

Working Futures 2010-2020

Executive Summary 41
December 2011

Key summary findings

Working Futures 2010-2020 is fourth in a series of labour market assessments that provide detailed projections for the UK labour market. It focuses on a ten year horizon, giving a picture of the labour market for 2020; including employment prospects for industries, occupations, qualification levels, gender and employment status for the UK and for nations and English regions. The core purpose of *Working Futures* is to inform policy development and strategy around skills, careers and employment.

The headline findings are as follows:

- The model projects that there will be a slow recovery from recession, with the UK economy generating around 1 ½ million additional jobs by 2020.
- The working age population and workforce are projected to rise significantly but labour market participation rates are expected to fall slightly, reflecting the aging of the population.
- 56 per cent of the net increase in jobs over 2010-2020 is expected to be taken up by women. 38 per cent of all additional jobs are projected to be full-time, 57 per cent part-time and 5 per cent self-employed. Of the 588 thousand additional full-time jobs created between 2010 and 2020, 415 thousand are expected to be occupied by women and only 173 thousand by men.
- Manufacturing is projected to maintain its share of total output (at around 11 per cent) up to 2020 but to see a small fall in its share of employment, from 8 to 7 per cent of the total, as a result of increased productivity.
- Private services are expected to be the main source of jobs growth, with employment in this part of the economy projected to rise by more than 1.5m (+9 per cent) during the full period of 2010-2020, increasing its share of total employment from 55 per cent to 58 per cent. Business and other services will be a particularly crucial component, with growth of more than 12 per cent, equivalent to more than 1 million additional jobs.
- The period is expected to see a shift in the balance of the economy away from public sector activities. The share of total employment accounted for by non-market services is projected to fall from 27 per cent in 2010 to 25 per cent in 2020.

- There is forecast to be a continued trend of employment growth in higher skilled, white collar occupations, including managers, professionals and associate professional roles. The study estimates 2 million additional jobs in these occupations by 2020. These three occupations are projected to increase their share of total employment from 42 per cent to 46 per cent over the 10 year period.
- Continuing sharp declines in employment are expected for skilled and semi-skilled manual roles, including in skilled trade occupations and process, plant & machine operatives. 400,000 such manual jobs are forecast to disappear between 2010 and 2020, reducing the combined employment share of these occupations from 18 per cent to 16 per cent.
- Administrative and secretarial occupations are projected to see a loss of almost 400,000 jobs, a fall of around 11 per cent, largely as a result of the continuing impact of technology in the workplace. There is still expected to be around 3 million jobs in this occupational area by 2020 but its share of employment will have fallen from 12 per cent to 10 per cent, according to the projections.
- Lower skilled jobs will remain a significant component of the labour market. There is expected to be an increase of more than 300,000 jobs in caring, personal and other service occupations (+10 per cent) and 100,000 (+3 per cent) in low-skilled elementary jobs between 2010 and 2020, again mostly in service-based areas.
- Job openings created by those who leave the labour market (i.e. replacement demands) are projected to generate around 12 million job openings between 2010 and 2020, many times more than the 1.5m openings from the creation of new jobs. Replacement demands will lead to job openings for all industries and occupations including those in which the net level of employment is expected to decline significantly. This has important implications for individuals who may be considering their future career and education and training options, since even those occupations where employment is projected to decline may still offer good career prospects.
- The demand for skills as measured by formal qualifications is projected to rise as is the supply of people holding higher level qualifications. The number of jobs in occupations typically requiring a degree is expected to continue to grow but perhaps more slowly than previously forecast.

- The southern part of England is expected to see more rapid employment growth than the devolved nations and the northern regions of England. Almost half of the growth in jobs in higher level occupations will occur in London, South East England and the East of England.

These points are explored in greater detail in the remainder of this summary and in the main report of *Working Futures*.

More detailed findings

Macroeconomic context

In developing any assessment of labour market prospects it is important to set things into a proper macroeconomic context.

