

Some key issues for employment and skills planning in Scotland: a review of emerging evidence

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Abstract

This paper draws on evidence from the first set of Regional Skills Assessments produced for lowland Scotland to highlight some issues for skills policy and planning. Scotland has an ageing population and this is set to accelerate over the coming decade. Forecast employment and population changes point to a potential mismatch between future labour supply and demand in Scotland. The shifting industrial and occupational structure of Scotland has implications for the level and type of qualifications that individuals will need in order to access future job opportunities. Changes in population and the economy will require careful consideration of the right scale and mix of post-16 education and skills provision. This is a key issue that policy makers, public agencies and local and national governments must address if Scotland is to effectively maintain its productive potential in the face of a declining working age population.

1 Introduction

In 2014, the first set of Regional Skills Assessments (RSAs) were commissioned by Skills Development Scotland (SDS) and partners from SQW. The purpose of the RSAs was to provide a shared and agreed evidence base to inform skills planning and investment at a regional level, including the Regional Outcome Agreements being developed between the Scottish Funding Council and newly formed regional colleges.

The output of this work was a series of eleven reports covering regions across lowland Scotland¹, with a Skills Investment Plan for the Highlands and Islands region having been developed separately. The RSAs brought together available evidence on current and projected future demand for employment and skills, alongside analysis of trends in people and skills supply, and employer reported mismatches between the two.

The analysis within the RSAs focusses on evidence of skills supply and demand within each region as compared to the national picture; an equivalent analysis covering Scotland as a whole was not produced. This paper draws on the RSA evidence base to highlight some Scotland-wide issues for policy and planning consideration. Only by taking a national perspective does the scale and spatial nature of some of the issues raised become apparent.

The discussion below covers in turn: the changing demographic profile of Scotland; where future demand for employment and skills is expected to be concentrated in terms of sectors and regions; the fit of forecast net employment change to projected changes in the working age population; and opportunities arising from replacement demand. This analysis raises a number of issues for

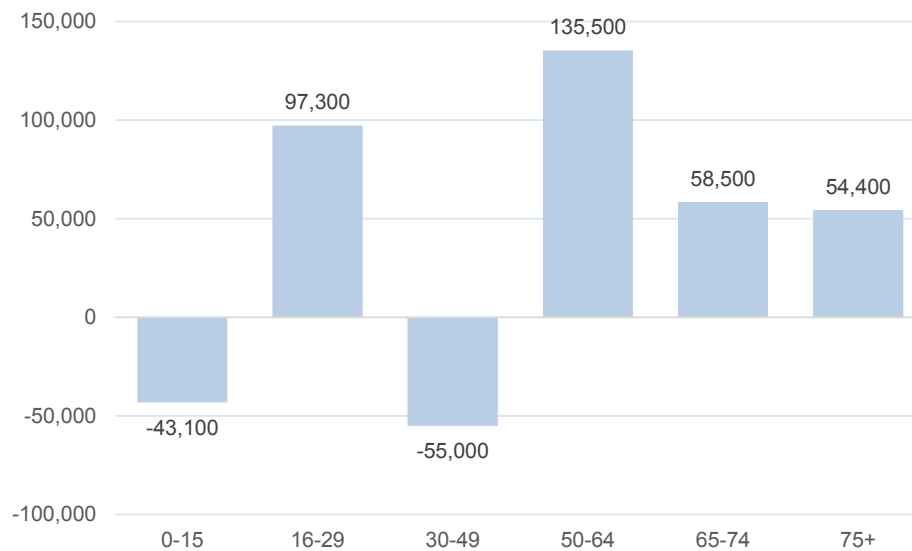
¹ The full set of RSAs are available to download at: <http://www.skillsdevelopmentscotland.co.uk/resources/regional-skills-assessments/>

consideration by those involved in the planning and delivery of employment and skills provision in Scotland.

2 Changing demographics

As with many developed economies, Scotland has an ageing population. This is the result of the interplay of factors including: falling birth rates, increased life expectancy and the post-war 'baby boomer' generation reaching retirement age. In the ten years to 2012, Scotland's population growth was mainly concentrated amongst the over-50s (refer Figure 1). There was positive growth in the 16-29 age group over the period, mainly driven by net in-migration, but this was offset by declines in the key working age group of 30-49 and the numbers of young people under the age of 16.

