SUMMARY

Background

This is the first of three volumes presenting Working Futures: New Projections of Occupational Employment by Sector and Region. The aim of these projections is to provide a range of useful labour market information and intelligence, and a sound statistical foundation for the deliberations of the Sector Skills Development Agency (SSDA) and the Learning and Skills Council (LSC). The work was undertaken on behalf of the LMI Champions Group.1

The projections are the latest in a long series, previously funded by the Department for Education and Skills (DfES). They are based on the use of a multi-sectoral, regional macroeconomic model, combined with occupational and replacement demand modules. The main projection period covered is 2002 to 2012.

Because of the SSDA’s interest in detailed sectoral prospects and the concern of the local arms of the LSC (LLSCs) with developments at a local level, a much more detailed analysis is required than has been attempted previously. The present set of projections are the most detailed and extensive ever produced for the UK. Over half a million time series have been estimated and projected for employment alone. This reflects the increasing requirement from organisations such as the SSDA and LSC for information on individual industries and particular localities in order to meet the remit they have been set by the Government.

The present set of results exploit fully the currently available data. However, the data upon which the local level results are based have been pushed to their limits. Many of the official data sets have not been designed to provide robust information at such a detailed level. This raises some important issues for national Government, and those that provide official statistics, about how existing data sources need to be extended and improved to meet these new requirements.

The results take account of new data from the Census of Population 2001 and other sources. Together these suggest a number of new features in the changing pattern of occupational employment in the British economy.

The National Report volume one focuses on results for the whole of the UK. It is complemented by a more detailed sectoral analysis presented in volume three, the Sectoral Report. This analysis provides results for up to 67 industry categories,2 as specified in Annex A of the National Report. These are not necessarily co-terminus with Sector Skills Council definitions. Volume two, the Regional Report, presents results for the English Regional Development Areas and for the other individual countries within the UK.

1As well as the SSDA, the LSC and its local arms, the LMI Champions Group also includes DfES, DWP, DTI, RDAs, Regional Observatories and Regional Government Offices.

2Where the data are sufficiently robust.
Employment is expected to continue to rise. The long-term of employment growth is expected to be just under 0.5% per annum, resulting in over 1.3 million additional jobs over the decade.

Macroeconomic Context

Economic activity
Following the uncertainties of the war in Iraq, the macroeconomic scenario underlying the projections is expected to settle down 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 approximately 2.5 per cent per annum, following a brief slow down over the first two years of the decade.

Inflation, the sterling exchange rate and public expenditure
Continued low inflation among the major OECD countries is expected. A stable value for sterling against the euro and the US dollar is assumed. The outlook for domestic inflation is one of modest rates of increase in prices and wages. The projections are based on an assumption of a modest acceleration in public expenditure growth. The government is expected to be able to achieve this without any major increases in public borrowing.

General labour market prospects
A generally optimistic picture emerges for the labour market:
- employment is expected to continue to rise. The long-term rate of employment growth is expected to be just under 0.5 per cent per annum, resulting in over 1.3 million additional jobs over the decade;
- the vast majority of the additional jobs are expected to be taken by women;
- the working age population and the labour force are expected to undergo significant growth, with the overall labour market participation rate expected to remain at around 78 percent over the next decade. This reflects declining trends for males offset by some increases amongst females.
- the level of unemployment is expected to remain stable at relatively low levels compared with recent historical experience, with only a very modest increase. For most people unemployment will be a transitory experience, although a minority will continue to suffer long duration unemployment.

Labour market participation rates are defined as those economically active (i.e. in employment or actively searching for work) as a percentage of the population of working age.
Sectoral Prospects

Projections of output by sector
The prospects for broad sectors to 2012 are as follows:

- PRIMARY & UTILITIES which includes agriculture, mining, electricity, gas and water, are all expected to display weak rates of growth or declines in output;
- MANUFACTURING output growth is forecast to average less than 2 per cent per annum. There is high growth in technology and R&D-related industries, but other sectors such as textiles, clothing & leather and metals are expected to perform much less strongly, reflecting intense international competition.
- CONSTRUCTION is also expected to show only modest growth, with average rates below 2 per cent per annum.
- DISTRIBUTION, TRANSPORT, ETC. includes a diverse range of industries. Transport & communications output is forecast to grow by over 4 per cent per annum, with communications displaying the strongest growth of any services apart from computing. Output in distribution, retailing, and hotels and catering is forecast to grow by just over 2 per cent per annum.
- BUSINESS & MISCELLANEOUS SERVICES: Business services (which includes computing and related industries) are expected to grow by around 4 per cent per annum over the longer term but Banking and insurance are projected to grow at less than half this rate. Other services are also expected to see similar, slower, rates of growth in output.
- NON-MARKETED SERVICES comprise public administration and defence, as well as health and education services. Public services output is projected to increase by about 1.5 per cent per annum. Health and education services are expected to see much more rapid growth at around 2.5–3.5 per cent per annum.

Sectoral employment prospects
Employment prospects to 2012 are intimately linked to output growth, but also depend on how rapidly productivity rises in each broad sector.