The *Working Futures* projections were developed during a period of considerable turbulence in world financial markets. Concerns about the financial system now focus on problems of Sovereign debt, and in particular problems in Greece, Italy and the Eurozone generally. At the time of writing it remains unclear if these problems will trigger a further recession in Europe and the UK. The results presented here assume that such a crisis can be averted.

In such circumstances producing robust economic and labour market projections is particularly difficult. The baseline macroeconomic forecast underlying the results was developed in the first half of 2011. It assumes that a gradual recovery in confidence will bring about renewed growth in the UK economy, and that this will sustain employment growth in the longer-term (2010-2020). This forecast could underestimate the possible short term downturn that might affect the economy if the problems in Greece and the Eurozone more generally are not resolved.

Despite these uncertainties the economy is projected to continue its recovery, and to settle down in the medium term to a pattern of modest growth, with only moderate rates of inflation. Measures of economic output such as Gross Domestic Product (GDP) and Gross Value Added (GVA) are projected to display long-term growth rates of around 2½ per cent per annum.

The labour market prospects

Employment is projected to rise slowly but steadily over the decade as a whole, driven by a significant increase in population levels. The long-term rate of employment growth (jobs) is expected to be around ½ per cent per annum, resulting in around 1½ million additional jobs by 2020.

The working age population and the workforce are also projected to rise significantly. Labour market participation rates are defined as the proportion of the number of those economically active (i.e. those in employment or actively searching for work) expressed as a proportion of the working age population (those aged 16+). They are projected to fall slightly. This reflects the overall aging of the population. Declining trends for males, despite the efforts of government to postpone retirement ages, are offset by increases amongst some female age categories.

The rate of unemployment on the ILO basis (i.e. those actively searching for work as a percentage of the labour force) is expected to peak in the early part of the period, and then to fall slowly over time to reach around 6 per cent by 2020.

Sectoral prospects

Changing patterns of employment by sector are largely dominated by longer-term trends in the demand for goods and services. Increasing demand for a sector's output can be expected to result in increasing employment levels (and conversely) all else being equal. However rising output is not a sufficient condition to guarantee increasing employment levels. Employment prospects also depend upon how rapidly productivity rises in the sector. While productivity growth is a key element in maintaining competitiveness and reducing costs, it also has a direct impact on employment levels. All else being equal, increases in productivity imply fewer people employed.

The prospects for growth in output and employment over the decade to 2020 in the 6 broad sectors identified in the analysis can be summarised as follows:

- **The Primary & utilities sector** (which includes agriculture, etc, and mining & quarrying; electricity, gas & water) is projected to see only modest output growth over the decade. This obscures sharp declines for mining & quarrying, offset by somewhat better prospects for electricity, gas & water, and in agriculture, etc. Primary & utilities is expected to continue to experience significant job losses in the next decade of around ¼ per cent per annum (around 20 thousand jobs in total);

- **Manufacturing** output growth is projected to average around 2½ per cent per annum. There is faster growth in some technology and R&D-related industries, such as parts of chemicals and engineering, but other sectors such as textiles, clothing and metals & metal goods, etc. are expected to perform much less strongly, reflecting continuing intense international competition. Long-term decline in employment in manufacturing is expected to continue, with a loss of around 170 thousand jobs over the coming decade (a rate of change of around ¾ per cent per annum). Textiles & clothing displays one of the largest job losses but there are significant declines in many other industries as well;
- **Construction** is projected to exhibit a similar rate of growth to the manufacturing sector in the medium to long-term. This is despite the immediate uncertainties in the housing market, because the sector is expected to benefit from strong demand for major infrastructure projects. Output growth is projected to average around 2 per cent per annum. The sector benefits from positive features such as the public expenditure on projects such as the Olympics, despite being hard hit by the immediate fall out from the credit crunch. Over the longer term, employment is projected to increase slightly by 240 thousand jobs over the coming decade (around 1 per cent per annum);
- **Trade, accommodation & transport** includes a diverse range of industries, including transport & communications, hotels and restaurants and distribution. Prospects in terms of output and employment growth are equally diverse. Communications is the sub-sector displaying the strongest growth. Output in the sector as a whole is projected to grow by 2.7 cent per annum. Employment is projected to increase by over 400 thousand jobs over the decade to 2020 (about ½ per cent per annum) with most of the growth accounted for by jobs in distribution, retailing and hotels and restaurants;
- **Business and other services** also incorporates a diverse range of industries, including computing services as well as business and finance. It was initially hard hit by the fallout from the credit crunch and subsequent recession, especially in the areas of banking finance and real estate. Despite this the sector as a whole is expected to stage a significant recovery, being projected to grow in output terms by almost 4 per cent per annum over the longer term. Employment in the whole sector is projected to increase by around 1.2 million by 2020 (a rate of growth of around 1.3 per cent per annum). Other business services (which includes computing services) are expected to see the fastest growth;