Figure 1: Population change by age band in Scotland, 2002-12

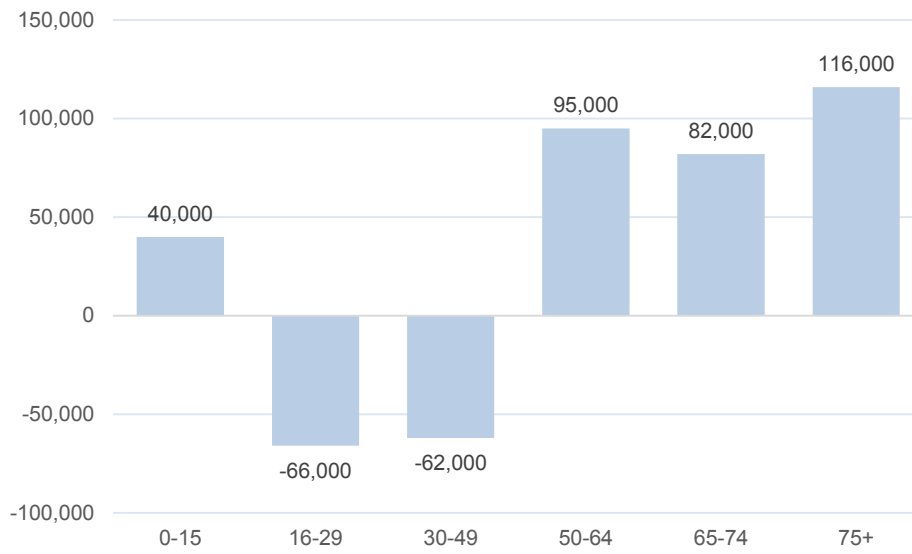


Source: SQW analysis of data from National Records of Scotland

Figure 2 shows that this ageing of the population is set to accelerate over the coming decade. There will be substantial increases in all groups over the age of 50, with the largest net expansion expected amongst those aged 75 and over. A forecast increase in the birth rate is also expected to result in more children and young people under the age of 16. However, the key age groups in terms of labour and skills supply (16-29 and 30-49) are both set to contract. These changes will alter the dependency ratio in Scotland; that is the balance of the share of the population that is economically productive relative to share that is not.

This changing demographic profile will have major implications for the future demand for public services, including education, training and employment. In the short run, the decline in the 16-29 age group is likely to result in an over-supply of employment and skills provision targeted at young people and school leavers in particular. This in turn, raises questions about the scale and mix of apprenticeship, further and higher education provision that will be required, as well as how to better cater to the skills and employment needs of working age population groups.

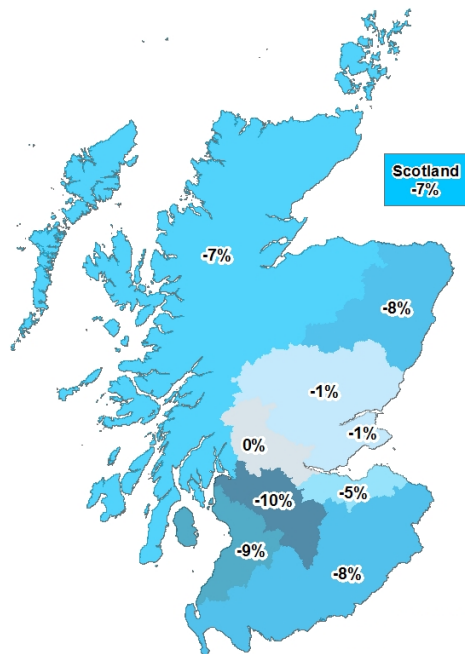
Figure 2: Projected change in population in Scotland, 2012-2022



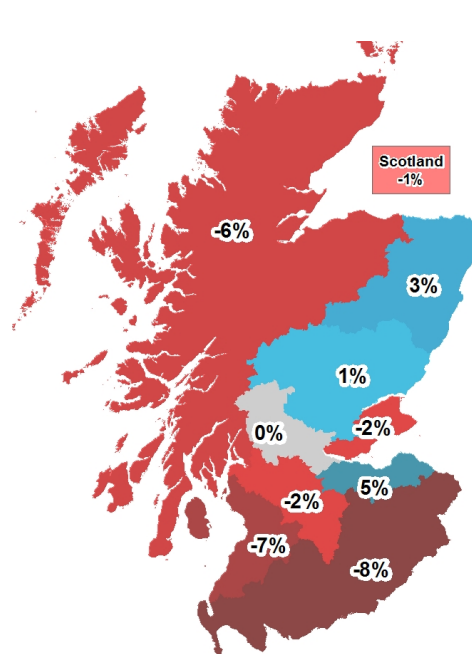
Source: SQW analysis of data from National Records of Scotland

