type of roles, investigating how Scotland's labour market has changed over this period. We then look at current attributes of the labour market, particularly as the labour market relates to the skills system: considering skills levels, productivity rates, pay, progression and employment rates. We also examine some key data for Glasgow and the west of Scotland in order to consider any regional trends relevant to the skills system.

The report concludes by outlining potential areas for change for the skills system in Scotland, including considerations for employers and employees, government and agencies and skills providers.

Our conception of the skills system includes the full range of post-16 education, training and learning provision, including the senior phase of school, the college sector, national training programmes (including apprenticeships), work-based learning and the university sector. However, we wanted to particularly focus on mid-skill provision in Scotland in this work, excluding jobs that require degree-level qualifications and those that require no formal qualifications. This is to ensure we can capture the parts of the labour market and skills system most crucial in moving employees and sectors from low skill to mid or high skill. This means the focus of this report will be on post-school and sub-degree provision, and therefore college and training programmes in particular.

Our key interest for this work was how the labour market has changed in Scotland and what this means for the skills system of today and of tomorrow. This report is the first in a series of skills-related interventions IPPR Scotland will make and sets the analytical foundation for work that will outline how the skills system in Scotland should be focused and shaped to contribute best to reducing Scotland's inequalities while growing the economy – key aims of Scotland's economic strategy.

1.1 POLICY CONTEXT – SCOTLAND'S SKILLS SYSTEM

Following the 2008 financial crisis and the recession which followed, Scotland's labour market and economy changed in many substantial ways. The following 2011–2016 Scottish parliamentary term saw the Scottish government undertake a number of reforms to respond to these changes and the changed requirements of Scotland's skills system. This section looks at some of the changes implemented and the policy intentions of doing so across college, university, and the learning and training sectors that make up the skills system in Scotland.

An outcome approach

The SNP Scottish government has had a number of longstanding input targets across the skills system in Scotland. These have included targets to maintain the full-time equivalent (FTE) number of college places, university FTE places, together with targets for new starts within modern apprenticeship and other national training programme provision. Many of these stemmed from political pledges within the SNP's 2011 manifesto, while others stem from the executive's 2010 skills strategy *Skills for Scotland* (Scottish Government 2010). The skills strategy outlines four key priorities for the skills system: empowering people, supporting employers, simplifying the skills system, and strengthening partnerships. The strategy focuses on modern apprenticeships and training, rather than further education (FE), higher education (HE) or schools. The strategy also set targets for new starts for training provision, which when released in 2010 saw a 40,000 new start target.

In 2012, the Scottish government signalled a different approach, with the introduction of outcome agreements for colleges and universities, negotiated between the Scottish Funding Council (SFC) and institutions.[1] These agreements provide funding to universities and colleges for FE and HE provision in return for agreed ambitions and targets around key national and local outcomes. On their introduction, priorities included progress on outcomes in relation to widening access, retention rates, positive destinations (from school and in terms of employment rates following graduation from further or higher education courses), coherent provision (by level and subject), knowledge exchange and articulation (HNC or HND college qualifiers entering university into second- or third-year levels of study). Outcomes and outcome agreements have developed iteratively in the subsequent years with the widening access elements given a statutory footing by the Post-16 Education (Scotland) Act 2013. At the same time, Skills Development Scotland, in partnership with other skills agencies, has implemented regional skills investment plans (SIPs) to plan and deliver learning and training at the regional level.[2]

While the Scottish government has moved towards an outcome approach for FE and HE provision, there has been less of a focus on outcomes for provision in the rest of the skills system, with funding focused largely on input targets for new starts. The latest targets for modern apprenticeship starts will see 30,000 new starts in Scotland by 2020, an increase on the current 25,000 target.

1 For further information on outcome agreements see the Scottish Funding Council: http://www.sfc.ac.uk/funding/OutcomeAgreements/OutcomeAgreementsOverview.aspx

2 See: https://www.skillsdevelopmentscotland.co.uk/what-we-do/partnerships/skills-investment-plans/

Structural change in the skills system

There has been significant governance and structural change within parts of the skills system in Scotland in recent years, most particularly within the college sector. College reorganisation had been on the agenda for the Scottish government since 2010, and featured heavily in consultations and the Griggs Review into college governance prior to and following the 2011 Scottish parliament elections (Scottish Government 2012a). In the face of multiple challenges – spending cuts to the Scottish parliament's block grant since 2010; a college sector left untouched for around 20 years; and changing demand from prospective students, employers and the economy since the financial crisis – the Scottish government pressed ahead with the regionalisation of colleges. College regionalisation saw the pre-existing 41 colleges in Scotland (of which 37 were incorporated colleges as of 2011) organised into 13 college regions, with many college mergers within regions encouraged through the outcome agreement process. Over the last few years there has been a substantial reduction in the number of colleges in Scotland, which now number 26 (including 20 incorporated colleges).

The aims of college regionalisation were to drive efficiency in public spending, to create more coherent college provision within regions, to place students at the centre of governance and shaping provision, and to better link provision to regional need – socially and economically – increasing quality and accountability. Following the governance changes implemented through college regionalisation, the Office for National Statistics (ONS) reclassified colleges in Scotland as public bodies. They retain charitable status but can no longer hold reserves and have lost some autonomy.

While the college sector has seen significant structural change, the rest of the skills system has seen less. Universities have seen few mergers over the same period of time, with significant additional funding over the last few years meaning budget pressures have been far less significant. The von Prondzynski review of 2012 into university governance saw substantial recommendations for change (Scottish Government 2012b). Initially, the recommendations were adopted through a voluntary code of governance; however, the Scottish government passed legislation through the Higher Education Governance (Scotland) Act 2016 just prior to the 2016 Scottish parliament elections. While the intention of the legislation is to see more inclusive, transparent and accountable institutions, it is less likely to mean significant changes to structure or provision.

Outside of further and higher education, in the training and learning sectors, we have seen fewer structural or governance changes.

An emphasis on youth

Following the 2008/2009 recession, the Scottish government began to refocus the skills system – in particular FE and training – to tackle the growing levels of youth unemployment. Since then there have been a number of reforms aimed at focusing the skills system better at the needs of younger people.

Following the 2011 Scottish parliament elections, the Scottish government outlined its commitment to every 16–19-year-old of a guaranteed place in learning or training through the post-16 education and training system (Scottish Government 2012c).

In 2013, the Scottish government announced a Commission on Developing Scotland's Young Workforce, chaired by Sir Ian Wood. The commission's remit was to look at how a high-quality intermediate vocational and training route could be delivered in Scotland, better connecting education at all levels with the world of work, and achieving a partnership culture between education providers and employers. The 2014 commission report recommended a greater level of work experience for young people in school; additional ability for vocational and professional qualifications to be studied in the last years of school; a greater focus for colleges on ensuring students gain jobs and educational progression through studies; new higher level apprenticeships; and new employer-led regional groups to promote the recruitment of young people into jobs (Scottish Government 2014a). Equally, the commission considered how equality and diversity could be better promoted through the vocational and training routes. The Scottish government announced its response in summer 2014 with a funding package to support the implementation of the commission's recommendations (Scottish Government 2014b).

Scotland's economic strategy

In 2015, Scotland's new first minister launched a new economic strategy for Scotland (Scottish Government 2015a). Its aim was to bring together economic and social considerations as one, with reducing inequalities and increasing competitiveness seen as deeply interrelated. It outlined four priorities around investing in human and capital infrastructure in a sustainable way, fostering a culture of innovation, promoting inclusive growth and promoting internationalism. The skills system in Scotland will be crucial to delivering the economic strategy across the four priorities.

One of the key priorities for the Scottish government following the launch of the strategy has been the Fair Work agenda which the Scottish government considers as a key way to drive inclusive growth and increases in productivity and competitiveness in Scotland. The Scottish government's Business Pledge and Living Wage Accreditation have complemented the work on fair work (Scottish Government 2015b). A number of businesses across Scotland have signed up to be living wage accredited employers and have signed up to the Business Pledge, meaning they undertake to meet a series of standards with the aim of improving competitiveness and productivity, and tackling inequalities. The Fair Work Convention, set up in 2015 to drive a great deal of this agenda, comprises trade union and business representatives, and has developed a framework for fair work in Scotland which was published in March 2016 as a practical framework to deliver fairer work in Scotland (Fair Work Convention 2016).

UK apprenticeships levy

The announcement by the UK government in autumn 2015 of a UK-wide apprenticeships levy has the potential to affect the skills system in Scotland greatly. The levy, paid by larger employers based on

their payroll, will see additional contributions from business for skills provision. How the levy is implemented in Scotland is as yet unclear, but the potential increased demand and awareness for skills provision from employers, together with increased financial resource, could be an opportunity in Scotland to encourage greater employer and employee involvement in the shape and provision of skills for those in work. Equally, the types of skills provision that the levy funding is spent on in Scotland could drive change in the skills system, meaning careful consideration should be given in Scotland to the implementation of the levy and where levy-related investment is spent.

1.2 METHODOLOGY

This report analyses the current state of Scotland's labour market, both in terms of people in Scotland finding work and progressing in work, and in terms of the jobs and skills that are in demand by employers in Scotland.

Throughout this report we make use of the following definitions of low-, mid- and high-skilled occupations:

- Low-skilled jobs in Scotland: jobs for which median gross hourly pay is less than the Living Wage Foundation's living wage, as measured by the 2015 Annual Survey of Hours and Earnings, and which do not require a first degree-level qualification (ONS 2015a).
- Mid-skilled jobs in Scotland: jobs for which median gross hourly pay is higher than the Living Wage Foundation's London living wage, but which do not require a degree-level or equivalent higher education qualification.
- High-skilled jobs in Scotland: jobs for which median gross hourly pay is greater than the Living Wage Foundation's living wage, and which do require a degree-level or higher qualification.

The appendix to this report contains detail on our research methodology, the classification of occupations, and sources for qualification requirements, individuals' labour market activity, employers' demand for labour and skills, and skills provision.

Where the work is

Our analysis of mid-skilled vacancies draws upon the data underlying 'Where the work is', a free-to-use dashboard that provides comprehensive and detailed data on labour market demand, the potential salary benefits and likely levels of competition for entry-level mid-skilled positions across the UK. Visit http://www.wheretheworkis.org

2. SCOTLAND'S LABOUR MARKET RECOVERY, 2010–2015

Scotland's jobs recovery between 2010 and 2015 has seen tens of thousands of new jobs and a recovery in the employment rate in Scotland to close to its pre-2008 peak. Nevertheless, Scotland's jobs recovery has been weaker than the UK as a whole, meaning Scotland has lost its previous employment rate advantage over the UK. However, Scotland's jobs recovery has been more balanced with less of a dependence on the service sectors of the economy. The sectors that have lost jobs in Scotland have been higher skilled than the sectors that have seen expansion, while expanding sectors in Scotland are lower skilled than the expanding sectors in the UK as a whole. In recent years, youth unemployment has dropped in Scotland and across the UK, while youth employment has increased, with Scotland achieving a higher youth employment rate than the UK as a whole.

The Scottish labour market is lower skilled than the UK as a whole, featuring a higher proportion of low- and mid-skilled jobs and a lower proportion of high-skilled jobs. The proportion of part-time roles in Scotland matches closely the UK as a whole. While the proportion of zero-hours contract roles in Scotland has increased in recent years, the proportion of zero-hours contract roles is beneath that seen in the UK as a whole, and in both Scotland and the UK represents a very small proportion of the workforce.