- **Non-market services** comprise public administration and defence, as well as health and education services. Output in the sector as a whole is projected to grow by just 1 per cent per annum over the coming decade, much slower than in the previous decade. This disguises declines in most parts of the sector in the short-term, as public expenditure cuts bite. While the short-term prospects are bleak for public sector employment, things do pick up over the longer term as the economy recovers from the recession and the effects of the financial crises, especially in areas such as education and health services. Employment in Non-market services as a whole is expected to decline only slightly over the coming decade (by around 100 thousand in total, just over -0,1 per cent per annum). Within this broad grouping, most of the projected job losses are accounted for by public administration & defence.

Projected changes in occupational structure

Changing patterns of employment by occupation are largely dominated by longer-term trends rather than the cyclical position of the economy. Structural changes in the sectoral patterns of employment are a key driver (notably the shift towards a service economy). However, this has become less important in recent years than changing patterns of skill demands within each of the sectors. The latter has been driven by a combination of technological change and organisational change. Skill-biased technical change linked to information and communications technology has been a particularly significant factor, although this has been partially offset by factors leading to some polarisation in skill demands, with growth in some relatively less skilled jobs in services (such as in hotels and restaurants), as well as in high skilled ones.

The results take full account of the latest information on changing patterns of occupational employment structure from the LFS and other sources. This includes a reclassification of occupational categories using the new 2010 Standard Occupational classification (SOC2010). The change in SOC has resulted in some significant changes to the way some jobs are classified. Despite this, the latest evidence suggest that the changes in prospects for the next ten years are only slightly different compared to previous projections.

In general, there is expected to be a slightly faster pace of change in occupational employment structure expected than was the case in the previous projections, but the overall patterns remain very similar.

The groups that are expected to show the most significant increases in employment over the next decade (201-2020) are higher level occupations, namely:

- managers, directors & senior officials (+544 thousand, 18 per cent);
- professional occupations (+869 thousand, 15 per cent);
- associate professional & technical occupations (+551 thousand, 14 per cent).

Caring, leisure & other service occupations are the other main beneficiaries of employment growth, with projected increases of around 313 thousand jobs (12 per cent).

Administrative & secretarial occupations are projected to see significant further job losses of around 387 thousand jobs (-11 per cent per), although this category will still employ well over 3 million people in 2020.

Declining employment levels are also projected for:

- skilled trades occupations (-230 thousand, -7 per cent);
- process, plant & machine operatives (some -213 thousand, -11 per cent).

Elementary occupations are now projected to see a slight increase in employment, as the service sector in particular generates more such jobs. This polarisation of demand for skills, with growth at both top and bottom ends of the skills spectrum, appears to be an increasingly common feature across developed economies. On the other hand, the continued restructuring of the retail and distribution sectors appears to be leading to a much less optimistic picture for many lower level sales occupations.

Replacement demand

Employers also need to replace many of their workers who leave due to mortality, retirement, career moves, or other reasons. This so called replacement demand can easily outweigh any losses resulting from structural changes. In the present results replacement demand is almost 8 times larger than the net changes projected over the decade to 2020. The net requirement or total number of job openings, taking replacement demand into account is expected to be more than 13 million compared with the overall increase in employment levels of around 1½ million.