- The primary and utilities sector (which includes agriculture and mining) is expected to continue to experience significant job losses in the next few years, but losses are projected to slow thereafter;
- Long-term decline in employment in manufacturing is expected to continue, with a loss of just over 650 thousand jobs between 2002 and 2012:
  - engineering is the largest contributor to job loss, as employment declines by just under 150 thousand jobs;
  - metals & metal goods and textiles & clothing display large job losses, each losing around 100 thousand jobs over the period to 2012;
Employment in distribution transport is expected to increase by around 400 thousand jobs between 2002 and 2012.

- Construction is projected to experience a slight fall in the total level of employment between 2002 and 2012;
- Employment in distribution transport etc., is expected to increase by around 400 thousand jobs between 2002 and 2012—with most of the growth accounted for by jobs in distribution; employment in transport and communications is expected to show little change.
- Employment in business & other services is forecast to increase by around 1.25 million by 2012, with other business services showing the fastest growth;
- Despite a projected increase in jobs in non-marketed services, this broad sectors share of all jobs is not expected to increase very significantly between 2002 and 2012:
  - most of the projected employment growth is accounted for by health & education services; while
  - public administration & defence are forecast to see a slight fall in employment.

Changes in Occupational Structure

Results from the Census of Population

The results take account of initial findings on changing patterns of occupational employment structure from the Census of Population 2001. However, only headline figures were available when the projections were prepared. The results presented here should therefore be regarded as indicative of general trends and tendencies rather than precise forecasts of what will necessarily occur at a detailed level.

The results suggest some significant changes in likely prospects for the next ten years. The main differences compared to the previous projections are as follows.

Much faster growth has been observed for:

- managers, some professional and many associate professional occupations;
- protective service occupations and culture/media/sports occupations;
- caring personal service and customer service occupations.

More rapid declines than previously measured have been observed for:

- administrative, clerical and secretarial occupations;
- skilled manual and electrical trades;
- other skilled trades.
Over the decade there is expected to be a net requirement of 13.5 million job openings. Retirements are the principal components of this estimate.

New Occupational Projections to 2012
Underlying trends, which have been apparent over the previous two decades, are expected to continue, with significant increases in employment over the period from 2002 to 2012 expected for:

- managers and professional occupations. Corporate managers and nearly all the sub-groups within the professionals group are projected to experience significant rates of growth of around 20 per cent over the decade;
- associate professional & technical occupations. The science/technical group, protective service occupations and culture/media/sport occupations are projected to grow the fastest;
- personal service occupations (especially caring personal service occupations) and customer service occupations. These are expected to see a substantial increase, with women being the main beneficiaries.

Smaller or less rapid rates of increase are projected for the sales occupations group and for managers & proprietors.

Job losses are also expected in a number of other areas:

- skilled trades occupations are expected to lose more than 500 thousand jobs, with largest job losses in skilled metal & electrical trades and other skilled trades;
- transport and machine operatives are projected to see further job losses, but this obscures a continued fall in jobs for process, plant & machine operators who work in factories and on construction sites. This is partially offset by an increase in the number of jobs for transport drivers and operatives;
- elementary occupations are expected to see the net loss of over 400 thousand jobs; this final SOC 2000 major group is expected to see job losses concentrated primarily in those unskilled occupations related to clerical and other routine service jobs, again reflecting the impact of ICT.
Replacement Demand

These projections focus on the net growth (or decline) in occupational employment. Such estimates provide a useful indication of likely ‘gainers’ and ‘losers’ from employment change. This has traditionally been referred to as expansion demand, although for some occupations it can be negative.

However, employers will often need to replace those workers who leave – due to mortality, retirement, career moves, or related reasons. Such replacement demand can easily outweigh any losses resulting from structural changes.

For all occupations together, replacement demand is about 10 times larger than the net growth projected between 2002 and 2012. Over the decade there is expected to be a net requirement of about 13.5 million job openings. Retirements are the principal component in this estimate. This excludes job openings created by people transferring from one occupation to another (some of which will be filled by similar means) or other outflows.

Two broad groups of occupations with different patterns of expansion and replacement demand are identifiable. For some groups, positive replacement demand outweighs negative expansion demand. This applies, for example, to managers and proprietors in agriculture and in service industries; administrative, clerical, secretarial and related occupations; skilled metal and electrical trades; process, plant and machine operatives; and elementary clerical occupations.

For many others, expected retirements will add to positive expansion demand to create even higher net requirements for new entrants. This applies, for example, to corporate managers; teaching and research professionals; health and social welfare associate professionals; business and public service associate professionals; caring personal services; and sales occupations.

Detailed Prospects by Sector

The final chapter of the National volume presents a detailed industrial analysis. Results are presented for each industry, showing key trends in:

- output, productivity and total employment;
- changing patterns of employment by gender and status;
- structural changes in occupation employment;
- replacement demands.

These detailed results highlight the changing fortunes of different industries and occupations, within the broader sectoral categories already discussed. This is complemented by an even more detailed breakdown of patterns within these industries in an extended sectoral report. The latter is presented in volume three, the Sectoral Report.