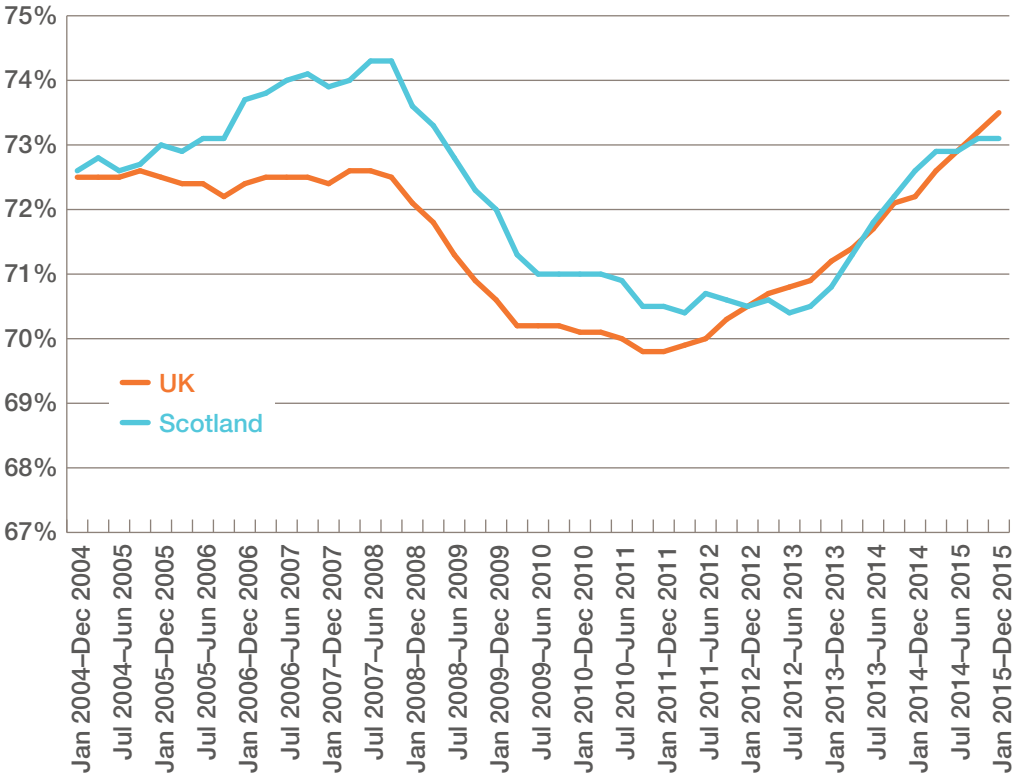
2.1 EMPLOYMENT RATE

Prior to the 2008 recession, Scotland enjoyed a higher employment rate than across the UK as a whole. Figure 2.1 shows that by 2008 Scotland's employment rate was 1.8 per cent higher than the UK. The employment rate for October 2007 to September 2008 was 74.3 per cent in Scotland and 72.5 per cent in the UK. Following the downturn both the Scotland and UK employment rates fell in tandem, but the UK jobs recovery since 2011 has seen stronger employment rate increases in the UK than in Scotland, so that by recent years they are very closely matched. Over this time Scotland has created 118,000 new jobs (ONS 2015b). At the end of 2015 the employment rate stood at 73.1 per cent in Scotland and 73.5 per cent in the UK. In this sense, Scotland has lost its employment rate advantage over the rest of the UK over the last five years.

FIGURE 2.1

Since the 2011 jobs recovery the employment rate in Scotland has fallen behind the UK as a whole

Employment rate over time (Scotland vs UK, 2004–2015)



Source: ONS, 'Nomis: Annual Population Survey/Labour Force Survey' (ONS 2016a)

Latest figures for May 2016 from the ONS may show a further divergence between Scotland and the UK in terms of employment and unemployment rates. The UK employment rate increased to 74.2 per cent with Scotland's employment rate at 73.1 per cent (ONS 2016b). Unemployment stood at 6.2 per cent in Scotland compared to a UK-wide unemployment rate of 5.1 per cent (ibid). These figures are monthly releases by ONS and so liable to fluctuation and incomparable with the above. However, they may show a further weakness in Scotland's labour market compared to the UK.

Table 2.1 shows the employment rate for Scotland and the UK by qualification level. It shows that Scotland's employment rate matches the UK-wide level at SCQF[3] level 7 and above (HNC/1st year study or above) and surpasses the UK's employment rate at lower-qualification levels. However, for SCQF level 6 and apprenticeship level Scotland's employment rate is lower than the UK as a whole.

3 The Office for National Statistics measures qualifications using the National Qualifications Framework. In this report, we have converted these to the Scottish Credit and Qualifications Framework (SCQF). More details on this can be found in the appendix.

TABLE 2.1

Employment rate by qualification level, Scotland vs UK

	Scotland (%)	UK (%)
SCQF Level 7 and above	84	84
SCQF Level 6	72	74
Trade apprenticeships	79	81
SCQF 4 and 5	69	69
Below SCQF Level 4	67	65
Other qualifications	74	72
No qualifications	45	42

Source: IPPR Scotland calculations using ONS, 'Quarterly Labour Force Survey, various quarters' (ONS 2015b)
Note: Data refers to Q4 2014–Q3 2015.

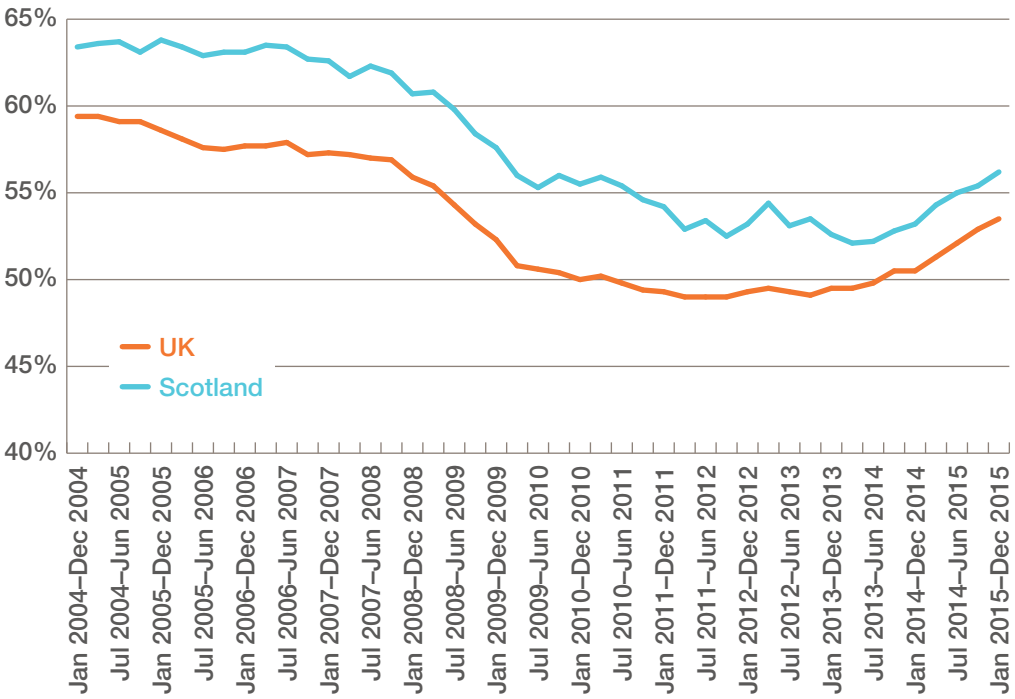
2.2 YOUTH EMPLOYMENT AND UNEMPLOYMENT

The youth employment rates of Scotland and the UK track each other in tandem, as figure 2.2 shows.

FIGURE 2.2

Although not recovered to their pre-crisis levels the youth employment rate in Scotland is still higher than across the UK as a whole

Youth employment rate, Scotland vs UK (16–24-year-olds, 2004–2015)



Source: ONS, 'Nomis: Annual Population Survey/Labour Force Survey' (ONS 2016a)

Scotland has, since at least 2004, had a higher proportion of its 16 to 24-year-olds in employment than the UK as a whole. Both rates plunged during the financial crisis in 2007/08, and have failed to recover to their

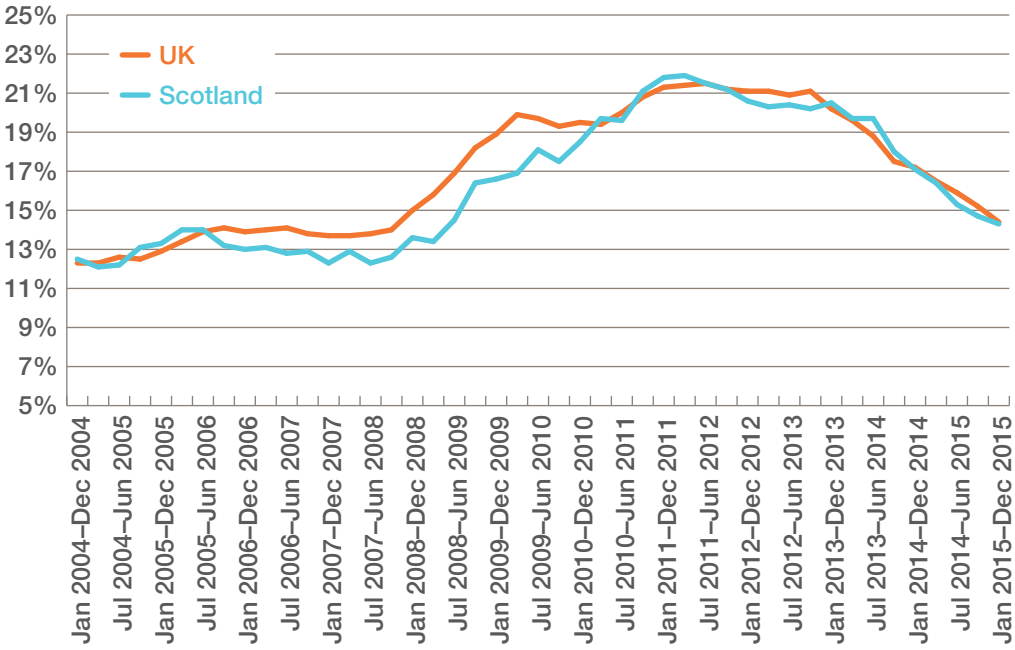
pre-crash levels. By the end of 2015, youth employment in Scotland was at 56.2 per cent with 342,000 16 to 24-year-olds in employment. This was significantly below the pre-crash high of 63.8 per cent between January and December 2005, when 376,000 young Scots were in employment. Across the UK, youth employment was at 53.5 per cent in 2015, with 3.88 million 16 to 24-year-olds employed. This was also below the pre-crash peak for the UK of 59.4 per cent between January 2004 and March 2005. Between 2004 and 2015, the Scottish rate fell by 7.2 per cent and the UK rate by 5.9 per cent, representing a slight narrowing of the gap between the two rates.

Likewise, the youth unemployment rates for Scotland and the UK track each other closely, but there is not as big a gap as with the youth employment rates. Figure 2.3 shows that at the end of 2015 Scottish youth unemployment stood at 14.3 per cent, below the post-crash peak of 21.9 per cent between April 2011 and March 2012, but above the pre-crash low of 12.1 per cent between April 2004 and March 2005. Across the UK, youth unemployment was at 14.4 per cent in 2015, again below its post-crash peak of 21.5 per cent between July 2011 and June 2012 but above its pre-crash low of 12.3 per cent between January 2004 and March 2005. The Scottish rate is currently 1.8 per cent-points higher than it was in 2004, and the UK rate is 2.1 per cent-points higher.

