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Working Futures: New Projections of Employment by Sector and Region

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PREFACE AND ACKNOWLEDGMENTS

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1. INTRODUCTION AND OVERVIEW

1.1 Introduction and background

This document is the second of three volumes that present ***Working Futures:*** *New Projections of Occupational Employment by Sector and Region.* The work was commissioned by the Sector Skills Development Agency (SSDA). This second volume focuses on the situation in the constituent countries within the UK and the English Regions. This new set of forecasts updates earlier work commissioned by the Department for Education and Skills (DfES).[1] The results are intended to provide a sound statistical foundation for the deliberations of the Sector Skills Councils (SSCs), Regional Development Agencies (RDAs) and Local Learning and Skills Councils (LLSCs), about future developments in occupational employment.[2]

This overview provides a summary of projections of sectoral and occupational employment over the period to 2012 for the areas covered by Regional Development Agencies (RDAs) in England, and for Wales, Scotland and Northern Ireland. Note that the term ‘region’ is used here as a shorthand to cover all the English regions (as covered by the RDAs); together with Wales, Scotland and Northern Ireland. Information is also presented for two national comparators: England and the UK.

The projections presented incorporate the latest sectoral employment data from ONS, including the 2001 Annual Business Inquiry. They also take note of the headline results emerging from the Census of Population for 2001, although the detailed results were not available in time to be fully reflected in the present analysis. Information about sources and methods is presented in Annex A of the present document and in greater detail in the separate *Technical Report*.[3] A full exposition of the projection methodology is also provided in the Technical Report. Section 1.2 provides a summary account of the general approach to the projections. More specific details relating to the occupational employment projections and replacement demands are presented in Section 1.3.

The rationale for, and structure of, the Regional Overview is presented in Section 1.4. Section 1.5 outlines overall prospects in the regions and countries within the UK. Section 1.6 summarises aggregate labour supply and demand trends, including prospects for unemployment. Sectoral prospects are described in more detail in Section 1.7. Developments by gender and employment status (full-time, part-time and self-employment) are covered in Section 1.8. Occupational employment prospects are described in Section 1.9, while Section 1.10 concludes by outlining implications for replacement demands.

[1] See Wilson (2001a and b).

[2] For sectors, the projections relate to the broad sector definitions as outlined in Annex A. The sectoral groups are not necessarily coterminous with sector skills councils definitions. They should be used in conjunction with a range of other labour market information sources

[3] For further discussion see the Technical Report (Wilson *et al.,* 2003).

1.2 General approach

The demand for labour is a derived demand. It depends critically on developments in the markets for goods and services and the technologies used to produce them. Therefore, in order to assess the prospects for the changing pattern of demand for skills, it is essential to ground the analysis on a foundation and understanding of the key economic factors influencing the economy and its structure. To do this a multi-sectoral macroeconomic model is required.[4]

The projections are based on the use of the Cambridge Econometrics (CE) multi-sectoral, regional macroeconomic model (RMDM), which provides the general economic scenario. This scenario is described in Chapter 2 of the *National Report.* This information is combined with occupational employment and replacement demand models developed by the Institute for Employment Research (IER) to generate the occupational projections.

RMDM solves as a single system in which macroeconomic results are built up from the more detailed results at sectoral and regional level.[5] The long-term growth rate for the economy therefore reflects the expected performance of individual industries within the regions and countries of the UK. This includes their rates of productivity growth and the demands for their output (including their international trade performance).[6] Further details of the model can be found in the *National Report.* The use of RMDM provides a sound foundation for assessing industrial employment prospects. In particular, it deals explicitly with such important issues as sub-contracting and technological changes, that have been a feature of much recent structural change. Further information about the models is given in Annex A and, in more detail, in a separate *Technical Report.*[7]

[4]This is regarded as standard practice in developing employment scenarios across the world. For further discussion see Wilson and Briscoe (2002) and Wilson (1994).

[5] A comprehensive account of an earlier version of the model is given in Barker and Peterson (1987). Along with a series of updates in CE's *Industry and the British Economy,* this remains the main reference on the workings of the CE macroeconomic model. A full description of the current approach to developing the employment projections can be found in Wilson *et al.* (2003a).

[6]This contrasts with a 'top down' approach, in which the long-term rate of growth in Gross Domestic Product (GDP) is made as an **assumption,** which then drives projections for sectoral output and employment growth, which in turn drive projections for regional performance.

[7]Wilson *et al.* (2003).

In order to meet the needs of the SSDA and SSCs (as well as the LSC and its local arms), the present analysis is at a much more detailed level than hitherto. As well as results for individual LLSC areas, the analysis also provides considerable industrial detail. This results in the most detailed and extensive set of employment projections ever produced for the UK.

The equations within RMDM normally operate at the level of some 49 industries. This has been extended at a UK level to cover some 67, 2-digit, SISC92 industries. These results have been followed through to the regional level and indeed to individual LLSC areas, although the reliability of the estimates deteriorates as one considers more detailed analyses.

The results presented here should be regarded as indicative of general trends and orders of magnitude, given the assumptions set out below, rather than precise forecasts of what will necessarily happen.[8] The focus on industrial and spatial detail pushes the available data to the limits for which it was originally collected.[9] Nevertheless, the results provide a useful benchmark for debate and policy deliberations about underlying employment trends. However they should not be regarded as more precise than the general statements in the text. Many years of international research have demonstrated that indicative manpower planning is not a practicable proposition.

It is important to appreciate that the purpose of the projections is not to make precise forecasts of employment **levels.** Rather, the aim is to provide policy analysts with useful information about the general nature of **changing employment patterns** and their implications for skill requirements. This report presents ‘benchmark’ projections that do **not** take account of major developments such as large inward investments or of the Growth Areas specified in the Sustainable Communities Plan.

[8]See Wilson and Briscoe (2002) for further discussion.

[9]For further details of the sources and methods used and the limitations of the data and estimates, see the *Technical Report* (Wilson *et al.,* 2003).

1.3 Occupational employment projections and replacement demands

The present report provides detailed projections of industrial and **occupational employment levels.** The occupational model is built around a series of employment matrices distinguishing 67 industries (SIC92) and 25 sub-major occupational groups from the new SOC 2000 occupational classification. Details of the methods used to generate these projections are given below.

The occupational projections are developed using largely extrapolative methods, based on data from the Census of Population and the Labour Force Survey (LFS). Although the results take into account headline data from the Census, they have not yet incorporated the detailed insights into changes in occupational employment structure that the Census allows. Such analysis is planned for the next round of projections.

Changes in occupational employment levels between years are also analysed to show changes due to **replacement demand.** This takes into account the need to replace those who leave their jobs because of retirement or other reasons. These replacement demands need to be added to any **structural change** (or so called expansion demand) that is projected, in order to obtain an estimate of the overall recruitment requirement. These estimates are based on quite limited data on age structures and flow rates from the LFS. They should again be regarded as indicative rather than precise indications of the likely scale of replacement demands. The key message here is that replacement demands are likely to be much more significant in terms of education and training requirements than expansion demand, even where the latter is quite large.

1.4 Regional overview

A regional focus is important given policy concerns about significant and persistent regional variations in productivity and employment (HM Treasury, 2001). Skills have been highlighted as one of the key drivers underlying such regional differentials. The concern with regional differentials was underlined with the introduction of a new Public Service Agreement (PSA) target (shared by the Treasury, the Office for the Deputy Prime Minister and the Department of Trade and Industry) with two strands:

- to achieve sustainable economic growth in all English regions; and
- to reduce the persistent gap in growth rates between regions.

Along with a greater territoriality and greater regional and local devolution in policy making, it is recognised that regional averages mask intra-regional variations in experience. Some commentary on such local variations at the local Learning and Skills Council (LSC) area level is presented in the separate chapters focusing on each region. More detailed information on local level variations is presented in tabular form, with some summary textual commentary, in the final chapter focusing on the LSC area level in England.[10]

The overview provides details of:

(a) overall prospects for the regions, with reference to long-term changes in GDP and employment;

(b) labour supply and demand – with reference to projected changes in the population, labour force, economic activity rates, unemployment and employment;

(c) prospects for employment change by sector, at the level of six broad sectors;[11]

(d) the changing composition of employment by gender and employment status;

(e) trends in occupational employment – at the level of nine SOC Major Groups;[12]

(f) projections of replacement demand.

The emphasis in the overview is on the range and pattern of regional differentiation in projected experience of labour market change across the UK over the period to 2012. Hence, the overview sets the context for more detailed accounts in the subsequent chapters of this Volume. These chapters present analyses of changing patterns of employment structure and likely future developments, for each of the regions covered by the nine RDAs and the other constituent countries within the UK.

[10] No sub-regional information is presented for Wales, Scotland and Northern Ireland.

[11] The projections relate to the broad sector definitions as outlined in Annex A

[12] More detailed information at the 25 SOC Sub-Major Group level is presented in the separate regional commentaries.

1.5 Overall regional prospects

Table 1.1 shows recent and projected trends in GDP and employment across the UK. At the England and UK levels, the trend is for a small reduction in the rate of output growth over the period from 2002 to 2012 compared to that recorded over the previous decade. A more marked reduction in the rate of employment growth is apparent from 1.0% per annum in the UK and England between 1992 and 2002 to 0.4% per annum and 0.5% per annum for the UK and England, respectively, between 2002 and 2012.

Projected output growth is strongest in the South East and the East of England (at 3% per annum), with London and the South West not far behind (at 2.8% per annum). These regions in southern England are the only ones where projected GDP growth exceeds the national average. The West Midlands, Northern Ireland and the East Midlands all display projected output slightly below the England and UK averages of 2.7% per annum and 2.6% per annum, respectively. The North East is expected to record the slowest GDP growth of any region of the UK over the period to 2012 (1.9% per annum), with Wales and Scotland displaying slightly greater projected output growth of 2.1% per annum. Hence, the picture projected is one of growth in all regions, but that growth is projected to remain strongest in the three best-performing regions: London, the East of England and the South East.

Over the decade to 2002, Northern Ireland, London and the South East saw the greatest relative employment increases of any part of the UK. The South West region and the East of England also recorded employment increases at a rate in excess of the UK average. Employment loss over this period was confined to the North East. Yorkshire and the Humber, Wales and Scotland recorded employment growth at a rate of 0.5% per annum, compared with a national average of 1% per annum.

Over the period to 2012 the annual rate of employment growth is expected to slow to 0.5% per annum in England and 0.4% per annum in the UK. The East of England, the South East and London are projected to record employment growth at rates in excess of the England average, while in the South West region the projected growth rate of 0.5% per annum is the same as the England average. Yorkshire and the Humber and the West Midlands are projected to see employment growth at the UK rate of 0.4% per annum. In all remaining parts of the UK projected employment growth is slower than average. Scotland and the North East are expected to experience the lowest rates of employment growth in the UK over the period to 2012 at a mere 0.1% per annum. The North East is the only region to witness a turnaround in employment fortunes between the recent and projection time period, from employment decline in the former period to slight growth over the projection period. For all other regions a slowing in the rate of employment growth is projected.

Table 1.1 Long-term changes in macroeconomic indicators

% p.a.

Region	GDP		Employment	
	1992-2002	2002-2012	1992-2002	2002-2012
London	3.5	2.8	1.6	0.6
South East	3.8	3.0	1.5	0.7
East of England	3.6	3.0	1.2	0.7
South West	2.8	2.8	1.3	0.5
West Midlands	2.6	2.5	0.7	0.4
East Midlands	2.4	2.4	0.7	0.3
Yorks and the Humber	2.2	2.3	0.5	0.4
North West	1.9	2.2	0.6	0.3
North East	1.1	1.9	-0.2	0.1
England	2.9	2.7	1.0	0.5
Wales	2.1	2.1	0.5	0.2
Scotland	2.0	2.1	0.5	0.1
Northern Ireland	3.0	2.4	1.8	0.3
United Kingdom	2.8	2.6	1.0	0.4

Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls (Table R.1)

Table 1.2 Long-term changes in GDP by broad sector

% p.a.

Region	Primary sector and utilities		Manufacturing		Construction	
	1992-2002	2002-2012	1992-2002	2002-2012	1992-2002	2002-2012
London	-0.3	-0.6	0.0	1.5	2.6	1.4
South East	-1.0	0.5	2.1	2.5	3.2	2.2
East of England	-0.2	0.5	0.8	2.1	3.1	2.2
South West	0.1	1.1	1.1	1.9	3.1	2.3
West Midlands	1.7	0.5	0.4	1.6	2.3	1.9
East Midlands	-2.3	0.2	1.0	1.5	2.0	1.8
Yorks and the Humber	-1.2	-0.2	0.8	1.4	1.9	1.6
North West	1.1	0.6	-0.6	1.4	1.5	1.7
North East	0.6	0.6	-0.1	1.6	0.4	1.7
England	-0.2	0.4	0.6	1.7	2.5	1.9
Wales	-0.7	0.2	0.1	1.5	2.2	1.2
Scotland	0.6	-0.2	0.7	1.5	0.2	1.1
Northern Ireland	-0.8	1.4	1.7	1.6	-0.2	0.3
United Kingdom	-0.1	0.3	0.6	1.7	2.3	1.8

Region	Distribution, transport etc		Business and other services		Non-marketed services	
	1992-2002	2002-2012	1992-2002	2002-2012	1992-2002	2002-2012
London	4.3	3.1	5.7	3.3	1.1	2.3
South East	5.3	3.5	6.0	3.5	1.4	2.5
East of England	5.2	3.6	6.0	3.5	1.9	2.6
South West	4.7	3.5	4.5	3.5	2.0	2.5
West Midlands	4.1	3.0	6.1	3.3	1.9	2.8
East Midlands	4.1	2.9	6.2	3.2	1.9	2.9
Yorks and the Humber	4.4	3.2	3.7	2.8	1.7	2.5
North West	3.4	2.7	4.9	2.6	1.7	2.6
North East	2.7	2.5	1.8	2.0	1.0	2.2
England	4.5	3.2	5.5	3.3	1.6	2.5
Wales	3.8	2.5	4.8	2.6	1.8	2.7
Scotland	3.1	2.7	4.1	2.9	1.4	2.5
Northern Ireland	5.1	2.4	6.1	3.8	1.6	2.3
United Kingdom	4.4	3.1	5.4	3.2	1.6	2.5

Source: n:\projects\SSDA projections\workbooks\SSDACrossRegional.xls

Table 1.3 Long-term changes in employment by broad sector

% p.a.

Region	Primary sector and utilities		Manufacturing		Construction	
	1992-2002	2002-2012	1992-2002	2002-2012	1992-2002	2002-2012
London	-6.0	-2.8	-1.6	-1.9	-0.5	-1.2
South East	-1.9	-1.4	-0.8	-1.6	0.4	0.9
East of England	-4.8	-1.0	-0.9	-1.4	1.3	0.1
South West	-3.5	-2.2	0.0	-1.7	0.4	1.5
West Midlands	-3.9	-1.7	-1.9	-1.7	-0.1	-1.6
East Midlands	-5.1	-2.0	-1.6	-1.9	-0.3	0.7
Yorks and the Humber	-4.9	-2.0	-1.3	-1.6	-0.2	-1.6
North West	-3.7	-2.2	-1.8	-2.0	0.3	-0.7
North East	-2.4	-1.6	-1.8	-1.6	-1.3	-0.1
England	-3.9	-1.8	-1.3	-1.7	0.1	-0.1
Wales	-4.1	-2.4	-1.3	-1.9	0.6	-1.3
Scotland	-0.4	-1.4	-1.9	-2.6	-2.4	-1.5
Northern Ireland	-2.4	-2.1	-0.3	-1.4	1.6	-1.4
United Kingdom	-3.4	-1.8	-1.4	-1.8	-0.1	-0.3

Region	Distribution, transport etc		Business and other services		Non-marketed services	
	1992-2002	2002-2012	1992-2002	2002-2012	1992-2002	2002-2012
London	1.5	-0.1	3.5	1.7	0.6	0.5
South East	1.6	0.9	3.9	1.3	0.4	0.8
East of England	1.7	0.8	3.2	1.9	0.7	0.7
South West	1.4	0.7	2.9	1.0	1.5	0.8
West Midlands	1.1	0.6	2.8	1.7	1.6	0.9
East Midlands	1.1	0.5	2.8	1.3	2.1	1.0
Yorks and the Humber	0.7	0.8	1.9	1.8	1.4	0.5
North West	0.7	0.2	1.9	1.7	1.6	0.6
North East	-0.2	0.3	0.6	1.1	0.7	0.2
England	1.2	0.5	3.0	1.6	1.1	0.7
Wales	0.4	0.3	1.8	1.8	1.4	0.6
Scotland	0.7	-0.2	2.3	1.7	1.2	0.4
Northern Ireland	3.5	0.7	4.3	1.6	1.2	0.6
United Kingdom	1.2	0.4	2.9	1.6	1.1	0.6

Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls (Table R.3)

London, Scotland, and Yorkshire and the Humber are projected to see a fall in output in the primary sector and utilities over the period to 2012. Otherwise output growth is expected across all broad regions and sectors (see Table 1.2). Above-average increases in manufacturing output are confined to the regions of southern England outside London: the South East, the East of England and the South West. These same three regions emerge as the only ones expected to see increases in output in construction and in distribution, transport, etc. at a rate in excess of the England average. In business and other services all southern and midlands regions, together with Northern Ireland, are projected to experience output growth at least equal to the UK average. In this broad sector the slowest rate of output growth is in the North East at 2% per annum, compared with the UK average of 3.2% per annum. The East Midlands and the West Midlands are expected to record the fastest gains in output for non-marketed services. This is the only sector in which the South East is projected to see output growth at a slower than average rate. The East of England and the South West are projected to see output growth at, or above, the national average rate in each of the six broad sectors.

All regions are projected to experience employment declines in the primary sector and utilities, and in manufacturing over the period to 2012 (see Table 1.3). Projected rates of employment decline in manufacturing range from 1.4% per annum in Northern Ireland and the East of England to 2.6% per annum in Scotland. In construction, projected employment gains are confined to the South West, the South East, the East Midlands and the East of England. Scotland and London are projected to see slight falls in employment in distribution, transport, etc. at a rate of 0.2% per annum and 0.1% per annum, respectively. This contrasts with a projected increase of 0.9% per annum in the South East. Regional differentials in projected employment growth in business and other services are much narrower over the period to 2012 than they were in the former period. The East of England is projected to see the fastest growth at 1.9% per annum, compared with a national average rate of 1.6% per annum and 1% per annum in the South West. The Midlands and southern regions outside London are projected to see the fastest rates of growth in employment in non-marketed services while the projected rate of growth is smallest in the North East.

On the basis of the macroeconomic indicators presented in Tables 1.1-1.3, the four regions of southern England: the East of England, the South East, London and the South West emerge as the fastest- growing regions, in terms of employment and output, in the UK. The West Midlands is expected to experience employment and output growth at rates similar to the UK average. The North East displays the lowest output growth, and along with Scotland, is expected to experience the slowest growth in employment of any part of the UK over the period to 2012.

1.6 Labour supply and demand

Summary statistics on labour supply and demand are presented in Table 1.4. Some data relating to the supply-side (e.g. economic activity rates) are residence-based, while other data (e.g. employment) relate to workplaces (i.e. are workplace-based). Part (but not all) of the difference between these will be reflected in commuting flows, which are especially significant in London and the South East.

Table 1.4

Change in population, working age population, labour force, activity rate, unemployment and employment 2002-2012

Region	Population	Working age Population	Labour Force	Economic Activity Rate	Unemployment	Unemployment Rate	Employment
	000s	000s	000s	%	000s	%	000s
London	609	641	306	-5.2	20.6	0.0	288
South East	514	393	323	-0.2	16.4	0.2	312
East of England	325	178	200	1.5	12.7	0.3	189
South West	294	260	127	-2.7	10.1	0.2	120
West Midlands	32	49	120	1.7	27.0	0.8	94
East Midlands	118	60	83	0.9	13.8	0.5	70
Yorks and the Humber	175	121	112	0.1	22.3	0.6	91
North West	5	10	111	1.9	25.5	0.6	86
North East	-1	-10	21	1.0	12.7	0.8	9
England	2070	1701	1402	-0.3	161.1	0.4	1259
Wales	77	51	37	-0.6	13.6	0.7	24
Scotland	-25	25	45	-0.1	30.7	0.9	15
Northern Ireland	77	54	30	-1.4	8.0	0.6	23
United Kingdom	2198	1831	1514	-0.3	213.4	0.4	1322

Table 1.4 (continued)

Levels of population, working age population, labour force, activity rate, unemployment and employment 2002

Region	Population	Working age Population	Labour Force	Economic Activity Rate	Unemployment	Unemployment Rate	Employment
	000s	000s	000s	%	000s	%	000s
London	7509	4978	4679	90.2	166	3.3	4490
South East	8239	5098	4302	82.0	71	1.4	4179
East of England	5528	3399	2701	76.9	56	1.7	2614
South West	5043	3048	2573	81.0	50	1.6	2470
West Midlands	5342	3270	2665	78.1	94	2.9	2554
East Midlands	4225	2605	2046	75.7	59	2.2	1972
Yorks and the Humber	5095	3134	2426	73.8	89	2.8	2313
North West	6889	4232	3327	75.5	118	2.8	3194
North East	2576	1579	1111	66.2	58	3.7	1045
England	50447	31343	25829	79.2	760	2.4	24832
Wales	2963	1784	1300	69.5	47	2.6	1241
Scotland	5106	3204	2642	78.4	102	3.2	2511
Northern Ireland	1717	1048	806	71.8	36	3.5	752
United Kingdom	60233	37380	30577	78.5	945	2.5	29336

Levels of population, working age population, labour force, activity rate, unemployment and employment 2012

Region	Population	Working age Population	Labour Force	Economic Activity Rate	Unemployment	Unemployment Rate	Employment
	000s	000s	000s	%	000s	%	000s
London	8118	5619	4985	85.0	187	3.3	4777
South East	8753	5491	4625	81.8	88	1.6	4491
East of England	5853	3577	2901	78.4	69	1.9	2803
South West	5337	3308	2700	78.3	60	1.8	2590
West Midlands	5374	3319	2785	79.8	121	3.6	2649
East Midlands	4343	2665	2129	76.6	72	2.7	2042
Yorks and the Humber	5271	3255	2538	73.9	111	3.4	2404
North West	6893	4242	3437	77.3	144	3.4	3280
North East	2574	1569	1132	67.2	70	4.5	1054
England	52517	33044	27231	79.0	921	2.8	26091
Wales	3040	1836	1337	68.9	61	3.3	1265
Scotland	5081	3228	2686	78.3	133	4.1	2526
Northern Ireland	1794	1103	837	70.3	44	4.0	776
United Kingdom	62431	39211	32091	78.2	1159	3.0	30658

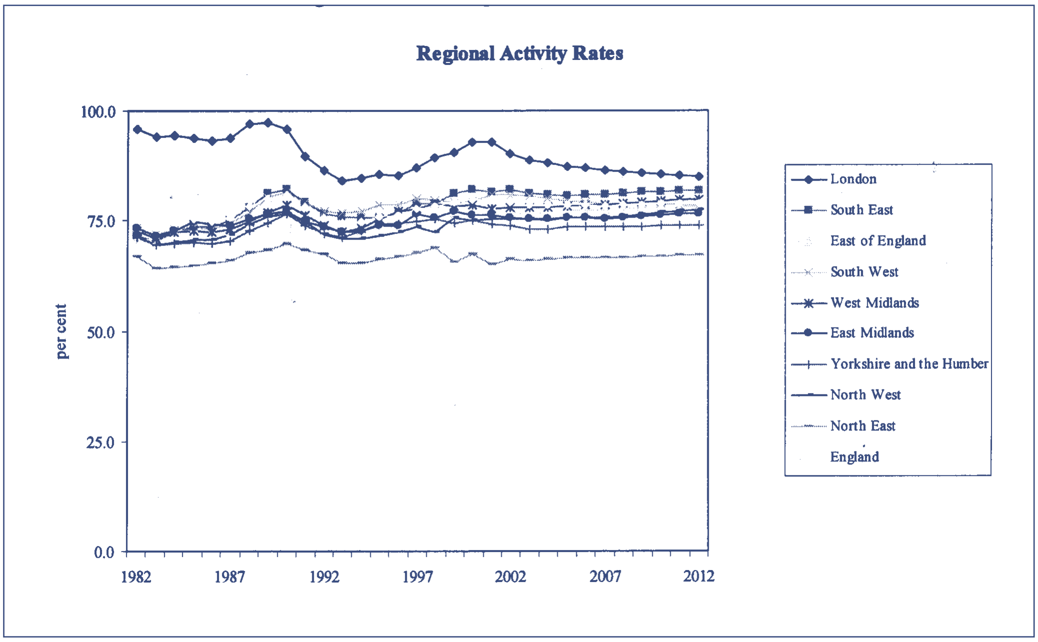
Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls (Table R.4)

The UK *population* is expected to increase by around 2.2 million over the period to 2012. This represents an annual average growth rate of 0.4% per annum. With the exception of Scotland and the North East, where the population level is projected to remain virtually stable, all regions are expected to experience population growth. Projected population growth is fastest in London, at an annual average rate of 0.8% per annum, with the South East, the East of England and the South West all expected to have population increases at a rate of 0.6% per annum. The *working* age population is also projected to increase at UK level, at a faster rate than expected for the population as a whole. Projected decline is restricted to the North East, the North West and Scotland.

Across the UK, the *labour force* is projected to increase by 1.5 million to exceed 32 million in 2012. All parts of the UK are expected to share in this increase, with the South East, London and the East of England recording the largest expected gains. In the South East and the East of England, the labour force is projected to grow at a rate of 0.7% per annum. London is also expected to have faster than average labour force growth, while in the South West the projected growth rate is similar to the UK average (0.5% per annum). The *economic activity* rate is projected to remain relatively steady over the period to 2012, at slightly over 78%. However, there is regional variation around this average – as shown in Figures 1.1 and 1.2. The North West, the West Midlands and the East of England are all projected to see gains of at least five percentage points, while gains of around one percentage point are projected for the North East and the East Midlands.

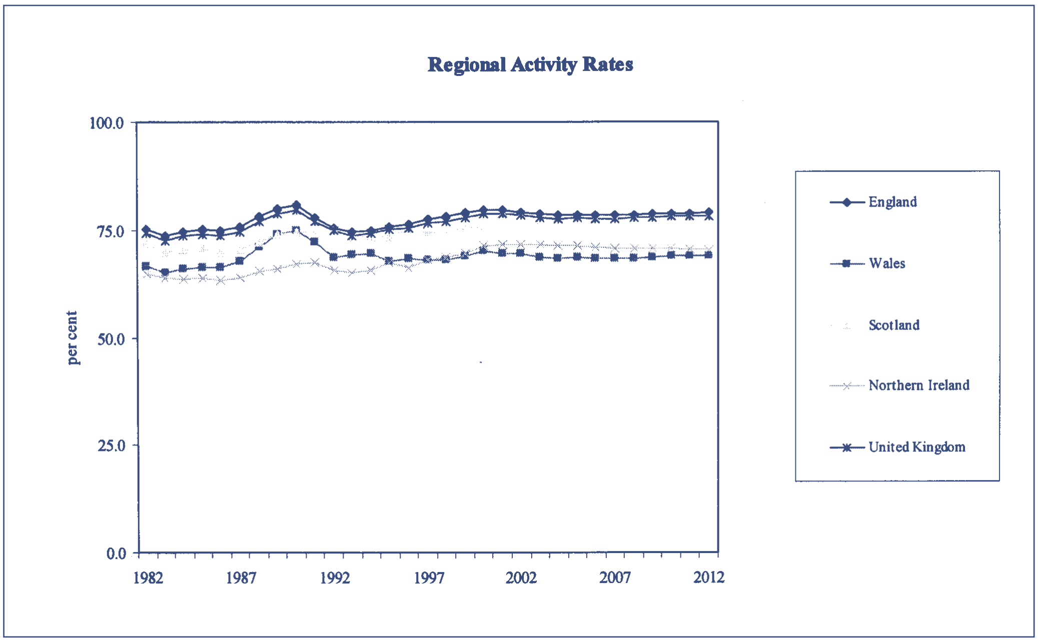
Unemployment is projected to increase by over 200,000 across the UK over the period to 2012, in the face of labour force growth. Hence, a small increase in the UK unemployment rate of 0.4 percentage points is expected, to around 3% in 2012. All areas share in small increases in unemployment rates – as shown in Figures 1.3 and 1.4. In absolute terms the largest projected unemployment increases are in Scotland, the West Midlands and the North West. Other regions with comparable projected percentage point increases in unemployment rates are the North East, Wales, and Yorkshire & the Humber. The four southern regions are all projected to experience smaller percentage point increases in their unemployment rates than the UK average. With the exception of London, these same regions record the lowest unemployment rates, while the North East and Northern Ireland have the highest unemployment rates.

Figure 1.1: Activity Rates in the English Regions



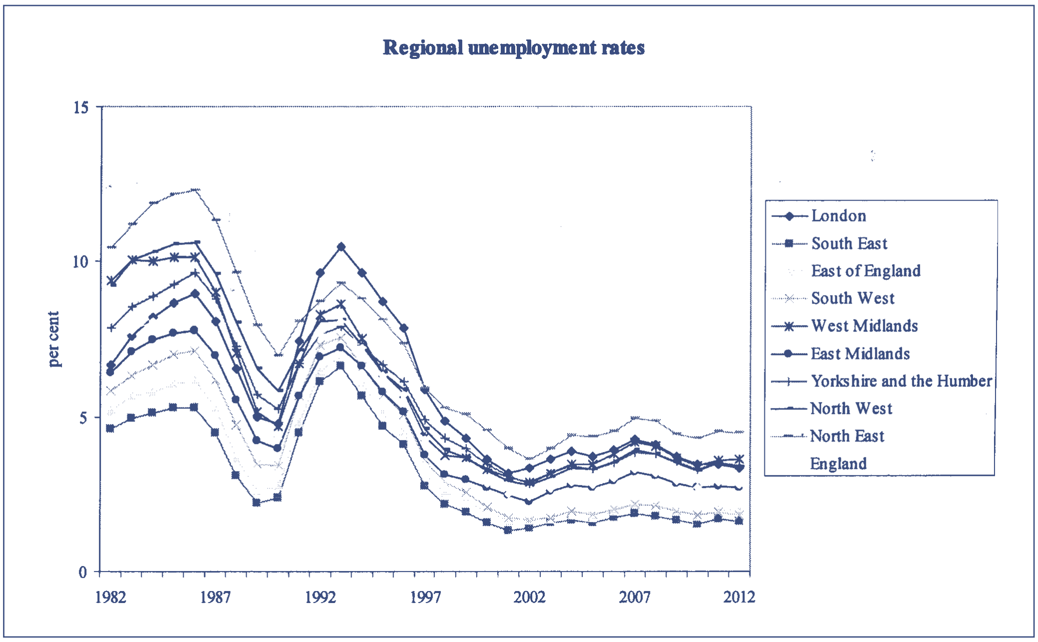
Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls (Figure R.1)

Figure 1.2: Activity Rates in England, Wales, Scotland and Northern Ireland



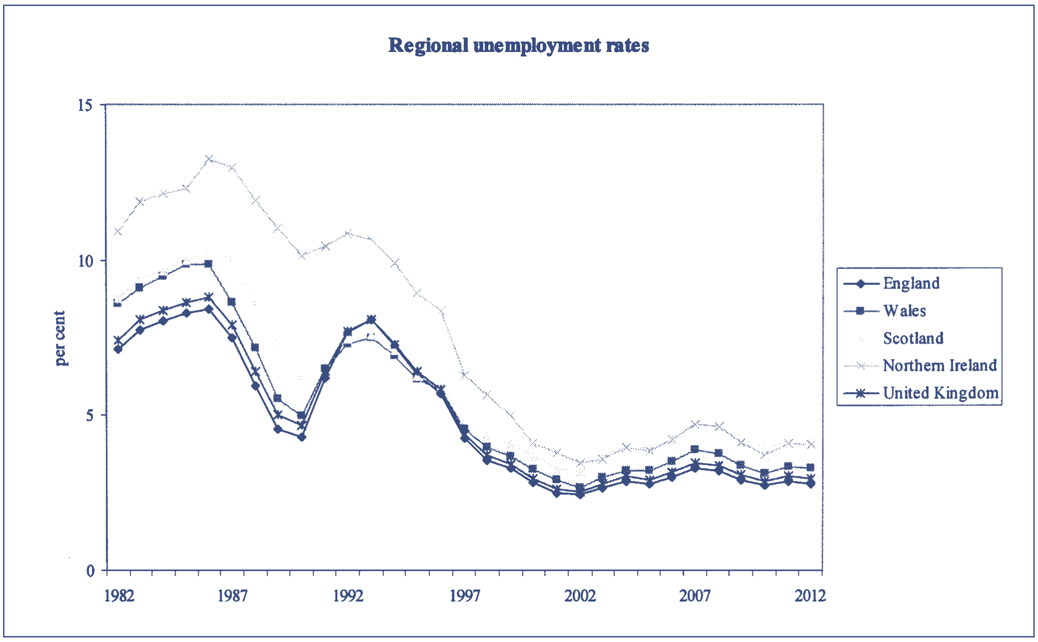
Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls (Figure R.2)

Figure 1.3: Unemployment Rates in the English Regions



Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls (Figure R.3)

Figure 1.4: Unemployment Rates in England, Wales, Scotland and Northern Ireland



Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls (Figure R.4)

Table 1.5 Total employment by region

Region	Total employment (000s)				% share of UK total				Change 1992-2002			Change 2002-2012		
	1982	1992	2002	2012	1982	1992	2002	2012	000s	%	% p.a.	000s	%	% p.a.
London	4037	3824	4490	4777	16.0	14.4	15.3	15.6	666	17.4	1.6	288	6.4	0.6
South East	3157	3618	4179	4491	12.5	13.6	14.2	14.6	561	15.5	1.5	312	7.5	0.7
East of England	2070	2319	2614	2803	8.2	8.7	8.9	9.1	296	12.8	1.2	189	7.2	0.7
South West	1891	2181	2470	2590	7.5	8.2	8.4	8.4	289	13.3	1.3	120	4.9	0.5
West Midlands	2289	2388	2554	2649	9.1	9.0	8.7	8.6	167	7.0	0.7	94	3.7	0.4
East Midlands	1705	1838	1972	2042	6.8	6.9	6.7	6.7	135	7.3	0.7	70	3.5	0.3
Yorks & the Humber	2095	2207	2313	2404	8.3	8.3	7.9	7.8	106	4.8	0.5	91	3.9	0.4
North West	2957	3000	3194	3280	11.7	11.3	10.9	10.7	194	6.5	0.6	86	2.7	0.3
North East	1062	1070	1045	1054	4.2	4.0	3.6	3.4	-25	-2.3	-0.2	9	0.9	0.1
England	21264	22444	24832	26091	84.4	84.3	84.6	85.1	2388	10.6	1.0	1259	5.1	0.5
Wales	1106	1184	1241	1265	4.4	4.4	4.2	4.1	57	4.8	0.5	24	1.9	0.2
Scotland	2246	2383	2511	2526	8.9	8.9	8.6	8.2	128	5.4	0.5	15	0.6	0.1
Northern Ireland	570	629	752	776	2.3	2.4	2.6	2.5	124	19.7	1.8	23	3.1	0.3
United Kingdom	25186	26639	29336	30658	100.0	100.0	100.0	100.0	2697	10.1	1.0	1322	4.5	0.4

Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls (Table R.5)

All regions are projected to share in the 1.3 million increase in total employment across the UK over the period to 2012. The largest absolute increases in employment are expected in the South East (over 300,000) and London (nearly 300,000), followed by the East of England (approximately 200,000) and the South West (over 100,000). Together London and the South East are expected to account for 45% of employment gains across the UK, and the four southernmost regions for almost 70% of the UK total. More details of recent and projected employment trends are presented in Table 1.5.