Figure 3: Projected percentage change in population, by region (2012-2022)

Population Aged 16-29



Working Age Population (16-64)



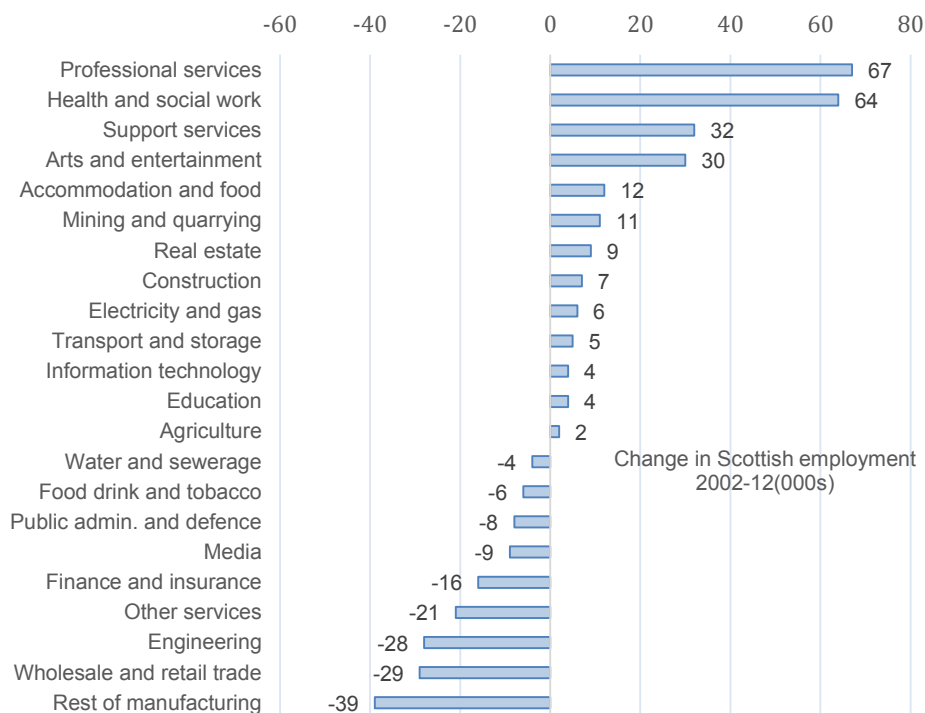
Maps produced by SQW 2015, © Ordnance Survey database rights 2015; License Number 100019086

Source: National Records of Scotland

The question of what types of education and training might be most appropriate to adjust and develop to reflect these changing demographic circumstances should be shaped by evidence of demand for employment and skills. This is something we turn to later. However, analysis of demographic data suggests that changes will not be uniform across Scotland. As Figure 3 shows:

- The 16-29 population is projected to decline across all areas of Scotland, aside from Forth Valley where it is expected to remain stable. The sharpest declines in this age group are expected to be in Glasgow and Clyde Valley, and Ayrshire.
- The working age population displays a more mixed picture, with growth concentrated in the east (Edinburgh and the Lothians at 5%, Aberdeen City 3% and Tayside 1%) with declines expected across all other areas (-2% to -8%).

Figure 4: Change in Scottish employment by sector, 2002-2012 (000's)