FIGURE 2.3

Youth unemployment in Scotland over time matches very closely the rate across the UK as a whole

Youth unemployment rate, Scotland vs UK (16–24-year-olds, 2004–2015)



Source: ONS, 'Nomis: Annual Population Survey/Labour Force Survey' (ONS 2016a)

2.3 WHICH SECTORS CONTRIBUTED MOST TO SCOTLAND'S JOBS RECOVERY?

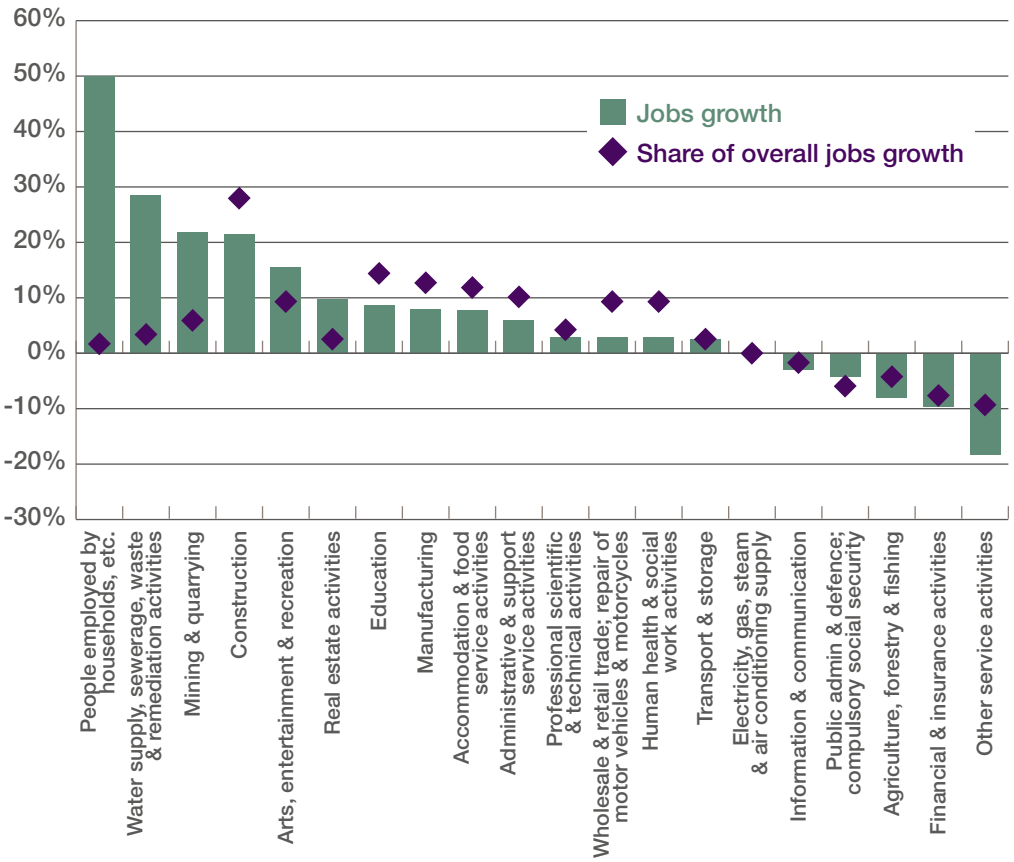
Between March 2010 and December 2015 around 118,000 new jobs were created in Scotland's labour market, which grew from 2.58 million to 2.7 million jobs, an expansion of 4.6 per cent. The key sectors that contributed to this jobs recovery were construction; education; manufacturing; accommodation and food services; and administrative and support services, with each sector contributing over 10 per cent of Scotland's new jobs. Taken together, these sectors added 91,000 jobs, accounting for 77.1 per cent of the labour market recovery in Scotland.

Between 2010 and 2015, the worst-performing individual sectors were finance and insurance; agriculture, forestry and fishing; public administration and defence; and information and communication, which shed 23,000 jobs between them. Figure 2.4 breaks down workforce jobs in March 2010 and December 2015 by sector.

FIGURE 2.4

The financial services industry in Scotland has been one of the worst-performing sectors

Change in the number of jobs, and share of overall jobs growth by sector (Scotland, March 2010–December 2015)



Source: IPPR Scotland analysis using ONS, 'Workforce jobs by region and industry' (ONS 2016c)

2.4 JOB GROWTH IN SCOTLAND COMPARED TO THE UK

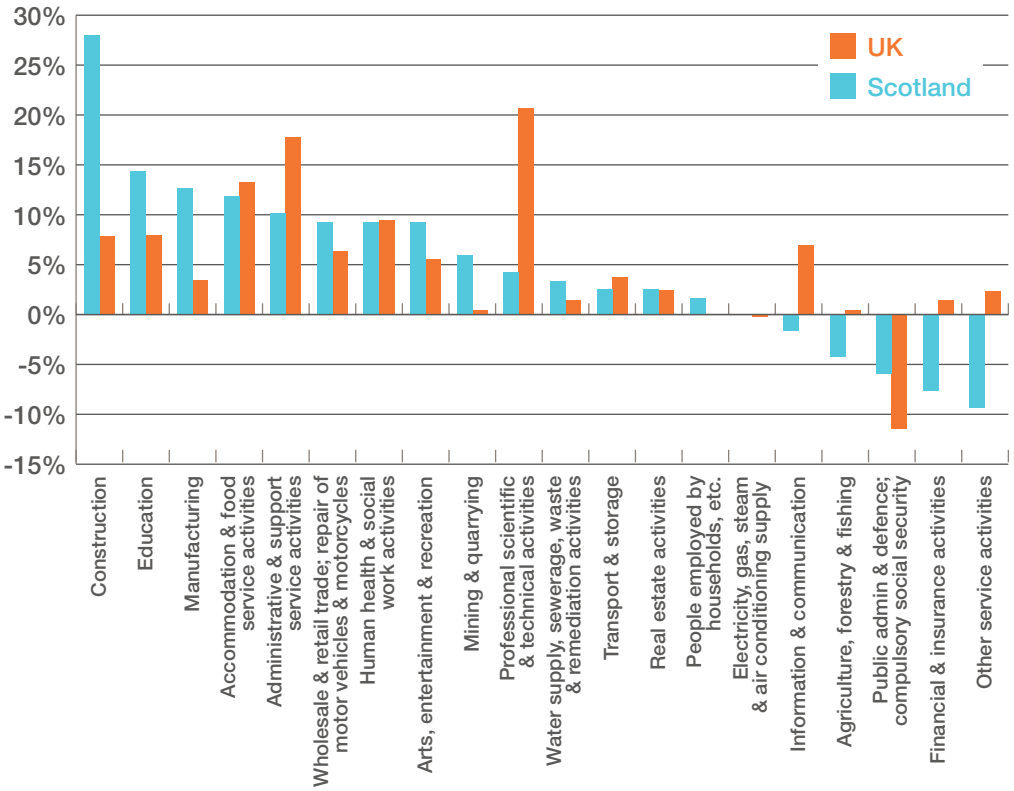
The Scottish labour market has grown proportionally less than that of the UK as a whole, which added 2.44 million jobs between March 2010 and December 2015, a growth of 7.8 per cent. Across the UK the key sectors have been professional scientific and technical activities; administrative and support services; and accommodation and food services, which have contributed 1.27 million new jobs and accounted for 51.8 per cent of the recovery between them.

By analysing the sectors that have contributed to job growth in the UK more than they have in Scotland we can understand through which sectors the UK's jobs recovery has been stronger than Scotland's. Figure 2.5 shows contribution to job growth by sector in Scotland and the UK between 2010 and 2015.

FIGURE 2.5

Between 2010 and 2015 the jobs recovery in Scotland has been more balanced than in the rest of the UK

Share of overall jobs growth by sector (Scotland vs UK, March 2010–December 2015)



Source: IPPR Scotland analysis using ONS, 'Workforce jobs by region and industry' (ONS 2016c)

We can see that over this period Scotland has not experienced the same job growth that has occurred in the UK as a whole, where there has been a significant contribution to job growth through professional scientific and technical activities; administrative and support service activities; and accommodation and food services. Equally, between

2010 and 2015 Scotland has witnessed job reductions that did not take place across the UK in information and communication; and financial and insurance activities. However, Scotland's jobs recovery performed much better than the UK as a whole over this time in mining and quarrying; manufacturing; construction; and education.

Therefore, while Scotland's jobs recovery has been proportionally smaller than in the UK as a whole, the recovery has been more balanced with 54.2 per cent of Scotland's jobs growth coming from service industries whereas 86.7 per cent of the UK's job growth has been service sector-led. However, while imbalanced, that is not to say that the service sector growth in the UK as a whole has been in lower-skill service sectors. The strong growth in professional, scientific and technical services is an example of a predominantly high-skill sector that has seen strong expansion in the UK as a whole, without similar growth in Scotland.

Overall, it is clear that Scotland's labour market recovery has been smaller but more balanced than the UK as a whole. Scotland has seen strong growth in manufacturing, construction, and the mining and quarrying sector; however, it has also seen contraction to its important finance sector in a way that has not occurred in the rest of the UK. It should be noted that while mining and quarrying saw large increases in employment over this time, this sector of the economy includes much of the oil and gas industry. As such it is likely that some of these employment gains will have been lost over the course of 2016 with the difficulties currently facing the oil and gas industry. Equally, considering employment reductions in public administration and defence are smaller than the levels of contraction seen elsewhere in the UK, this may reflect the ability of the Scottish government to lessen cuts to public services in Scotland compared to the rest of the UK.

2.5 SKILL LEVELS OF JOB GROWTH AND CONTRACTION

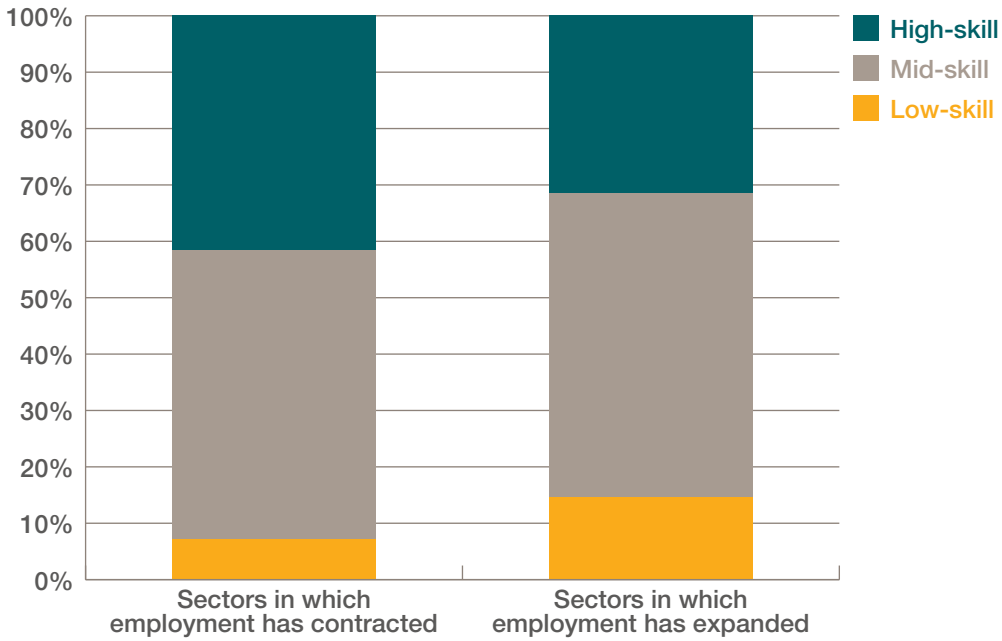
Scotland's labour market has fewer high-skill jobs, with greater numbers of low- and mid-skill jobs than across the UK. In Scotland 13.2 per cent of jobs are low-skilled versus 11.7 per cent across the UK; 52.9 per cent of Scottish jobs are mid-skilled versus 50.9 per cent of UK jobs, and 32.9 per cent of Scottish jobs are high skilled, versus 36.4 per cent of UK jobs.