The South East, the East of England and London are projected to experience the fastest rates of employment growth over the period to 2012, with annual average growth rates of at least 0.6% per annum. These three regions are expected to comprise two fifths of the UK total in 2012. In the South West employment is expected to grow at the same rate as the England average (0.5% per annum). In the West Midlands, and Yorkshire & the Humber employment is projected to increase at the UK average rate of 0.4% per annum. In the East Midlands, the North West and Northern Ireland the projected employment growth rate is slightly slower than the UK average at 0.3% per annum. Wales, Scotland and the North East display the slowest employment growth rates.

1.7 Sectoral prospects

At the broad sectoral level, projected job losses over the period to 2012 are concentrated in manufacturing (with an expected loss of almost 640,000 jobs across the UK) and in the primary sector and utilities (with a projected decrease of 110,000 jobs). For both broad sectors this represents an annual average rate of loss of 1.8% per annum. Easily the greatest job gains are projected for business and other services, with an expected gain of 1.3 million jobs across the UK. This represents a projected growth rate of 1.6% per annum. Somewhat smaller, yet substantial, gains of over 450,000 jobs (a projected increase of 0.6% per annum) in non-marketed services and of almost 400,000 jobs (representing a growth rate of 0.4% per annum) in distribution, transport, etc., are expected. In the Construction sector a small loss of approximately 60,000 jobs is expected across the UK.

Details of projected employment change by broad sector at regional level are presented in Table 1.6. Similar statistics disaggregated by gender are presented in Table 1.7 (for males) and Table 1.8 (for females).[13]

[13] Tables 1.7 and 1.8 are included mainly for reference purposes, and they are not the subject of detailed commentary.

Table 1.6 Projected employment growth by broad sector, 2002-2012

a) change in thousands

Region	Primary and utilities	Manufacturing	Construction	Distribution, transport etc.	Business and other services	Non-marketed services
London	-5	-50	-25	-13	337	44
South East	-13	-64	25	117	176	71
East of England	-5	-48	2	67	133	41
South West	-17	-50	27	54	60	47
West Midlands	-9	-75	-23	42	101	58
East Midlands	-10	-63	10	30	55	47
Yorks and the Humber	-10	-57	-22	58	92	31
North West	-9	-89	-13	19	131	47
North East	-3	-25	-1	9	23	6
England	-81	-521	-20	382	1109	390
Wales	-8	-34	-11	9	46	22
Scotland	-13	-70	-21	-13	105	27
Northern Ireland	-7	-14	-7	14	22	14
United Kingdom	-109	-638	-59	393	1282	453

b) % change

Region	Primary and utilities	Manufacturing	Construction	Distribution, transport etc.	Business and other services	Non-marketed services
London	-24.8	-17.2	-11.8	-1.0	18.8	5.1
South East	-13.2	-14.6	8.9	9.3	14.3	8.1
East of England	-9.6	-13.4	1.0	8.1	20.2	7.7
South West	-19.7	-16.0	16.0	7.2	10.6	8.0
West Midlands	-16.0	-15.9	-15.1	5.7	18.4	9.9
East Midlands	-18.3	-17.3	7.2	5.2	14.2	10.2
Yorks and the Humber	-18.7	-14.8	-15.3	8.5	19.5	5.3
North West	-20.2	-18.2	-6.6	1.9	18.7	5.9
North East	-14.9	-15.2	-1.2	3.2	11.6	2.0
England	-16.7	-15.9	-1.3	5.2	16.9	7.0
Wales	-21.2	-17.5	-12.6	2.7	20.0	6.2
Scotland	-12.9	-23.2	-14.0	-1.8	17.9	4.3
Northern Ireland	-19.4	-13.3	-13.2	7.1	17.8	6.1
United Kingdom	-16.5	-16.5	-3.2	4.5	17.1	6.7

Table 1.6 Projected employment growth by broad sector, 2002-2012 (continued)

c) % per annum change

Region	Primary and utilities	Manufacturing	Construction	Distribution, transport etc.	Business and other services	Non-marketed services
London	-2.8	-1.9	-1.2	-0.1	1.7	0.5
South East	-1.4	-1.6	0.9	0.9	1.3	0.8
East of England	-1.0	-1.4	0.1	0.8	1.9	0.7
South West	-2.2	-1.7	1.5	0.7	1.0	0.8
West Midlands	-1.7	-1.7	-1.6	0.6	1.7	0.9
East Midlands	-2.0	-1.9	0.7	0.5	1.3	1.0
Yorks and the Humber	-2.0	-1.6	-1.6	0.8	1.8	0.5
North West	-2.2	-2.0	-0.7	0.2	1.7	0.6
North East	-1.6	-1.6	-0.1	0.3	1.1	0.2
England	-1.8	-1.7	-0.1	0.5	1.6	0.7
Wales	-2.4	-1.9	-1.3	0.3	1.8	0.6
Scotland	-1.4	-2.6	-1.5	-0.2	1.7	0.4
Northern Ireland	-2.1	-1.4	-1.4	0.7	1.6	0.6
United Kingdom	-1.8	-1.8	-0.3	0.4	1.6	0.6

Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls (Table R.6)

Table 1.7 Projected male employment growth by broad sector by region, 2002-2012

a) change in thousands

Region	Primary and utilities	Manufacturing	Construction	Distribution, transport etc.	Business and other services	Non-marketed services
London	-3	-30	-22	-47	237	-49
South East	-13	-30	22	27	139	-2
East of England	-6	-23	2	24	104	-5
South West	-12	-34	24	12	54	7
West Midlands	-7	-56	-20	2	78	-8
East Midlands	-11	-48	9	7	37	-13
Yorks and the Humber	-10	-41	-20	12	68	-1
North West	-6	-64	-12	-11	101	-10
North East	-3	-15	-1	6	19	-11
England	-72	-339	-18	32	837	-92
Wales	-7	-20	-10	-3	29	-10
Scotland	-12	-40	-19	-10	77	-19
Northern Ireland	-7	-10	-7	2	8	-12
United Kingdom	-97	-410	-54	21	951	-133

Table 1.7 Projected male employment growth by broad sector by region, 2002-2012 (continued)

b) % change

Region	Primary and utilities	Manufacturing	Construction	Distribution, transport etc.	Business and other services	Non-marketed services
London	-22.9	-15.4	-11.8	-6.1	23.8	-17.2
South East	-19.3	-9.5	8.9	4.1	21.3	-0.6
East of England	-17.3	-8.9	1.0	5.5	30.0	-3.2
South West	-18.0	-14.7	16.0	3.3	18.5	3.7
West Midlands	-18.1	-15.8	-15.1	0.5	27.5	-4.9
East Midlands	-28.3	-18.6	7.2	2.4	18.8	-11.0
Yorks and the Humber	-23.5	-14.4	-15.3	3.3	28.2	-0.8
North West	-21.7	-17.6	-6.6	-2.1	27.0	-4.1
North East	-16.0	-11.8	-1.2	3.9	18.0	-12.7
England	-20.4	-14.3	-1.3	0.8	24.0	-5.6
Wales	-21.5	-14.3	-12.6	-1.9	24.7	-9.3
Scotland	-14.7	-18.9	-14.0	-2.8	26.1	-10.0
Northern Ireland	-20.9	-13.4	-13.2	1.9	12.8	-17.5
United Kingdom	-19.6	-14.6	-3.2	0.4	24.0	-6.7

c) % per annum change

Region	Primary and utilities	Manufacturing	Construction	Distribution, transport etc.	Business and other services	Non-marketed services
London	-2.6	-1.7	-1.2	-0.6	2.2	-1.9
South East	-2.1	-1.0	0.9	0.4	2.0	-0.1
East of England	-1.9	-0.9	0.1	0.5	2.7	-0.3
South West	-2.0	-1.6	1.5	0.3	1.7	0.4
West Midlands	-2.0	-1.7	-1.6	0.0	2.5	-0.5
East Midlands	-3.3	-2.0	0.7	0.2	1.7	-1.2
Yorks and the Humber	-2.6	-1.5	-1.6	0.3	2.5	-0.1
North West	-2.4	-1.9	-0.7	-0.2	2.4	-0.4
North East	-1.7	-1.2	-0.1	0.4	1.7	-1.3
England	-2.3	-1.5	-0.1	0.1	2.2	-0.6
Wales	-2.4	-1.5	-1.3	-0.2	2.2	-1.0
Scotland	-1.6	-2.1	-1.5	-0.3	2.3	-1.0
Northern Ireland	-2.3	-1.4	-1.4	0.2	1.2	-1.9
United Kingdom	-2.2	-1.6	-0.3	0.0	2.2	-0.7

Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls (Table R.7)

Table 1.8 Projected female employment growth by broad sector by region, 2002-2012

a) change in thousands

Region	Primary and utilities	Manufacturing	Construction	Distribution, transport etc.	Business and other services	Non-marketed services
London	-2	-21	-3	34	100	93
South East	0	-34	3	90	37	72
East of England	1	-25	0	42	29	45
South West	-5	-16	3	41	5	41
West Midlands	-2	-19	-3	40	23	66
East Midlands	2	-15	1	22	19	60
Yorks and the Humber	0	-16	-2	47	24	32
North West	-3	-25	-1	30	30	56
North East	0	-10	0	3	4	17
England	-9	-182	-2	350	272	482
Wales	-2	-14	-1	13	17	31
Scotland	-1	-30	-2	-3	29	46
Northern Ireland	0	-3	-1	12	14	27
United Kingdom	-12	-229	-6	372	331	587

b) % change

Region	Primary and utilities	Manufacturing	Construction	Distribution, transport etc.	Business and other services	Non-marketed services
London	-28.9	-20.8	-11.8	6.3	12.6	16.3
South East	0.3	-28.2	8.9	15.0	6.4	11.7
East of England	8.4	-25.4	1.0	11.2	9.2	11.9
South West	-25.1	-19.2	16.0	11.0	1.9	9.9
West Midlands	-10.8	-16.4	-15.1	11.5	8.7	15.3
East Midlands	11.3	-14.0	7.2	8.3	9.6	17.4
Yorks and the Humber	-0.4	-16.0	-15.3	14.0	10.4	7.8
North West	-17.2	-20.1	-6.6	6.7	9.2	10.1
North East	-10.1	-25.8	-1.2	2.4	4.7	8.2
England	-6.7	-20.3	-1.3	10.2	8.9	12.3
Wales	-20.0	-26.2	-12.6	7.2	15.1	12.7
Scotland	-6.6	-33.5	-14.0	-0.7	9.8	10.5
Northern Ireland	-4.0	-13.1	-13.2	13.1	23.1	16.3
United Kingdom	-7.3	-21.5	-3.0	9.2	9.4	12.3

Table 1.8 Projected female employment growth by broad sector by region, 2002-2012 (continued)

c) % per annum change

Region	Primary and utilities	Manufacturing	Construction	Distribution, transport etc.	Business and other services	Non-marketed services
London	-3.4	-2.3	-1.2	0.6	1.2	1.5
South East	0.0	-3.3	0.9	1.4	0.6	1.1
East of England	0.8	-2.9	0.1	1.1	0.9	1.1
South West	-2.9	-2.1	1.5	1.0	0.2	1.0
West Midlands	-1.1	-1.8	-1.6	1.1	0.8	1.4
East Midlands	1.1	-1.5	0.7	0.8	0.9	1.6
Yorks and the Humber	0.0	-1.7	-1.6	1.3	1.0	0.8
North West	-1.9	-2.2	-0.7	0.6	0.9	1.0
North East	-1.1	-2.9	-0.1	0.2	0.5	0.8
England	-0.7	-2.2	-0.1	1.0	0.9	1.2
Wales	-2.2	-3.0	-1.3	0.7	1.4	1.2
Scotland	-0.7	-4.0	-1.5	-0.1	0.9	1.0
Northern Ireland	-0.4	-1.4	-1.4	1.2	2.1	1.5
United Kingdom	-0.8	-2.4	-0.3	0.9	0.9	1.2

Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls (Table R.8)

All regions are projected to share in the decline in employment in the *primary and utilities* broad sector. Males account for nearly 90% of this decrease. The largest regional job loss (17,000 jobs) is projected in the South West. In percentage terms this represents a loss of approximately 20% of jobs in the broad sector over the decade. London, Wales and the North West record slightly larger percentage decreases. In Northern Ireland and the North West the percentage decreases are similar to those projected for the North West. The East of England is projected to record the slowest rate of employment decline at 1% per annum, translating to a contraction of employment in this broad sector by a tenth over the decade. The South East and Scotland record the next slowest rates of employment decline.

The largest regional job losses in *manufacturing* employment are expected in the North West, the West Midlands and Scotland, with projected job losses of 90,000, 75,000 and 70,000, respectively. In the South East and East Midlands losses of slightly less than 65,000 jobs are projected. Scotland and the North West are projected to experience the fastest rate of job loss (at least 2% per annum), with Wales, the East Midlands and London also expected to incur job losses at a rate slightly above the UK average of 1.8% per annum. The East of England and Northern Ireland are projected to experience the slowest rates of loss at 1.4% per annum. The South East, Yorkshire & the Humber, and the North East also record projected job losses at a rate slightly slower than the England average. In all parts of the UK, the manufacturing sector dominates projected job losses in absolute terms. Nationally, males account for approximately two in every three of the jobs lost. However, the South East and the East of England are distinctive in that projected manufacturing job losses for females exceed those for males.

Projected increases in employment in *construction* are confined to the South West, the South East, the East Midlands and the East of England. The South West and the South East dominate the picture of projected employment increase, each with around 25,000 extra jobs expected. The fastest rates of employment decline are expected in Yorkshire & the Humber and the West Midlands. Males account for virtually all of the projected employment losses in construction.

All regions with the exception of Scotland and London are expected to share in the projected increase in employment in *distribution, transport, etc.* The largest employment gains are expected in the South East, with nearly 120,000 extra jobs, representing a growth rate of 0.9% per annum. The next fastest employment increases (0.8% per annum) are projected for Yorkshire & the Humber, and the East of England. The North West, Wales and the North East display projected increases at a slower rate than the national average. Females account for around 95% of projected job gains in this broad sector. In London, the North West, Scotland and Wales, losses in male employment are expected.

London is projected to experience the largest absolute increase in employment in *business and other services* over the period to 2012, with a net gain of nearly 350,000 jobs, respectively. This is indicative of London's role as a world financial and business services centre. The next largest gains are expected in the South East (175,000 jobs) and the East of England and the North West (both with around 130,000 extra jobs). In all regions, this sector dominates the picture of overall employment increase. This is especially the case in London, but is much less marked in the South West and Northern Ireland. Indeed, the South West records the slowest rate of employment growth (1% per annum over the projection period) of any UK region. The North East, the East Midlands and the South East also record slower growth rates than the UK average. Males account for approximately three in four of the projected job gains in this broad sector and they dominate projected employment increases in all regions.

The East Midlands and the West Midlands display the fastest projected rates of employment growth in *non-marketed services* over the period to 2012, with annual average growth rates of 1% and 0.9%, respectively. The South East, the South West and the East of England also record annual average employment growth rates in excess of the UK average. The North East and Scotland display the slowest growth rates of 0.2% per annum and 0.4% per annum, respectively. The South East records the largest expected absolute increase of over 70,000 jobs. In all regions, with the exception of the South West where a small increase is projected, there are projected losses in male employment (albeit very small in the East Midlands, the South East and the East of England). Easily the largest projected loss in male jobs is in London, where an expected loss of 50,000 male jobs contrasts with a gain of over 90,000 female jobs.

1.8 Employment by gender and status

In 1982, females comprised 42% of those in employment in the UK. There was a considerable increase in the number of females in employment over the following decade, and by 2002 females accounted for nearly 47% of those in employment (see Table 1.9). In 1982 the North West, Scotland and the South East recorded the largest proportions of total employment accounted for by females, while Wales and Northern Ireland displayed the smallest proportions. All regions shared in the increase in total employment accounted for by females during the 1980s. In the 1990s the gains in shares were generally less dramatic, and in the North West, the South East and the North East there were small declines in the shares of total employment accounted for by females.

The general trend of greater gains in employment for females than for males is projected to continue over the period to 2012, with females projected to account for over 48% of total employment across the UK by 2012. By 2012, females are projected to account for the majority (around 51%) of those in employment in Northern Ireland, Wales and the East Midlands. The next highest proportions are expected in Scotland, Yorkshire & the Humber, and the West Midlands, where females are expected to account for at least 49% of total employment. In all regions females are projected to account for a larger share of total employment in 2012 than in 2002. In 2012 the largest males' shares of total employment are found in the East of England, London and the South East.

The proportion of total employment accounted for by full-time employees fell steadily in all regions between 1982 and 1992. Decreases in this proportion were generally much more modest over the decade to 2002. By 2012 full-time employees are projected to account for less than 59% of total employment across the UK, compared with 68% in 1982 and less than 62% in 1992. The South East and the East of England are distinctive in recording increases in the share of total employment accounted for by full-time employees between 2002 and 2012. In 2012 full-time employees are projected to account for nearly 66% of total employment in London but only 51% of the total in the South West. Across the UK the share of total employment accounted for by male full-time employees is projected to decline to 36% of total employment in 2012, compared with nearly 38% in 2002 and over 46% in 1982. The share of female full-time employees in total employment is projected to remain steady across the UK between 2002 and 2012 at 23%. At regional level the share of total employment accounted for by female full-time employees is highest in London (over 27%) and lowest in the South West (less than 20%) and the two Midlands regions (less than 22%).

All regions have shared in the national increase of total employment accounted for by male part-time employees. Across the UK male part-time employees accounted for 4% of total employment in 1982. This share is projected to rise to 8% in 2012. Shares of male part-time employees are highest in the South West and Northern Ireland, and lowest in the North East. Female part-time employees are projected to account for over 22% of total employment in 2012, compared with 21% in 2002. The East of England is the only region not to share in this pattern of increase. By 2012 female part-time employees are expected to account for around 26% of total employment in Yorkshire & the Humber, and the East Midlands, but a mere 16% in London.

Having risen from a 10% to a 13% share of total employment between 1982 and 1992, self-employment has shown first a relative decline (to 12% in 2002) and then a projected relative and absolute decline (to 11% in 2012). In 2002 the share of total employment accounted for by the self-employed ranged from 8% in the North East and 10% in Scotland, to 15% in the South West and 14% in the East of England. By 2002 14% of those in the South West are expected to be self-employed, compared with 7-8% in the North East and West Midlands.

Between 2002 and 2012 over 1.2 million out of a total projected employment increase of 1.32 million across the UK is accounted for by *part-time employees* (see Table 1.10). Females and males are expected to share in this employment increase, with a gain of over 700,000 jobs for female part-time employees and of over 500,000 jobs for male part-time employees. The faster annual average projected growth rate for male part-time employees (2.4% per annum) reflects the lower initial base. All regions are projected to share in this increase in part-time employees. The South East and the East of England are distinctive in having a greater projected increase in full-time than in part-time employees.

Table 1.9 Employment by gender and employment status by region, 1982-2012

a) males

	1982		1992		2002		2012	
	000s	%	000s	%	000s	%	000s	%
London	2384	59.0	2104	55.0	2453	54.6	2538	53.1
South East	1795	56.9	1890	52.2	2210	52.9	2354	52.4
East of England	1214	58.6	1247	53.8	1410	53.9	1506	53.7
South West	1103	58.3	1148	52.6	1291	52.3	1343	51.8
West Midlands	1348	58.9	1299	54.4	1359	53.2	1348	50.9
East Midlands	1003	58.8	1004	54.6	1023	51.9	1004	49.2
Yorks and the Humber	1231	58.8	1159	52.5	1213	52.4	1220	50.7
North West	1679	56.8	1567	52.3	1704	53.3	1703	51.9
North East	614	57.8	560	52.3	547	52.4	542	51.4
England	12370	58.2	11979	53.4	13209	53.2	13556	52.0
Wales	664	60.0	632	53.4	640	51.6	620	49.0
Scotland	1274	56.8	1255	52.7	1290	51.4	1265	50.1
Northern Ireland	337	59.1	344	54.7	402	53.5	377	48.6
United Kingdom	14646	58.1	14209	53.3	15541	53.0	15819	51.6

b) females

	1982		1992		2002		2012	
	000s	%	000s	%	000s	%	000s	%
London	1654	41.0	1720	45.0	2037	45.4	2239	46.9
South East	1362	43.1	1728	47.8	1970	47.1	2137	47.6
East of England	857	41.4	1072	46.2	1205	46.1	1298	46.3
South West	788	41.7	1033	47.4	1179	47.7	1247	48.2
West Midlands	941	41.1	1089	45.6	1196	46.8	1301	49.1
East Midlands	702	41.2	834	45.4	949	48.1	1038	50.8
Yorks and the Humber	864	41.2	1048	47.5	1100	47.6	1185	49.3
North West	1278	43.2	1432	47.7	1490	46.7	1577	48.1
North East	448	42.2	510	47.7	498	47.6	512	48.6
England	8894	41.8	10465	46.6	11623	46.8	12535	48.0
Wales	442	40.0	552	46.6	600	48.4	645	51.0
Scotland	971	43.2	1128	47.3	1222	48.6	1261	49.9
Northern Ireland	233	40.9	285	45.3	350	46.5	399	51.4
United Kingdom	10541	41.9	12430	46.7	13795	47.0	14839	48.4

Table 1.9 Employment by gender and employment status by region, 1982-2012 (continued)

c) total full time employees

	1982		1992		2002		2012	
	000s	%	000s	%	000s	%	000s	%
London	2981	73.8	2649	69.3	3023	67.3	3143	65.8
South East	1998	63.3	2078	57.4	2414	57.8	2637	58.7
East of England	1328	64.2	1344	57.9	1532	58.6	1649	58.8
South West	1180	62.4	1201	55.1	1328	53.8	1326	51.2
West Midlands	1600	69.9	1519	63.6	1559	61.0	1540	58.1
East Midlands	1160	68.0	1123	61.1	1150	58.3	1125	55.1
Yorks and the Humber	1428	68.2	1342	60.8	1370	59.2	1342	55.8
North West	2031	68.7	1886	62.9	1979	62.0	1992	60.7
North East	751	70.7	669	62.6	658	62.9	653	61.9
England	14458	68.0	13810	61.5	15013	60.5	15408	59.1
Wales	737	66.6	693	58.5	728	58.7	714	56.4
Scotland	1595	71.0	1543	64.8	1573	62.6	1500	59.4
Northern Ireland	388	68.0	395	62.9	437	58.1	409	52.7
United Kingdom	17178	68.2	16441	61.7	17751	60.5	18031	58.8

d) male full time employees

	1982		1992		2002		2012	
	000s	%	000s	%	000s	%	000s	%
London	1973	48.9	1613	42.2	1795	40.0	1826	38.2
South East	1353	42.9	1308	36.1	1516	36.3	1650	36.7
East of England	929	44.9	876	37.8	975	37.3	1029	36.7
South West	819	43.3	770	35.3	840	34.0	847	32.7
West Midlands	1110	48.5	1000	41.9	1001	39.2	961	36.3
East Midlands	803	47.1	738	40.2	716	36.3	682	33.4
Yorks and the Humber	1016	48.5	881	39.9	884	38.2	847	35.2
North West	1380	46.7	1207	40.2	1246	39.0	1217	37.1
North East	520	48.9	439	41.0	423	40.5	419	39.8
England	9902	46.6	8832	39.4	9397	37.8	9478	36.3
Wales	509	46.0	441	37.2	444	35.8	409	32.3
Scotland	1058	47.1	983	41.2	957	38.1	892	35.3
Northern Ireland	248	43.5	239	38.0	266	35.3	234	30.1
United Kingdom	11717	46.5	10494	39.4	11064	37.7	11013	35.9

Table 1.9 Employment by gender and employment status by region, 1982-2012 (continued)

e) female full time employees

	1982		1992		2002		2012	
	000s	%	000s	%	000s	%	000s	%
London	1008	25.0	1036	27.1	1228	27.3	1318	27.6
South East	645	20.4	770	21.3	899	21.5	987	22.0
East of England	399	19.3	467	20.1	557	21.3	620	22.1
South West	362	19.1	431	19.8	488	19.8	479	18.5
West Midlands	490	21.4	519	21.7	558	21.8	579	21.9
East Midlands	357	20.9	385	21.0	434	22.0	443	21.7
Yorks and the Humber	413	19.7	461	20.9	486	21.0	494	20.6
North West	651	22.0	679	22.6	733	22.9	775	23.6
North East	231	21.8	230	21.5	234	22.4	234	22.2
England	4556	21.4	4978	22.2	5616	22.6	5930	22.7
Wales	228	20.6	252	21.3	283	22.8	305	24.1
Scotland	537	23.9	560	23.5	616	24.5	608	24.1
Northern Ireland	140	24.5	157	24.9	171	22.8	175	22.6
United Kingdom	5461	21.7	5948	22.3	6686	22.8	7018	22.9

f) total part time employees

	1982		1992		2002		2012	
	000s	%	000s	%	000s	%	000s	%
London	736	18.2	720	18.8	950	21.2	1145	24.0
South East	769	24.4	980	27.1	1189	28.4	1344	29.9
East of England	486	23.5	622	26.8	715	27.3	793	28.3
South West	441	23.3	601	27.6	767	31.1	907	35.0
West Midlands	489	21.4	601	25.2	730	28.6	879	33.2
East Midlands	374	22.0	476	25.9	590	29.9	678	33.2
Yorks and the Humber	486	23.2	621	28.1	685	29.6	809	33.6
North West	663	22.4	785	26.2	879	27.5	962	29.3
North East	227	21.3	300	28.0	300	28.7	324	30.7
England	4672	22.0	5706	25.4	6804	27.4	7840	30.0
Wales	220	19.9	309	26.1	347	28.0	410	32.4
Scotland	473	21.1	595	25.0	689	27.4	756	29.9
Northern Ireland	108	19.0	146	23.3	220	29.3	270	34.9
United Kingdom	5474	21.7	6757	25.4	8061	27.5	9276	30.3

Table 1.9 Employment by gender and employment status by region, 1982-2012 (continued)

g) male part time employees

	1982		1992		2002		2012	
	000s	%	000s	%	000s	%	000s	%
London	166	4.1	163	4.3	291	6.5	373	7.8
South East	150	4.8	175	4.8	288	6.9	355	7.9
East of England	85	4.1	108	4.6	165	6.3	209	7.5
South West	81	4.3	105	4.8	187	7.6	239	9.2
West Midlands	83	3.6	94	3.9	161	6.3	218	8.2
East Midlands	65	3.8	80	4.3	131	6.7	151	7.4
Yorks and the Humber	73	3.5	89	4.0	140	6.0	187	7.8
North West	99	3.3	117	3.9	206	6.5	255	7.8
North East	32	3.0	45	4.2	59	5.7	70	6.6
England	834	3.9	976	4.3	1628	6.6	2056	7.9
Wales	37	3.3	49	4.2	76	6.2	109	8.6
Scotland	79	3.5	89	3.7	154	6.1	186	7.3
Northern Ireland	25	4.3	35	5.6	57	7.6	73	9.4
United Kingdom	974	3.9	1149	4.3	1916	6.5	2423	7.9

h) female part time employees

	1982		1992		2002		2012	
	000s	%	000s	%	000s	%	000s	%
London	570	14.1	558	14.6	659	14.7	771	16.1
South East	619	19.6	805	22.2	901	21.6	989	22.0
East of England	400	19.3	514	22.2	550	21.0	584	20.8
South West	360	19.0	496	22.7	581	23.5	668	25.8
West Midlands	406	17.8	507	21.2	569	22.3	661	25.0
East Midlands	309	18.1	396	21.6	458	23.2	526	25.8
Yorks and the Humber	414	19.7	532	24.1	545	23.6	622	25.9
North West	564	19.1	668	22.3	673	21.1	707	21.6
North East	195	18.3	254	23.8	241	23.0	254	24.1
England	3838	18.0	4730	21.1	5176	20.8	5784	22.2
Wales	184	16.6	260	22.0	271	21.8	301	23.8
Scotland	395	17.6	506	21.2	535	21.3	570	22.6
Northern Ireland	84	14.7	111	17.7	163	21.7	198	25.5
United Kingdom	4500	17.9	5608	21.1	6145	20.9	6853	22.4

Table 1.9 Employment by gender and employment status by region, 1982-2012 (continued)

i) total self employed

	1982		1992		2002		2012	
	000s	%	000s	%	000s	%	000s	%
London	320	7.9	455	11.9	517	11.5	489	10.2
South East	390	12.3	561	15.5	576	13.8	509	11.3
East of England	256	12.4	353	15.2	367	14.1	361	12.9
South West	269	14.2	379	17.4	374	15.2	357	13.8
West Midlands	200	8.7	268	11.2	265	10.4	230	8.7
East Midlands	171	10.0	238	13.0	233	11.8	239	11.7
Yorks and the Humber	180	8.6	244	11.1	259	11.2	254	10.6
North West	263	8.9	329	11.0	336	10.5	326	9.9
North East	85	8.0	101	9.4	87	8.3	78	7.4
England	2134	10.0	2928	13.0	3015	12.1	2842	10.9
Wales	149	13.5	181	15.3	166	13.3	141	11.2
Scotland	177	7.9	245	10.3	249	9.9	270	10.7
Northern Ireland	74	13.0	87	13.8	95	12.7	96	12.4
United Kingdom	2535	10.1	3441	12.9	3525	12.0	3350	10.9

All employment

	1982		1992		2002		2012	
	000s	%	000s	%	000s	%	000s	%
London	4037	100.0	3824	100.0	4490	100.0	4777	100.0
South East	3157	100.0	3618	100.0	4179	100.0	4491	100.0
East of England	2070	100.0	2319	100.0	2614	100.0	2803	100.0
South West	1891	100.0	2181	100.0	2470	100.0	2590	100.0
West Midlands	2289	100.0	2388	100.0	2554	100.0	2649	100.0
East Midlands	1705	100.0	1838	100.0	1972	100.0	2042	100.0
Yorks and the Humber	2095	100.0	2207	100.0	2313	100.0	2404	100.0
North West	2957	100.0	3000	100.0	3194	100.0	3280	100.0
North East	1062	100.0	1070	100.0	1045	100.0	1054	100.0
England	21264	100.0	22444	100.0	24832	100.0	26091	100.0
Wales	1106	100.0	1184	100.0	1241	100.0	1265	100.0
Scotland	2246	100.0	2383	100.0	2511	100.0	2526	100.0
Northern Ireland	570	100.0	629	100.0	752	100.0	776	100.0
United Kingdom	25186	100.0	26639	100.0	29336	100.0	30658	100.0

Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls (Table R.9)

Table 1.10 Change in employment status by gender by region, 2002-2012

a) change in thousands

Region	Males			Females			Total		
	FT	PT	SE	FT	PT	SE	FT	PT	SE
London	31	83	-28	90	112	0	121	195	-28
South East	134	66	-57	88	89	-10	223	155	-66
East of England	54	45	-3	63	34	-4	117	79	-7
South West	7	52	-8	-9	87	-10	-2	139	-17
West Midlands	-41	57	-27	21	92	-9	-19	149	-35
East Midlands	-35	20	-4	10	68	11	-25	88	6
Yorks and the Humber	-37	47	-4	8	77	-1	-28	124	-5
North West	-29	49	-20	43	35	10	13	83	-11
North East	-4	10	-11	-1	13	2	-5	24	-10
England	81	428	-161	315	608	-11	395	1036	-173
Wales	-35	32	-17	21	30	-7	-14	62	-24
Scotland	-65	31	10	-8	36	12	-73	67	21
Northern Ireland	-32	16	-9	4	35	10	-28	50	1
United Kingdom	-52	507	-178	332	709	4	280	1216	-174

b) % change

Region	Males			Females			Total		
	FT	PT	SE	FT	PT	SE	FT	PT	SE
London	1.7	28.4	-7.7	7.3	17.0	0.0	4.0	20.5	-5.5
South East	8.9	23.0	-14.0	9.8	9.9	-5.6	9.2	13.0	-11.5
East of England	5.5	27.1	-1.0	11.4	6.2	-4.1	7.6	11.0	-1.8
South West	0.9	27.9	-2.9	-1.8	15.0	-8.7	-0.1	18.2	-4.6
West Midlands	-4.1	35.3	-13.7	3.8	16.3	-12.4	-1.2	20.5	-13.4
East Midlands	-4.8	15.0	-2.5	2.3	14.9	18.6	-2.1	14.9	2.7
Yorks and the Humber	-4.1	33.6	-1.9	1.7	14.2	-2.0	-2.1	18.2	-1.9
North West	-2.3	23.6	-8.0	5.8	5.1	11.5	0.7	9.5	-3.1
North East	-1.0	16.9	-17.1	-0.3	5.6	6.7	-0.7	7.8	-10.9
England	0.9	26.3	-7.4	5.6	11.8	-1.4	2.6	15.2	-5.7
Wales	-8.0	42.1	-14.1	7.5	11.2	-15.9	-2.0	18.0	-14.6
Scotland	-6.8	20.3	5.4	-1.3	6.6	16.6	-4.6	9.7	8.6
Northern Ireland	-12.0	27.3	-11.6	2.2	21.2	65.7	-6.4	22.8	1.2
United Kingdom	-0.5	26.5	-6.9	5.0	11.5	0.4	1.6	15.1	-4.9

Table 1.10 Change in employment status by gender by region, 2002-2012 (continued)

c) % per annum change

Region	Males			Females			Total		
	FT	PT	SE	FT	PT	SE	FT	PT	SE
London	0.2	2.5	-0.8	0.7	1.6	0.0	0.4	1.9	-0.6
South East	0.9	2.1	-1.5	0.9	0.9	-0.6	0.9	1.2	-1.2
East of England	0.5	2.4	-0.1	1.1	0.6	-0.4	0.7	1.0	-0.2
South West	0.1	2.5	-0.3	-0.2	1.4	-0.9	0.0	1.7	-0.5
West Midlands	-0.4	3.1	-1.5	0.4	1.5	-1.3	-0.1	1.9	-1.4
East Midlands	-0.5	1.4	-0.3	0.2	1.4	1.7	-0.2	1.4	0.3
Yorks & the Humber	-0.4	2.9	-0.2	0.2	1.3	-0.2	-0.2	1.7	-0.2
North West	-0.2	2.1	-0.8	0.6	0.5	1.1	0.1	0.9	-0.3
North East	-0.1	1.6	-1.9	0.0	0.5	0.7	-0.1	0.8	-1.2
England	0.1	2.4	-0.8	0.5	1.1	-0.1	0.3	1.4	-0.6
Wales	-0.8	3.6	-1.5	0.7	1.1	-1.7	-0.2	1.7	-1.6
Scotland	-0.7	1.9	0.5	-0.1	0.6	1.5	-0.5	0.9	0.8
Northern Ireland	-1.3	2.4	-1.2	0.2	1.9	5.2	-0.7	2.1	0.1
United Kingdom	0.0	2.4	-0.7	0.5	1.1	0.0	0.2	1.4	-0.5

Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls (Table R.10)

Overall projected gains in *full-time employees* are confined to the South East (with an expected increase of over 200,000), the East of England and London (each with gains of around 120,000 jobs) and the North West with a more modest projected increase of 13,000 jobs. The largest regional loss of full-time employees is expected in Scotland, with a projected decline of over 70,000. However, Northern Ireland is projected to experience the fastest rate of loss of full-time employees (a loss of 0.7% per annum, compared with a modest projected gain of 0.2% per annum across the UK as a whole).