Source: SQW analysis of Working Futures data

3 Demand for employment and skills

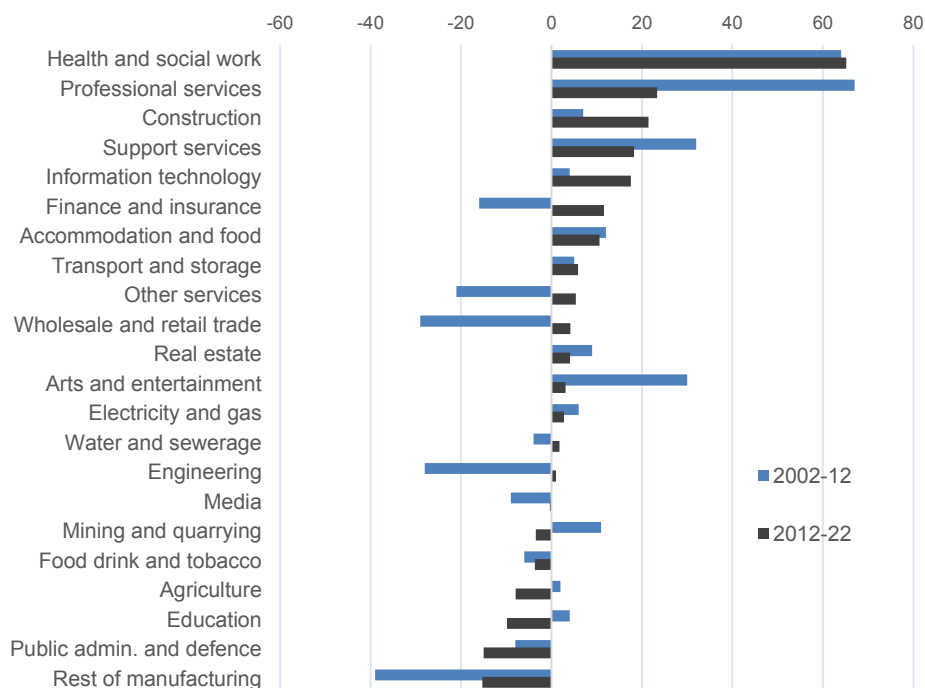
The UK Commission for Employment and Skills issues employment projections every two years through its Working Futures publications. The results provide a consistent and systematic view across the whole of the UK economy and labour market. The *Working Futures 2012-2022* study included a set of sub-

national employment projections for regions within Scotland, analysis of which was included within the RSAs².

The publication also included data on historic trends in employment. These show that professional services and health and social work have been dominant drivers of employment growth in Scotland over the past decade (refer Figure 4). Support services, which includes facilities management and other business support services, and arts and entertainment have also grown strongly. At the other end of the scale, the long term trend of decline in manufacturing and engineering employment has continued, whilst there was also a contraction in wholesale and retail, and financial services employment over the period.

Figure 5 shows that the forecast scale and nature of employment change in Scotland is expected to be somewhat different than over the past decade. Whilst health and social work is expected to continue to expand on a similar scale to the previous decade, growth in professional services employment is forecast to be much slower. There are also expected to be marked slowdowns in employment growth within other sectors, such as support services and arts and entertainment. Conversely, others will expand, or return to growth, such as construction, information technology and financial services. Taken together, these changes will alter the scale and nature of labour demand and will have significant implications on the skills and education provision that will be required to support future economic growth.

Figure 5: Net change in employment by industry in Scotland, 2002/12 and 2012/22 (000's)



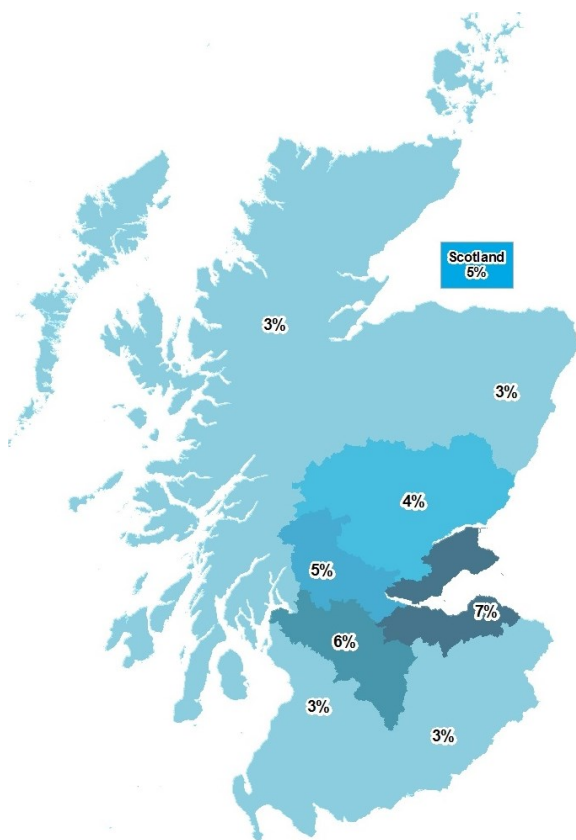
Source: SQW analysis of Working Futures data

² Wilson, R. A., R. Beaven, M. May-Gillings, G. Hay and J. Stevens (2014). *Working Futures 2012-2022: Main Report*. UK Commission for Employment and Skills: Wath on Dearne.