Looking at the sectors that contributed most and least to the jobs growth seen in Scotland in recent years, we have analysed their make-up in terms of skill levels to look at the likely skills level of jobs lost and gained from the Scottish labour market. Figure 2.6 shows that the sectors that contracted in Scotland had a greater proportion of high-skilled roles than the sectors that have seen the most jobs growth in Scotland. Similarly, the sectors that have grown the most in Scotland have a higher proportion of low-skilled roles than those sectors that have contributed least to jobs growth in Scotland.

FIGURE 2.6

The jobs recovery in Scotland has been skewed towards lower-skilled sectors with a greater contraction in sectors with higher-skilled roles

Skills breakdown of jobs in contracting vs expanding sectors (Scotland, Q4 2010–Q3 2015)



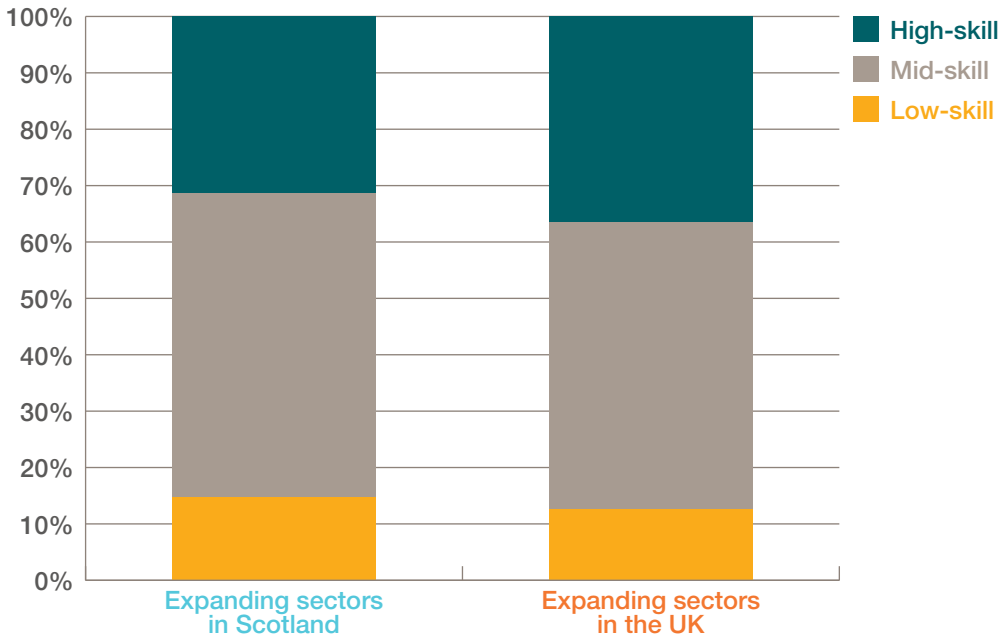
Source: IPPR Scotland analysis using ONS, 'Workforce jobs by region and industry' (ONS 2016c) and ONS, 'Quarterly Labour Force Survey, various quarters' (ONS 2015b)

Comparing the sectors that have expanded in the UK against the sectors that have expanded in Scotland shows that UK growth has been in higher-skilled sectors compared to Scotland's jobs growth over the same time. Figure 2.7 shows the makeup, in terms of skill level, of sectors that have expanded in Scotland against the expanding sectors in the rest of the UK. As outlined above, this means that as well as the UK jobs recovery being larger than in Scotland, the sectors that have expanded in the UK are predominantly from higher-skilled sectors than expanding sectors in Scotland.

FIGURE 2.7

The sectors that have expanded in the UK are more predominantly from higher-skilled sectors than expanding sectors in Scotland

Skills breakdown of jobs in expanding sectors, Scotland vs the UK (Q4 2014–Q3 2015)



Source: IPPR Scotland analysis using ONS, 'Workforce jobs by region and industry' (ONS 2016c) and ONS, 'Quarterly Labour Force Survey, various quarters' (ONS 2015b)

2.6 WHICH SECTORS ARE THE FASTEST GROWING?

Looking at the fastest-growing sectors in Scotland we can see over the last five years that mining and quarrying, water services, construction, and arts and recreation have seen large growth in percentage terms.

The strongest-performing sectors across the UK have been water services, and professional scientific and technical services, both of which have grown by over 20 per cent. The weakest sectors UK-wide were public administration and defence, electricity and gas services, and household employers, which shed 289,000 jobs between them.

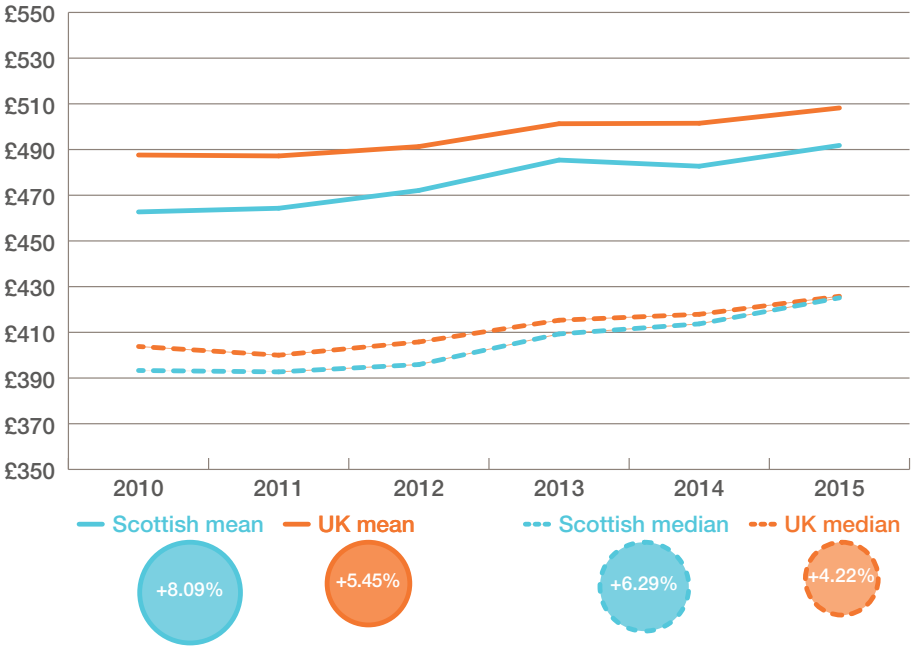
2.7 PAY RATES IN SCOTLAND

Since 2010 median average weekly earnings (AWE) in Scotland have grown from £393.30 to £425.10. In the UK they have grown from £403.80 to £425.80. This represents Scottish median AWE growth of 8.1 per cent compared to UK growth of 5.5 per cent, which has led to a convergence of Scottish and UK median AWE. In terms of mean AWE, Scotland has seen growth of 6.29 per cent from £462.70 to £491.80, while in the UK it has grown 4.2 per cent from £487.60 to £508.20. As a result, the pay gap between Scottish and UK earnings on both measures has narrowed. Equally, the gap between the mean and median AWE has narrowed in both Scotland and the UK.

FIGURE 2.8

The pay gap between Scotland and the rest of the UK has narrowed on both median and mean average weekly earnings

Scottish and UK average weekly earnings, mean and median (2010–2015)



Source: ONS, 'Place of Residence by Local Authority - ASHE: Table 8' (ONS 2015a)

2.8 PART-TIME WORK IN SCOTLAND

Between 2010 and 2015 the number of part-time jobs in Scotland has increased from 617,000 to 629,000, an increase of 1.9 per cent. However, the proportion of total jobs which are part-time has remained more or less static, changing from 28.0 per cent to 28.6 per cent. Across the UK, the number of part-time jobs has increased from roughly 6.714 million to 7.175 million, an increase of 6.9 per cent. Again, although the number of part-time jobs has increased faster across the UK than in Scotland, the proportion of total jobs which are part-time has remained relatively stable, going from 27.7 per cent to 28.2 per cent.

TABLE 2.2

Part-time work in Scotland and the UK (2010–2015)

Year	Number of part-time jobs		Proportion of total jobs (%)	
	Scotland	UK	Scotland	UK
2010	617,000	671,4000	28.0	27.7
2011	613,000	695,5000	28.3	28.5
2012	613,000	688,1000	28.7	28.4
2013	626,000	698,3000	28.8	28.4
2014	647,000	715,9000	29.3	28.6
2015	629,000	717,5000	28.6	28.2

Source: ONS, 'Place of Residence by Local Authority - ASHE: Table 8' (ONS 2015a)

Since 2010 part-time median weekly earnings in Scotland have grown from £159 to £172.50 and in the UK they have grown from £153.70 to £167. This represents Scottish growth of 8.5 per cent compared to UK growth of 8.7 per cent. In terms of mean weekly earnings, Scotland has seen growth of 6.5 per cent from £190.60 to £202.90, while the UK has seen growth of 3.7 per cent from £197.30 to £204.50; while Scottish part-time mean weekly earnings has grown faster than mean AWE in Scotland, the UK part-time mean weekly earnings have not grown faster than UK mean AWE (ONS 2015a).

2.9 ZERO-HOURS CONTACTS IN SCOTLAND

Since 2013 the number of people on a zero-hours contract in Scotland has increased from 46,000 to 59,000; across the UK it has increased from 586,000 to 744,000. Respectively, those are increases of 28.2 per cent and 27.1 per cent. Nevertheless, in Scotland the proportion of workers on zero-hours contracts has increased only from 1.8 per cent of the workforce to 2.2 per cent, while across the UK as a whole it has increased from 1.9 per cent of total workers to 2.4 per cent.

TABLE 2.3

Zero-hours contracts in Scotland and the UK (2013–2015)

Year	Number of workers on zero-hours contracts		Proportion of total jobs (%)	
	Scotland	UK	Scotland	UK
2013	46,000	586,000	1.8	1.9
2014	60,000	624,000	2.3	2.0
2015	59,000	744,000	2.2	2.4

Source: Scottish Government, 'Zero Hours Contracts: Evidence Briefing Note' (Scottish Government 2015c), and ONS, 'Zero Hours Summary Data Tables' (ONS 2015c)

2.10 SUMMARY

Scotland's jobs recovery since 2010 has been weaker than that in the UK as a whole. This has led to Scotland losing the employment rate advantage it had over the UK as a whole going into the 2008 recession. However, Scotland's jobs recovery has been better balanced between service and manufacturing sectors with just over half of jobs in Scotland being generated by service sectors as compared to close to nine out of 10 jobs generated by service sectors in the UK as a whole.

This service sector-led expansion in the UK, however, has not necessarily been in low-skilled and low-wage roles. In fact, the sectors that have seen jobs growth in the UK as a whole have a slightly higher-skilled makeup compared to expanding sectors in Scotland. Equally, in Scotland, the sectors that have contracted in terms of employment have a higher-skilled makeup compared to those sectors that have expanded. Therefore, Scotland has lost more jobs in higher-skilled sectors than those that have replaced those jobs. Likewise, Scotland's expansion has been more in lower-skilled sectors than the UK's expansion.

However, given the negative outlook for the oil and gas industry in Scotland, at least in the short term, and the redundancies we have seen in recent times in the Aberdeen area from this industry, looking ahead a proportion of this jobs growth in Scotland may be at risk.

Throughout this period, pay rates in Scotland have caught up with pay rates across the UK, closing Scotland's historical pay gap with the rest of the UK. However, pay rates across the UK have reduced in real terms over this time period. Part-time and zero-hours jobs have increased in Scotland and across the UK in recent years, though in Scotland they make up a smaller proportion of roles than across the UK as a whole.

Youth unemployment rates have decreased in Scotland and in the UK as a whole and youth employment has increased. Youth employment rates in Scotland are higher than those in the UK as a whole and youth unemployment rates in Scotland are marginally beneath rates for the UK as a whole.