Across the UK, a loss of over 50,000 *male full-time employees* is expected, in contrast with a gain of around 330,000 female full-time employees. The South East is projected to see easily the largest increase in male full-time employees (nearly 135,000), followed by the East of England and London with projected gains of around 50,000 and 30,000, respectively. The South West is the only other region with a projected increase in male full-time employees. For *female full-time employees* projected losses are confined to the South West and Scotland, but these losses are very modest. The fastest projected rates of increase for *female part-time employees* are recorded for Northern Ireland and London, and the slowest rates of growth for the North East and the North West.

Overall, a decline of around 174,000 *self-employed* is expected across the UK. Projected increases in self-employment are confined to Scotland, the East Midlands and Northern Ireland. The fastest rates of loss in the number of self-employed are expected in Wales, the West Midlands, the South East and the North East. Nationally, expected losses are concentrated amongst males, but relative gains and losses by gender vary by region.

1.9 Occupational prospects

This section concentrates on employment projections for the nine SOC Major Groups. Table 1.11 presents details of projected change in total employment by occupation by region over the period to 2012. Similar statistics disaggregated by gender are presented in Table 1.12 (for males) and Table 1.13 (for females).[14] The statistics presented relate to structural demand changes. For a fuller picture of the changing demand for different occupations it is necessary to bear in mind the impacts of retirements, inter-occupational moves, etc., as captured by ‘replacement demand’, (as discussed in the next section).

[14]Tables 1.12 and 1.13 are included for reference purposes, and are not the subject of detailed commentary. Rather, the text in this regional overview focuses on changes in total employment by occupation.

Table 1.11 Projected change in total employment by occupation by region, 2002-2012

a) change in thousands

Region	Occupational Group									
	1	2	3	4	5	6	7	8	9	All
London	147	183	235	-153	-76	72	28	-49	-99	288
South East	127	97	117	-96	-36	119	58	-13	-61	312
East of England	80	68	81	-45	-35	69	29	-10	-47	189
South West	39	52	48	-43	-27	67	48	-14	-49	120
West Midlands	34	46	62	-12	-67	82	42	-25	-66	94
East Midlands	36	39	37	-19	-48	71	33	-23	-56	70
Yorks and the Humber	37	40	36	-1	-52	66	48	-20	-63	91
North West	33	68	65	-18	-66	83	44	-43	-81	86
North East	10	13	14	-10	-21	24	17	-8	-30	9
England	542	605	693	-398	-428	653	347	-204	-551	1259
Wales	9	25	22	-5	-34	37	16	-10	-36	24
Scotland	26	59	44	-16	-57	29	24	-25	-69	15
Northern Ireland	7	14	16	-4	-23	28	11	-10	-17	23
United Kingdom	584	703	774	-423	-541	748	398	-249	-673	1322

b)% change

Region	Occupational Group									
	1	2	3	4	5	6	7	8	9	All
London	18.1	29.2	27.9	-24.3	-19.8	26.9	9.8	-21.4	-23.8	6.4
South East	17.5	20.0	18.9	-16.4	-8.2	40.1	18.0	-5.0	-13.8	7.5
East of England	18.8	23.8	22.7	-13.2	-11.2	38.2	13.9	-4.8	-15.6	7.2
South West	10.9	19.7	15.1	-14.1	-8.5	34.0	21.7	-7.2	-16.6	4.9
West Midlands	10.0	18.0	19.4	-3.7	-20.1	41.4	20.7	-9.0	-21.9	3.7
East Midlands	12.7	19.5	15.6	-8.1	-20.0	43.1	20.7	-10.8	-23.0	3.5
Yorks and the Humber	12.0	17.3	12.7	-0.4	-18.7	35.7	24.0	-8.1	-21.3	3.9
North West	7.7	19.1	15.3	-4.2	-17.9	33.9	16.4	-13.9	-21.8	2.7
North East	8.5	12.4	10.7	-8.1	-16.0	29.1	17.6	-6.9	-20.8	0.9
England	14.3	21.6	19.7	-12.2	-15.3	36.0	17.6	-10.0	-19.7	5.1
Wales	6.1	19.3	14.1	-3.8	-21.6	36.2	15.5	-7.3	-21.6	1.9
Scotland	8.2	20.6	12.8	-4.5	-20.0	18.3	11.6	-11.1	-20.1	0.6
Northern Ireland	8.1	16.7	15.8	-4.6	-22.2	41.0	18.3	-16.6	-17.6	3.1
United Kingdom	13.4	21.3	18.8	-11.0	-16.2	34.8	17.0	-10.1	-19.7	4.5

Table 1.11 Projected change in total employment by occupation by region, 2002-2012 (continued)

c)% per annum change

Region	Occupational Group									
	1	2	3	4	5	6	7	8	9	All
London	1.7	2.6	2.5	-2.7	-2.2	2.4	0.9	-2.4	-2.7	0.6
South East	1.6	1.8	1.7	-1.8	-0.9	3.4	1.7	-0.5	-1.5	0.7
East of England	1.7	2.2	2.1	-1.4	-1.2	3.3	1.3	-0.5	-1.7	0.7
South West	1.0	1.8	1.4	-1.5	-0.9	3.0	2.0	-0.7	-1.8	0.5
West Midlands	1.0	1.7	1.8	-0.4	-2.2	3.5	1.9	-0.9	-2.4	0.4
East Midlands	1.2	1.8	1.5	-0.8	-2.2	3.6	1.9	-1.1	-2.6	0.3
Yorks and the Humber	1.1	1.6	1.2	0.0	-2.0	3.1	2.2	-0.8	-2.4	0.4
North West	0.7	1.8	1.4	-0.4	-2.0	3.0	1.5	-1.5	-2.4	0.3
North East	0.8	1.2	1.0	-0.8	-1.7	2.6	1.6	-0.7	-2.3	0.1
England	1.3	2.0	1.8	-1.3	-1.6	3.1	1.6	-1.0	-2.2	0.5
Wales	0.6	1.8	1.3	-0.4	-2.4	3.1	1.5	-0.8	-2.4	0.2
Scotland	0.8	1.9	1.2	-0.5	-2.2	1.7	1.1	-1.2	-2.2	0.1
Northern Ireland	0.8	1.6	1.5	-0.5	-2.5	3.5	1.7	-1.8	-1.9	0.3
United Kingdom	1.3	1.9	1.7	-1.2	-1.8	3.0	1.6	-1.1	-2.2	0.4

Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls (Table R.11)

Occupational groups:

1 Managers and senior officials
2 Professional
3 Associate professional and technical
4 Administrative, clerical and secretarial
5 Skilled trades
6 Personal service
7 Sales and customer service
8 Transport and machine operatives
9 Elementary

Table 1.12 Projected change in male employment by occupation by region, 2002-2012

a) change in thousands

Region	Occupational Group									
	1	2	3	4	5	6	7	8	9	All
London	53	92	115	-35	-73	3	17	-36	-51	85
South East	46	55	56	-7	-38	10	29	3	-9	144
East of England	30	38	46	-3	-35	6	16	4	-6	96
South West	13	24	26	-1	-25	5	17	-1	-6	52
West Midlands	-1	18	27	17	-65	4	12	-5	-18	-11
East Midlands	7	15	14	-1	-46	3	8	-4	-15	-19
Yorks and the Humber	3	16	18	21	-52	3	18	-3	-17	7
North West	0	28	27	30	-64	4	19	-19	-26	-1
North East	0	3	4	5	-20	2	7	1	-6	-5
England	151	289	333	24	-417	40	143	-61	-154	347
Wales	-1	3	6	5	-32	2	6	0	-9	-20
Scotland	-5	11	13	19	-53	5	13	-8	-19	-24
Northern Ireland	-3	3	1	2	-22	0	6	-6	-6	-26
United Kingdom	142	305	352	51	-524	47	168	-75	-189	278

Table 1.12 Projected change in male employment by occupation by region, 2002-2012 (continued)

b)% change

Region	Occupational Group									
	1	2	3	4	5	6	7	8	9	All
London	10.2	25.3	25.6	-21.7	-20.7	5.4	15.8	-18.1	-21.4	3.5
South East	9.8	18.8	17.0	-6.1	-9.6	21.6	29.4	1.3	-3.7	6.5
East of England	10.9	21.8	24.3	-4.2	-12.6	23.6	27.5	2.3	-3.8	6.8
South West	5.5	16.1	16.2	-2.1	-8.7	21.0	29.1	-0.6	-3.9	4.0
West Midlands	-0.4	12.4	16.2	24.7	-21.2	15.4	23.3	-2.3	-11.5	-0.8
East Midlands	4.1	13.1	11.7	-2.1	-21.5	14.3	20.2	-2.4	-12.1	-1.9
Yorks and the Humber	1.7	12.8	12.6	31.1	-20.5	12.7	33.6	-1.7	-11.0	0.6
North West	0.0	13.4	12.5	30.2	-19.1	11.5	25.9	-7.4	-13.1	-0.1
North East	-0.6	5.4	5.7	17.6	-16.4	13.8	35.5	1.0	-8.7	-0.9
England	6.2	17.7	18.1	3.4	-16.4	14.7	25.4	-3.6	-10.3	2.6
Wales	-0.9	4.7	8.0	17.7	-22.5	15.6	23.6	-0.2	-10.6	-3.1
Scotland	-2.5	7.6	8.2	25.5	-20.8	15.9	27.0	-4.1	-10.4	-1.9
Northern Ireland	-5.3	5.8	1.4	8.9	-23.2	3.5	25.8	-11.6	-11.1	-6.3
United Kingdom	5.1	16.2	16.6	6.0	-17.3	14.5	25.5	-3.7	-10.3	1.8

c)% per annum change

Region	Occupational Group									
	1	2	3	4	5	6	7	8	9	All
London	1.0	2.3	2.3	-2.4	-2.3	0.5	1.5	-2.0	-2.4	0.3
South East	0.9	1.7	1.6	-0.6	-1.0	2.0	2.6	0.1	-0.4	0.6
East of England	1.0	2.0	2.2	-0.4	-1.3	2.1	2.5	0.2	-0.4	0.7
South West	0.5	1.5	1.5	-0.2	-0.9	1.9	2.6	-0.1	-0.4	0.4
West Midlands	0.0	1.2	1.5	2.2	-2.4	1.4	2.1	-0.2	-1.2	-0.1
East Midlands	0.4	1.2	1.1	-0.2	-2.4	1.3	1.9	-0.2	-1.3	-0.2
Yorks and the Humber	0.2	1.2	1.2	2.7	-2.3	1.2	2.9	-0.2	-1.2	0.1
North West	0.0	1.3	1.2	2.7	-2.1	1.1	2.3	-0.8	-1.4	0.0
North East	-0.1	0.5	0.6	1.6	-1.8	1.3	3.1	0.1	-0.9	-0.1
England	0.6	1.6	1.7	0.3	-1.8	1.4	2.3	-0.4	-1.1	0.3
Wales	-0.1	0.5	0.8	1.6	-2.5	1.5	2.1	0.0	-1.1	-0.3
Scotland	-0.3	0.7	0.8	2.3	-2.3	1.5	2.4	-0.4	-1.1	-0.2
Northern Ireland	-0.5	0.6	0.1	0.9	-2.6	0.3	2.3	-1.2	-1.2	-0.7
United Kingdom	0.5	1.5	1.5	0.6	-1.9	1.4	2.3	-0.4	-1.1	0.2

Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls (Table R.12)

Occupational groups:

1 Managers and senior officials
2 Professional
3 Associate professional and technical
4 Administrative, clerical and secretarial
5 Skilled trades
6 Personal service
7 Sales and customer service
8 Transport and machine operatives
9 Elementary

Table 1.13 Projected change in female employment by occupation by region, 2002-2012

a) change in thousands

Region	Occupational Group									
	1	2	3	4	5	6	7	8	9	All
London	94	91	120	-117	-3	68	11	-12	-48	202
South East	81	42	61	-88	2	109	29	-16	-52	168
East of England	49	30	35	-42	0	63	13	-14	-41	93
South West	26	28	22	-42	-2	61	31	-13	-43	69
West Midlands	34	28	35	-29	-3	79	29	-20	-48	105
East Midlands	28	24	23	-18	-1	68	25	-19	-41	89
Yorks and the Humber	34	24	18	-22	0	63	30	-16	-46	84
North West	33	41	37	-47	-2	79	26	-24	-55	87
North East	11	10	10	-15	-1	22	9	-8	-23	14
England	391	317	361	-422	-11	613	204	-143	-397	912
Wales	10	22	16	-11	-2	35	10	-10	-26	44
Scotland	31	47	30	-35	-4	24	11	-17	-50	39
Northern Ireland	10	11	15	-7	-1	28	6	-4	-10	49
United Kingdom	442	398	422	-474	-17	700	230	-174	-484	1044

b)% change

Region	Occupational Group									
	1	2	3	4	5	6	7	8	9	All
London	32.3	34.7	30.4	-25.2	-9.9	32.8	6.1	-46.8	-26.9	9.9
South East	31.8	21.7	21.1	-19.1	4.4	43.5	13.0	-40.6	-25.5	8.5
East of England	33.7	26.9	20.8	-15.5	1.6	40.8	8.6	-38.8	-29.8	7.8
South West	20.4	24.5	13.9	-17.2	-6.6	36.0	19.1	-38.6	-31.1	5.8
West Midlands	28.4	25.6	22.7	-11.1	-9.5	44.9	19.7	-38.4	-33.3	8.8
East Midlands	28.4	28.3	19.5	-9.4	-6.0	47.0	20.9	-40.0	-34.7	9.4
Yorks and the Humber	29.8	22.5	12.8	-9.8	-0.9	39.1	20.6	-36.2	-32.7	7.7
North West	22.4	26.9	18.3	-14.7	-6.3	37.8	13.0	-45.7	-31.7	5.8
North East	23.8	21.9	15.9	-15.0	-11.8	31.7	12.6	-46.7	-33.9	2.9
England	29.0	26.9	21.4	-16.5	-4.1	39.7	14.5	-40.8	-30.5	7.8
Wales	18.3	33.8	19.5	-9.4	-12.8	39.3	12.9	-37.0	-34.1	7.3
Scotland	26.2	34.4	16.9	-12.6	-12.7	18.9	6.9	-45.3	-31.2	3.2
Northern Ireland	33.0	28.5	28.4	-9.0	-9.2	47.3	14.2	-43.5	-26.9	13.9
United Kingdom	28.5	28.0	21.1	-15.7	-5.4	38.5	13.7	-41.0	-30.7	7.6

Table 1.13 Projected change in female employment by occupation by region, 2002-2012 (continued)

c)% per annum change

Region	Occupational Group									
	1	2	3	4	5	6	7	8	9	All
London	2.8	3.0	2.7	-2.9	-1.0	2.9	0.6	-6.1	-3.1	1.0
South East	2.8	2.0	1.9	-2.1	0.4	3.7	1.2	-5.1	-2.9	0.8
East of England	2.9	2.4	1.9	-1.7	0.2	3.5	0.8	-4.8	-3.5	0.7
South West	1.9	2.2	1.3	-1.9	-0.7	3.1	1.8	-4.8	-3.7	0.6
West Midlands	2.5	2.3	2.1	-1.2	-1.0	3.8	1.8	-4.7	-4.0	0.8
East Midlands	2.5	2.5	1.8	-1.0	-0.6	3.9	1.9	-5.0	-4.2	0.9
Yorks and the Humber	2.6	2.1	1.2	-1.0	-0.1	3.4	1.9	-4.4	-3.9	0.7
North West	2.0	2.4	1.7	-1.6	-0.7	3.3	1.2	-5.9	-3.7	0.6
North East	2.2	2.0	1.5	-1.6	-1.2	2.8	1.2	-6.1	-4.1	0.3
England	2.6	2.4	2.0	-1.8	-0.4	3.4	1.4	-5.1	-3.6	0.8
Wales	1.7	3.0	1.8	-1.0	-1.4	3.4	1.2	-4.5	-4.1	0.7
Scotland	2.4	3.0	1.6	-1.3	-1.4	1.7	0.7	-5.9	-3.7	0.3
Northern Ireland	2.9	2.5	2.5	-0.9	-1.0	3.9	1.3	-5.6	-3.1	1.3
United Kingdom	2.5	2.5	1.9	-1.7	-0.6	3.3	1.3	-5.1	-3.6	0.7

Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls (Table R.13)

Occupational groups:

1 Managers and senior officials
2 Professional
3 Associate professional and technical
4 Administrative, clerical and secretarial
5 Skilled trades
6 Personal service
7 Sales and customer service
8 Transport and machine operatives
9 Elementary

Overview

There are some quite marked differences in occupational structure across regions. These reflect their different industrial employment structures. For example, the concentration of business services in London and the South East is a key factor behind their above average employment shares in managerial, professional and associate professional occupations. Similarly, the concentration of skilled trades in certain regions reflects the importance of manufacturing in these regions. Despite these differences, the main changes in occupational structure within industries are common across all regions.

At the level of SOC Major Groups, the largest increases in occupational employment across the UK between 2002 and 2012 are projected for associate professional and technical occupations (a gain of around 775,000 jobs), personal service occupations (nearly 750,000 extra jobs) and professional occupations (over 700,000 additional jobs are expected). More modest gains are expected for managers and senior officials (around 585,000 additional jobs), and sales and customer service occupations (a projected gain of nearly 400,000 additional jobs). Elementary occupations dominate the picture of projected losses, with a decline of nearly 675,000 jobs expected across the UK. Losses of around 540,000 jobs in skilled trades occupations and of nearly 435,000 in administrative, clerical and secretarial occupations are expected, while employment levels for machine and transport operatives are projected to experience a reduction of about 250,000 jobs. The main dimensions of employment change by region in each Major Group are outlined in the remainder of this section.

Managers and senior officials

In 2002 managers and senior officials accounted for around 15% of total employment in the UK, but for 18% of the total in London and over 17% of the total in the South East. The East of England was the only other region to display a share of employment in this Major Group in excess of the UK average. These three regions also dominate employment gains for managers and senior officials in absolute terms, accounting for about 355,000 out of nearly 585,000 extra jobs expected across the UK. The East of England, London and the South East are the only parts of the UK where the projected annual average growth rate in employment for the period to 2012 exceeds the UK average of 1.3% per annum. Hence, the above-average representation of managers and senior officials in total employment is projected to become even more pronounced in southern England. All regions are expected to experience a projected increase in employment over the period to 2012. The slowest rates of increase (in a range from 0.6 to 0.8% per annum) are expected in Wales, the North West, Northern Ireland, Scotland and the North East.

Professional occupations

The share of employment in professional occupations is projected to increase across all regions over the period to 2012. London dominates projected employment gains, with an expected increase of over 180,000 jobs, representing an annual average rate of employment increase of 2.6%. This greater 'professionalisation' of the employment structure in London than in other regions is one of the key features of the distinctiveness of London's employment structure, and its role as a world city on the global stage. The East of England is the only other region where the annual average growth rate (2.2%) exceeds that for the UK (1.9%), although the growth rate in Scotland matches the UK average. In 2002 only London and the South East had greater shares of total employment in professional occupations than the UK average, while Scotland and the North West had shares similar to the UK average. Over the period to 2012, the proportion of total employment accounted for by professional occupations in London is projected to increase from 14% to 16%. In the East of England and the South West, gains of around 80,000 jobs are expected. The North East, Yorkshire & the Humber, the East Midlands and the West Midlands all had around 10% of total employment in professional occupations in 2002, and in all these areas projected employment increases are slower than the UK average. The North East displays the lowest projected rate of annual average employment increase, at 1.2% per annum, of any region in the UK.

Associate professional and technical occupations

The share of employment in associate professional and technical occupations is above average in London and the South East relative to the UK. As for professional occupations, so for associate professional and technical occupations, the fastest rate of employment growth is expected in London (2.5% per annum, compared with the UK average of 1.7% per annum). The East of England records the next highest rate of employment growth of any region (2.1% per annum). The West Midlands is the only other region where the projected rate of employment growth exceeds the UK average of 1.7% per annum. In the North East, Yorkshire and the Humber, and Scotland, projected rates of employment growth are in a range from 1 to 1.2% per annum. In 2012 associate professional and technical occupations are projected to account for 13-14% of total employment in Yorkshire and the Humber, the East Midlands, the North East and Wales, compared with 16% across the UK and over 22% in London.

Administrative, clerical and secretarial occupations

As for managerial, professional and associate professional and technical occupations, administrative, clerical and secretarial occupations accounted for a larger share of total employment (around 14%) in London and the South East than in other parts of the UK. However, the regional pattern of projected employment change is markedly different from that for the higher level non-manual occupations. Employment in administrative, clerical and secretarial occupations is projected to decline by well over 400,000 across the UK, and all regions are projected to share in this decrease, albeit that the expected decline in Yorkshire and the Humber is only 1,000 jobs. Easily the largest projected employment losses are in London and the South East, where reductions of over 150,000 and almost 100,000 jobs, respectively, are expected. Together these two regions account for nearly 60% of employment losses for administrative, clerical and secretarial occupations across the UK. The South West and the East of England are the only other regions to record projected rates of job loss in excess of the UK average of 1.2% per annum. After Yorkshire and the Humber, the West Midlands, Wales and the North West are expected to experience the slowest rates of employment decline (at 0.4% per annum). This regional pattern of projected employment losses is indicative of a shift of such functions away from London and southern England. By 2012 Scotland, the North West, Yorkshire and the Humber, the West Midlands and Northern Ireland are projected to display shares of total employment in administrative, clerical and secretarial occupations in excess of the UK average.

Skilled trades occupations

All regions are expected to share in projected employment losses in this Major Group. The South East and the South West display the slowest rates of employment decline (0.9% per annum). The East of England is the only other region with an expected rate of loss (1.2% per annum) more favourable than the UK average (1.8% per annum). The fastest projected rates of job loss are expected in Northern Ireland and Wales (2.5 and 2.4% per annum). London, the West Midlands and the North West are projected to experience the largest employment losses of between 66,000 and 76,000 jobs. By 2012 less than 7% of employment in London is expected to be accounted for by skilled trades occupations; this is easily the lowest proportion for any region. The South West, North East, Northern Ireland and the West Midlands are expected to retain more than 10% of their total employment in skilled trades occupations in 2012, down in all cases by at least two percentage points since 2002.

Personal service occupations

This Major Group accounts for a smaller proportion of total employment than any of the others in 2002, but with the fastest growth rate of any Major Group, this proportion is expected to expand in all regions over the period to 2012. By 2012 it is expected to account for over 9% of total employment, compared with 7% a decade earlier. The West Midlands, the East Midlands and Northern Ireland are expected to see the fastest rates of employment growth, at around 3.5-3.6% per annum, compared with 3% per annum across the UK. The South East and the East of England are also expected to see faster growth rates than the UK average. These growth rates translate into a net gain of over 80,000 jobs in the West Midlands and the North West, and nearly 120,000 in the South East. The projected slowest growth rate is in Scotland, where employment is projected to increase at 1.7% per annum. London and the North East also record the next slowest growth rates (2.4 and 2.6% per annum, respectively). London and Scotland are the only parts of the UK where the projected annual average employment growth rate for personal service occupations does not exceed that expected for any other Major Group; (in these two areas, employment in professional occupations is expected to grow at a slightly faster rate).

Sales and customer service occupations

All regions are projected to share in the employment growth in this Major Group over the period to 2012. The North East, South West, and Yorkshire & the Humber record the largest shares of total employment in this occupational group in 2002 (around 9%). London, the South East and the East of England record the smallest shares of total employment in this occupational group. In the three former regions the share of total employment accounted for by sales and customer service occupations is expected to increase to over 10% in 2012. In these three regions the projected annual average growth rate over the decade either matches or exceeds the UK average (1.6%). The East Midlands and West Midlands register the fastest projected growth rates (1.9% per annum) outside Yorkshire & the Humber and the South West. Projected employment rates are slowest in London, Scotland and the East of England.

Transport and machine operatives

Job loss is projected across the UK and in every region for this Major Group. Hence, in all regions the long-term trend is for transport and machine operatives to account for a diminishing share of total employment. In 2002, the share of total employment accounted for by this Major Group ranged from around 11% in Wales and the West Midlands to 5% in London and over 6% in the South East. In these latter two regions marked under-representation of transport and machine operatives relative to the UK average remains evident, and in the case of London becomes more pronounced. Similarly, in Wales, the North East, the two Midlands regions and Yorkshire & the Humber over-representation of transport and machine operatives becomes relatively more pronounced vis-à-vis the UK average. However, the slowest rates of job loss (0.5% per annum) are expected in the East of England and the South East. The North East and the South West display the next slowest projected rates of employment decline (0.7% per annum), compared with the UK average of 1.1% per annum. London and the North West are expected to see the largest reductions in employment, of 40,000- 50,000 jobs. In the case of London this represents a contraction of employment for this Major Group of over a fifth of the 2002 total. Together with London and the North West, Northern Ireland displays a projected rate of employment loss markedly faster than the UK average.

Elementary occupations

Across the UK employment in elementary occupations is expected to contract at a rate of 2.2% per annum over the period to 2012. The fastest rates of job loss are projected for London and the East Midlands (2.7 and 2.6% per annum, respectively). The West Midlands, North West and Wales record the next fastest rates of employment decline. Slower than annual average rates of employment decline are recorded for the South East, East of England, the South West and Northern Ireland. Scotland, Wales and the North East display the greatest over-representation of employment in elementary occupations relative to the UK, with over 13% of total employment accounted for by this Major Group, compared with a UK average of less than 12%. In 2012 these regions are expected to retain at least 10% of total employment in this Major Group. London has the smallest proportion of employment in elementary occupations (just over 9%), followed by the South East (over 10%). More jobs are projected to be lost in elementary occupations across the UK than in any other Major Group. This is also apparent in all regions except London and the South East (where administrative, secretarial and clerical occupations are expected to see greater losses), and Northern Ireland and the West Midlands where slightly more jobs are projected to be lost in skilled trades occupations.

1.10 Replacement demands

The key component of replacement demands is retirements from the workforce, especially those of older workers. However, replacement requirements for specific occupational groups, in particular geographical areas, can also arise for a number of other reasons. These include occupational mobility, as individuals change jobs for reasons of career progression (as well as other causes), and geographical mobility. Potentially, the latter may be quite important at a regional level. Unfortunately there are few reliable data on such flows, so the estimates presented here exclude replacement needs arising as a consequence of both occupational and geographical mobility. In both cases, there may be offsetting inflows to counter-balance some of the losses.

Despite projected job losses for elementary occupations, skilled trades occupations, transport and machine operatives, and administrative, clerical and secretarial occupations in all regions, the net requirements are positive for **all** Major Groups in **all** regions (see Table 1.14).

Net requirements tend to be particularly large for associate professional and technical occupations, managers and senior officials and professional occupations. The former occupational group accounts for the greatest net requirement in all regions with the exception of the South East, the East of England and the South West, where the net requirement for managers and senior officials is slightly greater. Higher level non-manual occupations (i.e. Major Groups 1-3) easily dominate net requirements in London, the South East and the East of England. This pattern underlines how projected changes in occupations are set to reinforce the south eastern bias of the 'knowledge economy' within England and the UK. These same three Major Groups also dominate the profile of net requirements in the South West, but to a lesser extent than in the other three regions of southern England. There is also a relatively large net requirement for administrative, clerical and secretarial occupations in many of the regions outside southern England.

In most, but not all, regions, the smallest net requirement over the decade to 2012 is projected for transport and machine operatives. However, in the West Midlands, the East Midlands, the North East and Wales, the expected net requirements for elementary occupations and skilled trades occupations are smaller than those for transport and machine operatives.

Table 1.14 Replacement demand by occupation by region, 2002-2012

a) change in thousands

Region	Occupational Group									
	1	2	3	4	5	6	7	8	9	All
London	147	183	235	-153	-76	72	28	-49	-99	288
South East	127	97	117	-96	-36	119	58	-13	-61	312
East of England	80	68	81	-45	-35	69	29	-10	-47	189
South West	39	52	48	-43	-27	67	48	-14	-49	120
West Midlands	34	46	62	-12	-67	82	42	-25	-66	94
East Midlands	36	39	37	-19	-48	71	33	-23	-56	70
Yorks & the Humber	37	40	36	-1	-52	66	48	-20	-63	91
North West	33	68	65	-18	-66	83	44	-43	-81	86
North East	10	13	14	-10	-21	24	17	-8	-30	9
England	542	605	693	-398	-428	653	347	-204	-551	1259
Wales	9	25	22	-5	-34	37	16	-10	-36	24
Scotland	26	59	44	-16	-57	29	24	-25	-69	15
Northern Ireland	7	14	16	-4	-23	28	11	-10	-17	23
United Kingdom	584	703	774	-423	-541	748	398	-249	-673	1322

b)% change

Region	Occupational Group									
	1	2	3	4	5	6	7	8	9	All
London	332	221	359	298	154	102	116	86	182	1852
South East	298	173	264	280	178	117	134	102	193	1740
East of England	175	102	152	165	125	71	86	81	130	1086
South West	149	96	135	148	125	78	91	74	128	1024
West Midlands	138	93	138	158	136	79	84	105	132	1064
East Midlands	116	71	102	116	96	66	67	81	106	820
Yorks & the Humber	128	84	122	140	112	73	83	92	127	961
North West	175	129	183	201	148	97	112	117	163	1324
North East	51	36	57	61	53	32	40	41	62	434
England	1561	1004	1513	1567	1127	717	813	780	1223	10305
Wales	61	49	68	70	61	41	42	52	72	515
Scotland	133	105	151	167	113	62	86	85	150	1050
Northern Ireland	35	31	46	46	40	27	25	22	40	311
United Kingdom	1790	1188	1778	1849	1340	847	966	939	1484	12181

Table 1.14 Replacement demand by occupation by region, 2002-2012 (continued)

c)% per annum change

Region	Occupational Group									
	1	2	3	4	5	6	7	8	9	All
London	479	403	594	145	78	174	144	38	83	2139
South East	424	269	381	185	142	237	193	89	132	2051
East of England	254	169	233	120	90	140	114	71	83	1275
South West	188	149	183	105	98	144	139	60	79	1145
West Midlands	172	139	200	146	69	162	126	80	65	1158
East Midlands	152	109	139	96	49	137	100	58	50	890
Yorks & the Humber	165	124	158	138	59	139	131	72	65	1053
North West	208	197	247	183	82	180	157	74	81	1410
North East	61	49	71	51	32	56	56	34	33	443
England	2104	1609	2206	1169	699	1369	1160	576	671	11564
Wales	70	74	90	64	28	78	57	42	36	539
Scotland	159	163	194	151	56	91	110	60	81	1065
Northern Ireland	42	45	62	41	17	56	36	12	23	334
United Kingdom	2374	1891	2552	1426	800	1594	1364	690	811	13503

Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls (Table R.14)

Occupational groups:

1 Managers and senior officials
2 Professional
3 Associate professional and technical
4 Administrative, clerical and secretarial
5 Skilled trades
6 Personal service
7 Sales and customer service
8 Transport and machine operatives
9 Elementary

LONDON

2.1 Overview

London has a highly successful, productive economy that makes a substantial contribution to the whole of the UK. It is attractive to skilled workers not only from neighbouring regions, but also from the rest of the UK and other parts of the world. It has a relatively young and very diverse population. According to the 2001 Census, 27% of people living in London were born outside the UK and only 60% were of White British origin.[1] Over recent years there has been an increased tendency to relocate low value-added activities, particularly those that are production-related, to other locations in the rest of the UK and beyond, offering lower cost environments. In parallel, there has been a growth in higher-level skilled occupations. London is a powerhouse of the knowledge economy and is easily the most distinctive region within the UK. However, alongside the wealth generated in London, there are large numbers of jobless people and there are pockets of substantial deprivation. The ability of the housing market and of the transport infrastructure to cope with growth pressures is an ongoing matter for concern.