All areas of Scotland are expected to experience net employment growth over the coming decade (refer Figure 6). However, this will not be evenly spread across the country, with the fastest rates of growth expected in the Central Belt; Glasgow and Clyde Valley, Edinburgh and the Lothians and to a lesser extent Forth Valley and Tayside. Peripheral and more rural areas, such as Aberdeen City and Shire, Highlands and Islands and the South of Scotland, are expected to experience slower rates of growth.

It is important to note that these projections were produced in autumn 2013 and therefore do not take account of the recent fall in the oil price, which has resulted in over 6,000 jobs in the oil and gas sector being announced as lost or at risk since 2014. Though these are mainly concentrated in the Aberdeen City and Shire area, they will have major ramifications throughout Scotland and across the supply chain. The outlook for Aberdeen City and Shire, and for other areas with concentrations of oil and gas supply chain firms and employment, is likely to be less positive than these forecasts would suggest.

Figure 6: Projected percentage change in employment 2012-22, by region



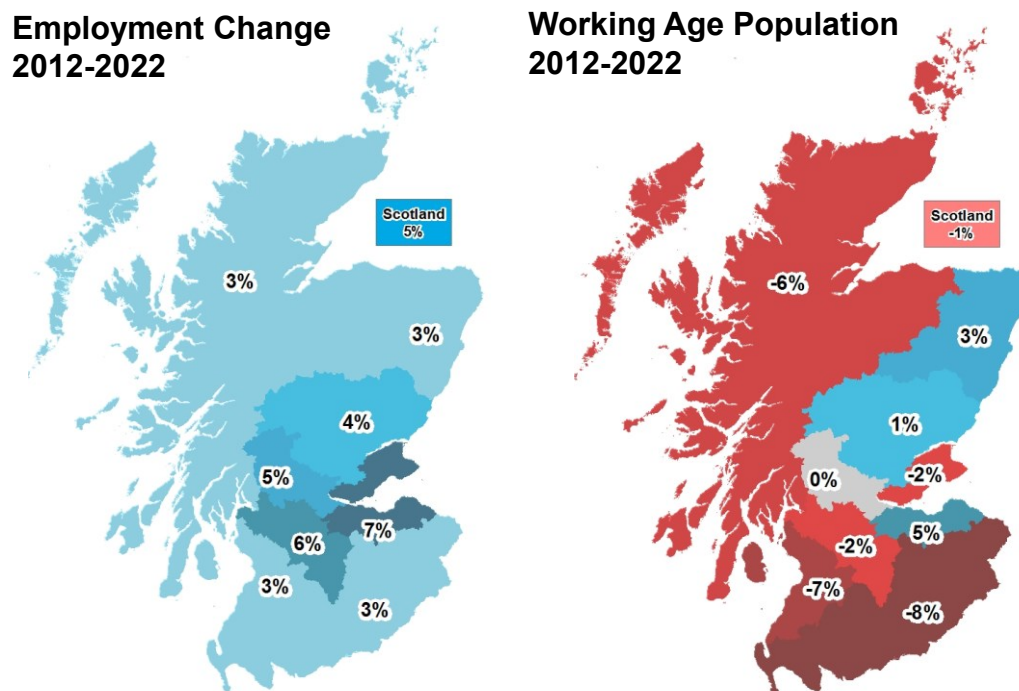
*Map produced by SQW 2015, © Ordnance Survey database rights 2015, License Number 100019086
Source: UK CES Working Futures*

Taking together, forecast employment and population change points to a potential mismatch between future labour supply and demand in Scotland: the total number of Scottish jobs is expected to increase by 5% between 2012 and 2022, whilst the working age population is expected to contract by 1% over the same period. Figure 7 shows regional variations in projected change in these two headline measures:

- A net increase in employment is expected across all areas, with the fastest rates of growth expected for central and eastern areas
- Edinburgh and the Lothians, Tayside and Aberdeen City and Shire are the only areas expected to experience growth in their working age populations
- The number of people of working age is set to contract across all other areas, with the more rural areas of the South of Scotland, Ayrshire and Highlands and Islands expected to experience the fastest rates of decline.

These trends are likely to heighten existing skills shortages and could potentially act as a constraint on future growth, particularly within western and rural regions.