3.
SKILLS AND SCOTLAND'S LABOUR MARKET

Having considered the shape of Scotland's labour market recovery between 2010 and 2015, this section considers how the skills system and the labour market interact. In doing so we look at levels of progression within Scotland's labour market, levels of productivity, the level of demand for skills from different sectors of the labour market versus the supply of skills from the skills system, and we consider future skills demand. In doing so, we can understand some of the clear areas where the skills system in Scotland may need to focus in the future.

We find that, in terms of career progression, Scotland performs poorly compared to the rest of the UK (excluding Northern Ireland) in providing opportunities for workers in low-skilled jobs to progress to higher-skilled roles. At the same time, we know the UK's record on career progression is poor compared to other international competitors (Hatfield and Thompson 2015). On productivity, Scotland has narrowed its historical productivity gap with the rest of the UK, particularly over recent years; however, the UK's record on productivity has been poor over this time. Looking at demand for entry-level mid-skilled jobs, we find that there is a substantial mismatch between what the skills system is supplying in terms of subject and level and the demand from the labour market when looking at entry level roles at mid-skill level.

3.1 PROGRESSION IN THE SCOTTISH LABOUR MARKET

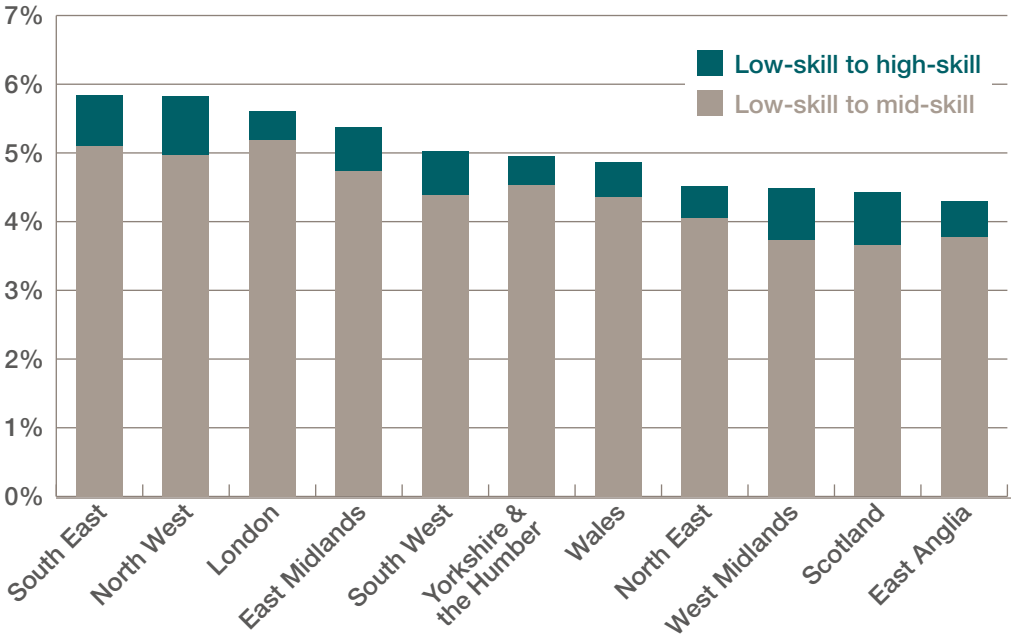
In looking at how the skills system and labour market interact in Scotland we wanted to look at the ability for low-skilled workers to progress to mid-skill and high-skill roles. We looked at the proportion of workers in low-skilled occupations who moved to a mid-skilled or high-skilled role, excluding workers in low-skilled roles who hold a degree-level qualification or higher.

The average proportion of low-skill workers who moved into mid- or high-skill work per quarter between 2011 and 2015 in the UK (excluding Northern Ireland) was 5.1 per cent, with 4.5 per cent per quarter moving into mid-skill work and 0.6 per cent moving into high-skill work on average over that period. Figure 3.1 breaks the UK (excluding Northern Ireland) figure down into the individual nations and regions and shows that Scotland had a low level of progression compared to the rest of the UK between 2011 and 2015.

FIGURE 3.1

Scotland fares poorly against the rest of the UK in the proportion of workers progressing from low-skill work

Average proportion of workers progressing from low-skill work per quarter (by region and new skill level, 2011–2015)



Source: IPPR Scotland calculations using ONS, 'Two-Quarter Labour Force Survey, various quarters' (ONS 2015d)

The south-east and north-west of England, alongside London, had the highest level of progression from low-skilled roles with, on average, 5.8 per cent, 5.8 per cent and 5.6 per cent of their low-skill workers moving to mid- or high-skilled roles per quarter. In comparison, 4.4 per cent of Scotland's low-skill workers progressed out of low-skill work per quarter, on average.

Looking at progression from low- to mid-skilled roles, Scotland has the lowest rate of progression at an average of 3.7 per cent per quarter. However, Scotland has the second-highest level of progression from low- to high-skilled roles (behind the north-west of England). This may reflect the significant proportion of higher education provision delivered through colleges in Scotland, compared to other parts of the UK.

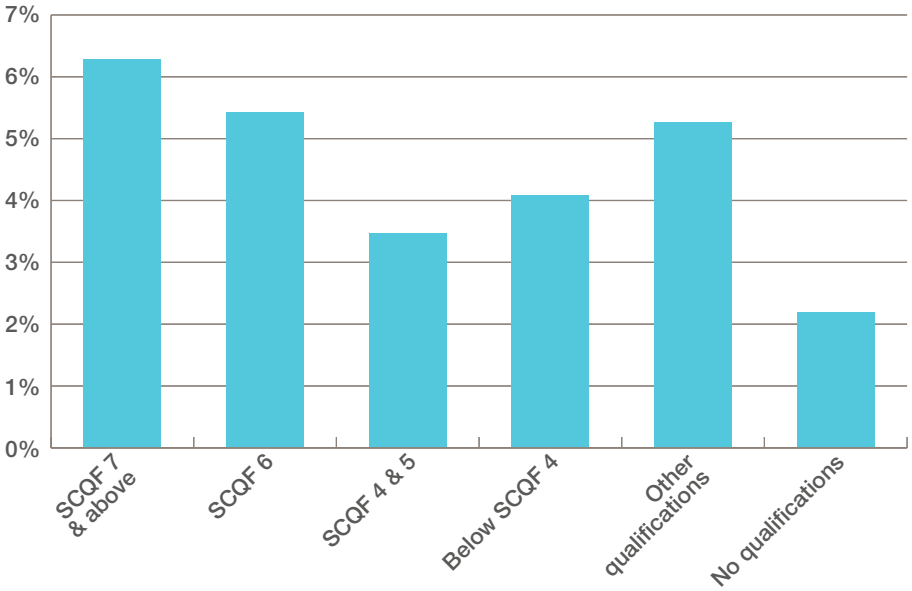
Progression by qualification

We wanted to look at progression by qualification level, to consider what impact the skills system can have on progression rates. As above, we looked at those in low-skilled roles (excluding degree holders) who moved to mid-skill roles. We can see higher-skilled workers (those with SCQF level 7 and above) have the highest rate of progression into mid-skill work (6.3 per cent). Equally, progression rates decrease with skill level of the worker, with the exception of those with qualifications below SCQF 4.

FIGURE 3.2

Lower-skilled workers have the lowest rate of progression into mid-skill work in Scotland

Progression rate from low- to mid-skill work by highest qualification level (Scotland, 2011–2015)

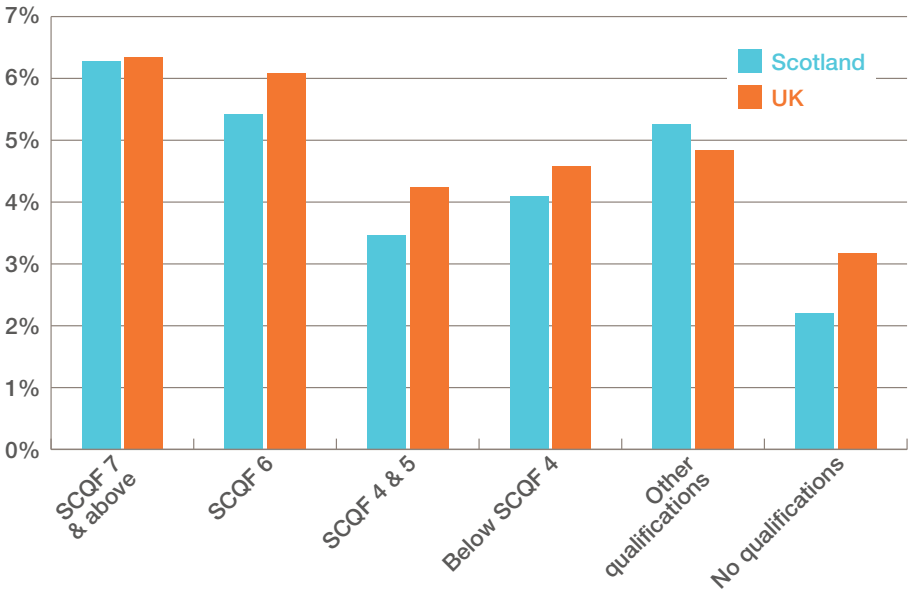


Source: IPPR Scotland calculations using ONS, 'Two-Quarter Labour Force Survey, various quarters' (ONS 2015d)

FIGURE 3.3

Scotland's rate of progression is lower than in the rest of the UK at all but the highest skill level and for other qualifications

Quarterly progression rate from low- to mid-skill work by highest qualification level (Scotland vs UK, 2011–2015)



Source: IPPR Scotland calculations using Office for National Statistics' 'Two-Quarter Labour Force Survey, various quarters' (ONS, 2015d)

Figure 3.3 shows a breakdown of progression from low- to mid-skill roles in Scotland showing that the UK rate of low- to mid-skill progression is higher than Scotland at all but the highest skill level and for other qualifications. This may mean that the skill system at sub-degree level can have a greater role to play in boosting progression in Scotland.

3.2 PRODUCTIVITY IN SCOTLAND

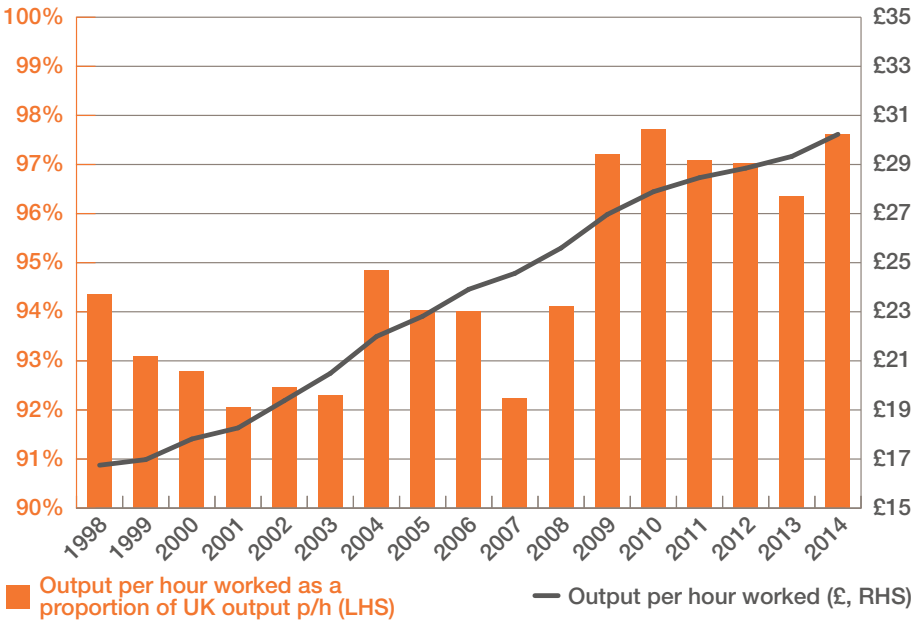
Figure 3.4 shows productivity in Scotland from 1998–2014, both as output per hour worked (in 2015 prices), and as a proportion of UK output per hour worked. Scotland has underperformed the UK in productivity throughout the 1998 to 2014 period; however, productivity has been steadily increasing against the UK level, reaching over 97 per cent of the UK level in recent years, compared to lows of just over 92 per cent 10 years before. We can also see that Scotland has fared well, in historical terms, in productivity compared to the UK since the recession in 2007/08, never dipping below 96.3 per cent as figure 3.4 shows.