London's population and labour force are projected to grow at rates in excess of the UK average. The unemployment rate is expected to remain higher than the UK average. Employment is projected to grow at a rate in excess of the UK average, although somewhat more slowly than in the neighbouring regions of the South East and the East of England.

London has a distinctive industrial structure, with manufacturing accounting for a much smaller proportion of total employment than across the UK as a whole. Over the period to 2012 the projected loss of 50,000 jobs in manufacturing represents a faster rate of decline than expected across the UK as a whole. A small loss of employment is expected in distribution, transport, etc., contrasting with employment increase in other regions. To an even greater extent than in other regions of the UK, the business and other services sector dominates projected employment gains in London between 2002 and 2012. This broad sector accounts for 40% of employment in London, with the greatest concentrations being evident in the London Central and London East[2] local LSC areas. Employment in other non-marketed services is expected to expand at a slightly slower rate than across the UK as a whole.

London is characterised by a greater share of total employment accounted for by males than any other region of the UK. The share of total employment accounted for by full-time employees has been consistently greater than the UK average.

[1]Compared with 87% across England.

[2]This LSC area contains the City of London

In occupational terms, the largest absolute gain in employment is expected for associate professional and technical occupations, with a projected increase of 235,000 jobs over the period to 2012. The 'professionalisation' of London's employment structure is illustrated by the fact that professional occupations and managers and senior officials also display large projected increases in employment. The over-representation relative to the national average of London's employment structure in favour of high level non-manual occupations is expected to be reinforced over the decade. One of the most distinctive features of occupational change in London is the projected loss of over 150,000 jobs in administrative, clerical and secretarial occupations, representing a faster rate of loss than in any other region. Employment in personal service occupations and in sales and customer service occupations is expected to grow at a slower rate than across the UK as a whole. London has relatively small shares of employment in skilled trades occupation and amongst machine and transport operatives. Employment is projected to continue to decline at a faster rate than the national average. Employment in elementary occupations is also expected to contract at a faster rate than across the UK as a whole, with the loss of about 100,000 jobs over the decade to 2012. However, an examination of replacement demands reveals that requirements are positive in all SOC Major Groups, although they are greatest in the high level non-manual occupations.

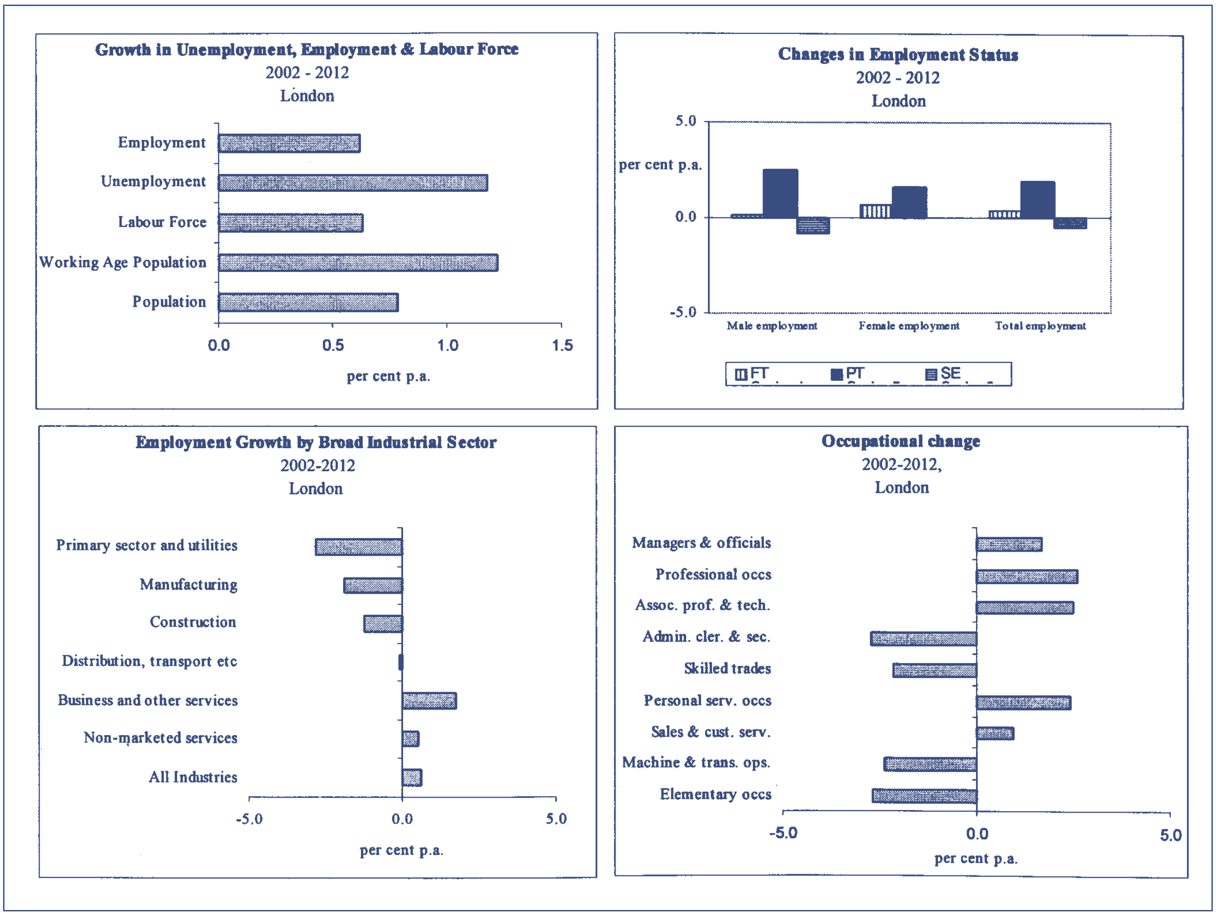
2.2 Labour supply and demand

The *population* in London is projected to increase at a faster rate than the UK average between 2002 and 2012, to reach 8.1 million (see Figure 2.1). The *working age population* is also projected to increase, at an even faster rate between 2002 and 2012. The *labour force* is projected to grow by about 640,000, to reach nearly 5 million in 2012. At an annual per annum growth rate of 0.6%, this represents a faster growth rate than the UK average of 0.5% per annum. The *economic activity rate* is expected to decline more than in any other region, contrasting with a small decline nationally. Nevertheless, at about 85%, the projected economic activity rate for London in 2012 is the highest of any region in the UK.

Unemployment is projected to increase by about 20,000 between 2002 and 2012, rising to nearly 190,000 in 2012. The unemployment rate is projected to remain steady, at a rate in excess of the UK average and higher than in any other English region with the exception of the North East.

Following decline between 1982 and 1992, and subsequent increase to 2002, *total employment* in London is projected to increase by nearly 290,000 over the period from 2002 to 2012, to reach nearly 4.8 million. The projected growth rate, at 0.6% per annum, is higher than the UK average of 0.4%, and is the third highest for any region in the UK after the South East and the East of England. London is projected to account for nearly 16% of UK employment in 2012. As in the period from 1992 to 2002, within London, the London Central and London West LSC areas display the highest projected growth rates for the period from 2002 to 2012 at 0.7% per annum. Although recording a slower rate of growth in the previous decade, London South is also expected to record employment growth at this higher than London average rate. The London East LSC area is projected to record employment growth at a similar rate to the England average (0.5% per annum), while the London North LSC area displays the slowest rate of employment growth (0.4% per annum).

Figure 2.1 Key changes in London % p.a.



Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Figure R.1 (%)

Figure 2.2 Key changes in London (000s)

Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Figure R.1 (000s)

2.3 Sectoral prospects

At the broad sectoral level, the picture for London is one of employment losses in the primary sector and utilities, manufacturing, construction and distribution, transport, etc. and gains in business and other services, and non-marketed services (see Figure 2.1, Table 2.1). In absolute terms, as across all other regions, the dominant feature of employment decline is the loss of 50,000 jobs in manufacturing. However, in relative terms, in all four of the broad sectors projected to experience losses, the rate of change is less favourable than the national average. These job losses contrast with gains of nearly 340,000 jobs in business and other services. From a large initial base, this represents a rate of growth in excess of the UK average. A much smaller increase is projected of about 45,000 jobs in non-marketed services.

The *primary sector and utilities* sector (see Table 2.1) is relatively small in London, and the long-term decrease in employment is projected to continue at a rate faster than that recorded for any other region. Utilities dominates employment in this broad sector and this is where the largest employment losses are projected.

The rate of employment decline projected for *manufacturing* in London is just below the UK average, but manufacturing employment accounts for only a relatively small share of total employment in London, following a substantial decline in the 1980s when around 300,000 jobs were lost. Males are expected to account for three fifths of the expected losses. By 2012 there are projected to be just over 250,000 manufacturing jobs in London. In *food, drink and tobacco* and in *engineering* employment is projected to contract at a rate of around 3% per annum, which represents a rate of loss in excess of the national average. However, with an expected loss of around 30,000 jobs, the rest of manufacturing dominates absolute job losses in the broad sector over the period. At local level, manufacturing accounts for 8% of total employment in the London North and London West LSC areas, and the London East LSC also displays a higher proportion of total employment in this broad sector than the London average. It is these three local areas that are projected to see the fastest rates of employment decline in manufacturing in London. In the London Central LSC area, manufacturing accounts for less than 5% of total employment. With the exception of this latter area, in all parts of London the projected rate of employment decrease exceeds the England average. The London North LSC area displays the fastest rate of projected job loss (2.3% per annum).

Construction employment in London is projected to decline by 25,000 between 2002 and 2012, representing a rate of loss of 1.2% per annum compared with 0.% across England. All local LSC areas in London are expected to share in this employment decrease, ranging from an annual average projected rate of 1% in the London East LSC area to 1.6% per annum in the London Central LSC area. However, it should be noted that these are 'benchmark' projections, and no explicit account is taken of major developments, such as the Thames Gateway.

Table 2.1: Sectoral change in London

	London											England		UK	
	1982	1992	2002	2012	1982	1992	2002	2012	2002-2012			2002-2012		2002-2012	
Sectoral categories	000s	000s	000s	000s	% of total	% of total	% of total	% of total	change 000s	% change	% per annum	% change	% per annum	% change	% per annum
1. Agriculture hunting forestry fishing	4	8	8	6	0.1	0.2	0.2	0.1	-1	-14.4	-1.5	-15.2	-1.6	-15.2	-1.6
2. Mining and quarrying	6	7	3	2	0.2	0.2	0.1	0.0	-1	-19.3	-2.1	-20.5	-2.3	-19.0	-2.1
6. Electricity gas and water	43	23	10	7	1.1	0.6	0.2	0.1	-3	-34.1	-4.1	-19.5	-2.2	-19.2	-2.1
Primary sector and utilities	*54*	*38*	*20*	*15*	*1.3*	*1.0*	*0.5*	*0.3*	*-5*	*-24.8*	*-2.8*	*-16.7*	*-1.8*	*-16.5*	*-1.8*
3. Food drink and tobacco	72	34	33	24	1.8	0.9	0.7	0.5	-8	-25.7	-2.9	-9.3	-1.0	-9.7	-1.0
4. Engineering	132	56	41	30	3.3	1.5	0.9	0.6	-11	-27.1	-3.1	-16.0	-1.7	-18.0	-2.0
5. Rest of manufacturing	435	255	219	188	10.8	6.7	4.9	3.9	-31	-14.1	-1.5	-17.0	-1.8	-17.3	-1.9
Manufacturing	*639*	*345*	*293*	*243*	*15.8*	*9.0*	*6.5*	*5.1*	*-50*	*-17.2*	*-1.9*	*-15.9*	*-1.7*	*-16.5*	*-1.8*
7. Construction	224	220	211	186	5.5	5.8	4.7	3.9	-25	-11.8	-1.2	-1.3	-0.1	-3.2	-0.3
8. Retail distribution	651	594	655	663	16.1	15.5	14.6	13.9	7	1.1	0.1	7.5	0.7	7.1	0.7
9. Hotels and restaurants	190	203	296	288	4.7	5.3	6.6	6.0	-7	-2.5	-0.3	2.2	0.2	0.8	0.1
10. Transport storage and communication	402	338	364	351	10.0	8.8	8.1	7.3	-13	-3.6	-0.4	1.8	0.2	1.3	0.1
Distribution transport etc.	*1243*	*1136*	*1315*	*1302*	*30.8*	*29.7*	*29.3*	*27.3*	*-13*	*-1.0*	*-0.1*	*5.2*	*0.5*	*4.5*	*0.4*
11. Banking and Insurance	272	318	328	334	6.7	8.3	7.3	7.0	6	1.9	0.2	3.0	0.3	3.7	0.4
12. Other business activities	522	703	1104	1377	12.9	18.4	24.6	28.8	273	24.7	2.2	21.3	1.9	21.5	2.0
16. Other services	197	256	362	421	4.9	6.7	8.1	8.8	59	16.2	1.5	14.4	1.4	14.7	1.4
Business and other services	*991*	*1277*	*1794*	*2131*	*24.5*	*33.4*	*40.0*	*44.6*	*337*	*18.8*	*1.7*	*16.9*	*1.6*	*17.1*	*1.6*
13. Public admin and defence	284	250	218	209	7.0	6.5	4.8	4.4	-9	-4.0	-0.4	-2.4	-0.2	-2.1	-0.2
14. Education	274	224	263	272	6.8	5.9	5.9	5.7	9	3.4	0.3	8.6	0.8	8.5	0.8
15. Health and social work	329	333	377	420	8.1	8.7	8.4	8.8	43	11.5	1.1	10.2	1.0	9.5	0.9
Non-marketed services	*886*	*808*	*857*	*901*	*21.9*	*21.1*	*19.1*	*18.9*	*44*	*5.1*	*0.5*	*7.0*	*0.7*	*6.7*	*0.6*
All Sectors	4037	3824	4490	4777	100.0	100.0	100.0	100.0	288	6.4	0.6	5.1	0.5	4.5	0.4

Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Table R14b

London is the only region in England with a projected loss of jobs, albeit at a rate of 0.1% per annum, in *distribution, transport, etc.* At local LSC area level the London West and London South areas are projected to see a slight growth in employment in this broad sector (0.1% per annum), contrasting with slow declines elsewhere. A projected gain of nearly 35,000 extra jobs for females is insufficient to counterbalance expected losses for males. Within this broad sector *transport, storage and communication* contribute most to projected job loss with an expected reduction of 13,000 jobs. A further 7,000 jobs are expected to be lost in hotels and restaurants. These losses contrast with gains at national level. Projected gains in *retail distribution* (7,000 jobs) are modest compared with the national picture.

To an even greater extent than across the UK as a whole, *business and other services* dominates projected employment increase in London between 2002 and 2012. London is easily the dominant region in terms of projected gains in employment in this sector, although the annual average growth rate of 1.7% per annum is only slightly higher than the UK average. This broad sector accounts for 40% of total employment in London. This reflects the dominance of the broad sector in the City and central areas, with the London East and London Central LSC areas having 47% and 45%, respectively, of total employment in business and other services. However, it is these two local LSC areas that are projected to see the slowest rates of projected employment growth, whereas in the London West, London North and London South LSC areas employment is projected to grow at rates of at least 2.3% per annum. Females in London account for 30% of projected UK job gains in this sector, while for males the analogous proportion is 25%. The greatest projected increases within this sector are for *other business activities,* with nearly 275,000 additional jobs expected. By 2012 other business activities are projected to account for over 1.38 million jobs in London, compared with just over 520,000 in 1982. Employment levels in *banking and insurance* are expected to remain relatively stable, and a gain of around 60,000 jobs is expected in *other services.*

Employment in *non-marketed services* is projected to expand by nearly 45,000 jobs between 2002 and 2012, representing an annual average growth rate of just 0.5%, slightly below the UK average of 0.6%. However, employment for males is expected to contract by around 50,000. *Health and social work* dominates employment gains. A smaller gain of less than 10,000 jobs is projected in education, while a loss of a similar size is expected in *public administration and defence.* However, in both health and education there are concerns about recruitment and retention difficulties in a high cost region, and the implications for service provision. Within London a slower than national average rate of employment increase is evident across all local LSC areas. The largest gains in absolute and relative terms are expected in the London Central LSC area, with an additional 20,000 jobs over the period to 2012 (representing a growth rate of 0.6% per annum).

2.4 Change in employment by gender and employment status

In 1982 males comprised 59% of those in employment in London, a proportion slightly greater than the UK average. By 2002 this proportion had fallen to less than 55%, again slightly greater than the UK average. By 2012 it is projected that males will account for 53% of those in employment, a share greater than in any other region of the UK. At local LSC area level within London the projected share of male employment is lowest in London Central (52%). The share of total employment accounted for by full-time employees has been consistently slightly greater than the national average, and over the period from 2002 to 2012 is projected to decline from 67% to 66%. At local level the projected share of full-time employees in 2012 is expected to vary from 63% in the London South LSC area (well above the England average of 59%) to 69% in the London East LSC area.

Between 2002 and 2012 a gain of around 30,000 male full-time jobs in London is projected. This contrasts with a small loss in such jobs across the UK as a whole and in all regions outside southern England. Within London, only the London East LSC area is projected to display a reduction in male full-time employees. By contrast, the number of male part-time employees is projected to increase by nearly 85,000 (Figure 2.2). For females, an increase of 90,000 full-time employees is expected (this represents a slightly faster growth rate than the UK average), and a gain of over 110,000 part-time employees is projected, (at 1.6% per annum representing the fastest rate of growth rate for any English region). Within London, a small decline in female full-time employees is expected in the London South LSC area, while in the London North LSC area a small reduction in female part-time employees is expected, contrary to the national trend. A loss of nearly 30,000 self-employed is expected, with males accounting for all this decrease. This represents a rate of decline slightly greater than the UK average, and is evident across all local LSC areas in London.

2.5 Occupational prospects

Overview

This section concentrates on the employment projections for different occupations. It should be remembered that such 'structural demand' provides only part of the overall picture of occupational change. For a fuller picture of the changing requirement for different occupations it is necessary to bear in mind the impact of retirements, inter-occupational moves, etc, as captured by 'replacement demand' (see Section 2.6).

At the level of SOC Major Groups, the largest increase in occupational employment between 2002 and 2012 is projected for associate professional and technical occupations, with an expected increase of 235,000 jobs (see Figure 2.2). This represents an increase of 19%, compared with less than a fifth across the UK as a whole. The SOC Major Group projected to record the next largest increase in employment is professional occupations, with a projected increase of nearly 185,000 jobs between 2002 and 2012. In the case of both these Major Groups, these job gains represent a rate of growth in excess of that expected in any other region. Along with managers and senior officials, with over 145,000 extra jobs expected, these SOC Major Groups dominate the overall picture of expansion demand in London, so highlighting the 'professionalisation' of the employment structure in the capital. More modest gains are projected for personal service occupations (with over 70,000 extra jobs) and for sales and customer service occupations (nearly 30,000 extra jobs).

Projected job losses are concentrated in administrative, clerical and secretarial occupations with an expected decline in employment of over 150,000 jobs. This is one of the most distinctive features of London's changing occupational structure, since it represents an absolute contraction and rate of employment decline easily in excess of that recorded for any other region. A loss of around 100,000 jobs is expected in elementary occupations and of around 50,000 jobs for transport and machine operatives. Again, employment decline for these occupational groups is expected to occur at rates in excess of those projected in any other region. A reduction of employment of around 75,000 jobs is projected for skilled trades occupations.

Managers and senior officials

In 2002 *managers and senior officials* accounted for nearly 18% of employment in London. This was the highest proportion of any region and well above the national average share of 15%. All local LSC areas display a higher than average proportion of total employment in this SOC Major Group, with the London Central LSC area recording the largest share of any local LSC area in England at nearly 19%. Nearly 95,000 of around 145,000 extra jobs in 2012 are expected to be filled by females. At 1.7% per annum, the projected annual average rate of job growth is the highest of any region, with the exception of the East of England. All local LSC areas display a faster than average growth rate. The projected net gain of jobs in this Major Group in London reflects different prospects for the two sub-major groups, with a gain of over 155,000 jobs for corporate managers, and a loss of 10,000 managers and proprietors (see Table 2.2). In both instances the rates of employment change in London are more favourable than the national average. By 2012 managers and senior officials are expected to account for 20% of total employment in London.

Professional occupations

The share of professional occupations in total employment in London is projected to increase from nearly 14% to nearly 17% by 2012. Professional occupations account for a larger share of employment in London than in any other region of the UK, and this over-representation is set to be reinforced as London is projected to record employment growth at a faster rate (2.6% per annum) than in any other region. At local level all LSC areas display a greater than national average share of total employment in professional occupations, and also exhibit projected growth rates in excess of the UK average. The shares of professional occupations in total employment range from just under 13% in the London West LSC area to 14.5% in the London Central LSC area. At 3% per annum, the London South LSC area records the fastest projected growth rate of any local LSC area in England. Business professionals make the largest contribution to the projected increase in employment in this Major Group, with an expected increase of around 75,000 jobs. Substantial increases of 55,000 extra jobs for *teaching professionals* and of 40,000 jobs for *science and technology professionals* are expected also. The number of health professionals is expected to expand by 13,000. The projected rate of growth for all of the occupations within this Major Group exceeds the UK average. This underlines the importance of professional occupations in London's economy. Out of 700,000 extra posts for professional occupations across the UK between 2002 and 2012, over 180,000 are expected in London. The projected employment gains are split evenly between males and females.

Table 2.2: Occupational change in London

	London											England		UK	
	1982	1992	2002	2012	1982	1992	2002	2012	2002-2012			2002-2012		2002-2012	
Occupation groups	000s	000s	000s	000s	% of total	% of total	% of total	% of total	change 000s	% change	% per annum	% change	% per annum	% change	% per annum
Corporate managers	315	402	622	778	7.8	10.5	13.9	16.3	157	25.2	2.3	21.2	1.9	20.4	1.9
Managers / proprietors	150	158	188	178	3.7	4.1	4.2	3.7	-10	-5.3	-0.5	-6.7	-0.7	-7.0	-0.7
Managers and officials	*466*	*560*	*809*	*956*	*11.5*	*14.7*	*18.0*	*20.0*	*147*	*18.1*	*1.7*	*14.3*	*1.3*	*13.4*	*1.3*
Sc. and tech. Profs.	89	102	144	185	2.2	2.7	3.2	3.9	41	28.4	2.5	23.4	2.1	22.5	2.0
Health professionals	31	35	53	66	0.8	0.9	1.2	1.4	13	24.0	2.2	20.2	1.9	19.1	1.8
Teaching and res. profs.	130	149	209	264	3.2	3.9	4.6	5.5	55	26.5	2.4	18.5	1.7	19.9	1.8
Business professionals	111	139	219	292	2.7	3.6	4.9	6.1	74	33.6	2.9	24.9	2.3	23.0	2.1
Professional occs	*360*	*424*	*625*	*807*	*8.9*	*11.1*	*13.9*	*16.9*	*183*	*29.2*	*2.6*	*21.6*	*2.0*	*21.3*	*1.9*
Sc. and tech. Assoc. profs.	60	62	93	116	1.5	1.6	2.1	2.4	23	24.4	2.2	24.9	2.2	24.5	2.2
Health assoc. profs.	109	127	172	228	2.7	3.3	3.8	4.8	56	32.4	2.8	13.4	1.3	12.8	1.2
Protect. Serv. Occs	41	45	71	86	1.0	1.2	1.6	1.8	14	20.0	1.8	22.0	2.0	20.3	1.9
Culture, med. and sports	62	93	179	251	1.5	2.4	4.0	5.3	72	40.1	3.4	31.9	2.8	31.2	2.8
Business assoc. profs.	178	223	326	396	4.4	5.8	7.3	8.3	70	21.5	2.0	15.9	1.5	15.1	1.4
Assoc. prof. and tech.	*450*	*550*	*842*	*1077*	*11.2*	*14.4*	*18.8*	*22.5*	*235*	*27.9*	*2.5*	*19.7*	*1.8*	*18.8*	*1.7*
Admin and clerical	554	495	443	351	13.7	12.9	9.9	7.3	-92	-20.9	-2.3	-7.5	-0.8	-6.3	-0.7
Secretarial and related	271	243	186	126	6.7	6.4	4.1	2.6	-60	-32.4	-3.8	-25.0	-2.8	-24.0	-2.7
Admin. cler. and sec.	*825*	*738*	*629*	*477*	*20.4*	*19.3*	*14.0*	*10.0*	*-153*	*-24.3*	*-2.7*	*-12.2*	*-1.3*	*-11.0*	*-1.2*
Skilled agric. Trades	16	14	22	25	0.4	0.4	0.5	0.5	3	12.7	1.2	5.6	0.5	2.9	0.3
Skilled metal and electrical	259	192	152	103	6.4	5.0	3.4	2.2	-49	-32.4	-3.8	-30.3	-3.5	-31.2	-3.7
Skilled cons. and building	148	123	121	104	3.7	3.2	2.7	2.2	-17	-14.2	-1.5	-7.4	-0.8	-8.6	-0.9
Other skilled trades	119	103	90	78	2.9	2.7	2.0	1.6	-13	-13.9	-1.5	-7.9	-0.8	-8.4	-0.9
Skilled trades	*542*	*432*	*386*	*309*	*13.4*	*11.3*	*8.6*	*6.5*	*-76*	*-19.8*	*-2.2*	*-15.3*	*-1.6*	*-16.2*	*-1.8*
Caring personal service	69	91	176	247	1.7	2.4	3.9	5.2	72	41.0	3.5	46.0	3.9	44.8	3.8
Leisure occupations	82	79	91	90	2.0	2.1	2.0	1.9	0	-0.5	0.0	9.0	0.9	7.8	0.8
Personal serv. Occs	*152*	*170*	*266*	*338*	*3.8*	*4.4*	*5.9*	*7.1*	*72*	*26.9*	*2.4*	*36.0*	*3.1*	*34.8*	*3.0*
Sales occupations	200	195	228	237	5.0	5.1	5.1	5.0	9	4.1	0.4	11.4	1.1	10.5	1.0
Customer service occs.	18	20	61	80	0.4	0.5	1.4	1.7	19	31.2	2.8	47.0	3.9	48.2	4.0
Sales and cust. Serv.	*219*	*215*	*288*	*317*	*5.4*	*5.6*	*6.4*	*6.6*	*28*	*9.8*	*0.9*	*17.6*	*1.6*	*17.0*	*1.6*

Table 2.2: Occupational change in London (continued)

	London											England		UK	
	1982	1992	2002	2012	1982	1992	2002	2012	2002-2012			2002-2012		2002-2012	
Occupation groups	000s	000s	000s	000s	% of total	% of total	% of total	% of total	change 000s	% change	% per annum	% change	% per annum	% change	% per annum
Process machine ops.	221	123	82	36	5.5	3.2	1.8	0.8	-46	-55.7	-7.8	-23.3	-2.6	-22.0	-2.4
Drivers and other ops.	153	128	145	142	3.8	3.3	3.2	3.0	-3	-2.0	-0.2	7.3	0.7	5.8	0.6
Machine and trans. ops.	*374*	*251*	*227*	*179*	*9.3*	*6.6*	*5.1*	*3.7*	*-49*	*-21.4*	*-2.4*	*-10.0*	*-1.0*	*-10.1*	*-1.1*
Elementary: trades	181	115	97	71	4.5	3.0	2.2	1.5	-26	-26.6	-3.0	-18.4	-2.0	-18.2	-2.0
Elementary: service	469	370	320	247	11.6	9.7	7.1	5.2	-73	-22.9	-2.6	-20.3	-2.2	-20.5	-2.3
Elementary occs	*650*	*484*	*417*	*318*	*16.1*	*12.7*	*9.3*	*6.6*	*-99*	*-23.8*	*-2.7*	*-19.7*	*-2.2*	*-19.7*	*-2.2*
All occupations	4037	3824	4490	4777	100.0	100.0	100.0	100.0	288	6	1	5.1	0.5	4.5	0.4

Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Table R14b

Associate professional and technical occupations

The share of total employment within this Major Group is, at nearly 19%, higher than in any other region of the UK. At local level all local LSC areas display larger than national average shares of associate professional and technical occupations in total employment. The London Central LSC area has the largest proportion (about 20%) of total employment accounted for by this Major Group, while London North records the smallest share (17%). Moreover, at 2.5% per annum, the projected annual average growth rate exceeds that for any other region. At local LSC area level projected growth rates range from 2.4 to 2.6% per annum. By 2012, *associate professional and technical occupations* are expected to account for 22.5% of total employment in London; this is more than for any other Major Group. *Culture, media and sports associate professionals* is the fastest growing group, expanding at a rate of 3.4% per annum culminating in over 70,000 extra jobs by 2012. *Business associate professionals* also account for around 70,000 extra jobs. Over 55,000 additional jobs are expected for *health associate professionals* as employment is projected to expand at 2.8% per annum, more than double the national rate. Employment for *science and technology associate professionals* is expected to increase by nearly 25,000 and for *protective service occupations* by nearly 15,000. For all occupational groups the annual average rates of growth are in excess of the UK average. Employment gains between 2002 and 2012 are expected to be shared approximately evenly between males and females.

Administrative, clerical and secretarial occupations

In 1982 this SOC Major Group accounted for over a fifth of total employment in London. Since then the numbers employed have declined at an accelerating pace. By 2002 there were around 740,000 administrative, clerical and secretarial jobs in London, accounting for 14% of total employment. At local LSC area level, the shares range from 12% in the London North LSC area to 17% in the London East LSC area. This is easily the highest share for any local LSC area in England. Over the period to 2012, employment is projected to contract by around a quarter, in contrast with a loss of 11% across the UK. At a rate of 2.7% per annum, the projected rate of job loss in London is approximately double that for the region with the next fastest rate of employment decline. At local level, projected annual average rates of employment decline range from 2.3% in the London West LSC area to 3.5% in the London North LSC area. The projected loss of nearly 155,000 jobs in London represents 36% of projected UK job losses. *Both administrative and clerical occupations and secretarial and related occupations* share in this employment decline, with employment expected to contract by a fifth and a third, respectively. This continuing loss of jobs in London reflects the increasing opportunities through information and communications technologies to decentralise such work to lower cost locations. Females account for more than three quarters of projected job losses.

Skilled trades occupations

London has a much smaller share of total employment in skilled trades occupations than any other region: in 2002 this SOC Major Group accounted for less than 9% of employment in London, compared with nearly 11.4% across the UK as a whole. This reflects the fact that the manufacturing sector is relatively small in London, and also the bias of the occupational structure in London towards professional and associate professional and technical occupations. At local level, all LSC areas display an under-representation of employment in skilled trades occupations relative to the national average. The share of total employment accounted for by this SOC Major Group ranges from just over 7% in the London Central LSC area to about 10% in the London North and London South LSC areas. A loss of around 75,000 jobs is projected over the period to 2012. At 2.2% per annum, this represents a greater rate of loss than the UK average (1.8%). All local areas in London display projected employment decrease at a faster rate than across England as a whole. Projected losses are recorded in *skilled metal/electrical trades* (with nearly 50,000 jobs expected to be lost), *skilled construction trades* (a projected loss of 17,000 jobs) and *other skilled trades* (an expected loss of 13,000 jobs). Job losses are projected to fall nearly entirely on males.

Personal service occupations

Although the projected rate of increase in *personal service occupations* in London is lower than the UK average (only Scotland records a slower annual average rate of employment increase), employment in this Major Group is expected to expand by over a quarter. At local area level all LSC areas have smaller proportions of total employment in personal service occupations than the England average, and slower than average projected growth rates. At 1.3 and 1.5% per annum, the projected growth rates for the London North and London South LSC areas, respectively, are the slowest for any LSC areas in England. In the London Central LSC area the projected growth rate is 3% per annum. All the projected net increase of over 72,000 jobs is accounted for by *caring personal service occupations*. Employment levels in *leisure occupations* are expected to remain stable, contrasting with modest growth at national level. Females account for virtually all these gains, while male employment in this Major Group is projected to increase very slightly.

Sales and customer service occupations

Employment in *sales and customer service occupations* is projected to expand by nearly 30,000 between 2002 and 2012. At an annual average rate of 0.9%, the projected rate of employment growth is slower in London than in any other region of the UK, and substantially below the UK average (1.6% per annum). This general trend is reflected at local level, with the London Central LSC area displaying the smallest proportion (just under 6%) of total employment in sales and customer service occupations, and the slowest projected growth rate. Hence, the under-representation of this occupational group in London's employment structure is set to become starker. Approximately two thirds of the projected employment gains are in customer service occupations. For both *customer service occupations* and *sales occupations* projected rates of employment growth are lower than the UK average.

Machine and transport operatives

London has a smaller share of total employment in this Major Group than any other region. In 2002 it accounted for only 5% of total employment, and by 2012 this share is expected to contract to less than 4%, compared with over 7% across the UK. Within London, the London North and London West LSC areas display the highest shares of such employment (about 6% in 2002). At 2.4% per annum, the rate of decline easily exceeds that projected for any other region. All local LSC areas record projected rates of decline in excess of the national average. Process machine operatives account for the vast majority of employment loss, with a modest decline for *drivers and other operatives* contrasting with some growth at the national level. Males account for about three quarters of the projected job losses.

Elementary occupations

The decline in employment in *Elementary occupations* in London in the 1980s and 1990s was such that by 2002 such occupations accounted for around 9% of total employment (a smaller share than in any other region), and only 80% of the share across the UK. All local LSC areas display smaller than national average shares of such employment. Employment decline is projected to proceed at 2.7% per annum over the period to 2012, which represents the fastest rate of employment decline for any region in the UK, with a loss of about 100,000 jobs. All local LSC areas share in this faster than national average rate of employment decline. This further underlines the process of 'professionalisation' of London's employment structure, as professional and associated jobs expand at a faster rate than average, while the contraction in elementary and operative occupations proceeds at a faster than average rate. Around three quarters of projected losses in this SOC Major Group are accounted for by service occupations. Males and females share fairly evenly in the projected job losses in elementary occupations.