Figure 7: Projected jobs demand versus employment and skills supply, 2012-2022 (% change)



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Source: UKCES Working Futures; National Records of Scotland

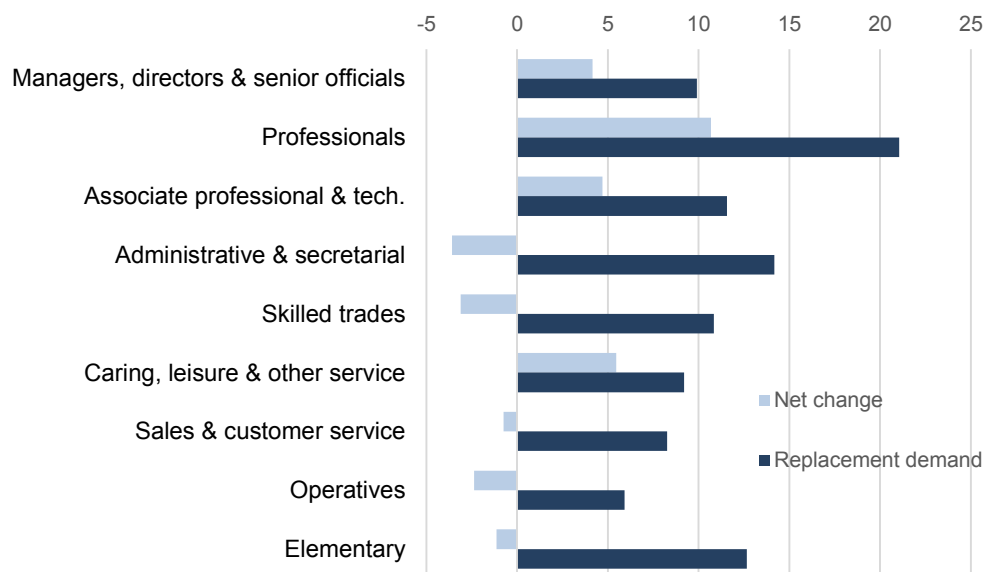
The apparent disparity between projected employment demand and working age population supply raises a number of challenges for policy makers. It suggests a need to more carefully consider measures to: increase the participation rate (especially of under-represented groups such as women, people with health and disability problems, including those with mental health problems, ethnic minorities and other under-represented groups); take advantage of the increase in older people working longer; delaying full retirement from the labour market; and growing the working age population through increased in-migration.

4 Replacement demand

To get a balanced view of future labour market demand, it is useful to distinguish between the scale and nature of 'expansion demand', generated by growth in the Scottish economy and 'replacement demand' generated by replacing those people who retire, change occupations or move away. Expansion demand in Scotland is expected to result in 140,000 new job opportunities between 2012 and 2022; however, replacement demand is projected to result in over one million job openings over the same period, nearly ten times that resulting from net growth. Importantly, these openings will occur across all types of jobs, including those that are expected to decline in net terms and present a challenge to policy makers who are often overly-focused on net-growth sectors.

Managers, professionals and associate professionals combined will be the source of over half of all job openings to 2022 (Figure 8). This group is expected to experience positive expansion *and* replacement demand; the only other such occupational group to do so is caring, leisure & other services, which includes many people working in tourism and hospitality sectors, and also those in caring professions. The continued expansion of this occupational group is partly the result of an ageing population leading to increased demand for care and related services.

Figure 8: Forecast net change and replacement demand in Scotland ('000's), by standard occupational classification (SOC) groups, 2012-2022