However, across the UK, productivity has stalled over the last five years. While Scotland's productivity has improved against the UK level, the UK has performed poorly. In 2014 UK output per hour worked was only 1.3 per cent higher than it was in 2008, during the economic crisis, and between 2009 and 2012 it was in fact below that level. Indeed, compared to the Office for National Statistics' analysis of the UK's output per hour worked based on its pre-downturn trend, by the end of 2015 UK labour productivity was 14 per cent lower than it would have been if following previous trends (ONS 2016d).

FIGURE 3.4

Since the 2007/08 recession Scotland has fared well in productivity compared to the UK

Scottish productivity as output per hour worked and as a proportion of UK output per hour worked (1998–2014)



Source: Scottish Government, 'Labour Productivity 1998-2014' (Scottish Government 2016)

3.3 SKILLS SUPPLY AND DEMAND IN SCOTLAND

This section looks at the demand for skills from the labour market and the supply of skills from the skills system in Scotland. We utilise data that IPPR Scotland, IPPR and Burning Glass Technologies have brought together using online job-posting data.[4] By matching that to supply data provided by skills agencies in Scotland, we have developed the most detailed demand and supply tool for skills in Scotland, and across the UK.

For this section we focus on mid-skill jobs – those requiring post-school qualifications but below degree level. Equally, we focus on entry-level roles, defined by those postings in which the employer asks for less than two years' experience, and on new entrants to the labour market.

We do not take migration, either internal or international, into account. Therefore any significant inward or outward flows of education finishers within or across areas will not be considered in either increasing or decreasing gaps between skills demand and supply. We use data on mid-skilled jobs, as defined by the Office for National Statistics' standard occupational classification codes (SOC). These include roles in the following major occupation groups:

- associate professional and technical
- administrative and secretarial
- skilled trades
- caring
- leisure and other services.

All data is from 2014, the most recent year for which both job-posting and educational data are available.

The skills mismatch

In order to test the extent to which the supply of qualifications maps onto labour market demand, we have used data on entry-level job vacancies alongside matched qualifications supply data from the college and learning and training sectors in Scotland to assess those occupations that are under- or oversupplied in Scotland. Because we have matched qualification subject areas to occupations, this analysis involves some double-counting of learners, as one learner may achieve learning outcomes/qualifications in several subject areas.

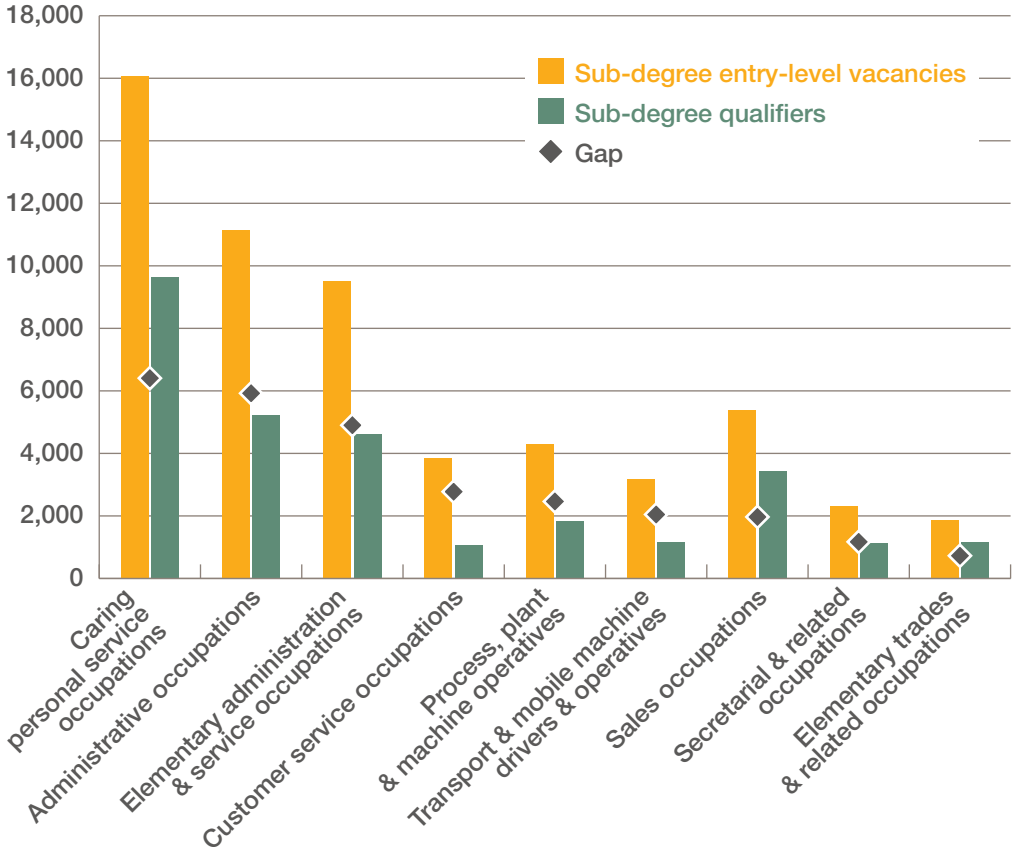
Figure 3.5 shows current supply and current demand for mid-skill occupations where demand outstrips skills supply in Scotland. The greatest gaps occur in caring personal services, where supply equates to only just over half of the 16,000 entry-level workers currently required, and in administrative occupations, and elementary administration and service occupations, where taken together 21,000 vacancies are currently being advertised to fewer than 10,000 potential applicants. Across these undersupplied mid-skilled occupations, we estimate there is an aggregate gap between skills demand and supply of 29,000 people annually.

4 We recognise that not all jobs are posted online. However, a comparison of the Annual Survey of Hours and Earnings (ASHE) employment data and Burning Glass Technologies (BGT) postings data for UK in 2014 showed a 94 per cent correlation between ASHE and the IPPR/BGT occupational distributions. Our posting data slightly overestimates the proportion of professional and associate professional occupations, while slightly underestimating the proportion of elementary occupations.

FIGURE 3.5

There is a large mismatch between the demand for and supply of mid-skill workers in Scotland

Mid-skill mismatch between sub-degree entry-level vacancies and supply of sub-degree qualifiers (Scotland, 2014)



Source: IPPR Scotland calculations using Burning Glass Technologies' job vacancies data provided to IPPR (BGT 2016)
Note: Mid-skill occupations sorted by size of supply/demand gap. Occupations measured at the two-digit SOC code level.

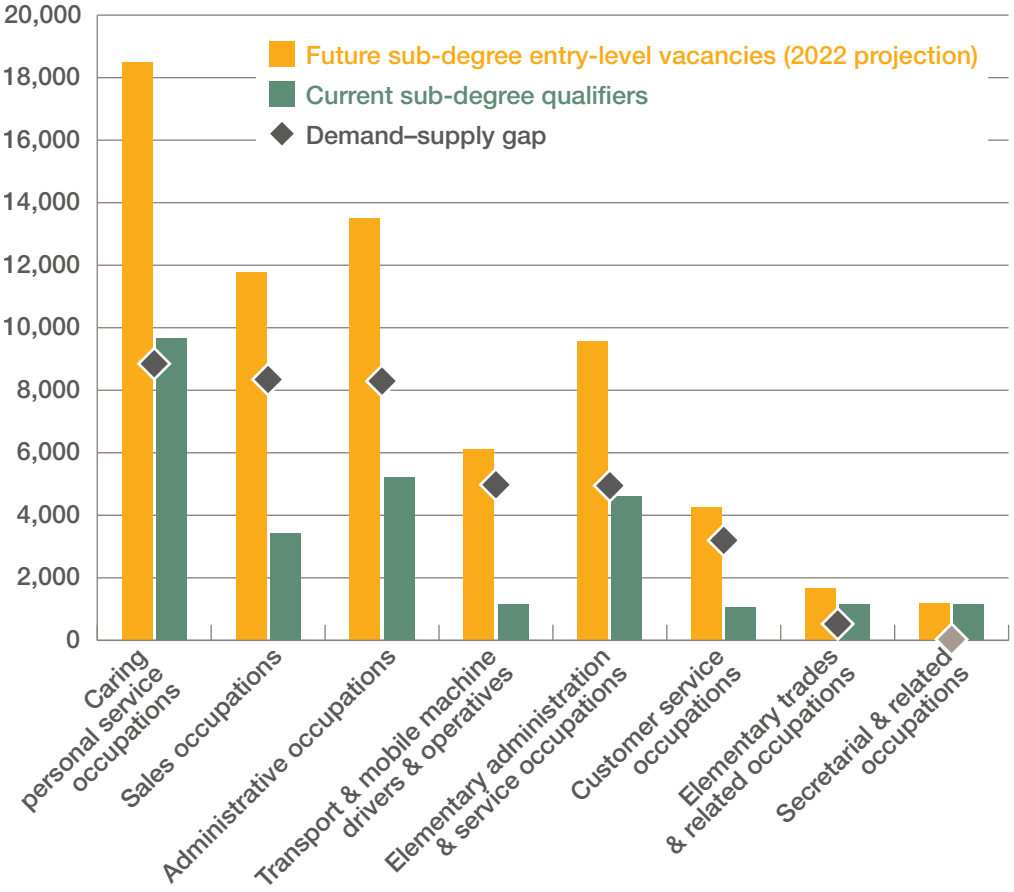
Future labour market demand versus current skills supply

Using forecast demand for occupations (measured using the two-digit SOC code level), figure 3.6 shows the mid-skill occupations where future demand for further education qualifications outstrips current supply of sub-degree qualifications, in each mid-skilled occupational group, to 2022. This tells us to what extent maintaining current levels of qualification supply can be expected to match with expected future vacancies (although we should not discount the fact that future qualifications may be different in terms of volume and composition).

FIGURE 3.6

The gap between current supply of and future demand for mid-skill workers in Scotland is forecast to widen over the next six years

Future sub-degree entry-level vacancies vs current sub-degree qualifiers (Scotland, 2022 projection vs 2014 actual)



Source: IPPR Scotland calculations using Burning Glass Technologies' job vacancies data provided to IPPR (BGT 2016) and United Kingdom Commission on Employment and Skills, *Working Futures 2012 to 2022* (UKCES 2014)

This shows that the demand for entry-level mid-skill caring personal service occupations, sales occupations, administrative occupations, and transport and mobile machine drivers and operatives is projected to increase, widening the gap between current supply and demand by 2022.

3.4 SUMMARY

It seems clear that progression is a weakness in the Scottish labour market, at least between low- and mid-skilled roles. Scotland has seen among the lowest rates of progression in the UK between 2010 and 2015. At the same time, we know that UK progression as a whole is lower than competitor countries (Hatfield and Thompson 2015). Looking at progression rates by qualification of worker, we see that Scotland has a particular progression problem for lower-skilled workers. How the skills system can be focused to better target improving progression for employees between low- to mid-skilled roles and for lower-qualified

workers is a key question for the future, including targeting low-progression, low-skill sectors, employers and employees and considering 'progression agreements' between employers, employees and skills providers.