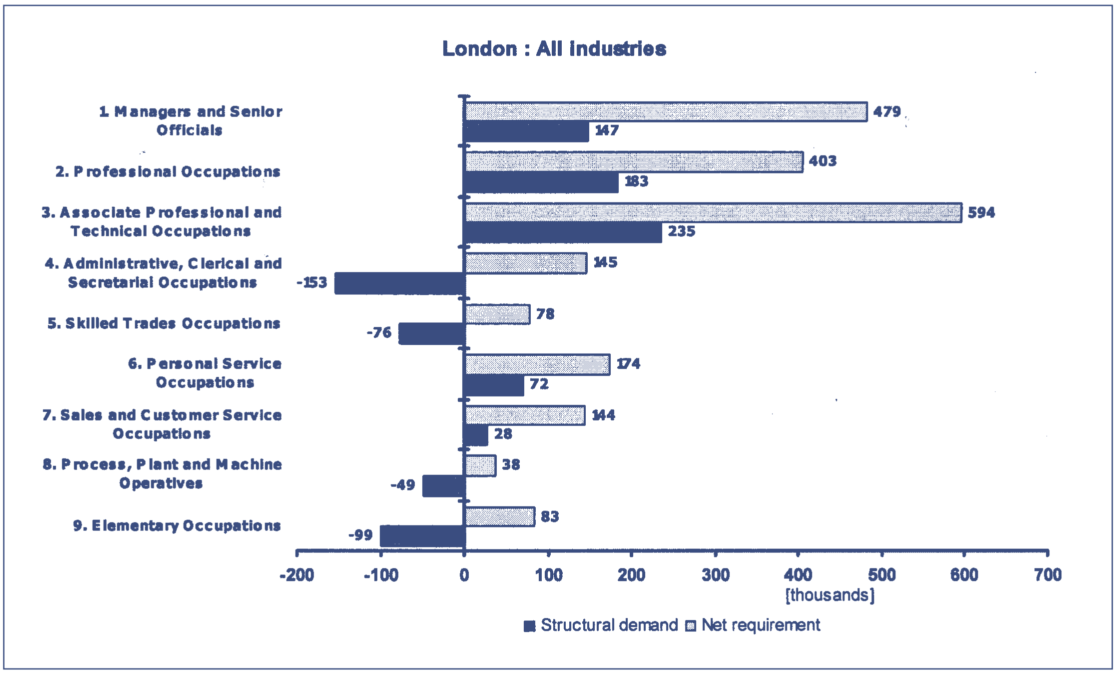
2.6 Projections of replacement demands

The key component of replacement demands is retirements from the workforce, especially those of older workers. However, replacement requirements for specific occupational groups, in particular geographical areas, can also arise for a number of other reasons. These include occupational mobility, as individuals change jobs for reasons of career progression (as well as other causes), and geographical mobility. Potentially, the latter may be quite important at a regional level. Unfortunately there are few reliable data on such flows, so the estimates presented here exclude replacement needs arising as a consequence of both occupational and geographical mobility. In both cases, there may be offsetting inflows to counterbalance some of the losses.

The key message here is that in the case of all SOC Major Groups total requirements are positive. In the high level non-manual occupations where structural demand changes suggest that the single largest number of new openings will be, the replacement demands are even more substantial. Hence, total requirements indicate a need for nearly 595,000 people in associate professional and technical occupations, around 480,000 managers and senior officials and just over 400,000 individuals in professional occupations (see Figure 2.3). In the case of associate professional and technical occupations, the total requirement is about 70% of the 2002 employment level. For other SOC Major Groups where the structural demand is positive, total requirements are smaller in absolute terms, but are nevertheless still substantial: about 175,000 in personal service occupations and 145,000 in sales and customer service occupations.

In absolute and relative terms administrative, clerical and secretarial occupations are projected to see the largest reduction in employment (over 150,000 jobs). However, the projected replacement demand is 300,000. At over 45% of the 2002 employment level in this SOC Major Group, this is the largest expected replacement demand in relative terms, and translates into a total requirement for 145,000 extra people. In the case of elementary occupations (the SOC Major Group expected to see the second largest employment reduction as a result of structural demand change), the estimated replacement demand of over 180,000 is 44% of the 2002 employment level. Structural and replacement demands together translate into a total requirement for nearly 85,000 extra people. For skilled trades occupations and machine and transport operatives, the total requirements are about 80,000 and 40,000, respectively.

Figure 2.3 Replacement Demands for London



Source: CE/IER estimates, MDM95 C31 F95 Forecast, ReplacementDemands.xls London

SOUTH EAST

3.1 Overview

The South East region comprises 19 county and unitary authority districts, stretching from Milton Keynes in the north to the New Forest in the south west and Thanet in the south east. It covers Buckinghamshire, Oxfordshire, Berkshire, Hampshire, the Isle of the Wight, West Sussex, East Sussex and Kent. It has a population of over 8 million. As noted below, by almost every conventional economic measure, the South East is one of the most successful economies in the UK, and ranks in the global top ten regions for employment in knowledge intensive, high value-added sectors. Along with the London economy, with which it has close links, the size and performance of the South East region economy is such that it is critical to the performance of the UK economy as a whole.

The South East has high levels of job generation and high quality employment with a workforce that is well qualified. The South East Framework for Regional Employment and Skills Action (FRESA) highlights that the challenges lie around sustaining this performance over the medium- to long-term. It highlights the need to build on the base of globally competitive 'high growth' sectors through stronger demand and supply of skills, and to raise skills levels of the economically active population in those skills areas where productivity constraints are greatest.

With rapid growth over the last decade, the South East's infrastructure is under increasing strain. There are concerns that the lack of affordable housing and pressures on public services are affecting the sustainable supply of workers for some sectors. The projections suggest that future growth is likely to be concentrated in the north western sector of the region and in Surrey. Development in the Thames Gateway is intended to redress some of the intra-regional disparities, to focus more growth on the eastern part of the region. Despite its prosperous image, there are pockets of severe deprivation in the South East.

The South East displays faster than national average rates of population and labour force growth, the lowest unemployment rate for any region and a higher than average economic activity rate. Along with the East of England, the South East displays the fastest projected rate of employment growth of any region over the period to 2012. All constituent local LSC areas are expected to see employment growth at a rate at least as fast as the national average.

Projected job losses are confined to manufacturing and the primary sector and utilities. The projected rate of job loss in manufacturing is similar to the UK average. All local LSC areas in the South East display a smaller proportion of total employment in manufacturing than the national average. An increase in construction employment is expected, contrary to a picture of decline across the UK as a whole. The projected rate of employment increase in distribution, transport, etc. is higher than for any other region of the UK. In absolute terms, job growth in this broad sector is outstripped by the 175,000 additional jobs expected in business and miscellaneous services. In all local LSC areas in the region, with the exception of Kent and Medway, the share of total employment accounted for by business and miscellaneous services is greater than the England average. In non-marketed services, employment growth in the region is expected to occur at a rate slightly in excess of that projected across the UK as a whole.

Males account for a larger share of total employment in the South East than the UK average. For both males and females, an increase in full-time employees is projected and expected rates of change are more favourable than the national average. A distinctive feature of the South East is that a large majority of the projected new jobs over the period to 2012 are accounted for by full-time employees.

The largest projected increases in occupational terms are expected for managers and senior officials, associate professional and technical occupations, professional occupations and personal service occupations. The South East is characterised by the highest share of total employment accounted for high level non-manual occupations of any region in the UK outside London. Over-representation in such occupations relative to the national average is reflected in most local LSC areas. Once replacement demands are taken into account, the requirement for extra people in these occupations is substantially greater than the expansion demand estimates alone would suggest. The largest projected losses are for administrative, clerical and secretarial occupations, but employment decline is also expected in elementary occupations, skilled trade occupations and for machine and transport operatives. In the latter three SOC Major Groups the projected rates of decline are slower than the UK average.

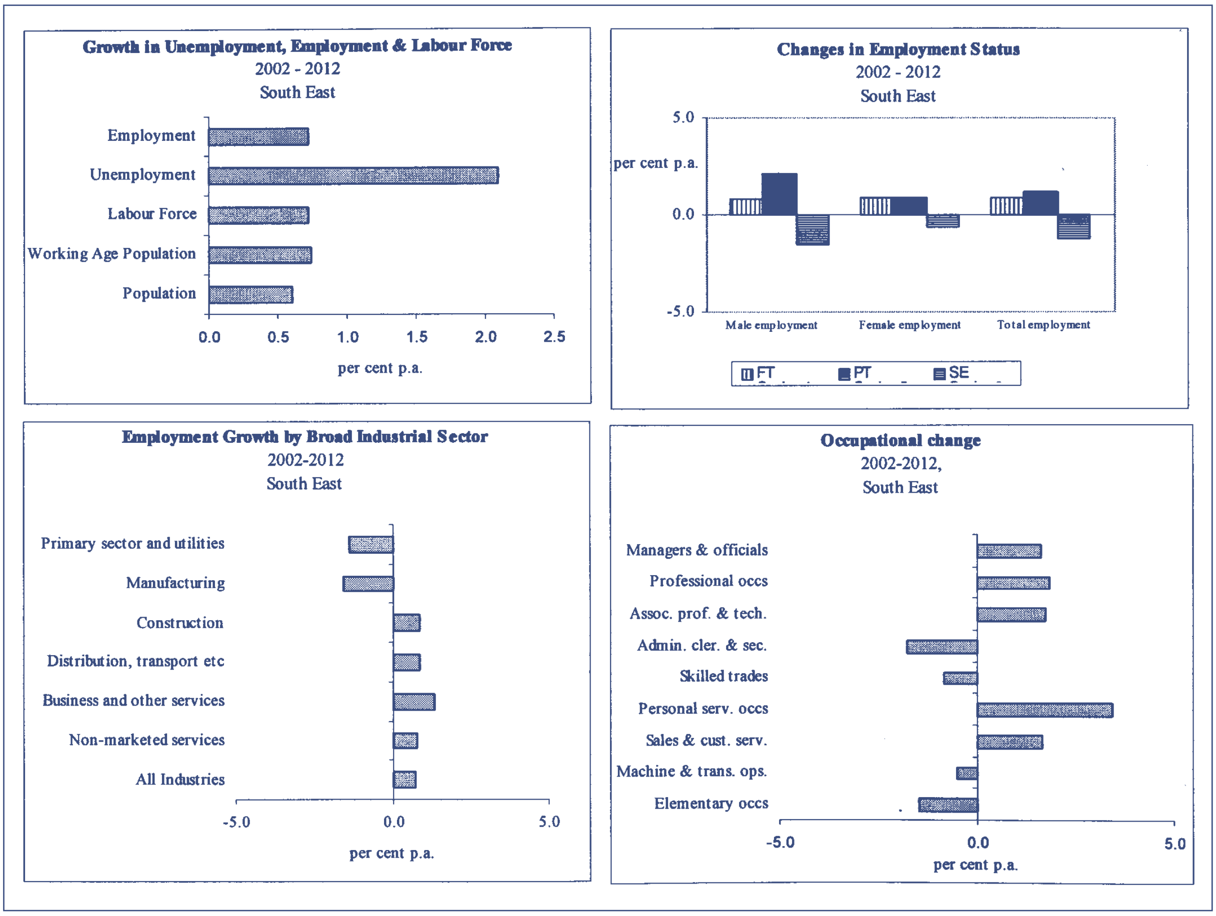
3.2 Labour supply and demand

The *population* in the South East is projected to increase at a rate of 0.6% per annum (compared with 0.4% per annum across the UK). This represents an increase of about 515,000 between 2002 and 2012, to reach 8.75 million (see Figure 3.1). The *working age population* is projected to increase by over 390,000 between 2002 and 2012. Again, this represents a rate in excess of the UK average. The *labour force* is expected to grow by nearly 325,000, to reach 4.63 million in 2012. At an annual per annum growth rate of 0.7%, this represents a higher growth rate than the UK average of 0.5% per annum. Only the East of England displays a similarly fast projected rate of labour force growth. The *economic activity rate* is expected to remain at about 82%. This is one of the highest rates for any region in the UK.

Unemployment is projected to increase at about 2% per annum between 2002 and 2012 to reach nearly 90,000. This is a similar rate of growth to the UK average, and at less than 2%, the unemployment rate is projected to remain the lowest for any UK region, and is indicative of 'full employment'.

Total employment in the South East increased from nearly 3.2 million in 1982 to 3.6 million in 1992 and nearly 4.2 million in 2002. This long-term increase is projected to continue, with the level reaching nearly 4.5 million in 2012. The projected growth rate between 2002 and 2012, at 0.7% per annum, is substantially greater than the UK average of 0.4% per annum, and is the highest rate of growth projected for any region along with the East of England. Hence, the long-term pattern of increase in the South East's share of total UK employment is projected to continue, accounting for over 14% of the total. As in the period from 1992 to 2002, within the South East, the Berkshire LSC area, the Milton Keynes, Oxfordshire and Buckinghamshire LSC area and the Surrey LSC area display the highest projected growth rate for the period from 2002 to 2012 at 0.9 –1% per annum. These three LSC areas are within the 'top 5' LSC areas on the basis of projected employment growth rates. The remaining LSC areas in the South East – Sussex, Kent and Medway, and Hampshire and the Isle of Wight display projected employment growth rates similar to, or higher than, the England average.

Figure 3.1 Key changes in the South East % p.a.



Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Figure R.1 (%)

Figure 3.2 Key changes in the South East (000s)

Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Figure R.1 (000s)

3.3 Sectoral prospects

At the broad sectoral level, the picture for the South East is one of employment losses in the primary sector and utilities and manufacturing, with employment gains in construction, distribution, transport, etc., business and other services and non-marketed services (see Figure 3.1, Table 3.1). In absolute terms, as elsewhere, the dominant feature of employment decline is the loss of around 65,000 jobs in manufacturing. However, this represents a somewhat slower rate of decline than the national average. This job loss contrasts with projected gains of around 175,000 jobs in business and miscellaneous services, over 115,000 jobs in distribution, transport, etc., and over 70,000 jobs in non-marketed services. The absolute increase in the former broad sector is the largest of any region outside London, while the projected gains for the latter two broad sectors are bigger than for any other region. An increase of 25,000 jobs in construction is expected.

The projected annual average rate of job loss for the *primary sector and utilities* sector is somewhat slower than the UK average. At local level, all LSC areas display rates of employment loss at rates similar to, or slower than, the national average. *Agriculture* accounts for the single largest share of employment in this sector, and a loss of 9,000 jobs (12% of the 2002 total) is projected. A loss of 3,000 jobs is expected in *electricity, gas and water.* Males and females share evenly in projected employment declines in this broad sector. Within the South East, Kent and Medway, Sussex, and Hampshire and the Isle of Wight LSC areas record the greatest concentration of jobs in this broad sector. In the Milton Keynes, Oxfordshire and Buckinghamshire, and Berkshire LSC areas the share of such employment is below the England average.

After a loss of around 150,000 jobs in *manufacturing* between 1982 and 1992, around 40,000 further jobs were lost over the period to 2002. Over the period to 2012, a loss of nearly 25,000 jobs is expected in *engineering.* This represents a rate of loss slightly slower than the UK average. A loss of 40,000 jobs is expected in the rest of *manufacturing,* whereas in *food, drink and tobacco* employment levels are expected to remain fairly stable. Overall, three fifths of expected job losses in manufacturing are accounted for by males. At local level, manufacturing accounts for about an eighth of total employment in Milton Keynes, Oxfordshire and Buckinghamshire, Kent and Medway and in Hampshire and the Isle of Wight. This is the highest proportion displayed by any of the local LSC areas in the South East, and is lower than the England average. Surrey has the smallest share of total employment in manufacturing (8%) of any local LSC area in the region. Only in Hampshire and the Isle of Wight does the projected rate of employment decline (1.9% per annum) exceed the England average, while Berkshire records the slowest rate of employment loss (1.1% per annum).

Employment in *construction* in the South East is projected to expand at a faster rate than in any other region except the South West. This projected expansion in employment in construction contrasts with a modest decline in employment nationally. All local LSC areas in the South East are expected to share in this employment increase, ranging from an annual average projected growth rate of 0.6% in Sussex to 1.1% in Kent and Medway. However, it should be noted that these are ‘benchmark’ projections, that do not take full account of the impact on construction of the growth areas announced in the Sustainable Communities Plan.

The annual average rate of employment growth in *distribution, transport, etc*. in the South East, at 0.9% per annum, is the highest of any UK region. At local LSC area level, the projected rates of annual average employment growth range from 0.6% in Sussex (compared with the England average of 0.5% per annum) to 1.2% in Berkshire. 90,000 of the projected additional jobs are expected to be taken by females. All components of this broad sector are expected to see a greater than average expansion in employment. The fastest growth rate and largest gains are projected for retail distribution with around 80,000 additional jobs expected. In *hotels and restaurants and transport storage and communication* the projection is for around 20,000 further jobs.

As across the UK, the greatest projected employment increase is expected in *business and other services.* Over 175,000 extra jobs are projected between 2002 and 2012, representing an increase of 14%, compared with 17% nationally. By 2012 this broad sector is projected to account for 31% of regional employment (1.4 million jobs), compared with 18% (570,000 jobs) 30 years earlier. The greatest projected increases within this broad sector are recorded for business services, accounting for 80% of total gains. 30,000 additional jobs in other services are expected but the rate of increase that this represents (1% per annum) is more modest than the national average. The projected growth rate for *banking and insurance* is similar to the UK average, with an additional 5,000 jobs expected. At local level, Milton Keynes, Oxfordshire and Buckinghamshire, Surrey and Berkshire LSC areas record rates of projected employment growth in this broad sector akin to, or faster than, the England average. However, in all local LSC areas with the exception of Kent and Medway, the share of employment in business and other services is projected to, similar to, or above, the England average. Surrey and Berkshire display the highest projected shares of total employment in this broad sector (37-39%, compared with an England average of 29%) in 2012.

Employment in *non-marketed services* is projected to expand at a slightly faster rate in the South East than across the UK as a whole. Health and social work (nearly 50,000 additional jobs) account for the majority of the projected job gains. A further 30,000 jobs are expected in *education.* In both of these industries the projected growth rate is slightly greater than the UK average. A modest loss of 6,000 jobs is expected in *public administration and defence.* This represents a marked slowing down of the rate of loss experienced over the decade to 2012. Females account for all the job gains in this broad sector, while employment levels for males remain fairly stable. Within the South East, projected annual average rates of employment increase range from 0.6% in Oxfordshire, Milton Keynes and Buckinghamshire to 0.9% in Sussex and Kent and Medway. These two latter local LSC areas, along with Hampshire and the Isle of Wight, record the highest shares of total employment (22-24%) accounted for by this broad sector, while in Berkshire only 17% of total employment is accounted for by non-marketed services.

Table 3.1: Sectoral change in the South East

	South East											England		UK	
	1982	1992	2002	2012	1982	1992	2002	2012	2002-2012			2002-2012		2002-2012	
Sectoral categories	000s	000s	000s	000s	% of total	% of total	% of total	% of total	change 000s	% change	% per annum	% change	% per annum	% change	% per annum
1. Agriculture hunting forestry fishing	84	82	74	65	2.7	2.3	1.8	1.5	-9	-11.8	-1.2	-15.2	-1.6	-15.2	-1.6
2. Mining and quarrying	18	4	6	4	0.6	0.1	0.1	0.1	-1	-24.7	-2.8	-20.5	-2.3	-19.0	-2.1
6. Electricity gas and water	32	30	16	14	1.0	0.8	0.4	0.3	-3	-15.5	-1.7	-19.5	-2.2	-19.2	-2.1
Primary sector and utilities	*133*	*117*	*96*	*83*	*4.2*	*3.2*	*2.3*	*1.9*	*-13*	*-13.2*	*-1.4*	*-16.7*	*-1.8*	*-16.5*	*-1.8*
3. Food drink and tobacco	56	34	31	30	1.8	0.9	0.7	0.7	-1	-2.5	-0.3	-9.3	-1.0	-9.7	-1.0
4. Engineering	181	137	131	107	5.7	3.8	3.1	2.4	-24	-18.2	-2.0	-16.0	-1.7	-18.0	-2.0
5. Rest of manufacturing	389	307	277	238	12.3	8.5	6.6	5.3	-40	-14.3	-1.5	-17.0	-1.8	-17.3	-1.9
Manufacturing	*626*	*478*	*439*	*375*	*19.8*	*13.2*	*10.5*	*8.4*	*-64*	*-14.6*	*-1.6*	*-15.9*	*-1.7*	*-16.5*	*-1.8*
7. Construction	228	269	279	304	7.2	7.4	6.7	6.8	25	8.9	0.9	-1.3	-0.1	-3.2	-0.3
8. Retail distribution	542	651	766	845	17.2	18.0	18.3	18.8	78	10.2	1.0	7.5	0.7	7.1	0.7
9. Hotels and restaurants	180	214	247	265	5.7	5.9	5.9	5.9	18	7.3	0.7	2.2	0.2	0.8	0.1
10. Transport storage and communication	193	215	249	269	6.1	5.9	5.9	6.0	21	8.3	0.8	1.8	0.2	1.3	0.1
Distribution transport etc.	*915*	*1079*	*1262*	*1379*	*29.0*	*29.8*	*30.2*	*30.7*	*117*	*9.3*	*0.9*	*5.2*	*0.5*	*4.5*	*0.4*
11. Banking and Insurance	101	159	164	169	3.2	4.4	3.9	3.8	5	3.3	0.3	3.0	0.3	3.7	0.4
12. Other business activities	309	501	804	946	9.8	13.8	19.2	21.1	142	17.7	1.6	21.3	1.9	21.5	2.0
16. Other services	157	177	261	290	5.0	4.9	6.3	6.5	29	11.0	1.0	14.4	1.4	14.7	1.4
Business and other services	*566*	*836*	*1229*	*1405*	*17.9*	*23.1*	*29.4*	*31.3*	*176*	*14.3*	*1.3*	*16.9*	*1.6*	*17.1*	*1.6*
13. Public admin and defence	194	194	168	162	6.1	5.4	4.0	3.6	-6	-3.8	-0.4	-2.4	-0.2	-2.1	-0.2
14. Education	221	275	313	342	7.0	7.6	7.5	7.6	29	9.4	0.9	8.6	0.8	8.5	0.8
15. Health and social work	274	370	392	440	8.7	10.2	9.4	9.8	48	12.1	1.2	10.2	1.0	9.5	0.9
Non-marketed services	*689*	*839*	*874*	*944*	*21.8*	*23.2*	*20.9*	*21.0*	*71*	*8.1*	*0.8*	*7.0*	*0.7*	*6.7*	*0.6*
All Sectors	3157	3618	4179	4491	100.0	100.0	100.0	100.0	312	7.5	0.7	5.1	0.5	4.5	0.4

Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Table R14b

3.4 Change in employment by gender and employment status

In 1982 males comprised 57% of those in employment in the South East, compared with a UK proportion of around 58%. The share of males in employment declined to 52% in 1992, but then increased slightly to 53% in 2002, contrary to the UK trend for a continuing small decline in the UK share of total employment. At local LSC area level in the South East the projected share of male employment varies between 50% in Sussex and 55% in Berkshire. Over the period to 2012 the proportion of total employment accounted for by males in the South East is projected to decrease more slowly than the UK average, to remain about 1 percentage point higher than the UK average, and is the highest for any region outside the East of England and London. The share of total employment accounted for by full-time employees is similar to the England average at 59%. At local level the projected share of full-time employees in 2012 is projected to vary from 55% in Kent and Medway to 62% in Berkshire and Surrey.

Between 2002 and 2012 an increase of around 135,000 male full-time jobs in the South East is projected. At local area level all LSC areas record rates of increase in excess of the UK average. This represents an increase of 9%, and in both absolute and relative terms exceeds projected increases in the other southern regions to which growth in the number of male full-time employees is confined. The number of male part-time employees is also projected to increase, by nearly 65,000. Although this is the largest absolute gain for any region outside London, it represents a rate of increase slightly slower than the UK average (Figure 3.1). For females there are projected gains of around 90,000 for both full-time and part-time employees. At 0.9% per annum, the projected rate of increase for female full-time employees is substantially greater than the UK average (0.5% per annum) and second only to the rate displayed by the East of England. These gains are concentrated in Surrey and Berkshire, with small declines projected in Kent and Medway and Sussex. For female part-time employees, however, the projected rate of growth is slightly slower than the UK average. Self-employment is expected to decline by 65,000, with males accounting for the majority of this decline. This represents a rate of decrease in excess of the UK average, and is one of the fastest rates of projected decrease recorded by any region. The South East is distinctive in having a large majority of the projected new jobs between 2002 and 2012 accounted for by full-time employees.

3.5 Occupational prospects

Overview

This section concentrates on the employment projections for different occupations. It should be remembered that such 'structural demand' provides only part of the overall picture of occupational change. For a fuller picture of the changing requirement for different occupations it is necessary to bear in mind the impact of retirements, inter-occupational moves, etc., as captured by 'replacement demand' (see Section 3.6).

At the level of SOC Major Groups, the largest single increase in occupational employment between 2002 and 2012 is projected for managers and senior officials, with an expected net gain of over 125,000 jobs (see Figure 3.1). The Major Groups projected to record the next largest increases in employment are personal service occupations and associate professional and technical occupations, with projected increases of nearly 120,000 jobs between 2002 and 2012. An increase of over 95,000 jobs for those in professional occupations is expected also. A more modest increase of nearly 60,000 jobs is expected for sales and customer service occupations.

Projected job losses are largest for administrative, clerical and secretarial occupations (around 95,000 jobs), representing a greater rate of decline than is evident across the UK. Employment in elementary occupations is expected to contract by around 60,000. Losses of around 35,000 jobs in skilled trades occupations and of 13,000 jobs for machine and transport operatives are expected. In these three latter SOC Major Groups, projected rates of employment decline are slower than those expected across the UK as a whole. The slower than average rates of employment decline in manual occupations, coupled with rates of growth akin to the national average for professional and associate professional and technical occupations mean that the occupational profile of employment in the South East is projected to become more similar to the UK average.

Managers and senior officials

In 2002 *managers and senior officials* accounted for around 14% of employment in the South East. This was the highest proportion of any region except London. At 18%, Berkshire and Surrey have the largest share of total employment in this SOC Major Group. At less than 17%, Kent and Medway LSC area has the lowest share of employment in this SOC Major Group in the region, but this is higher than the England average. An increase of over 125,000 jobs is expected over the period to 2012, representing an annual average growth rate of 1.6% per annum. This is in excess of the UK average of 1.3% per annum, but slightly slower than the growth rates projected for the East of England and London. Females are expected to account for nearly two thirds of the extra jobs. The substantial projected net gains are accounted for entirely by an increase in employment for *corporate managers* (see Table 3.2). A small decline in employment for *managers/proprietors* is expected.

Professional occupations

The share of professional occupations in total employment in the South East is projected to increase from around 11.6% in 2002 to 13% by 2012. In England, only in London do professional occupations account for a larger share of total employment than in the South East. At local LSC area level, only Kent and Medway LSC area records a smaller than national average share of employment in professional occupations. Surrey and Berkshire display the highest proportions of such employment. An increase of over 95,000 jobs is expected over the decade to 2012. This represents a rate of increase close to the UK average, which is itself distorted by the very fast rate of growth in London. *Science and technology professionals* are expected to make the largest contribution to overall projected employment increase, with 35,000 extra jobs. *Business professionals and teaching and research professionals* record the next largest projected increases, of 28,000 and 27,000 jobs, respectively. Rates of growth similar to the UK average indicate that the South East maintains its position as one of the foremost players in the UK in the 'knowledge economy'. Substantial gains are also projected for *Business and public service professionals* (50,000 extra jobs) and *teaching and research professionals* (30,000 extra jobs). Males are projected to account for over half the additional jobs.

Associate professional and technical occupations

The share of total employment within this Major Group is, at nearly 15%, the highest share in any UK region except London. At local level, Surrey and Sussex have the largest proportions (at least 15%) of total employment accounted for by this Major Group, while even in Kent and Medway with the smallest share (14%), the proportion is similar to the national average. At over 1.7% per annum, the projected annual average growth rate matches the UK average; (only London and the East of England record appreciably faster rates of employment growth). *Business associate professionals* account for the largest employment gains, with a projected increase of nearly 40,000 jobs. The next largest increase (25,000 extra jobs) is expected for *culture/media/sports occupations.* For each of *science and technology associate professionals* and *protective service professionals,* around 20,000 extra jobs are expected. For *health associate professionals* the projected growth rate is more modest, with a projected net gain of 13,000 jobs. Expected jobs gains in this SOC Major Group are shared fairly evenly between males and females.

Administrative, clerical and secretarial occupations

The share of total employment in the South East accounted for by this SOC Major Group increased in the 1980s, but declined thereafter. In 2002 administrative, clerical and secretarial occupations accounted for nearly 14% of total employment; only London recorded a larger share. At local LSC area level, Sussex displays the largest such share of administrative, clerical and secretarial occupations in total employment (15%). With a loss of around 95,000 jobs expected over the period to 2012, of which females account for nearly 90,000, this share is expected to decline to under 11%, which is less than the UK average. All local LSC areas are projected to share in this decline, although the share of this SOC Major Group in total employment is expected to remain highest in Sussex and Surrey. The projected net loss of jobs is a function of losses in both *administrative and clerical occupations* and *secretarial and related occupations.* In the latter occupational group, employment is expected to contract by a quarter. The loss of jobs in the South East reflects the expansion of the area of decentralisation of such work from high cost locations around London to lower cost locations elsewhere in the UK (and beyond).

Skilled trades occupations

Skilled trades occupations account for less than 11% of total regional employment. Only in London is this share lower. At local LSC area level, the shares of total employment accounted for by this SOC Major Group range from less than 10% in Sussex and Surrey to over 11% (akin to the England average) in Kent and Medway. However, over the period to 2012 employment is projected to decline by 0.9% per annum, which is appreciably slower than the UK average (1.8% per annum), and the slowest rate for any region in the UK. All local LSC areas share in this slower than national average rate of decline, with Berkshire displaying the fastest projected rate of decline (1.1% per annum). Hence, by 2012 skilled trades occupations are expected to account for 9% of total employment in the South East: a share akin to the UK average. *Skilled metal and electrical trades* dominate overall projected employment decline, with a loss of around 45,000 jobs expected. This contrasts with fairly stable employment levels for *skilled construction and building trades* and *other skilled trades,* and a modest increase for *skilled agricultural trades.* Males account for all the job losses, whereas employment levels for females are expected to remain stable.

Personal service occupations

At 3.4% per annum, the projected rate of increase in employment for *personal service occupations* in the South East is slightly higher than the UK average. At local area level the projected annual average rate of growth ranges from 3.2% in Kent and Medway to 4% in Berkshire. A net increase of around 120,000 jobs is expected, which is more than recorded for any other region. Nearly 90% of the job gains are accounted for *caring personal service occupations.* However, projected rates of increase for *leisure occupations* are higher than the UK average. Females account for the vast majority of employment gains in this SOC Major Group.

Sales and customer service occupations

The projected annual average rate of employment gains in *sales and customer service occupations* between 2002 and 2012 is, at 1.7% per annum, similar to the UK average. Within the region, Berkshire displays the fastest annual average growth rate (2.2%) and Kent and Medway the slowest (1.4% per annum). Out of nearly 60,000 extra jobs expected, over 30,000 are accounted for by *sales occupations,* where the rate of employment growth exceeds the UK average. Although the rate of projected employment growth is higher for *customer service occupations,* in the South East the rate of growth is slower than the UK average. Males and females are expected to share evenly in the projected employment gains.

Transport and machine operatives

The South East has a smaller share of total employment in this SOC Major Group than any other region outside London. In 2002 6.4% of total employment was accounted for by *transport and machine operatives* compared with 8.4% across the UK. At local LSC area level, Surrey displays the smallest share of total employment accounted for by this SOC Major Group (less than 6%) and Kent and Medway the largest share (7%). Over the period to 2012 a decrease of 13,000 jobs is projected across the region. This represents an annual average rate of employment decline of 0.5% per annum (the lowest rate of any region, along with the East of England), compared with the UK annual average rate of loss of 1.1%. At local level, rates of projected employment decline vary between 0.4% and 0.6% per annum. The overall projected decrease in employment is a function of an expected reduction of nearly 35,000 jobs for *process machine operatives,* coupled with a gain of 20,000 jobs for *drivers and other operatives.* Despite the slower than average rate of employment loss overall, this SOC Major Group is expected to continue to account for a substantially smaller share of total employment in the South East than across the UK as a whole.

Elementary occupations

The long-term decline in employment in *elementary occupations* in the South East is projected to continue, with a loss of around 60,000 jobs expected over the period to 2012. At 1.5% per annum, the rate of employment loss is somewhat slower than the UK average (2.2% per annum). All local LSC areas share in this slower than national average rate of employment decline. By 2012 elementary occupations are expected to account for 8.5% of total employment in the South East, compared with around 9% nationally; (in 1982 nearly 16% of total employment in the South East was accounted for by elementary occupations). At local LSC area level, the projected share of total employment accounted for by elementary occupations ranges from less than 8% in Surrey to nearly 12% in Kent and Medway. Over 40,000 jobs are expected to be lost in *elementary service occupations* and nearly 20,000 in *elementary trades occupations.* Females account for around 85% of the projected job losses.