Source: SQW analysis of Working Futures data

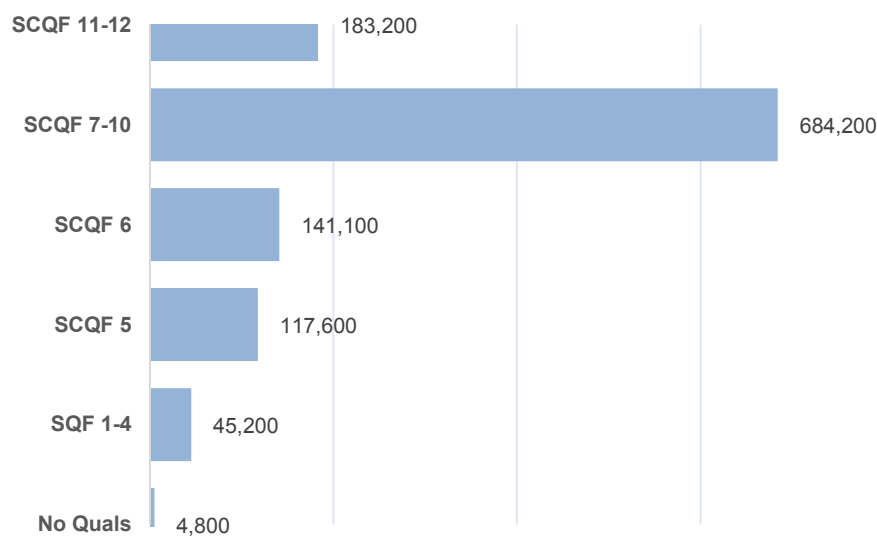
All other occupational groupings are expected to experience a decline in net terms, resulting in a rebalancing of the occupational structure of the economy towards higher skilled occupations. This is a continuation of a long term trend within the UK and other industrialised nations and is consistent with interpretations of polarisation in the UK's skills structure, with increased demand for high and low level

skills, combined with a net decline in occupations requiring intermediate skills, such as administrative and secretarial, skilled trades and operatives³.

This shifting occupational structure also has implications for the qualifications that individuals will need in order to access the job opportunities that become available. **Error! Reference source not found.** shows that, of the 1.2 million job openings expected to become available between 2012 and 2022, the majority will require individuals qualified to at least SCQF Level 7 – equivalent to a Higher National Certificate (HNC) or Modern Apprenticeship Level 3. The remainder will mainly be for individuals qualified to Level 5 / 6 and there will be limited opportunities available to those qualified below this level or those with no qualifications at all.

In 2014, 6% of the economically active population in Scotland had no qualifications – a total of 165,000 people⁴. This analysis shows that less than 5,000 job openings to 2022 will be available to those with no qualifications. Though more than half (52%) of those with no qualifications are over the age of 50 and therefore likely to be leaving the labour market within the next 10-15 years, there is still likely to be a need for provision aimed at increasing the qualification levels of those who are unemployed or in low skilled occupations, at least in the short to medium term, in order to increase the participation rate and ensure that anticipated demand for qualifications can be met.

Figure 9: Projected job openings, by required qualification level (2012-2022)



Source: SQW analysis of Working Futures database: Total job openings = 1.2m

³ UKCES (2014). *The Labour Market Story: Skills for the Future*.

⁴ Source: Annual Population Survey.

5 Concluding comments

This paper has drawn on evidence from the Regional Skills Assessments (RSAs) to highlight some key issues for the Scottish labour market. The RSAs are currently in the process of being updated and it will be important to review these to see how the picture is changing alongside the updated employment and population projections. Meantime, there are a number of crucial issues for policy makers to consider if the Scottish skills system is to deliver the right number of people with the right qualifications to support future growth.

Key amongst these should be consideration of the appropriate scale and nature of provision required for young people at a time when their numbers are expected to decline. This requirement becomes even more acute in the context of a declining working age population, which could act as a constraint on future growth. Indeed, the paper highlights the need for careful consideration of future employment and skills policy to maximise the contribution that people of *all* ages can make to economic growth. Older workers and migrants are likely to have a crucial part to play in supporting growth and it will be important that the system supports them to do so, as will the effective support of inclusive growth that draws into the labour market groups that all-to-often have been under-represented: including women, people with physical and mental health conditions and ethnic minorities.

In a Scotland with fewer working age people and continuing tight public sector finances, it is more important than ever to ensure that available resources are targeted at key areas of the labour market and that the system is as efficient (and effective) as possible. The broad thrust of Scotland's projected demographic change suggests that there may be a need for less provision for young people going forward. This will be difficult for politicians and policy makers, where the expectation has been of increasing education and training places for young people. The changing nature of employer demand for skills also suggests that the nature of provision will need to be different to what has gone before. Together these factors will require careful consideration of the right scale and mix of post-16 provision across schools, colleges and universities – and crucially in the workplace (eg apprenticeships and staff development and progression). Achieving this balance may be difficult given that available information is – and always will be – imperfect; however it is a crucial issue to be addressed. And it is one that policy makers, public agencies, local and national governments and businesses must address if Scotland is to effectively maintain its productive potential in the face of a declining working age population and changing labour market demands.

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