In addition, we see that the skills system in Scotland is not well matched to labour market demand. The sectors that the skills system focuses on at sub-degree level in Scotland is not reflected in vacancy data. More needs to be done to align skills supply to labour market demand. Again this may see a focus on provision with greater employer involvement and engagement, to ensure the skills system is anticipating demand and shaping its provision to meet current and future needs.

Productivity in Scotland has improved against the UK as a whole in recent years. However, at the same time the UK's productivity has stalled. Boosting productivity will be a crucial aim for Scotland in the coming years. Greater consideration needs to be given as to how the skills system can contribute more directly to boosting productivity. This could include sector-based skills academies enabling skills providers to more proactively engage with employers and employees in relation to boosting progression, productivity and pay and in doing so contributing to tackling in-work poverty.

Overall, a much greater clarity and purpose is required for the skills system in Scotland. A clearer set of aims for the skills provision in Scotland should be considered, focusing the skills system on how it can contribute to the key social and economic challenges and opportunities facing Scotland as a whole. Equally, the modes of learning and shape of provision will need to reflect the changing nature of work, and anticipate future changes including those caused by longer working lives and technological change. It will be crucial to ensure that the skills system is ready to serve people throughout potentially multiple careers, in a way that can allow employees to pick up and drop learning, through flexible modes, building their skills over time.

4. GLASGOW AND THE WEST OF SCOTLAND

In this section we wanted to consider any regional trends within Scotland in relation to the labour market and the interaction between the skills system and the labour market.

As outlined above, Scotland has developed a greater focus on regional approaches in recent years, through regional college outcome agreements and through regional skills investment plans (SIPs). In addition, the Scottish government's implementation of the 2014 Commission on Developing Scotland's Young Workforce has seen the formation of regional business groupings to promote recruitment of young people.

At the same time, Scotland is an economically diverse country and is highly diverse in terms of key economic indicators at the regional level – the policy context around the skills and education systems increasingly reflects this fact. It is important to look at the Scottish and UK levels, but also to examine the regional level.

For this section, we have focused on Glasgow and the west of Scotland.[5] As well as Glasgow's historically higher rates of poverty, ill-health and unemployment, the new City Deal for Glasgow and other policy decisions, such as the merger of the area's colleges in recent years, make it a good region to consider at a sub-Scotland level. The region makes for an interesting and instructive case study accounting for 40.8 per cent of Scotland's labour market, and is geographically diverse.

In many respects Glasgow and the west of Scotland mirrors trends at the Scottish level, yet in other crucial ways the region departs from these trends, particularly in progression to high-skill work.

We have brought together key data to outline the makeup of the labour market including skill levels, sectors, employment rates and progression. This allows us to compare the region to Scotland and the UK as a whole, considering any specific opportunities or challenges for the skills system in Glasgow and the west of Scotland.

4.1 THE GLASGOW AND GREATER GLASGOW CITY DEAL

The Glasgow City Deal is an agreement between the UK government, Scottish government and eight local authorities in the Glasgow and Greater Glasgow area (Scottish Government 2014c).[6] The agreement follows similar city deals across the UK, and sees significant investment from all partners into the area, devolving responsibility for this spend, and

5 For the purposes of this section we have used the 'Strathclyde' ONS data area which includes Glasgow, Greater Glasgow, Argyll, and Kyle and Carrick.

6 The eight local authority partners are East Dunbartonshire council, East Renfrewshire council, Glasgow city council, Inverclyde council, North Lanarkshire council, Renfrewshire council, South Lanarkshire council and West Dunbartonshire council.

providing a long-term framework to target this investment in the areas concerned. The city deal was agreed in August 2014, and will see over £1 billion of investment to improve the area across a number of projects over the next 20 years. The aim of the city deal is to boost the economy of Glasgow and Greater Glasgow, generating thousands of jobs, improving infrastructure and funding regeneration, encouraging private investment and boosting the economy overall.

A key focus of the city deal is to tackle some of the longstanding inequalities in Glasgow, therefore the skills system will have a key role in securing the anticipated benefits of the investment.

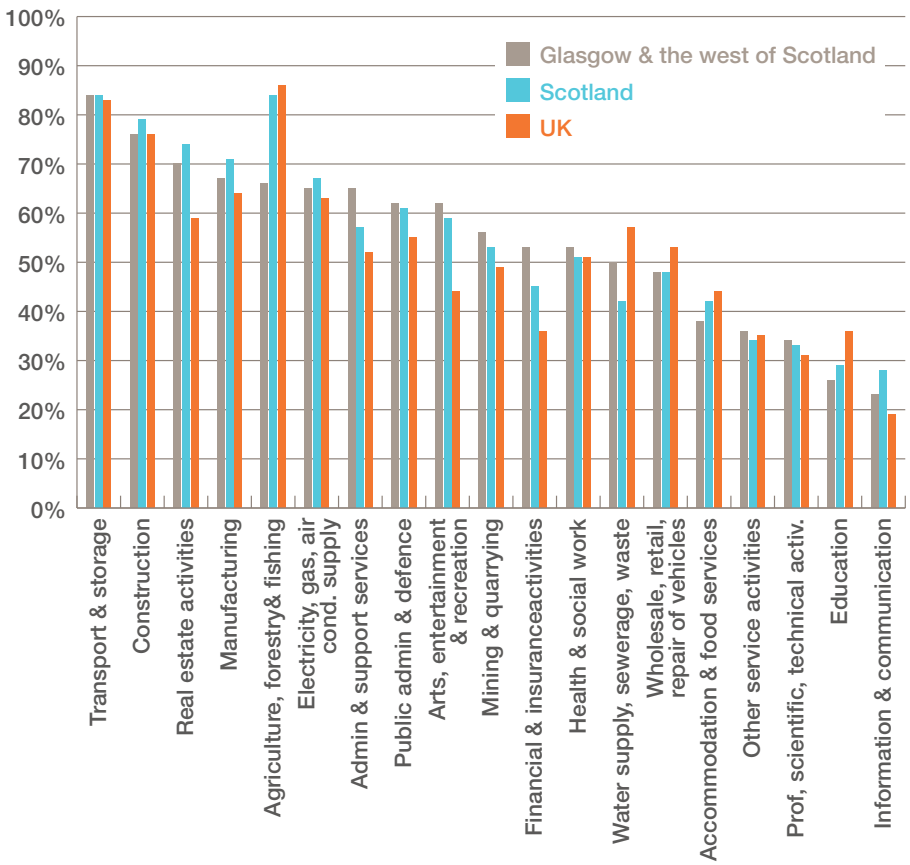
4.2 GLASGOW AND THE WEST OF SCOTLAND – LABOUR MARKET MAKEUP

Figure 4.1 shows the proportion of mid-skilled jobs by occupation for Glasgow and the west of Scotland, Scotland and the UK as a whole. It shows that Glasgow and the west of Scotland closely match Scotland as a whole in most occupation areas at mid-skill level.

FIGURE 4.1

Glasgow and the west of Scotland closely match Scotland as a whole in most occupation areas at mid-skill level

Proportion of jobs that are mid skill by sector (Glasgow and the west of Scotland, Scotland, and UK)



Source: IPPR Scotland calculations using ONS, 'Quarterly Labour Force Survey, various quarters' (ONS 2015b)

4.3 GLASGOW AND WEST OF SCOTLAND – SKILLS LEVEL

Table 4.1 shows the proportion of low-, medium- and high-skilled jobs in Glasgow and the west of Scotland against Scotland as a whole. In terms of the proportions of jobs of different skill levels within its labour market Glasgow and the west of Scotland closely match Scotland as a whole with 13.4 per cent of jobs in low-skilled occupations (13.2 per cent in Scotland), 53.6 per cent in mid-skilled occupations (53 per cent in Scotland) and 32 per cent in high-skilled occupations (32.9 per cent in Scotland). As outlined above, Scotland has fewer high-skilled jobs compared to the UK as a whole and greater numbers of low- and mid-skilled roles.

TABLE 4.1

Proportion of jobs which are low-, mid- and high-skill (Glasgow and the west of Scotland, Scotland, and UK)

	Glasgow and the west of Scotland (%)	Scotland (%)	UK (%)
Low-skill	13.4	13.2	11.8
Mid-skill	53.6	53.0	51.0
High-skill	32.0	32.8	36.3
No pay data	1.0	1.0	0.9

Source: IPPR Scotland calculations using ONS, 'Quarterly Labour Force Survey, various quarters' (ONS 2015b)

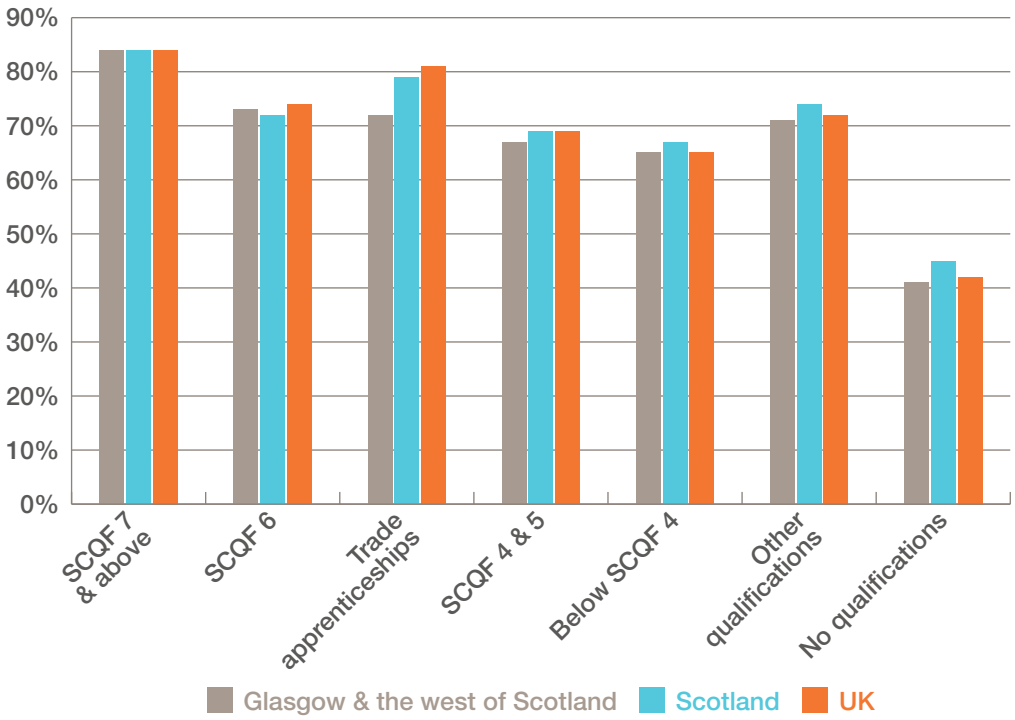
4.4 GLASGOW AND THE WEST OF SCOTLAND – EMPLOYMENT RATE

Figure 4.2 shows the employment rate of Glasgow and the west of Scotland, Scotland and the UK by qualification level. It shows that Glasgow and the west of Scotland closely match Scotland as a whole in terms of the employment rates of those with a highest qualification at SCQF 6 level and above. However, employment rates for lower-skilled workers are significantly lower than for Scotland as a whole. Those with a trade apprenticeship as their highest qualification had an employment rate of 72 per cent (against 79 per cent for Scotland as a whole), SCQF 4 and 5 had a rate of 67 per cent (against 69 per cent for Scotland as a whole) with workers with other qualifications and no qualifications seeing employment rates of 71 per cent and 41 per cent (against 74 per cent and 45 per cent for Scotland as a whole).