Table 3.2: Occupational change in the South East

	South East											England		UK	
	1982	1992	2002	2012	1982	1992	2002	2012	2002-2012			2002-2012		2002-2012	
Occupation groups	000s	000s	000s	000s	% of total	% of total	% of total	% of total	change 000s	% change	% per annum	% change	% per annum	% change	% per annum
Corporate managers	266	375	557	692	8.4	10.4	13.3	15.4	135	24.2	2.2	21.2	1.9	20.4	1.9
Managers / proprietors	128	145	166	158	4.0	4.0	4.0	3.5	-8	-4.9	-0.5	-6.7	-0.7	-7.0	-0.7
Managers and officials	*394*	*521*	*723*	*850*	*12.5*	*14.4*	*17.3*	*18.9*	*127*	*17.5*	*1.6*	*14.3*	*1.3*	*13.4*	*1.3*
Sc. and tech. profs.	99	121	162	197	3.1	3.3	3.9	4.4	35	21.7	2.0	23.4	2.1	22.5	2.0
Health professionals	18	22	32	38	0.6	0.6	0.8	0.8	6	20.3	1.9	20.2	1.9	19.1	1.8
Teaching and res. profs.	118	146	173	200	3.7	4.0	4.1	4.5	27	15.8	1.5	18.5	1.7	19.9	1.8
Business professionals	63	82	118	146	2.0	2.3	2.8	3.3	28	23.7	2.1	24.9	2.3	23.0	2.1
Professional occs	*298*	*372*	*484*	*581*	*9.4*	*10.3*	*11.6*	*12.9*	*97*	*20.0*	*1.8*	*21.6*	*2.0*	*21.3*	*1.9*
Sc. and tech. assoc. profs.	54	62	92	113	1.7	1.7	2.2	2.5	21	22.6	2.1	24.9	2.2	24.5	2.2
Health assoc. profs.	92	113	126	139	2.9	3.1	3.0	3.1	13	10.1	1.0	13.4	1.3	12.8	1.2
Protect. serv. occs	24	34	61	81	0.8	0.9	1.5	1.8	20	33.2	2.9	22.0	2.0	20.3	1.9
Culture, med. and sports	38	54	96	121	1.2	1.5	2.3	2.7	25	26.5	2.4	31.9	2.8	31.2	2.8
Business assoc. profs.	134	181	243	281	4.2	5.0	5.8	6.3	38	15.5	1.5	15.9	1.5	15.1	1.4
Assoc. prof. and tech.	*343*	*444*	*618*	*734*	*10.9*	*12.3*	*14.8*	*16.4*	*117*	*18.9*	*1.7*	*19.7*	*1.8*	*18.8*	*1.7*
Admin and clerical	367	428	410	361	11.6	11.8	9.8	8.0	-49	-11.9	-1.3	-7.5	-0.8	-6.3	-0.7
Secretarial and related	181	214	172	125	5.7	5.9	4.1	2.8	-47	-27.3	-3.1	-25.0	-2.8	-24.0	-2.7
Admin. cler. and sec.	*548*	*642*	*582*	*486*	*17.4*	*17.7*	*13.9*	*10.8*	*-96*	*-16.4*	*-1.8*	*-12.2*	*-1.3*	*-11.0*	*-1.2*
Skilled agric. trades	36	38	48	54	1.2	1.1	1.2	1.2	6	12.2	1.2	5.6	0.5	2.9	0.3
Skilled metal and electrical	222	205	171	127	7.0	5.7	4.1	2.8	-44	-25.6	-2.9	-30.3	-3.5	-31.2	-3.7
Skilled cons. and building	128	135	139	143	4.1	3.7	3.3	3.2	4	2.6	0.3	-7.4	-0.8	-8.6	-0.9
Other skilled trades	86	98	81	80	2.7	2.7	1.9	1.8	-2	-2.2	-0.2	-7.9	-0.8	-8.4	-0.9
Skilled trades	*472*	*476*	*440*	*404*	*15.0*	*13.2*	*10.5*	*9.0*	*-36*	*-8.2*	*-0.9*	*-15.3*	*-1.6*	*-16.2*	*-1.8*
Caring personal service	63	110	211	316	2.0	3.0	5.0	7.0	105	49.7	4.1	46.0	3.9	44.8	3.8
Leisure occupations	54	66	87	101	1.7	1.8	2.1	2.2	14	16.7	1.6	9.0	0.9	7.8	0.8
Personal serv. occs	*117*	*176*	*297*	*417*	*3.7*	*4.9*	*7.1*	*9.3*	*119*	*40.1*	*3.4*	*36.0*	*3.1*	*34.8*	*3.0*
Sales occupations	179	220	265	299	5.7	6.1	6.3	6.7	33	12.6	1.2	11.4	1.1	10.5	1.0
Customer service occs.	13	19	60	85	0.4	0.5	1.4	1.9	25	41.9	3.6	47.0	3.9	48.2	4.0
Sales and cust. serv.	*192*	*238*	*325*	*384*	*6.1*	*6.6*	*7.8*	*8.5*	*58*	*18.0*	*1.7*	*17.6*	*1.6*	*17.0*	*1.6*

Table 3.2: Occupational change in the South East (continued)

	South East											England		UK	
	1982	1992	2002	2012	1982	1992	2002	2012	2002-2012			2002-2012		2002-2012	
Occupation groups	000s	000s	000s	000s	% of total	% of total	% of total	% of total	change 000s	% change	% per annum	% change	% per annum	% change	% per annum
Process machine ops.	197	159	137	103	6.3	4.4	3.3	2.3	-33	-24.4	-2.8	-23.3	-2.6	-22.0	-2.4
Drivers and other ops.	98	106	132	152	3.1	2.9	3.2	3.4	20	15.1	1.4	7.3	0.7	5.8	0.6
Machine and trans. ops.	*296*	*265*	*268*	*255*	*9.4*	*7.3*	*6.4*	*5.7*	*-13*	*-5.0*	*-0.5*	*-10.0*	*-1.0*	*-10.1*	*-1.1*
Elementary: trades	163	141	143	124	5.1	3.9	3.4	2.8	-19	-13.4	-1.4	-18.4	-2.0	-18.2	-2.0
Elementary: service	335	343	298	257	10.6	9.5	7.1	5.7	-42	-14.0	-1.5	-20.3	-2.2	-20.5	-2.3
Elementary occs	*498*	*484*	*442*	*381*	*15.8*	*13.4*	*10.6*	*8.5*	*-61*	*-13.8*	*-1.5*	*-19.7*	*-2.2*	*-19.7*	*-2.2*
All occupations	3157	3618	4179	4491	100.0	100.0	100.0	100.0	312	7	1	5.1	0.5	4.5	0.4

Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Table R15b

3.6 Projections of replacement demands

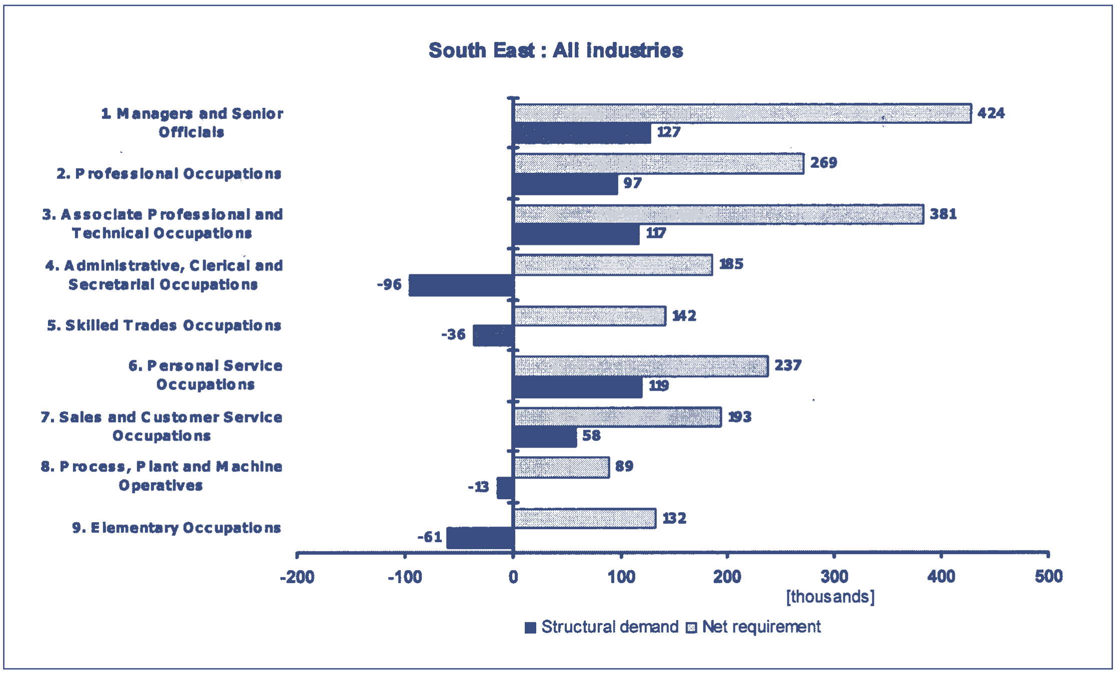
The key component of replacement demands is retirements from the workforce, especially those of older workers. However, replacement requirements for specific occupational groups, in particular geographical areas, can also arise for a number of other reasons. These include occupational mobility, as individuals change jobs for reasons of career progression (as well as other causes), and geographical mobility. Potentially, the latter may be quite important at a regional level. Unfortunately there are few reliable data on such flows, so the estimates presented here exclude replacement needs arising as a consequence of both occupational and geographical mobility. In both cases, there may be offsetting inflows to counterbalance some of the losses.

Even where projected structural changes suggest an overall reduction in employment levels, the total requirements are still positive. Hence, although the projections outlined above indicate a reduction of about 95,000 in employment levels for administrative, clerical and secretarial occupations; projected replacement demands are 280,000 (48% of the 2002 employment level for this SOC Major Group) and the total requirement is for 185,000 extra people (see Figure 3.3).

Likewise, despite negative expansion change, there is a total requirement for about 130,000 in elementary occupations, 140,000 in skilled trades occupations and 90,000 machine and transport operatives.

In the high level non-manual occupations where expansion demand changes suggest that the single largest number of new openings will be, the replacement demands are even more substantial. Hence, total requirements indicate a need for nearly 425,000 managers and senior officials, 380,000 people in associate professional and technical occupations and about 270,000 individuals in professional occupations. In the case of associate professional and technical occupations, and managers and senior officials, the total requirement is about 60% of the 2002 employment levels. In the case of personal service occupations, which are expected to see a 40% increase on the basis of expansion demand alone, the projected replacement demand serves to double this requirement. The resulting total need for over 235,000 people represents 80% of the 2002 employment level. For sales and other customer service occupations, the total requirement is about 195,000.

Figure 3.3 Replacement Demands for the South East



Source: CE/IER estimates, MDM95 C31 F95 Forecast, ReplacementDemands.xls

EAST OF ENGLAND

4.1 Overview

The East of England includes the counties of Cambridgeshire, Norfolk, Suffolk, Essex, Hertfordshire and Bedfordshire, together with the unitary authorities of Peterborough, Luton, Southend and Thurrock. No major city acts as a natural regional focus, and over two fifths of the region's population resides in rural areas. Overall, the region is characterised by high rates of population and employment growth. Within the region there is a general north east/south west economic 'split' with the south western area (notably Cambridgeshire and Hertfordshire) surging ahead economically. These areas tend to be characterised by a greater than average incidence of hard-to-fill and skill-shortage vacancies and the sub-regional infrastructure is under strain more generally. It is this part of the region that has been identified with regional growth in clusters of high technology and high skill businesses in information technology and biotechnology. The southern part of the region (particularly Hertfordshire and Essex) has strong links with the Greater London economy. The north eastern part of the region (notably Norfolk and Suffolk) tends to lag behind, suffering some problems of peripherality and lack of infrastructure investment, although it still performs reasonably well in national terms on most indicators. In the south eastern part of the region some local areas are included within the Thames Gateway, and are planned to see considerable investment (along with parts of north Kent and east London) in an attempt to counterbalance strong growth trends to the west of London. Elsewhere the region has a disparate Objective 2 programme area covering both urban and rural deprived areas including: Great Yarmouth, Waveney, Luton, Southend, Breckland, North Norfolk, the Fens, and rural east Suffolk. There are pockets of deprivation in some urban areas, such as Great Yarmouth, Peterborough and Luton.

Across the East of England the population and labour force is expected to grow at rates in excess of the national average. Employment is projected to grow at 0.7% per annum over the period to 2012, a rate matched only by the South East. At local level, Cambridgeshire and Hertfordshire are expected to see amongst the fastest rates of employment growth of any local LSC areas in England.

As in other regions, projected job losses in the East of England are concentrated in the primary sector and utilities and in manufacturing. However, in both these broad sectors, projected rates of employment decrease in the East of England are amongst the slowest displayed by any region. In the distribution, transport, etc. and business and other services broad sectors, projected rates of employment growth are amongst the highest for any region in the UK. Cambridgeshire and Hertfordshire display particularly fast rates of growth in the business and other services sector. Projected employment growth in non-marketed services is expected to occur at a similar rate to the national average.

Males account for a larger share of total employment in the East of England than the UK average. A distinctive feature of the pattern of expected employment growth in the region is that projected gains for full-time employees outnumber those for part-time employees.

For all high level non-manual occupations, projected rates of employment growth in the East of England exceed the UK average. At least 80,000 additional jobs are expected for associate professional and technical occupations and for managers and senior officials. The East of England displays the fastest rate of growth for professional occupations of any region outside London. Cambridgeshire displays a particularly large concentration of employment in professional and associate professional occupations. Gains are also expected in personal service occupations and sales and customer service occupations. As in the other southern regions outside London, the rate of projected loss in skilled trades occupations is slower than the UK average. A similar pattern of slower than average employment decline is also evident for transport and machine operatives and for elementary occupations. Projections of replacement demands reveal that requirements are positive in all SOC Major Groups.

4.2 Labour supply and demand

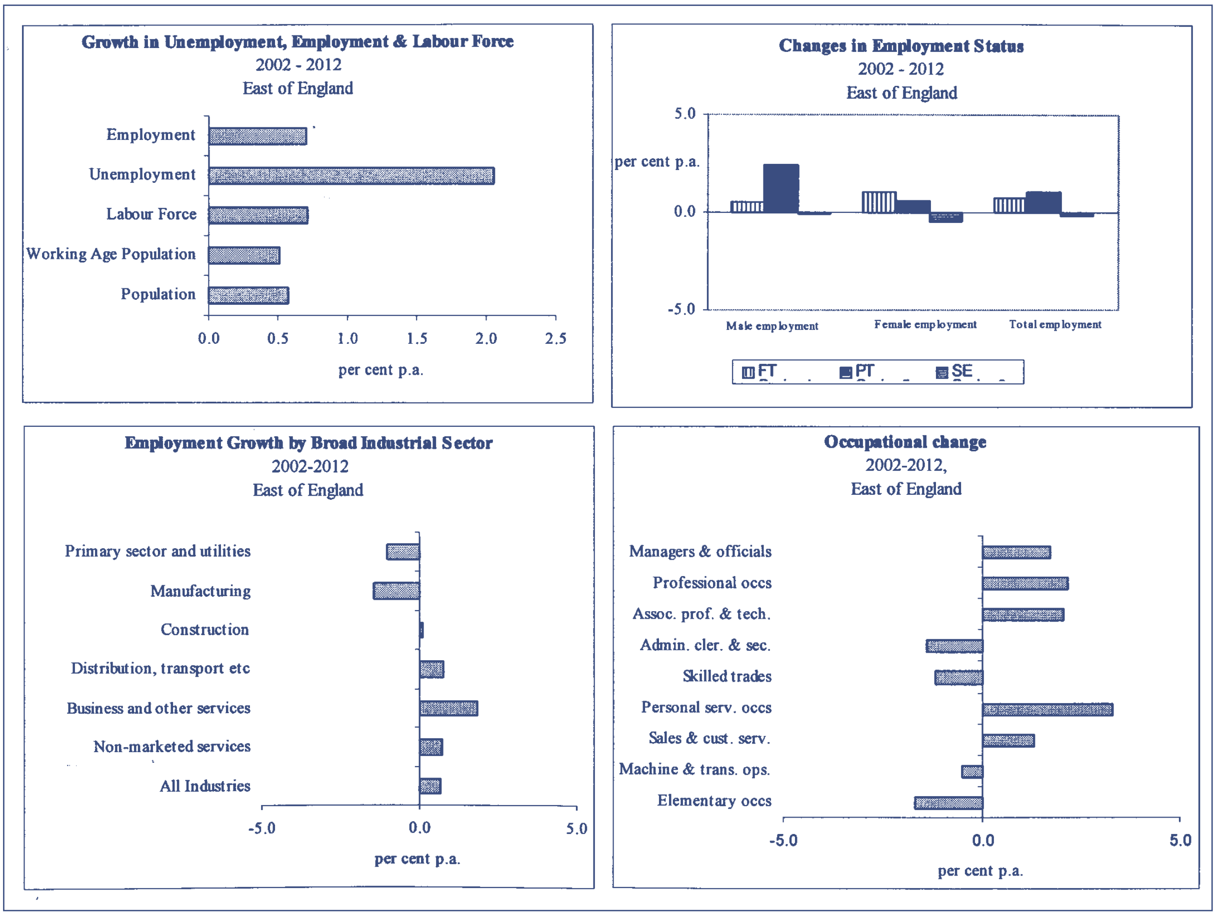
The *population* in the East of England is projected to increase at a rate of 0.6% per annum between 2002 and 2012, compared with 0.4% per annum across the UK as a whole, to reach 5.85 million (see Figure 4.1). The *working age population* is projected to increase by nearly 180,000 between 2002 and 2012, the *labour force* is projected to grow by 200,000, to reach nearly 2.9 million in 2012. At an annual per annum growth rate of 0.7%, this represents a growth rate in excess of the UK average of 0.5% per annum, and along with the South East this represents the fastest regional growth rate in the UK.

The *economic activity rate* is expected to increase by 1.5 percentage points in the East of England between 2002 and 2012: contrasting with a small decline at UK level. At over 78%, the projected economic activity rate for the East of England is slightly higher than that projected for the UK.

Unemployment is projected to increase by nearly 13,000 between 2002 and 2012, to around 70,000 in 2012. The unemployment rate is expected to increase marginally, but remains lower than that for the UK as a whole.

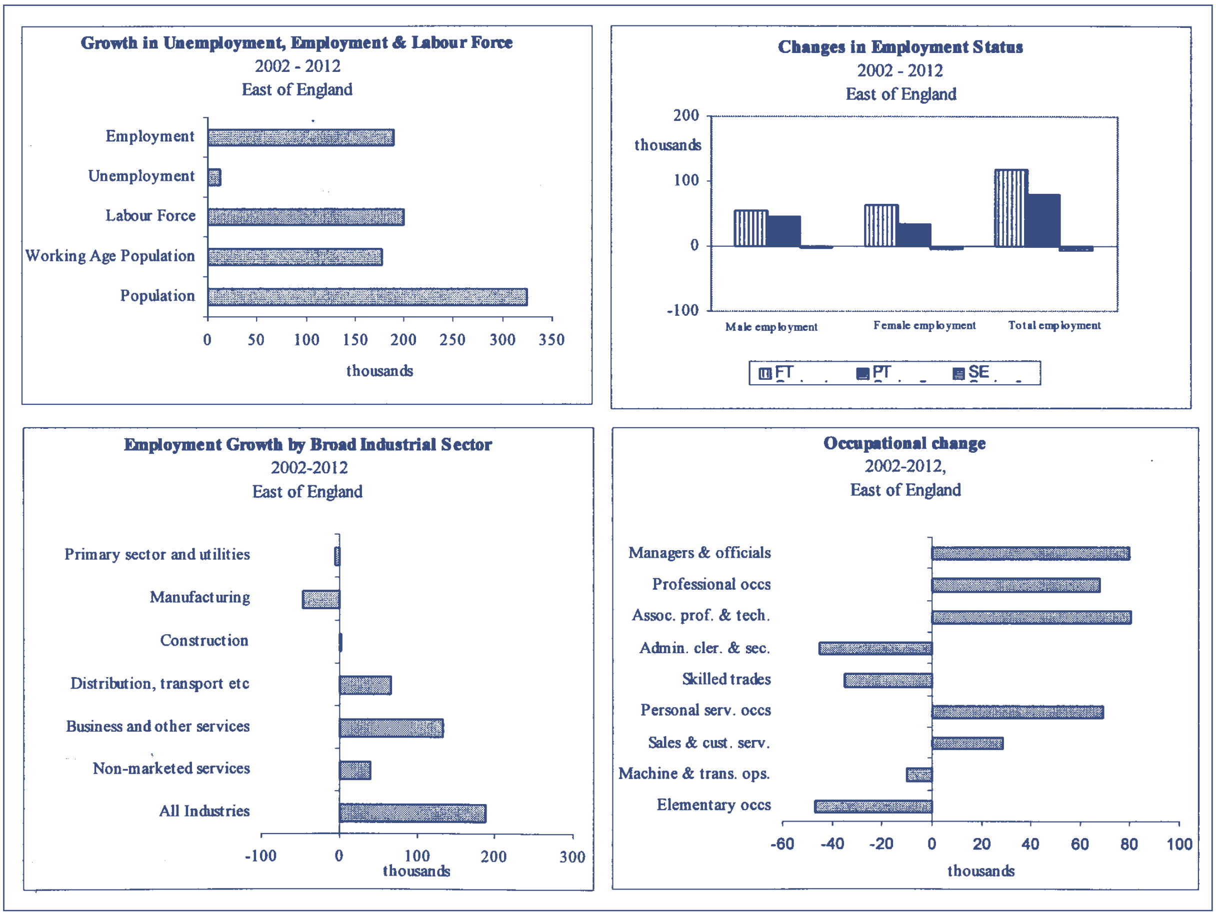
Total employment in the East of England is set to increase by 190,000 to reach 2.8 million in 2012. The projected growth rate between 2002 and 2012, at 0.7% per annum, is greater than the UK average of 0.4%. The South East is the only other region recording such a high rate of employment increase. As in the period from 1992 to 2002, within the East of England, Hertfordshire and Cambridgeshire display the highest projected growth rates for the period from 2002 to 2012 at 1% per annum. Only Berkshire (in the South East region) is expected to match this rate of employment growth over the period. Luton and Bedfordshire is the only LSC area in the East of England where the employment growth rate is expected to be appreciably slower (0.3% per annum) than the England average. At 0.6% per annum, Essex displays a projected employment growth rate in excess of the England average, while in Suffolk and Norfolk projected growth rates are similar to that expected across England as a whole. The East of England accounts for about 9% of UK employment.

Figure 4.1 Key changes in the East of England % p.a.



Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Figure R.1 (%)

Figure 4.2 Key changes in the East of England (000s)



Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Figure R.1 (000s)

4.3 Sectoral prospects

At the broad sectoral level, the picture for the East of England region is one of employment losses in the primary sector and utilities, and manufacturing, and employment gains in distribution, transport, etc., business and other services and non-marketed services (see Figure 4.1, Table 4.1). Employment levels in construction are expected to remain stable. In absolute terms the dominant feature of employment decline is the loss of nearly 50,000 jobs in manufacturing. This contrasts with gains of nearly 135,000 jobs in business and miscellaneous services, over 67,000 jobs in distribution, transport, etc., and 40,000 jobs in non-marketed services.

In relative terms, the projected rate of job loss in the *primary sector and utilities sector* is, at 1% per annum, the slowest for any region. In all local LSC areas, employment in this broad sector is projected to contract more slowly than across England as a whole. This contrasts with a greater than average rate of increase over the previous decade. *Agriculture,* continuing a trend of long-term decline, accounts for most of the projected job losses between 2002 and 2012, as employment in the industry is expected to decline by about 10% (with 4,000 jobs lost). This represents a much smaller loss than in the previous decade. Males account for all the projected job losses in this broad sector. Within the East of England, the proportion of total employment in this broad sector ranges from 0.9% in Hertfordshire to over 3% in Norfolk and Suffolk, compared with the England average of 2%.

The rate of employment decline projected for *manufacturing* in the East of England is slower than the UK average, and one of the slowest rates of any region in the UK. Long-term decline is projected to continue, with manufacturing employment projected to account for around 310,000 jobs in 2012, compared with 485,000 in 1982. Males and females share about evenly in the projected loss of 50,000 jobs to 2012. All parts of the manufacturing sector are projected to share in the job losses. The *rest of manufacturing* dominates employment loss, with a decrease in employment by 30,000 expected. Around 12,000 jobs are projected to be lost in *engineering*. Only in *food, drink and tobacco* does the projected rate of loss in employment exceed the UK average as employment levels decline by 15% (6,000 jobs). At local LSC area level the share of total employment in manufacturing ranges from less than 10% in Hertfordshire (the only part of the region where the share falls below the England average) to 17% in Luton and Bedfordshire. The slowest rate of loss is projected to occur in Essex (1.2% per annum), although this represents the loss of at least 10,000 jobs over the decade. Elsewhere, only in Hertfordshire does the projected rate of employment loss exceed the England average.

Levels of employment in *construction* in the East of England are projected to remain fairly constant at just below 210,000. However, it should be noted that these are 'benchmark' projections, that do not take account of the impact on construction of the Stansted and Thames Gateway growth areas. Hence, the projections may be rather conservative. At local level, Hertfordshire, Essex and Norfolk display small projected increases in construction employment according to the 'benchmark' projections. Elsewhere decline is expected, with Suffolk exhibiting the fastest projected rate of decline (0.4% per annum). Males account for the vast majority of employment in this broad sector.

At 0.8% per annum, the annual average rate of employment growth in *distribution, transport, etc.* in the East of England is one of the highest for any UK region. At local LSC area level, the projected rates of annual average employment growth range from 0.6% in Norfolk to 1% in Hertfordshire. Within this broad sector *retail distribution* dominates employment growth, with over 55,000 extra jobs projected over the period to 2012. *In transport storage and communications,* also, employment is projected to increase at a faster rate (0.9% per annum) than nationally, with over 15,000 additional jobs between 2002 and 2012. Contrasting with projected gains at national level, employment levels in *hotels and restaurants* are projected to decline slightly. Both males and females share in the overall employment increase for this broad sector, with females accounting for over three fifths of the projected job gains.

At 1.9% per annum, the annual average rate of employment increase in *business and other services* in the East of England exceeds that in any other region. Of around 135,000 extra jobs expected between 2002 and 2012, males account for over three quarters. Over 100,000 of the projected additional jobs are expected in *other business activities* as employment is expected to expand a quarter. Projected employment growth in *banking and insurance* is much more modest, with 7,000 additional jobs expected, but this represents a faster rate of increase than the UK average. In *other services* the projected increase of nearly 25,000 jobs represents a rate of growth akin to the UK average. At local level, Cambridgeshire and Hertfordshire display the fastest rates of projected employment growth (2.6 and 2.3% per annum, compared with the England average of 1.6% per annum) in this broad sector. These two local LSC areas also record the highest proportions of total employment in business and other services, with about a third of total employment expected to be in this broad sector by 2012. By contrast, this broad sector accounts for about 22% of total employment in Suffolk and Norfolk.

Employment in *non-marketed services* is projected to expand at a rate akin to the national average. A modest decline in employment levels in *public administration and defence* contrasts with projected job gains of over 25,000 in *health and social work* and nearly 20,000 in *education*. Females are projected to be the beneficiaries of this employment growth in this broad sector. Within the East of England projected annual average rates of employment increase range from 0.4% in Essex and Luton and Bedfordshire to at least 1% in Norfolk and Cambridgeshire. These two latter regions record the highest shares of total employment (23-25%) accounted for by this broad sector, while in Hertfordshire only 17% of total employment is accounted for by non-marketed services

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Table 4.1: Sectoral change in the East of England

	East of England											England		UK	
	1982	1992	2002	2012	1982	1992	2002	2012	2002-2012			2002-2012		2002-2012	
Sectoral categories	000s	000s	000s	000s	% of total	% of total	% of total	% of total	change 000s	% change	% per annum	% change	% per annum	% change	% per annum
1. Agriculture hunting forestry fishing	81	64	38	34	3.9	2.8	1.5	1.2	-4	-11.1	-1.2	-15.2	-1.6	-15.2	-1.6
2. Mining and quarrying	4	5	4	4	0.2	0.2	0.2	0.1	0	-7.5	-0.8	-20.5	-2.3	-19.0	-2.1
6. Electricity gas and water	19	18	11	10	0.9	0.8	0.4	0.4	-1	-5.1	-0.5	-19.5	-2.2	-19.2	-2.1
Primary sector and utilities	*104*	*86*	*53*	*48*	*5.0*	*3.7*	*2.0*	*1.7*	*-5*	*-9.6*	*-1.0*	*-16.7*	*-1.8*	*-16.5*	*-1.8*
3. Food drink and tobacco	53	49	43	37	2.6	2.1	1.6	1.3	-6	-15.0	-1.6	-9.3	-1.0	-9.7	-1.0
4. Engineering	148	105	87	75	7.1	4.5	3.3	2.7	-12	-13.8	-1.5	-16.0	-1.7	-18.0	-2.0
5. Rest of manufacturing	285	235	226	197	13.7	10.1	8.6	7.0	-29	-12.9	-1.4	-17.0	-1.8	-17.3	-1.9
Manufacturing	*486*	*389*	*355*	*308*	*23.5*	*16.8*	*13.6*	*11.0*	*-48*	*-13.4*	*-1.4*	*-15.9*	*-1.7*	*-16.5*	*-1.8*
7. Construction	162	180	206	208	7.8	7.8	7.9	7.4	2	1.0	0.1	-1.3	-0.1	-3.2	-0.3
8. Retail distribution	359	414	482	538	17.3	17.9	18.4	19.2	57	11.8	1.1	7.5	0.7	7.1	0.7
9. Hotels and restaurants	107	128	159	152	5.2	5.5	6.1	5.4	-7	-4.3	-0.4	2.2	0.2	0.8	0.1
10. Transport storage & communication	125	150	177	193	6.1	6.5	6.8	6.9	16	9.3	0.9	1.8	0.2	1.3	0.1
Distribution transport etc.	*592*	*692*	*817*	*883*	*28.6*	*29.8*	*31.2*	*31.5*	*67*	*8.1*	*0.8*	*5.2*	*0.5*	*4.5*	*0.4*
11. Banking and Insurance	60	95	84	91	2.9	4.1	3.2	3.2	7	7.7	0.7	3.0	0.3	3.7	0.4
12. Other business activities	171	284	421	524	8.3	12.2	16.1	18.7	103	24.5	2.2	21.3	1.9	21.5	2.0
16. Other services	91	103	153	176	4.4	4.4	5.9	6.3	23	15.0	1.4	14.4	1.4	14.7	1.4
Business and other services	*322*	*481*	*658*	*791*	*15.5*	*20.8*	*25.2*	*28.2*	*133*	*20.2*	*1.9*	*16.9*	*1.6*	*17.1*	*1.6*
13. Public admin and defence	129	105	98	94	6.2	4.5	3.8	3.4	-4	-4.1	-0.4	-2.4	-0.2	-2.1	-0.2
14. Education	121	175	185	203	5.8	7.5	7.1	7.2	18	9.6	0.9	8.6	0.8	8.5	0.8
15. Health and social work	155	210	242	269	7.5	9.1	9.3	9.6	27	11.0	1.1	10.2	1.0	9.5	0.9
Non-marketed services	*405*	*490*	*525*	*566*	*19.6*	*21.1*	*20.1*	*20.2*	*41*	*7.7*	*0.7*	*7.0*	*0.7*	*6.7*	*0.6*
All Sectors	2070	2319	2614	2803	100.0	100.0	100.0	100.0	189	7.2	0.7	5.1	0.5	4.5	0.4

Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Table R14b

4.4 Change in employment by gender and employment status

In 1982 males comprised nearly 59% of those in employment in the East of England, a proportion slightly higher than the UK average. By 2002 males accounted for 54% of all those in employment in the region, compared with 53% across the UK as a whole. It is projected that this share will remain fairly steady over the period to 2012, so that the share of total employment accounted for by males in the East of England is about 2 percentage points higher than the UK average, and the highest for any region in the UK. At local LSC area level within the East of England, the projected share of male employment ranges from 51% in Norfolk to 56% in Hertfordshire. The projected share of total employment accounted for by full-time employees varies from 56% in Norfolk to 61% in Cambridgeshire, compared with a regional average of 59%.

Between 2002 and 2012 an increase of about 55,000 male full-time jobs in the East of England is projected. Such gains are confined to the regions of southern England, and the projected increase in the East of England is second only to that expected in the South East. At local level, however, a loss of male full-time employees is expected in Luton and Bedfordshire, while Suffolk and Cambridgeshire are expected to see increases at a rate of at least 1% per annum. The number of male part-time employees is projected to increase by 45 thousand (Figure 4.1). At 0.4% per annum, this represents the same rate of growth as expected across the UK as a whole. For females, projected gains in full-time employees (an increase of nearly 65,000) outstrip those for part-time employees (an increase of around 35,000). This is contrary to the pattern across the UK as a whole where projected increases for female part-time employees out number those for female full-time employees by a ratio of at least 2:1. A small decline in self-employment is expected, but at 0.2% per annum, the rate of decrease is slower than the UK average. Contrary to the regional trend, a small increase in self-employment is projected in Cambridgeshire. Overall, the distinctive feature of the East of England is that projected gains for full-time employees outnumber those for part-time employees in the case of both males and females.

4.5 Occupational prospects

Overview

This section concentrates on employment projections for different occupations. It should be remembered that such 'structural demand' provides only part of the overall picture of occupational change. For a fuller picture of the changing requirement for different occupations it is necessary to bear in mind the impact of retirements, inter-occupational moves, etc., as captured by 'replacement demand' (see Section 4.6).

At the level of SOC Major Groups, the largest increases in occupational employment between 2002 and 2012 are projected for associate professional and technical occupations and managers and officials, each with expected increases of 80,000 jobs (see Figure 4.1). In both instances, the projected rates of employment increase are in excess of the UK average. Increases of nearly 70,000 jobs are expected for each of personal service occupations and professional occupations. Again, the projected rates of employment growth exceed the UK average. Job gains are also projected for sales and customer service occupations, but the expected 30,000 additional jobs represent a slower rate of growth than across the UK as a whole.

Elementary occupations and administrative, clerical and secretarial occupations are each expected to see a loss of about 45,000 jobs over the period to 2012. A further loss of 35,000 jobs is expected in skilled trades occupations. A projected loss of 10,000 jobs for machine and transport operatives completes the picture of expected occupational change in the East of England.

Managers and senior officials

Managers and senior officials accounted for just over 16% of employment in the East of England. This is the third highest proportion of any region, after London and the South East, and compares with a 15% share across the UK as a whole. All LSC areas in the region display a greater than average share of total employment in this SOC Major Group. The shares range from slightly less than 16% in Norfolk and Suffolk, to about 17% in Hertfordshire. At 1.7% per annum, the projected rate of increase in employment is the highest for any region of the UK along with London. Females are projected to account for three fifths of the projected job gains. The projected gain of 80,000 jobs in this Major Group is accounted for solely by the increase of a quarter in the number of *corporate managers* (see Table 4.2). Employment levels for *managers and proprietors* are expected to remain fairly stable.

Professional occupations

At 11% the share of professional occupations in total employment in the East of England is slightly lower than the UK average. However, the regional pattern is skewed by the over-representation of this Major Group in London. At local level within the East of England the shares range from 9% in Suffolk nearly 13% in Cambridgeshire. In addition to Cambridgeshire, Hertfordshire, and Luton and Bedfordshire display shares of employment in professional occupations above, or close to, the national average. Employment in professional occupations is projected to increase by nearly 70,000 between 2002 and 2012. This represents a growth rate of 2.2% per annum, compared with the UK average of 1.9%. Only London displays a faster projected rate of growth. Science and technology professionals make the largest contribution to the projected increase in employment in this Major Group, with an expected gain of about 25,000 jobs. At 2.4% per annum, this projected growth exceeds that expected across the UK as a whole (2% per annum). Nearly 20,000 extra *teaching and research professional* posts are expected, as well as over 15,000 additional jobs for *business professionals.* Over 5,000 additional *health professional* posts are expected, representing a projected rate of increase in excess of the UK average. Males account for a slightly larger share of the projected employment gains than females.