Retirements are the principal component in this estimate. It excludes job openings created by people transferring from one occupation to another or other outflows due to migration (some of which will be filled by similar means).

It is possible to identify two broad groups of occupations.

- In the first group positive replacement demand outweighs negative expansion demand. This applies, for example, to administrative & secretarial occupations; skilled trades; and process, plant and machine operatives.
- In the second group replacement needs simply serve to reinforce positive employment trends to create even higher net requirements for new job entrants. This applies, for example, to managers; professionals; associate professionals; and caring, leisure and other service occupations.

Implications for qualifications (demand, supply and mismatches)

Skill supply, as measured by the highest formal qualifications held by those economically active, is rising rapidly. Many more young people in particular have been encouraged to stay on in education longer and to acquire more qualifications at a higher level. The recession reinforced this pattern as job opportunities for young people dried up.

The demand for skills as measured by occupation and qualification is also projected to rise. The numbers of jobs in occupations typically requiring a degree continue to grow while the graduate intensity of many other jobs is rising steadily. How much this reflects demand as opposed to supply trends is open to debate.

Spatial variations

The projections of output for the regions and nations of the UK between 2010 and 2020 indicate a continuing pattern of the southern parts of England (particularly the south-east corner) being relatively advantaged, with the remainder (especially northern England and the devolved nations) falling further behind in relative terms.

The impact of the cut-backs in public spending upon the Non-market services sector will be greatest in the north and west of the UK.

However, the revival of employment in the primary sector and utilities and manufacturing industry will benefit these regions and nations.

Growth in employment in managers, directors and senior officials, professional and associate professional occupations will primarily benefit the south-eastern corner of the UK.

The *Working Futures* model

The prime focus of the model is on the demand for skills as measured by occupation and qualification, although the supply side is also considered. A detailed analysis of prospects by industry and spatial area is presented, including the historical context. As well as summary results for the UK, the report also covers the implications for the devolved nations and English regions.

Sectoral change is a key driver of the demand for skills. A separate Sectoral Report provides more detail about the prospects for 22 individual industries. This is based on categories defined using the new SOC2007 classification.

The results are based on the use of a multi-sectoral, regional macroeconomic model, combined with occupational, replacement demand and qualification modules. The results take account of the latest data from the Annual Business Inquiry (2010) and the Labour Force Survey (2010), as well as various other sources. Together, these provide an indication of the changing face of the UK economy and labour market. A separate Technical Report provides full details of sources and methods used to produce the results.

The results are intended to provide a sound statistical foundation for the deliberations of all those with an interest in the supply of and demand for skills. This includes individuals, employers, education and training providers, as well as the various agencies and departments of government.

The future cannot be predicted with precision or certainty. But all the participants in the labour market make plans for the future, even if these are simply based on the default assumption that the future will be the same as the past. The rationale behind *Working Futures* is that a comprehensive, systematic, consistent and transparent set of projections can help to inform everyone about the world they are likely to face.

It is also important to emphasise that the views presented here are not the only possible future. They represent a benchmark for debate and reflection and to inform policy development. The detailed projections present a carefully considered view of what the future might look like, assuming that past patterns of behaviour and performance are continued over the longer term. The results should be regarded as indicative of general trends and orders of magnitude and are not intended to be prescriptive. If policies and patterns of behaviour are changed then alternative futures can result.

Evidence Reports present detailed findings of the research produced by the UK Commission for Employment and Skills. The reports contribute to the accumulation of knowledge and intelligence on skills and employment issues through the review of existing evidence or through primary research. All of the outputs of the UK Commission can be accessed on our website at www.ukces.org.uk

Produced by the Institute for Employment Research and Cambridge Econometrics for the UK Commission for Employment and Skills.

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ISBN 978-1-906597-92-4

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