FIGURE 4.2

Employment rates for lower-skilled workers in Glasgow and the west of Scotland are significantly lower than for Scotland as a whole

Employment rate by highest qualification (Q4 2014–Q3 2015, Glasgow and the west of Scotland, Scotland, and UK)



Source: IPPR Scotland calculations using ONS, 'Quarterly Labour Force Survey, various quarters' (ONS 2015b)

4.5 GLASGOW AND WEST OF SCOTLAND – PROGRESSION

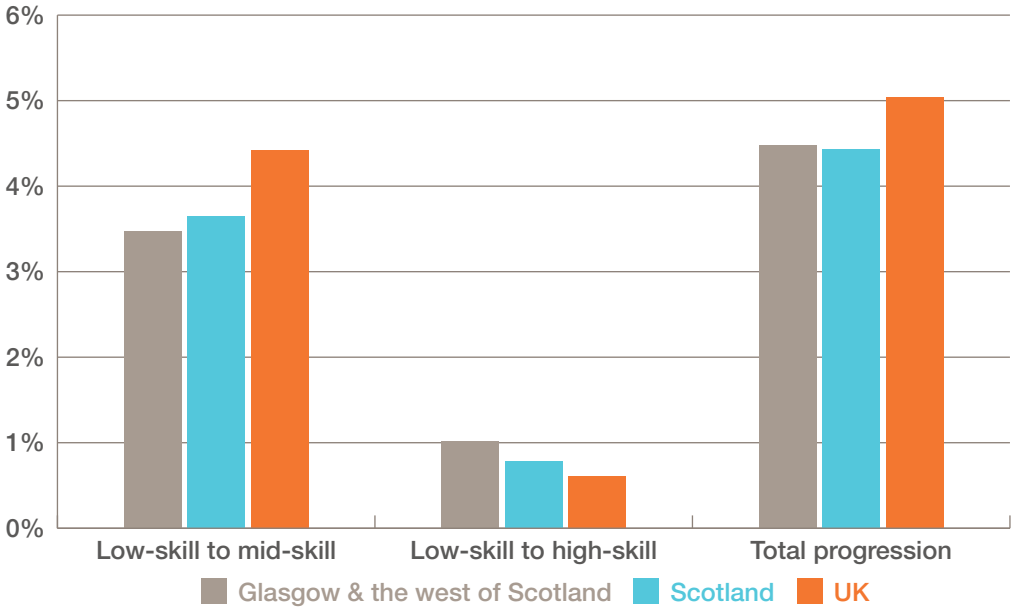
Figure 4.3 shows Glasgow and the west of Scotland's progression rate against Scotland's and the UK's as a whole. As outlined above Scotland has a lower progression rate compared to the UK as a whole. From figure 4.3 we can see that within Scotland, Glasgow and the west of Scotland closely match Scotland's overall progression rate of workers from low-skill roles with 4.5 per cent of workers per quarter (on average between 2011 and 2015) progressing from low-skilled roles (against a Scotland rate of 4.4 per cent).

However, Glasgow and the West of Scotland's rate of progression from low to mid-skilled roles is lower than for Scotland (3.5 per cent for Glasgow and the west of Scotland, 3.7 per cent for Scotland) whereas progression from low to high-skilled roles is greater in Glasgow and the west of Scotland than for Scotland as a whole (1.0 per cent for Glasgow and the west of Scotland against 0.9 per cent for Scotland as a whole) meaning Glasgow and the west of Scotland has among the highest rates of low to high-skilled progression in the UK (excluding Northern Ireland).

FIGURE 4.3

Glasgow and the west of Scotland has among the highest rates of low to high-skilled progression in the UK (excluding Northern Ireland)

Proportion of low-skill workers moving into mid- and high-skill work (2011–2015, Glasgow and the west of Scotland, Scotland, and Great Britain)



Source: IPPR Scotland calculations using ONS, 'Two-Quarter Labour Force Survey, various quarters' (ONS 2015d)
Note: ONS data through the Labour Force Survey does not hold sufficient sample size for Northern Ireland. This data therefore considers Scotland against Great Britain.

4.6 SUMMARY

The key weaknesses in the labour market in Glasgow and the west of Scotland are around employment rates and progression rates, particularly for lower-qualified workers and lower-skill roles. While progression from low- to high-skill roles is strong, progression from low- to mid-skill roles is weaker in Glasgow and the west of Scotland than Scotland as a whole, which in turn is among the weakest in the UK. A crucial priority for the skills system in Glasgow should be its potential contribution, working directly with employers and employees, to boosting progression rates from low- to mid-skilled roles, and with that a likely boosting of wage rates. Furthermore, employment rates in Glasgow and the west of Scotland are below those in Scotland as a whole, particularly for lower-skilled workers. How the regional skills system can focus on boosting the skill level of lower-skilled people in the area, and how it can boost the employment rate of lower-skilled people should be crucial regional priorities for the skills system in Glasgow and the west of Scotland.

5. SCOTLAND'S SKILLS SYSTEM: PRIORITIES FOR FORTHCOMING RESEARCH

This report has considered the jobs recovery Scotland has experienced since 2010 and 2015, and the current attributes of the labour market. In particular, we have considered the labour market through the prism of skills and how the skills system is matched up to the labour market. As outlined above, this report is the start of a series of IPPR Scotland reports on the skills system in Scotland, and acts as an analytical foundation for future work. Future work will build on this to develop a theory of the skills system and concrete policy design to recommended reform to the shape of skills provision.

Overall, **the skills system needs to more clearly show how it successfully contributes to improving rates of progression, productivity and reducing in-work poverty in Scotland.**

1. Greater engagement at the individual learner level, from employers and employees, could help to address the skills mismatch displayed by the skills system in Scotland

We believe the significant skills mismatch in Scotland is a failure of engagement between employers, employees/learners and skills providers. The skills system needs to develop further ways to stimulate learner demand, informing learners' choices in accessing the skills system. Better data in relation to labour market demand could be crucial. In addition, working with employers, in return for public investment in skills provision, to more closely link successful learning outcomes with successful career progression, could be a powerful driver of employer engagement and both employer and learner demand for skills provision.

2. The skills system needs to be better prepared for learners with multiple careers, stop-start learning, and more flexible learning routes

With an ageing population, technological change and an extended working life, many more workers will have multiple careers in the future. This will likely require a skills system that can work with employees/learners and employers throughout a lifetime of learning, making it possible for learners to pick up and drop learning with very flexible modes of delivery. In our future work we will consider whether the skills system will require a greater focus on modularised learning, on a common spine, allowing learners and employees to build suites of learning tailored to their needs.

3. New regional approaches are needed to bring the whole of the skills system together in planning and investing in skills provision

We would like to consider in our future work whether the skills system should be brought together into single regional groupings for the post-16 skills system as a whole. This could begin with a focus on the post-school and sub-degree elements of the skills system. New regional approaches that consider the full range of the skills system could bring budget considerations together in one place, alongside decisions in relation to provision, enabling greater engagement and involvement from employers and learners.

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APPENDIX: METHODOLOGY

Throughout this report, we make use of the following definitions of low-, mid- and high-skilled occupations.

- Low-skilled jobs in Scotland: jobs for which median gross hourly pay is less than the Living Wage Foundation's living wage, as measured by the 2015 Annual Survey of Hours and Earnings, and which do not require a first degree-level qualification (ONS 2015e).
- Mid-skilled jobs in Scotland: jobs for which median gross hourly pay is higher than the Living Wage Foundation's living wage, but which do not require a first degree or equivalent higher education qualification.
- High-skilled jobs in Scotland: jobs for which median gross hourly pay is greater than the Living Wage Foundation's living wage, and which do require a first degree or higher qualification.

The Office for National Statistics (ONS) includes workers with a Higher National Certificate/Diploma (HNC/D) in their use of 'higher education' for the Labour Force Survey, and so they are included in the number of workers in an occupation with a degree-level occupation.

A.1 CLASSIFICATION OF OCCUPATIONS

In order to ascertain whether a particular occupation requires a first degree, we make use of two sources. We use the Labour Force Survey (Q1 2011–Q2 2015) to measure what proportion of workers currently in that occupation possess a qualification of at least first degree level (ONS 2015b). If more than 30 per cent of those currently employed hold a degree, we record that occupation as high skilled. We then check these results against the standard occupational classification manual published by the Office for National Statistics, which sets out normal qualification requirements for each occupation that the ONS records.[7] On this measure our two sources agree: none of the occupations that we have identified through the Labour Force Survey as having less than 30 per cent of current workers qualified to degree level is regarded by the ONS as requiring a qualification at degree level or above.

Because occupations can be classified at differing levels of detail, and data sources differ in the extent to which their occupational data is disaggregated, we repeat this process at three different levels of detail, using the standard occupational classification (SOC) coding frame at a two-digit (least detailed), three-digit and four-digit (most detailed) level. The results in this report, unless noted, are at three-digit occupational level.[8]

7 See: http://webarchive.nationalarchives.gov.uk/20160105160709/http:/www.ons.gov.uk/ons/guide-method/classifications/current-standard-classifications/soc2010/soc2010-volume-1-structure-and-descriptions-of-unit-groups/index.html#5

8 See: http://www.neighbourhood.statistics.gov.uk/HTMLDocs/dev3/ONS_SOC_hierarchy_view.html

A.2 MEDIAN HOURLY PAY

Some occupations are not classifiable according to the definitions above because their sample size within the Annual Survey of Hours and Earnings is too small to allow for median hourly pay to be measured. This may be because they make up too small a proportion of the labour market, or because they are dominated by self-employed workers, for whom hourly earnings are not recorded.

A.3 LABOUR MARKET ACTIVITY

In order to measure the labour market activity of individuals, we use the ONS Labour Force Survey (ONS 2015b), making use of both snapshot data and its two-quarter longitudinal dataset to measure how workers move into and between jobs.

In order to measure employers' demand for workers in particular occupations, we make use of the dataset of online job vacancies posted in 2014, provided to IPPR Scotland and IPPR by Burning Glass Technologies (BGT 2016). Since online vacancies tend to be biased towards high-skilled occupations, and many jobs towards the bottom of the skill distribution are not advertised online at all, this data has been normalised in line with Labour Force Survey data to better reflect the real distribution of vacancies.

We have also carried out analysis of the UK Commission on Employment and Skills 'working futures' dataset, which provides estimates of how demand for occupations will change between 2012 and 2022 (UKCES 2014).

A.4 SKILLS PROVISION

In order to analyse current skills provision, we use a combination of published data on skills participation, attainment and outcomes. This is then matched to occupations using the Labour Force Survey, which records the sector subject area (SSA) of an individual's highest vocational qualification, in order to 'match' skills provision with the qualifications held in a particular occupation.

A.5 QUALIFICATIONS

The Office for National Statistics' Labour Force Survey divides qualifications into eight levels of the National Qualifications Framework (NQF). In this report, we convert these into the Scottish Credit and Qualifications Framework (SCQF). As Advanced Highers fall into SCQF 7, but A-levels fall into NQF 3, we do not specifically include Advanced Highers in our calculations.

TABLE A.1

Educational qualifications across National Qualifications Framework and Scottish Credit and Qualifications Framework

Qualification	National Qualifications Framework level	National Vocational Qualification equivalent	Scottish Credit and Qualifications Framework
Doctorate degree	Level 8	Level 5	Level 12
Master's degree	Level 7	Level 5	Level 11
Bachelor's degree	Level 6	Level 5	Level 9/10
HND	Level 5	Level 4	Level 8
HNC	Level 4	Level 4	Level 7
Higher	Level 3	Level 3	Level 6
National 5	Level 2	Level 2	Level 5
National 4	Level 2	Level 2	Level 4
National 3	Level 1	Level 1	Level 3