Associate professional and technical occupations

As for professional occupations, so for associate professional and technical occupations, the share of total employment within this Major Group is very slightly lower than the UK average, although, of the English regions, only London and the South East display higher proportions. At local level, Cambridgeshire displays a greater than national average share of such employment, while Suffolk (with around 13% of total employment in this SOC Major Group in 2002) records the smallest share. At 2.1% per annum, the projected annual average growth rate exceeds the UK average (1.7% per annum) and is second only to London. Of the projected increase of 80,000 jobs over the period to 2012, *business associate professionals* account for the largest expected employment gains (25,000 jobs), followed by *culture, media and sports occupations* with an expected increase of about 20,000 jobs. More than 15,000 additional jobs are expected for *science and technology associate professionals.* For all three of these occupations, the regional rate of employment increase exceeds the UK average. This is also the case for *personal service occupations,* for which 10,000 extra jobs are expected. Only in the case of *health associate professionals,* with an expected gain of about 5,000 jobs, is the regional rate of employment increase slower than the UK average.

Administrative, clerical and secretarial occupations

Comprising 13% of total employment, administrative, clerical and secretarial occupations account for a similar share of total employment in the East of England as across the UK as a whole. At local LSC area level, the shares of such employment range from 12% in Luton and Bedfordshire to nearly 14% in Essex. Over the period to 2012, employment is expected to decrease at a slightly faster rate (1.4% per annum) than the UK average (1.2% per annum). However, this rate of decrease is slightly slower than in the other regions of southern England. Within the East of England, Essex displays the fastest rate of projected decrease (at 1.8% per annum) and Hertfordshire the slowest (0.6% per annum). *Secretarial and related occupations* account for slightly more than half of the projected 45,000 employment decline for this SOC Major Group. For both secretarial and related occupations and *administrative and clerical occupations,* the projected rate of job loss is slightly faster than the UK average. Females account for the vast majority of projected job losses in this SOC Major Group.

Skilled trades occupations

A loss of 35,000 jobs is projected in this Major Group. This represents a rate of employment decline of 1.2% per annum, compared with 1.8% across the UK, and is the third slowest of any region after the South East and South West. At local area level, projected rate of loss ranges from 1% per annum in Suffolk to 1.7% per annum in Luton and Bedfordshire. Losses of up to 5,000 jobs are projected for *other skilled trades* and *skilled construction* and *building trades.* Most of the expected employment decline (about 30,000 jobs) is accounted for by *skilled metal and electrical trades.* A gain of around 5,000 jobs is expected in *skilled agricultural trades.* In all instances, the rate of decline is slower, or the rate of employment increase is faster, than the UK average. The expected loss of jobs in skilled trades occupations falls entirely on males, while employment levels are projected to remain stable for females.

Personal service occupations

The projected annual average rate of employment increase in the East of England over the period from 2002 to 2012 is, at 3.3% per annum, slightly greater than the UK average (3% per annum). At local area level, the projected annual average rate of growth ranges from 2.8% in Luton and Bedfordshire to 3.7% in Cambridgeshire and Hertfordshire. However, Norfolk and Suffolk record the largest shares of total employment in this SOC Major Group. At regional level there is an overall projected gain of about 70,000 jobs. By 2012, the East of England is projected to have 60,000 additional people in *caring personal service occupations*. With nearly 10,000 extra jobs, the increase for *leisure occupations* (1.4% per annum), easily exceeds the projected UK rate of growth (0.8% per annum). Females are expected to account for virtually all the extra jobs.

Sales and customer service occupations

About 30,000 extra jobs are projected in *sales and customer service occupations* between 2002 and 2012. This represents a slower rate of growth (1.3% per annum) than across the UK as a whole (1.6% per annum). Within the region, Hertfordshire displays the fastest annual average growth rate (1.8%). Employment in *sales occupations* is expected to increase by about 12,000, with *customer service occupations* accounting for the remainder. The share of total employment accounted for by this Major Group in the East of England is about 8% (the same proportion as across the UK as a whole). However, the slower than UK average projected rate of growth means that this Major Group accounts for a smaller than average share of total employment in the East of England in 2012 than the national average. Males and females are expected to share fairly evenly in the projected employment gains.

Machine and transport operatives

The East of England has a slightly smaller share of total employment in this Major Group (8%) than the UK average. Within the region, Luton and Bedfordshire, and Suffolk local LSC areas display the largest shares of such employment (nearly 9%). A loss of 10,000 jobs is projected over the period to 2012. This represents an annual average rate of loss of 0.5%, compared with a rate of 1.1% across the UK. Along with the South East, this is the slowest rate of employment decrease recorded by any region in the UK. All local LSC areas display slower projected rates of decrease than the national average, ranging from 0.2% per annum in Hertfordshire to 1% per annum in Norfolk. A projected loss of about 20,000 jobs for *process machine operatives* is offset by a gain of about 10,000 *drivers and operatives.* Employment for males is projected to increase slightly, while employment for females is projected to decline by nearly 15,000.

Elementary occupations

In the East of England the share of employment accounted for by elementary occupations is similar to the UK average. At local LSC area level, the share of total employment accounted for by elementary occupations ranges from 10.5% in Hertfordshire to 13% in Suffolk. The long-term trend of employment decline is projected to continue over the period to 2012. A projected loss of over 45,000 jobs means that by 2012, elementary occupations are expected to account for about 250,000 jobs in the East of England, compared with 350,000 in 1982. At 1.7% per annum, the projected rate of employment decline is the slowest for any region excepting the South East. All local LSC areas share in this slower than national average rate of employment decline. Nearly 35,000 jobs are expected to be lost in *elementary service occupations,* with *elementary trades occupations* expected to see a slower rate of job loss. Females are expected to bear the brunt of projected employment decline.

Table 4.2: Occupational change in the East of England

	East of England											England		UK	
	1982	1992	2002	2012	1982	1992	2002	2012	2002-2012			2002-2012		2002-2012	
Occupation groups	000s	000s	000s	000s	% of total	% of total	% of total	% of total	change 000s	% change	% per annum	% change	% per annum	% change	% per annum
Corporate managers	163	222	323	404	7.9	9.6	12.4	14.4	80	24.9	2.2	21.2	1.9	20.4	1.9
Managers / proprietors	81	89	102	101	3.9	3.8	3.9	3.6	-1	-0.6	-0.1	-6.7	-0.7	-7.0	-0.7
Managers and officials	*244*	*310*	*425*	*505*	*11.8*	*13.4*	*16.3*	*18.0*	*80*	*18.8*	*1.7*	*14.3*	*1.3*	*13.4*	*1.3*
Sc. and tech. profs.	58	74	96	122	2.8	3.2	3.7	4.4	26	27.4	2.4	23.4	2.1	22.5	2.0
Health professionals	10	13	20	26	0.5	0.6	0.8	0.9	6	30.0	2.7	20.2	1.9	19.1	1.8
Teaching and res. profs.	69	93	102	121	3.3	4.0	3.9	4.3	19	18.4	1.7	18.5	1.7	19.9	1.8
Business professionals	37	47	66	82	1.8	2.0	2.5	2.9	17	25.2	2.3	24.9	2.3	23.0	2.1
Professional occs	*175*	*227*	*284*	*352*	*8.4*	*9.8*	*10.9*	*12.6*	*68*	*23.8*	*2.2*	*21.6*	*2.0*	*21.3*	*1.9*
Sc. and tech. assoc. profs.	32	38	56	73	1.6	1.7	2.1	2.6	17	30.9	2.7	24.9	2.2	24.5	2.2
Health assoc. profs.	53	65	75	81	2.6	2.8	2.9	2.9	6	8.2	0.8	13.4	1.3	12.8	1.2
Protect. serv. occs	14	18	32	44	0.7	0.8	1.2	1.6	11	34.2	3.0	22.0	2.0	20.3	1.9
Culture, med. and sports	22	31	55	76	1.0	1.3	2.1	2.7	21	38.5	3.3	31.9	2.8	31.2	2.8
Business assoc. profs.	80	106	138	163	3.8	4.6	5.3	5.8	25	18.2	1.7	15.9	1.5	15.1	1.4
Assoc. prof. and tech.	*201*	*259*	*356*	*436*	*9.7*	*11.2*	*13.6*	*15.6*	*81*	*22.7*	*2.1*	*19.7*	*1.8*	*18.8*	*1.7*
Admin and clerical	225	255	245	224	10.9	11.0	9.4	8.0	-21	-8.7	-0.9	-7.5	-0.8	-6.3	-0.7
Secretarial and related	106	122	97	73	5.1	5.2	3.7	2.6	-24	-24.6	-2.8	-25.0	-2.8	-24.0	-2.7
Admin. cler. and sec.	*331*	*376*	*342*	*297*	*16.0*	*16.2*	*13.1*	*10.6*	*-45*	*-13.2*	*-1.4*	*-12.2*	*-1.3*	*-11.0*	*-1.2*
Skilled agric. trades	32	28	29	33	1.5	1.2	1.1	1.2	4	14.9	1.4	5.6	0.5	2.9	0.3
Skilled metal and electrical	159	146	121	90	7.7	6.3	4.6	3.2	-31	-25.6	-2.9	-30.3	-3.5	-31.2	-3.7
Skilled cons. and building	95	95	102	97	4.6	4.1	3.9	3.5	-5	-5.2	-0.5	-7.4	-0.8	-8.6	-0.9
Other skilled trades	61	68	57	55	3.0	2.9	2.2	2.0	-3	-4.8	-0.5	-7.9	-0.8	-8.4	-0.9
Skilled trades	*347*	*337*	*310*	*275*	*16.8*	*14.5*	*11.8*	*9.8*	*-35*	*-11.2*	*-1.2*	*-15.3*	*-1.6*	*-16.2*	*-1.8*
Caring personal service	39	67	129	191	1.9	2.9	5.0	6.8	62	47.5	4.0	46.0	3.9	44.8	3.8
Leisure occupations	33	41	51	59	1.6	1.8	2.0	2.1	8	14.7	1.4	9.0	0.9	7.8	0.8
Personal serv. occs	*72*	*108*	*181*	*250*	*3.5*	*4.7*	*6.9*	*8.9*	*69*	*38.2*	*3.3*	*36.0*	*3.1*	*34.8*	*3.0*
Sales occupations	118	147	170	182	5.7	6.3	6.5	6.5	12	7.1	0.7	11.4	1.1	10.5	1.0
Customer service occs.	8	11	36	53	0.4	0.5	1.4	1.9	17	45.6	3.8	47.0	3.9	48.2	4.0
Sales and cust. serv.	*126*	*159*	*207*	*235*	*6.1*	*6.8*	*7.9*	*8.4*	*29*	*13.9*	*1.3*	*17.6*	*1.6*	*17.0*	*1.6*

Table 4.2: Occupational change in the East of England (continued)

	East of England											England		UK	
	1982	1992	2002	2012	1982	1992	2002	2012	2002-2012			2002-2012		2002-2012	
Occupation groups	000s	000s	000s	000s	% of total	% of total	% of total	% of total	change 000s	% change	% per annum	% change	% per annum	% change	% per annum
Process machine ops.	150	130	118	97	7.3	5.6	4.5	3.5	-21	-17.9	-2.0	-23.3	-2.6	-22.0	-2.4
Drivers and other ops.	74	78	93	104	3.6	3.4	3.6	3.7	11	11.9	1.1	7.3	0.7	5.8	0.6
Machine and trans. ops.	*296*	*265*	*268*	*255*	*9.4*	*7.3*	*6.4*	*5.7*	*-13*	*-5.0*	*-0.5*	*-10.0*	*-1.0*	*-10.1*	*-1.1*
Elementary: trades	163	141	143	124	5.1	3.9	3.4	2.8	-19	-13.4	-1.4	-18.4	-2.0	-18.2	-2.0
Elementary: service	335	343	298	257	10.6	9.5	7.1	5.7	-42	-14.0	-1.5	-20.3	-2.2	-20.5	-2.3
Elementary occs	*498*	*484*	*442*	*381*	*15.8*	*13.4*	*10.6*	*8.5*	*-61*	*-13.8*	*-1.5*	*-19.7*	*-2.2*	*-19.7*	*-2.2*
All occupations	3157	3618	4179	4491	100.0	100.0	100.0	100.0	312	7	1	5.1	0.5	4.5	0.4

Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Table R15b

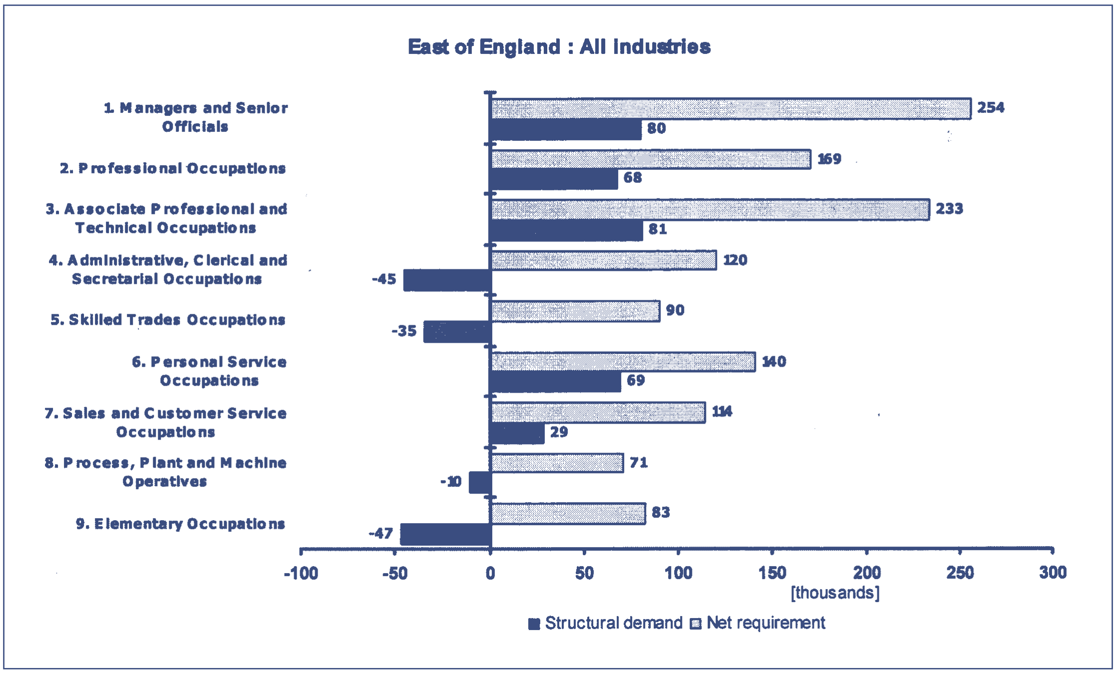
4.6 Projections of replacement demands

The key component of replacement demands is retirements from the workforce, especially those of older workers. However, replacement requirements for specific occupational groups, in particular geographical areas, can also arise for a number of other reasons. These include occupational mobility, as individuals change jobs for reasons of career progression (as well as other causes), and geographical mobility. Potentially, the latter may be quite important at a regional level. Unfortunately there are few reliable data on such flows, so the estimates presented here exclude replacement needs arising as a consequence of both occupational and geographical mobility. In both cases, there may be offsetting inflows to counterbalance some of the losses.

For those SOC Major Groups where expansion demand indicates large increases in employment, replacement demands serve to increase requirements still further. Hence, projected expansion demand increases of about 80,000 jobs for senior managers and officials, and associate professional and technical occupations, are supplemented by estimated replacement demands of 175,000 and 150,000, respectively. The resulting total requirements represent 65% of the 2002 employment levels for associate professional and technical occupations and 60% for managers and senior officials. Likewise, expected increases of about 70,000 for professional occupations and personal service occupations on the basis of expansion demand projections, when supplemented by estimated replacement demands, translate into total requirements of 170,000 and 140,000, respectively. In the case of professional occupations, this total requirement represents 60% of the 2002 employment level, while for personal service occupations the total requirement represents nearly 80% of 2002 employment. For sales and customer service occupations, a replacement demand of about 85,000 is easily the main contributor to a total requirement of nearly 115,000 extra people by 2012.

Even where projected structural changes suggest an overall reduction in employment levels, the total requirements are positive. Hence, although the projections outlined above indicate a reduction of about 45,000 in employment levels for administrative, clerical and secretarial occupations, and elementary occupations, projected replacement demands are 165,000 and 130,000, respectively. Taken into account with structural demand changes, these translate into total requirements for 120,000 in administrative, clerical and secretarial employment (35% of the 2002 employment level for this SOC Major Group) and nearly 85,000 for elementary occupations (28% of 2002 employment). Estimated total requirements indicate a need for 90,000 extra people in skilled trades occupations over the period to 2012, and for about 70,000 machine and transport operatives.

Figure 4.3 Replacement Demands for the East of England



Source: CE/IER estimates, MDM95 C31 F95 Forecast, ReplacementDemands.xls

SOUTH WEST

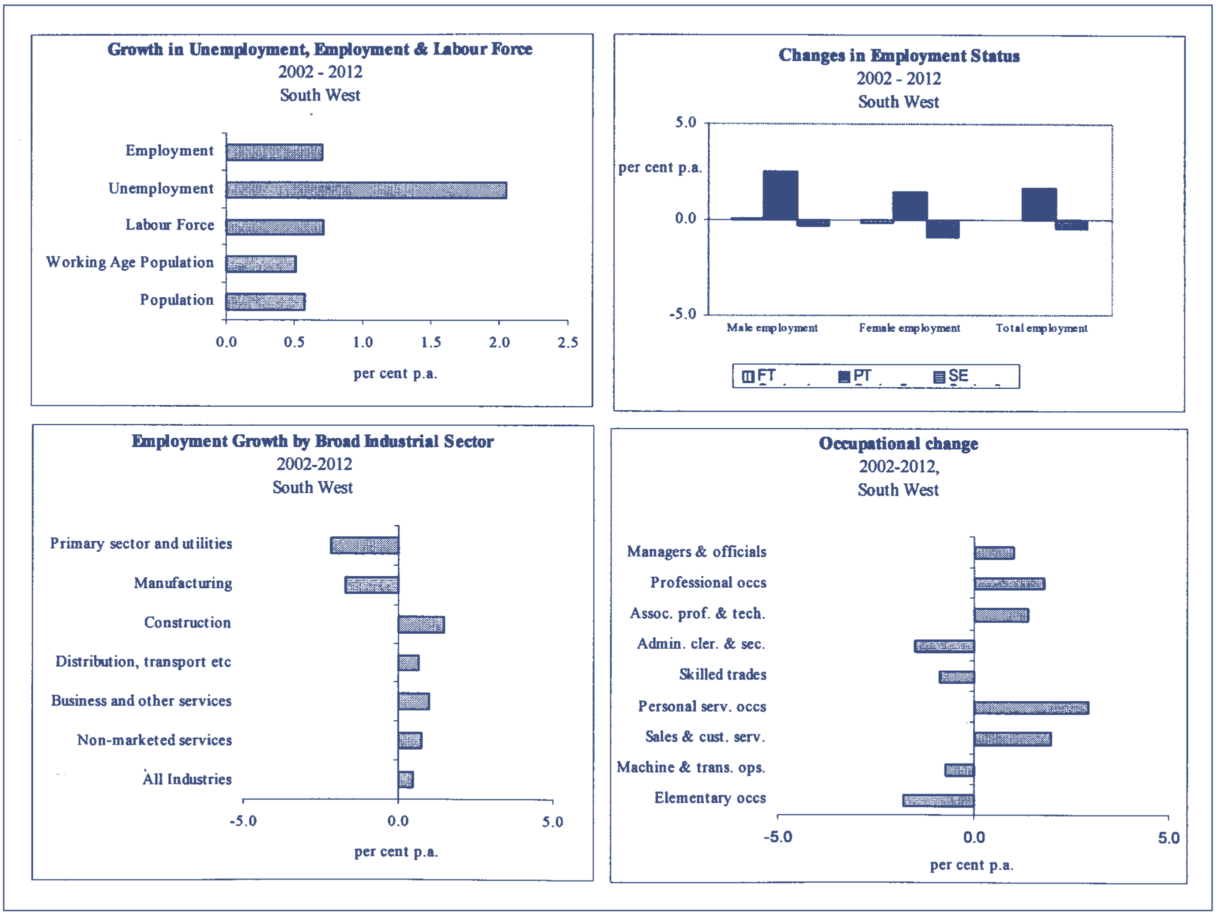
5.1 Overview

The South West region stretches from Cornwall in the west to Wiltshire, Swindon and Gloucestershire in the east and north. It also encompasses Devon, Somerset, Dorset, Poole, Bournemouth, Bristol, Bath and North East Somerset, North Somerset and South Gloucestershire. A broad 'east/west' division is evident in the South West, with the western sub-regions tending to lag behind those further east in growth terms. On every major indicator used to measure the health of the labour market, the far west of the region performs less well than the east. Strategic accessibility is a key factor in explaining this differential economic performance. Cornwall and the Isles of Scilly has been designated as an Objective One area because its economy is lagging behind the European average. There are concerns expressed in the South West Framework for Regional Employment and Skills Action (FRESA) that the region has a relatively low productivity, low wage economy. Earnings in the South West are relatively low, with average full-time earnings about 9% lower than the English average. Within the region, wages are lower in the west of the region than further east. Housing affordability is a problem for many workers – particularly in the context of population growth.

The population of the South West is projected to increase at a faster rate than nationally over the period to 2012, but the labour force is expected to increase somewhat more slowly at a rate similar to the UK average. The projected rate of employment growth exceeds the UK average, but is slower than in other regions of southern England. Wiltshire displays the fastest rate of projected employment growth in the region. Projected employment losses are confined to the primary sector and utilities, and to manufacturing. In the former sector the expected rate of job loss exceeds the UK average, while in the latter the rate of decrease is similar to that projected across the UK as a whole. The South West displays a faster rate of increase in construction employment than any other region. However, the region displays the slowest rate of projected increase in employment in business and other services of any region in the UK over the period to 2012, and this broad sector is expected to remain particularly under-represented (relative to nationally) in the most peripheral parts of the region. By contrast, employment in distribution, transport etc., and in non-marketed services, is projected to increase at a rate akin to the UK average.

The share of total employment in the South West accounted for by males is similar to the UK average. However, the regional figure masks intra-regional variations, with males comprising a greater share of total employment in the eastern part of the region than in western areas. Relative to the pattern of employment increase expected in other regions of southern England, the projected gains in the South West are biased more heavily towards part-time employees. The representation of professional, and associate professional and technical occupations is slightly lower in the South West than in the other regions of southern England, and projected growth rates are slightly lower than the UK average. Nevertheless, projected employment gains are substantial. Personal service occupations, which account for a greater than national average share of employment in the South West, display the largest projected absolute increase in employment of any SOC Major Group. For sales and customer service occupations the projected rate of employment increase is one of the fastest for any region in the UK. The projected rate of employment loss for skilled manual occupations is slower in the South West than in any other region, and machine and transport operatives, and elementary occupations also display slower than average rates of employment decline. Across all SOC Major Groups, replacement demands are such that total requirements for extra staff are positive.

Figure 5.1 Key changes in the South West % p.a.



Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Figure R.1 (%)

Figure 5.2 Key changes in the South West (000s)

Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Figure R.1 (000s)

5.2 Labour supply and demand

The *population* in the South West is projected to increase by about 295,000 between 2002 and 2012, to reach 5.19 million (see Figure 5.1). At 0.6% per annum, the rate of growth expected is greater than projected for the UK as a whole (0.4% per annum). The *working age population* is projected to increase by 260,000 between 2002 and 2012. Over the same period, the *labour force* is projected to increase by over 125,000, to reach 2.7 million. This annual average per annum growth rate of 0.5% per annum is similar to the UK average. The *economic activity rate* is expected to decrease by 2.7 percentage points in the South West between 2002 and 2012. This is a greater reduction than projected for any other region. Hence, the regional economic activity rate converges towards the UK average, and is expected to be just over 78% in 2012.

Unemployment is projected to increase by 10,000 between 2002 and 2012, to reach 60,000 in 2012. The unemployment rate is projected to remain appreciably lower than the UK average.

Total employment in the South West is set to increase by 120,000 to reach 2.59 million in 2012. The projected growth rate between 2002 and 2012, at 0.5% per annum, is above the UK average but similar to the England average, and is exceeded by the rates of growth projected for other regions of southern England. Within the South West, Wiltshire (the area closest to the South East) displays the highest projected growth rate for the period from 2002 to 2012 at 0.6% per annum. However, this is considerably slower than the 2.2% growth rate experienced between 1992 and 2002. The remaining local LSC areas all display projected employment growth rates similar to the England average. Gloucestershire is expected to see the slowest employment growth rate in the region at 0.4% per annum. The South West accounts for about 8.4% of total UK employment.

Table 5.1: Sectoral change in the South West

	South West											England		UK	
	1982	1992	2002	2012	1982	1992	2002	2012	2002-2012			2002-2012		2002-2012	
Sectoral categories	000s	000s	000s	000s	% of total	% of total	% of total	% of total	change 000s	% change	% per annum	% change	% per annum	% change	% per annum
1. Agriculture hunting forestry fishing	99	95	66	52	5.2	4.4	2.7	2.0	-14	-21.0	-2.3	-15.2	-1.6	-15.2	-1.6
2. Mining and quarrying	8	7	7	6	0.4	0.3	0.3	0.2	-1	-20.8	-2.3	-20.5	-2.3	-19.0	-2.1
6. Electricity gas and water	18	23	14	12	1.0	1.0	0.6	0.5	-2	-13.3	-1.4	-19.5	-2.2	-19.2	-2.1
Primary sector and utilities	*125*	*124*	*87*	*70*	*6.6*	*5.7*	*3.5*	*2.7*	*-17*	*-19.7*	*-2.2*	*-16.7*	*-1.8*	*-16.5*	*-1.8*
3. Food drink and tobacco	48	36	39	33	2.5	1.6	1.6	1.3	-6	-14.2	-1.5	-9.3	-1.0	-9.7	-1.0
4. Engineering	84	72	74	62	4.5	3.3	3.0	2.4	-12	-15.9	-1.7	-16.0	-1.7	-18.0	-2.0
5. Rest of manufacturing	244	205	199	166	12.9	9.4	8.0	6.4	-32	-16.3	-1.8	-17.0	-1.8	-17.3	-1.9
Manufacturing	*377*	*313*	*312*	*262*	*19.9*	*14.3*	*12.6*	*10.1*	*-50*	*-16.0*	*-1.7*	*-15.9*	*-1.7*	*-16.5*	*-1.8*
7. Construction	138	161	168	194	7.3	7.4	6.8	7.5	27	16.0	1.5	-1.3	-0.1	-3.2	-0.3
8. Retail distribution	351	375	438	477	18.6	17.2	17.7	18.4	39	9.0	0.9	7.5	0.7	7.1	0.7
9. Hotels and restaurants	118	168	193	205	6.3	7.7	7.8	7.9	13	6.5	0.6	2.2	0.2	0.8	0.1
10. Transport storage and communication	100	109	121	123	5.3	5.0	4.9	4.7	2	1.6	0.2	1.8	0.2	1.3	0.1
Distribution transport etc.	*570*	*653*	*751*	*805*	*30.1*	*29.9*	*30.4*	*31.1*	*54*	*7.2*	*0.7*	*5.2*	*0.5*	*4.5*	*0.4*
11. Banking and Insurance	62	93	90	96	3.3	4.3	3.7	3.7	5	6.1	0.6	3.0	0.3	3.7	0.4
12. Other business activities	150	226	327	346	7.9	10.4	13.2	13.4	20	6.0	0.6	21.3	1.9	21.5	2.0
16. Other services	89	103	147	181	4.7	4.7	6.0	7.0	34	23.4	2.1	14.4	1.4	14.7	1.4
Business and other services	*302*	*422*	*564*	*623*	*16.0*	*19.4*	*22.8*	*24.1*	*60*	*10.6*	*1.0*	*16.9*	*1.6*	*17.1*	*1.6*
13. Public admin and defence	112	128	126	126	5.9	5.9	5.1	4.9	0	-0.3	0.0	-2.4	-0.2	-2.1	-0.2
14. Education	118	152	202	225	6.2	7.0	8.2	8.7	23	11.4	1.1	8.6	0.8	8.5	0.8
15. Health and social work	150	228	260	284	7.9	10.4	10.5	11.0	25	9.5	0.9	10.2	1.0	9.5	0.9
Non-marketed services	*379*	*507*	*588*	*635*	*20.1*	*23.3*	*23.8*	*24.5*	*47*	*8.0*	*0.8*	*7.0*	*0.7*	*6.7*	*0.6*
All Sectors	1891	2181	2470	2590	100.0	100.0	100.0	100.0	120	4.9	0.5	5.1	0.5	4.5	0.4

Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Table R14b

5.3 Sectoral prospects

At the broad sectoral level, the picture for the South West is one of employment losses in the primary sector and utilities, and in manufacturing, and employment gains in construction, distribution, transport, etc., business and other services and non-marketed services (see Figure 5.1, Table 5.1). A decline of 50,000 jobs is expected in manufacturing, and over 15,000 in the primary sector and utilities. The business and other services broad sector is projected to see the largest employment gains, with an expected increase of 60,000 jobs, but considerable increases are also projected for distribution, transport, etc., and non-marketed services, with around 55,000 and 47,000 extra jobs expected, respectively.

Within the *primary sector and utilities,* agriculture, forestry and fishing dominates both employment and projected employment losses. Approximately two thirds of expected job losses are accounted for by males. With a projected rate of loss of 2.2% per annum, the decrease is greater than the national average. At local level, Bournemouth, Dorset and Poole – the local LSC area with one of the smaller shares of employment in this broad sector - is expected to experience the fastest rate of employment decline. By 2012 there are projected to be only 50,000 jobs in agriculture, forestry and fishing in the region, compared with nearly 100,000 in 1982. Job losses in *electricity gas* and *water* are more modest. Within the South West, four local LSC areas (Gloucestershire, Somerset, Wiltshire, and Devon and Cornwall) have at least 4% of total employment in this broad sector (compared with 2% across England as a whole).

In the South West, employment levels in *manufacturing* were maintained over the period from 1992 to 2002, but a loss of 50,000 jobs is expected in the period to 2012, as employment is projected to decline at a rate akin to the national average. Males are expected to account for about 70% of the job loss. In *food, drink and tobacco* a loss of 6,000 jobs is expected, representing a rate of increase in excess of the national average. The projected losses of over 10,000 jobs in *engineering* and over 30,000 in *other manufacturing* represent rates of employment decline similar to the national average.
By 2012 employment in manufacturing in the South West is projected to have fallen to around 260,000 compared with over 375,000 in 1982. At local level, the percentage of total employment accounted for by manufacturing ranges from 11% in the West of England LSC area to 15-16% in Gloucestershire and Somerset. Wiltshire, with a slightly higher share of employment in manufacturing than the England average, is projected to see the slowest rate of job loss (1.3% per annum) from 2002 to 2012.

Employment in *construction* in the South West is projected to increase at 1.5% per annum – easily the highest growth rate of any region. This contrasts with a small decline in construction employment nationally. All local LSC areas in the South West are expected to share in this employment increase, ranging from an annual average projected rate of 0.9% in Wiltshire to 1.9% in the West of England. Males account for the majority of these additional jobs.

The annual average rate of employment growth in *distribution, transport, etc.* in the South West, at 0.7% per annum, is somewhat higher than the UK average. Only the South East, the East of England, and Yorkshire and the Humber are projected to experience greater rates of growth in this broad sector. At local LSC area level the projected rates of annual average employment growth range from 0.6% in Bournemouth, Dorset and Poole and the West of England to 1% in Somerset. Both males and females are expected to share in this growth, with females filling three quarters of the additional jobs. Within this broad sector both *retail distribution* and *hotels and restaurants* are projected to see employment growth at rates in excess of the national average, with expected job gains of nearly 40,000 and 13,000 jobs, respectively. A modest increase in employment in *transport storage and communications* is expected.

In *business and other services* employment is projected to increase at 1% per annum: the slowest rate of any UK region. This is a function of a relatively slow rate of growth (0.6% per annum) in *other business activities,* representing a gain of 20,000 jobs. Growth rates in *banking and insurance* and in *other services* exceed the UK average, with an additional 5,000 and 35,000 extra jobs expected, respectively. Males account for about 90% of the projected job increase. At local level, only Somerset displays a projected employment growth in this broad sector akin to the England average. In Devon and Cornwall and Somerset – the most peripheral and rural parts of the region – this broad sector is still projected to account for less than a fifth of total employment in 2012, compared with nearly a quarter across the region as a whole and nearly three tenths across England.

Employment in *non-marketed services* is projected to expand by just under 50,000 jobs between 2002 and 2012, representing an annual average growth rate of 0.2%; this is slightly greater than the rate of growth projected across the UK as a whole. Females are expected to account for over 40,000 of these additional jobs. The increase is evenly spread between *health and social work and education,* while employment levels in *public administration* and *defence* are projected to remain stable. Within the South West, projected annual average rates of employment increase range from 0.5% in Gloucestershire to 1% in Bournemouth, Poole and Dorset. Devon and Cornwall records the highest share of total employment (28%) accounted for by this broad sector. Somerset, Bournemouth, Dorset and Poole and the West of England, also display greater shares of total employment in this broad sector than the England average. By contrast, in Wiltshire and Gloucestershire only about a fifth of total employment is accounted for by non-marketed services.

5.4 Change in employment by gender and employment status

In 1982 males comprised just over 58% of those in employment in the South West, a proportion akin to the UK average. By 2002 males accounted for about 52% of all those in employment in the region, a share slightly lower than that across the UK as a whole. Over the period to 2012 this share is projected to decline to just under 52%, a share similar to the UK average. At local LSC area level within the South West, the projected share of male employment is lowest in the west of the region in Devon and Cornwall and Somerset (49%), and highest in the east, with Wiltshire, Gloucestershire and the West of England recording expected shares of 54%. The share of total employment accounted for by full-time employees has been consistently slightly lower than the national average, and over the period from 2002 to 2012 is projected to decline to 51%. At local level the projected share of full-time employees in 2012 is expected to vary from 48% in Devon and Cornwall to 54% in Wiltshire.

While recording a projected gain in male full-time employees, along with the other regions of southern England, in the case of the South West this gain is relatively small (a rate of growth of 0.1% per annum) and is easily outnumbered by the projected gain of more than 50,000 male part-time employees. This projected increase in male part-time employees occurs at a rate similar to the UK average, while the small gain in male full-time employees contrasts with an expected loss across the UK as a whole. Gains in male full-time employees are concentrated in Wiltshire and Gloucestershire, while a loss is expected in Devon and Cornwall. Along with the North East, the South West is distinctive amongst English regions in displaying a projected loss of female full-time employees (of nearly 10,000). The fastest rates of loss are recorded in Devon and Cornwall, Gloucestershire and Wiltshire, contrasting with projected growth in Somerset and the West of England. However, the projected gain of over 85,000 female part-time employees is exceeded only by the absolute increases expected in London and the South East, and at 1.4% per annum represents a rate of increase in excess of the UK average. A contraction of self-employment by over 15,000 is expected. At 0.5% per annum, this rate of loss is the same as that for the UK as a whole. Males and females are expected to share fairly evenly in these job losses. Relative to the other regions of southern England, the projected employment gains in the South West are skewed much more heavily towards part-time employees.

Table 5.2: Occupational change in the South West

	South West											England		UK	
	1982	1992	2002	2012	1982	1992	2002	2012	2002-2012			2002-2012		2002-2012	
Occupation groups	000s	000s	000s	000s	% of total	% of total	% of total	% of total	change 000s	% change	% per annum	% change	% per annum	% change	% per annum
Corporate managers	131	181	260	310	6.9	8.3	10.5	12.0	50	19.1	1.8	21.2	1.9	20.4	1.9
Managers / proprietors	90	99	101	91	4.8	4.5	4.1	3.5	-11	-10.4	-1.1	-6.7	-0.7	-7.0	-0.7
Managers and officials	*222*	*280*	*361*	*400*	*11.7*	*12.9*	*14.6*	*15.5*	*39*	*10.9*	*1.0*	*14.3*	*1.3*	*13.4*	*1.3*
Sc. and tech. Profs.	44	56	72	85	2.3	2.6	2.9	3.3	13	17.8	1.7	23.4	2.1	22.5	2.0
Health professionals	12	14	18	20	0.6	0.6	0.7	0.8	2	10.7	1.0	20.2	1.9	19.1	1.8
Teaching and res. profs.	62	85	121	150	3.3	3.9	4.9	5.8	28	23.3	2.1	18.5	1.7	19.9	1.8
Business professionals	30	39	53	63	1.6	1.8	2.2	2.4	9	17.3	1.6	24.9	2.3	23.0	2.1
Professional occs	*148*	*194*	*265*	*317*	*7.8*	*8.9*	*10.7*	*12.3*	*52*	*19.7*	*1.8*	*21.6*	*2.0*	*21.3*	*1.9*
Sc. and tech. Assoc. profs.	26	31	47	58	1.4	1.4	1.9	2.2	11	23.6	2.1	24.9	2.2	24.5	2.2
Health assoc. profs.	55	72	82	85	2.9	3.3	3.3	3.3	3	3.4	0.3	13.4	1.3	12.8	1.2
Protect. serv. Occs	13	16	23	25	0.7	0.7	0.9	1.0	2	10.7	1.0	22.0	2.0	20.3	1.9
Culture, med. and sports	18	27	47	62	0.9	1.2	1.9	2.4	14	30.6	2.7	31.9	2.8	31.2	2.8
Business assoc. profs.	66	89	118	135	3.5	4.1	4.8	5.2	17	14.5	1.4	15.9	1.5	15.1	1.4
Assoc. prof. and tech.	*177*	*235*	*317*	*365*	*9.4*	*10.8*	*12.8*	*14.1*	*48*	*15.1*	*1.4*	*19.7*	*1.8*	*18.8*	*1.7*
Admin and clerical	191	232	228	205	10.1	10.7	9.2	7.9	-22	-9.8	-1.0	-7.5	-0.8	-6.3	-0.7
Secretarial and related	86	101	80	59	4.6	4.6	3.2	2.3	-21	-26.3	-3.0	-25.0	-2.8	-24.0	-2.7
Admin. cler. and sec.	*277*	*334*	*307*	*264*	*14.7*	*15.3*	*12.4*	*10.2*	*-43*	*-14.1*	*-1.5*	*-12.2*	*-1.3*	*-11.0*	*-1.2*
Skilled agric. Trades	48	47	41	41	2.5	2.1	1.7	1.6	0	0.1	0.0	5.6	0.5	2.9	0.3
Skilled metal and electrical	146	134	111	81	7.7	6.2	4.5	3.1	-30	-27.2	-3.1	-30.3	-3.5	-31.2	-3.7
Skilled cons. and building	94	99	105	110	5.0	4.5	4.2	4.2	5	4.9	0.5	-7.4	-0.8	-8.6	-0.9
Other skilled trades	59	68	57	56	3.1	3.1	2.3	2.1	-2	-2.9	-0.3	-7.9	-0.8	-8.4	-0.9
Skilled trades	*347*	*348*	*314*	*287*	*18.3*	*16.0*	*12.7*	*11.1*	*-27*	*-8.5*	*-0.9*	*-15.3*	*-1.6*	*-16.2*	*-1.8*
Caring personal service	37	74	147	209	2.0	3.4	5.9	8.1	62	42.2	3.6	46.0	3.9	44.8	3.8
Leisure occupations	34	42	49	53	1.8	1.9	2.0	2.1	5	9.4	0.9	9.0	0.9	7.8	0.8
Personal serv. occs	*71*	*116*	*195*	*262*	*3.8*	*5.3*	*7.9*	*10.1*	*67*	*34.0*	*3.0*	*36.0*	*3.1*	*34.8*	*3.0*
Sales occupations	115	145	186	218	6.1	6.7	7.5	8.4	33	17.5	1.6	11.4	1.1	10.5	1.0
Customer service occs.	7	10	34	49	0.4	0.5	1.4	1.9	15	45.0	3.8	47.0	3.9	48.2	4.0
Sales and cust. Serv.	*122*	*155*	*219*	*267*	*6.5*	*7.1*	*8.9*	*10.3*	*48*	*21.7*	*2.0*	*17.6*	*1.6*	*17.0*	*1.6*

Table 5.2: Occupational change in the South West (continued)

	South West											England		UK	
	1982	1992	2002	2012	1982	1992	2002	2012	2002-2012			2002-2012		2002-2012	
Occupation groups	000s	000s	000s	000s	% of total	% of total	% of total	% of total	change 000s	% change	% per annum	% change	% per annum	% change	% per annum
Process machine ops.	133	122	115	93	7.1	5.6	4.7	3.6	-22	-18.9	-2.1	-23.3	-2.6	-22.0	-2.4
Drivers and other ops.	66	68	81	89	3.5	3.1	3.3	3.4	8	9.5	0.9	7.3	0.7	5.8	0.6
Machine and trans. ops.	*199*	*191*	*196*	*182*	*10.5*	*8.7*	*7.9*	*7.0*	*-14*	*-7.2*	*-0.7*	*-10.0*	*-1.0*	*-10.1*	*-1.1*
Elementary: trades	115	104	106	91	6.1	4.8	4.3	3.5	-15	-13.8	-1.5	-18.4	-2.0	-18.2	-2.0
Elementary: service	212	224	188	154	11.2	10.3	7.6	6.0	-34	-18.1	-2.0	-20.3	-2.2	-20.5	-2.3
Elementary occs	*327*	*328*	*294*	*246*	*17.3*	*15.0*	*11.9*	*9.5*	*-49*	*-16.6*	*-1.8*	*-19.7*	*-2.2*	*-19.7*	*-2.2*
All occupations	1891	2181	2470	2590	100.0	100.0	100.0	100.0	120	5	0	5.1	0.5	4.5	0.4

Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Table R15b

5.5 Occupational prospects

Overview

This section concentrates on the employment projections for different occupations. It should be remembered that such 'structural demand' provides only part of the overall picture of occupational change. For a fuller picture of the changing requirement for different occupations it is necessary to bear in mind the impact of retirements, inter-occupational moves, etc., as captured by 'replacement demand' (see Section 5.6).

At the level of SOC Major Groups, the largest increase in occupational employment between 2002 and 2012 is projected for personal service occupations, with an expected increase of over 65,000 jobs (see Figure 5.1), representing an increase of around a third. The next largest increase is recorded by professional occupations, with a projected increase of over 50,000 jobs. For both associate professional and technical occupations, and sales and customer service occupations, increases of nearly 50,000 jobs are expected. An increase of nearly 40,000 managers and senior officials is projected. Of these Major Groups projected to record gains in employment, only in the case of sales and customer service occupations does the annual average rate of increase (2%) exceed the UK average (1.6%).

Elementary occupations and administrative, clerical and technical occupations record the largest projected employment losses, of around 50,000 and nearly 45,000 jobs respectively. In the former case the annual average rate of job loss is slower than the UK average, while in the latter instance the projected rate of decline in the South West exceeds the national average. Losses of over 25,000 jobs in skilled trades occupations and of nearly 15,000 jobs for transport and machine operatives are expected. In both instances, the projected rate of job loss is slower than the national average.

Managers and senior officials

In 2002 managers and senior officials accounted for 14.6% of employment in the South West. This was slightly less than the proportion across the UK. At local level there is very little variation in this proportion. The projected net gain of jobs in this Major Group in the South West reflects different prospects for the two sub-major groups. A projected gain of 50,000 *corporate managers* (reflecting a rate of growth akin to the UK average) is offset by a loss of around 10,000 jobs for *managers and proprietors* (representing a faster rate of job loss than the UK average) (see Table 5.2). Overall, females account for two thirds of the projected employment gains.

Professional occupations

The share of professional occupations in total employment in the South West is projected to increase from nearly 11% to over 12% by 2012. Professional occupations account for a slightly smaller share of total employment in the South West than across the UK as a whole. At local level the shares range from less than 10% in Gloucestershire to nearly 12% in the West of England LSC area. This latter area, including Bristol and Bath, is the only LSC area in the South West with a greater than national average share of employment in professional occupations. The representation of professional occupations in the South West is slightly lower than in other regions of southern England outside London, but higher than in all other English regions with the exception of the North West. At 1.8% per annum, the projected rate of employment increase in the South West is slightly lower than that projected for the UK (1.9% per annum). All occupational groups identified in Table 5.2 share in the projected employment gains, which range from 2,000 extra jobs for *health professionals* and 9,000 extra jobs for *business professionals,* to nearly 30,000 extra jobs for *teaching and research professionals.* Only in this latter group is the projected rate of growth in excess of the UK average. 13,000 extra jobs for *science and technology professionals* are expected. Projected employment gains in professional occupations are expected to be shared fairly evenly between males and females.

Associate professional and technical occupations

The share of total employment within this Major Group is, at just under 13%, lower than in the other regions of southern England, but slightly higher than in the remaining regions of England except the North West. At local level, all local areas record smaller than national average shares of total employment in this SOC Major Group, although the West of England LSC area displays the largest share (over 13%). At 1.4% per annum, the projected annual average growth rate is slower than the UK average (1.7% per annum). By 2012, this Major Group is projected to account for 14% of total employment in the South West. As for managers and senior officials and professional occupations, projected employment gains are expected to be shared fairly evenly between males and females. *Business associate professionals* account for the largest employment gains, with a projected increase of 17,000 jobs, followed by *culture, media and sports occupations,* where 14,000 extra jobs are expected. Over 10,000 extra jobs are expected for *science and technology associate professionals.* In all three instances, the projected rate of employment growth is similar to the UK average. Projected job gains for *health associate professionals* and *protective service occupations* are much more modest, and appreciably slower than UK average rates.

Administrative, clerical and secretarial occupations

This Major Group accounts for over 12.4% of total employment in the South West, compared with over 13% across the UK. At local LSC area level, proportions range from slightly over 11% in Devon and Cornwall and Somerset, to over 13% in Wiltshire. With a projected increase of nearly 45,000 jobs, representing an annual average rate of decrease of 1.5% per annum, the share of total employment accounted for by this Major Group is projected to decline to under 10% by 2012. The projected rate of employment decline in the South West is faster than the national average, and exceeded only by the rates of jobs loss recorded in the South East and London. Within the South West, Bournemouth, Dorset and Poole, and Gloucestershire local LSC areas record the fastest expected rates of decrease at 1.9% per annum. Projected losses of over 20,000 jobs are expected for both *administrative and clerical occupations* and *secretarial and related occupations.* Females account for virtually all the projected job losses.

Skilled trades occupations

Along with the South East, the South West records the slowest projected rate of employment decline (0.9% per annum) for skilled trades occupations of any region. At local LSC area level, projected rates of decline range from 0.7% per annum in the West of England to 1.1% per annum in Wiltshire. The share of total South West employment accounted for by skilled trades occupations is the highest for any UK region with the exception of the West Midlands. All local LSC areas display this characteristic, with Gloucestershire exhibiting the largest proportion (14%). The relatively slow rate of employment decline (in comparison with the rates expected for other regions) means that by 2012 the share of total employment accounted for by skilled trades occupations (11%) is higher than that recorded for any other UK region. However, 30 years earlier (in 1982) skilled trades occupations accounted for over 18% of regional employment. Easily the largest employment decline (30,000 jobs) is expected for *skilled metal* and *electrical trades.* A small job loss is expected in *other skilled trades,* while for skilled agricultural trades employment levels are expected to be maintained. In *skilled construction* and *building trades* a gain of 5,000 jobs is expected, contrasting with projected employment loss across the UK as a whole.

Personal service occupations

This Major Group accounts for a larger share of total employment in the South West than the UK average. Within the region, Devon and Cornwall, Bournemouth, Dorset and Poole, and Somerset record the largest such shares (in excess of 8% of total employment). Employment is projected to increase at 3% per annum: the same rate as nationally, with Devon and Cornwall and Wiltshire recording projected growth rates in excess of the regional average. *Caring personal service occupations* are projected to account for over 60,000 out of 67,000 extra jobs over the period to 2012. 5,000 extra jobs are expected in *leisure occupations.* For both these occupational groups, the projected rate of employment increase is similar to the UK average. Females account for virtually all these gains.

Sales and customer service occupations

At 2% per annum, the annual average rate of employment growth for this Major Group in the South West exceeds that expected in any other region except Yorkshire and the Humber. Within the region, LSC area annual average growth rates are in the range 1.9% to 2.2%. Hence, sales and customer service occupations are expected to continue to account for a larger share of total employment in the South West than across the UK as a whole; only Yorkshire and the Humber and the North East record shares of a similar size. By 2012 nearly 12% of total employment in Somerset is expected to be in this SOC Major Group. Across the region, around three quarters of the projected growth is accounted for by *sales occupations,* and it is in this occupational group that the growth rate exceeds the UK average. The projected rate of growth for *customer service occupations,* with 15,000 extra jobs, is similar to the UK average. Females are expected to account for about three fifths of the extra jobs.

Machine and transport operatives

Following a period of relative stability in employment levels from 1982 to 2002, a decrease of around 15,000 jobs in this Major Group is expected over the period to 2012. At 0.7% per annum, the projected rate of employment increase in the South West is slower than the UK average (1.1% per annum). At local LSC area level, projected rates of annual average decrease range from 0.5% in Wiltshire to 1.1% in Somerset. Only the South East, the East of England and the North East record slower rates of employment loss. By 2012, this Major Group is projected to account for nearly 7% of total employment in the South West – a share only slightly lower than the UK average. A projected loss of over 20,000 *process machine operatives* is offset by a projected 8,000 increase for *drivers and other operatives*. Females account for the majority of the projected job losses, while employment levels for males are expected to remain stable.

Elementary occupations

In the South West, employment in elementary occupations is expected to decline at 1.8% per annum – a slower rate than that projected across the UK as a whole (2.2%). All local LSC areas share in this slower than national average rate of employment decline. As a result, the over-representation of elementary occupations in the South West relative to the UK is set to increase. Only the South East and the East of England display slower rates of projected job loss. This overall decline is a function of an expected loss of around 35,000 jobs for *elementary service occupations* and of 15,000 for *elementary trades occupations.* The projected job losses are expected to be borne almost entirely by females.

5.6 Projections of replacement demands

The key component of replacement demands is retirements from the workforce, especially those of older workers. However, replacement requirements for specific occupational groups, in particular geographical areas, can also arise for a number of other reasons. These include occupational mobility, as individuals change jobs for reasons of career progression (as well as other causes), and geographical mobility. Potentially, the latter may be quite important at a regional level. Unfortunately there are few reliable data on such flows, so the estimates presented here exclude replacement needs arising as a consequence of both occupational and geographical mobility. In both cases, there may be offsetting inflows to counterbalance some of the losses.

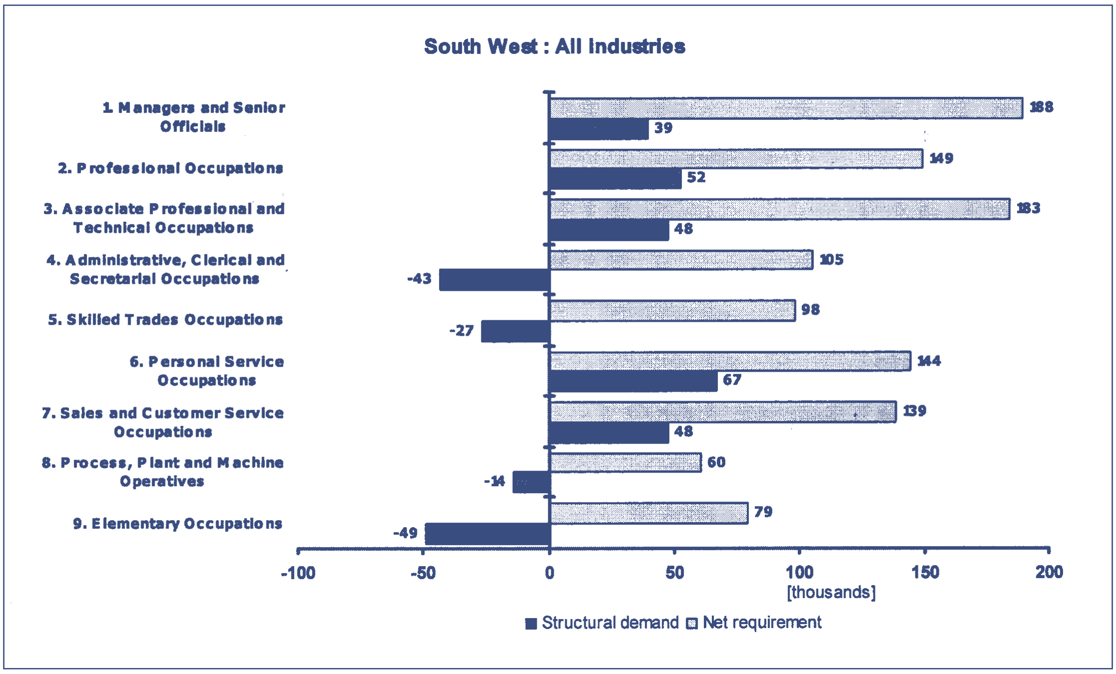
As outlined in the previous section, with an expected increase of over 65,000 jobs, personal service occupations display the largest projected expansion demand growth in the South West. Supplemented by an additional need for about 80,000 people on the basis of estimated replacement demand, there is a total requirement for about 145,000 people to fill jobs in such occupations by 2012.

Estimated replacement demands are even greater in all other SOC Major Groups, excepting machine and transport operatives. In the case of managers and senior officials, and also administrative, clerical and secretarial occupations, there are estimated replacement demands of nearly 150,000. With a 40,000 projected increase as a result of structural change, there is a total requirement for nearly 190,000 additional managers and senior officials by 2012. Despite structural changes leading to a contraction in employment levels for administrative, clerical and secretarial occupations, there is a projected total requirement for 105,000 extra people to fill such posts.

The case of clerical, secretarial and administrative occupations exemplifies the fact that even where structural demand changes suggest a reduction in employment levels, total requirements are still positive. Hence, estimated total requirements are for 100,000 people in skilled trades occupations, 80,000 in elementary occupations and 60,000 transport and machine operatives.

The SOC Major Group where the total requirement represents the highest proportion, (nearly 65%) of 2002 employment levels, is sales and other customer service occupations. Here, an estimated replacement demand of about 90,000 supplements a projected gain of nearly 50,000 on the basis of structural demand changes, culminating in a total requirement of 140,000 over the period to 2012. Total requirements for associate professional and technical occupations and for professional occupations are even greater in absolute terms, at nearly 185,000 and 150,000, respectively.

Figure 5.3 Replacement Demands for the South West



Source: CE/IER estimates, MDM95 C31 F95 Forecast, ReplacementDemands.xls

WEST MIDLANDS

6.1 Overview

The West Midlands contains both major urban areas and sparsely populated rural areas. For labour market and skills policy purposes it comprises six sub-regions: Birmingham and Solihull, Coventry and Warwickshire, Herefordshire and Worcestershire, the Black Country, Shropshire and Staffordshire. Reflecting its central position within the UK, the West Midlands lies at the crossroads of national transport networks and has strong functional links with the East Midlands, the North West, the South East, the South West and Wales. Birmingham lies at the centre of the West Midlands region and continues to develop as a major regional centre with an international profile. Other major urban areas include the Black Country (in the western part of the West Midlands conurbation) and Solihull (in the eastern part of the conurbation), Coventry and the towns of the north Staffordshire 'Potteries'. The most sparsely populated rural areas lie in the west of the region.

The West Midlands Framework for Regional Employment and Skills Action (FRESA) identifies problems of low basic and intermediate skills in some areas, and a workforce with below national average higher level qualifications. The West Midlands lies in the UK's manufacturing heartland. The structure of manufacturing industry in the region poses a challenge, since it contains a relatively high proportion of traditional, low value-added sectors and a relatively small proportion of high value-added sectors. There are ongoing concerns that more highly qualified people leave the region to seek employment opportunities elsewhere.

Both the population and the labour force in the West Midlands are projected to increase more slowly than the UK average over the period to 2012. Employment is expected to grow at a similar rate to that across the UK as a whole, with the West Midlands displaying one of the fastest rates of projected employment growth for any region outside southern England. Within the region, the largest urban areas display the slowest projected rates of employment growth.

At broad sectoral level, expected employment gains are confined to services. In all broad service sectors the West Midlands is characterised by rates similar to, or faster than, the UK average. Projected employment growth in non-marketed services is faster than in any other region except the South East. Relative to other regions, the projected rates of increase are especially fast in non-marketed services and in distribution, transport, etc. Birmingham and Solihull is the only local LSC area in the region with a greater than national average share of employment in business and other services. All local areas in the West Midlands display shares of total employment accounted for by manufacturing in excess of the UK average. Projected rates of decline in manufacturing employment are greatest in the large urban areas.

The national pattern of projected employment decrease for full-time male employees and of increase for male part-time employees is especially pronounced in the West Midlands. Gains are expected for female full-time and part-time employees, but self-employment is projected to contract at a faster than national average rate.

The West Midlands is characterised by smaller shares of total employment in high level non-manual occupations than the UK average. Projected rates of employment change are similar to, or slower than, the UK average for these SOC Major Groups, but nevertheless projected job gains are substantial in absolute terms. Expected growth rates for personal service occupations, and sales and customer service occupations exceed the UK average, and for administrative, clerical and secretarial occupations projected rates of employment decline are slower than across the UK as a whole. Skilled trades occupations, and machine and transport operatives account for a larger share of total employment in the West Midlands than across the UK, and job losses are projected over the period to 2012. In the former case, and also for elementary occupations, the projected rate of employment decline is faster than the national average.

6.2 Labour supply and demand

The *population* in the West Midlands is projected to increase by just over 30,000 between 2002 and 2012. At 0.1% per annum (see Figure 6.1), this represents a slower rate of growth than the UK average (0.4% per annum). The *working age population* is projected to grow at a similar rate. The *labour force* is projected to increase by 120,000 to nearly 2.8 million in 2012. At 0.4% per annum, this represents a slightly slower growth rate than the UK average of 0.5% per annum. The *economic activity rate* is projected to increase by over 1.5 percentage points between 2002 and 2012, to reach nearly 80% in 2012, which is in excess of that across the UK as a whole.

Unemployment is projected to increase by slightly more than 25,000, to reach about 120,000 in 2012. At 3.6%, the unemployment rate is expected to remain higher than the UK average.

Total employment in the West Midlands is projected to increase by about 95,000 to reach about 2.65 million in 2012. At 0.4% per annum, the projected growth rate is similar to the UK average, and along with the rate projected for Yorkshire and the Humber, represents the highest rate of increase outside southern England. As in the period from 1992 to 2002, within the West Midlands, Shropshire displays the highest projected growth rate for the period from 2002 to 2012 at 0.7% per annum. Herefordshire and Worcestershire and Coventry and Warwickshire LSC areas display the next highest projected employment growth rates at 0.6 and 0.5% per annum, respectively. In accordance with a broad rural-urban continuum in projected employment growth rates, Birmingham and Solihull and the Black Country LSC areas display the slowest projected rates of increase (0.2%, 0.1% per annum respectively) in the West Midlands. The West Midlands accounts for about 8.6% of total UK employment.

Figure 6.1 Key changes in the West Midlands % p.a.

Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Figure R.1 (%)

Figure 6.2 Key changes in the West Midlands (000s)

Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Figure R.1 (000s)

6.3 Sectoral prospects

At the broad sectoral level, the picture for the West Midlands is one of employment losses in the primary sector and utilities, manufacturing and construction, and employment gains in distribution, transport, etc., business and other services, and non-marketed services (see Figure 6.1, Table 6.1). In absolute terms, as across all other regions, the dominant feature of employment decline is the loss of 75,000 jobs in manufacturing. This contrasts with gains of 100 thousand jobs in business and other services, and with smaller, but substantial, increases of nearly 60,000 jobs in non-marketed services and over 40,000 jobs in distribution, transport, etc.

At 1.7% per annum, the projected rate of employment loss in the *primary sector and utilities* is similar to the UK average. Within the West Midlands, there is little variation at local LSC area level in projected rates of employment decline. In all component industries identified, rates of job loss are similar to the UK average. From nearly 50,000 in 1982 and 40,000 in 2002, a further 6,000 jobs are projected to be lost in *agriculture*. A loss of 3,000 jobs is expected in *electricity gas and water*. The majority of job losses in the primary sector and utilities are for males. Within the West Midlands, Herefordshire and Worcestershire, Coventry and Warwickshire, and Shropshire record the greatest concentration of jobs (about 4% of total employment) in this broad sector.

The rate of employment decline projected for *manufacturing* in the West Midlands is similar to the national average. However, in absolute terms the expected loss of 75,000 jobs is the highest projected for any region in the UK except the North West. By 2012 it is projected that there will be slightly fewer than 400,000 jobs in manufacturing in the region, compared with 720,000 in 1982, 570,000 in 1992 and 470,000 in 2002. Males account for around 55,000 of the expected job losses. In *engineering,* employment is projected to decline to slightly less than 85,000, with a loss of 15,000 jobs. At 1.6% per annum, this represents a rate of loss slightly lower than the UK average. However, with an expected decrease of 60,000 jobs (representing a rate of loss akin to the UK average), the *rest of manufacturing* accounts for the bulk of employment decline. Employment levels in *food, drink and tobacco* are expected to remain stable. At local level, manufacturing accounts for at least a fifth of total employment in the Black Country and Staffordshire. All other local LSC areas are characterised by a greater representation of employment in manufacturing than the national average. The Black Country, Birmingham and Solihull, and Coventry and Warwickshire all exhibit projected rates of job loss greater than the England average, while Shropshire displays the slowest rate of expected employment decline.

Construction employment in the West Midlands is projected to decline by nearly 25,000 between 2002 and 2012. This represents an annual average rate of loss of 1.6% per annum, which is considerably greater than the UK average. All local LSC areas in the West Midlands are expected to share in projected employment decrease at annual average rates in excess of the England average, ranging from 0.8% in Coventry and Warwickshire to 2% in Staffordshire.

At 0.6% per annum, the annual average rate of employment growth in *distribution, transport, etc.* in the West Midlands is slightly faster than the UK average. At local LSC area level, the projected rates of annual average employment growth range from 0.2% in the Black Country to 1% in Shropshire. Within this broad sector *retail distribution* accounts for virtually all the 40,000 expected increase in employment, as the numbers of jobs in *hotels and restaurants* and in *transport storage and communication* are projected to remain stable. Females account for virtually all the projected employment increase.

As across the UK, the greatest projected employment increase in the West Midlands is in *business and other services.* An additional 100,000 jobs (an increase of 18%) are projected between 2002 and 2012. At 1.7% per annum, this represents an annual average rate of increase slightly in excess of the UK average. 80,000 extra jobs are expected in *other business services,* such that by 2012 this industry accounts for 16% of employment in the region, compared with 8% in 1982. At 2.1%, the annual average rate of increase is greater than the UK average. Nearly 20,000 extra jobs are expected in *other services,* while in *banking and insurance* the projection is for 5,000 extra jobs. Males account for three quarters of the job gains in this broad sector. At local level, Birmingham and Solihull, record the slowest rate of projected employment growth in this broad sector. Only in Birmingham and Solihull is the share of employment in business and other services above the England average. In the more rural parts of the region – Herefordshire and Worcestershire and Shropshire - this broad sector accounts for about 19% of total employment, compared with more than 26% across England as a whole.

Employment in *non-marketed services* is projected to expand by nearly 60,000 jobs between 2002 and 2012; the largest increase of any region outside the South East. This represents an annual average growth rate of 0.9%, which is the second highest of any region behind the East Midlands. Females account for all the job gains, with a small reduction in male jobs expected. *Health and social work* accounts for 35,000 extra jobs, with a further 25,000 in *education.* Employment in *public administration* and defence is projected to decline slightly. Within the West Midlands all local LSC areas record projected job gains at a rate akin to, or faster than, the England average. In Birmingham and Solihull, Staffordshire, the Black Country and Shropshire this broad sector is projected to account for at least a quarter of total employment in 2012. Only in Coventry and Warwickshire is the share of total employment in this broad sector set to remain stubbornly below the national average.

Table 6.1: Sectoral change in the West Midlands

	West Midlands											England		UK	
	1982	1992	2002	2012	1982	1992	2002	2012	2002-2012			2002-2012		2002-2012	
Sectoral categories	000s	000s	000s	000s	% of total	% of total	% of total	% of total	change 000s	% change	% per annum	% change	% per annum	% change	% per annum
1. Agriculture hunting forestry fishing	48	56	39	33	2.1	2.4	1.5	1.2	-6	-14.9	-1.6	-15.2	-1.6	-15.2	-1.6
2. Mining and quarrying	21	8	3	2	0.9	0.3	0.1	0.1	0	-18.9	-2.1	-20.5	-2.3	-19.0	-2.1
6. Electricity gas and water	30	18	14	11	1.3	0.8	0.5	0.4	-3	-18.5	-2.0	-19.5	-2.2	-19.2	-2.1
Primary sector and utilities	*98*	*83*	*55*	*46*	*4.3*	*3.5*	*2.2*	*1.8*	*-9*	*-16.0*	*-1.7*	*-16.7*	*-1.8*	*-16.5*	*-1.8*
3. Food drink and tobacco	46	41	37	38	2.0	1.7	1.5	1.4	1	2.6	0.3	-9.3	-1.0	-9.7	-1.0
4. Engineering	152	118	98	83	6.6	4.9	3.8	3.1	-15	-15.3	-1.6	-16.0	-1.7	-18.0	-2.0
5. Rest of manufacturing	525	412	335	274	22.9	17.3	13.1	10.4	-61	-18.2	-2.0	-17.0	-1.8	-17.3	-1.9
Manufacturing	*722*	*572*	*471*	*396*	*31.6*	*23.9*	*18.4*	*14.9*	*-75*	*-15.9*	*-1.7*	*-15.9*	*-1.7*	*-16.5*	*-1.8*
7. Construction	142	152	150	128	6.2	6.4	5.9	4.8	-23	-15.1	-1.6	-1.3	-0.1	-3.2	-0.3
8. Retail distribution	367	414	452	494	16.0	17.3	17.7	18.7	42	9.3	0.9	7.5	0.7	7.1	0.7
9. Hotels and restaurants	112	131	143	144	4.9	5.5	5.6	5.4	1	0.7	0.1	2.2	0.2	0.8	0.1
10. Transport storage and communication	102	119	147	146	4.5	5.0	5.7	5.5	-1	-0.6	-0.1	1.8	0.2	1.3	0.1
Distribution transport etc.	*581*	*664*	*741*	*784*	*25.4*	*27.8*	*29.0*	*29.6*	*42*	*5.7*	*0.6*	*5.2*	*0.5*	*4.5*	*0.4*
11. Banking and Insurance	65	75	75	80	2.8	3.1	2.9	3.0	5	6.2	0.6	3.0	0.3	3.7	0.4
12. Other business activities	182	243	337	415	7.9	10.2	13.2	15.7	79	23.4	2.1	21.3	1.9	21.5	2.0
16. Other services	89	98	138	155	3.9	4.1	5.4	5.9	18	12.7	1.2	14.4	1.4	14.7	1.4
Business and other services	*335*	*416*	*550*	*651*	*14.7*	*17.4*	*21.5*	*24.6*	*101*	*18.4*	*1.7*	*16.9*	*1.6*	*17.1*	*1.6*
13. Public admin and defence	120	112	106	104	5.2	4.7	4.2	3.9	-2	-2.2	-0.2	-2.4	-0.2	-2.1	-0.2
14. Education	130	170	222	247	5.7	7.1	8.7	9.3	26	11.7	1.1	8.6	0.8	8.5	0.8
15. Health and social work	161	220	259	293	7.0	9.2	10.1	11.1	34	13.3	1.3	10.2	1.0	9.5	0.9
Non-marketed services	*410*	*501*	*587*	*645*	*17.9*	*21.0*	*23.0*	*24.3*	*58*	*9.9*	*0.9*	*7.0*	*0.7*	*6.7*	*0.6*
All Sectors	2289	2388	2554	2649	100.0	100.0	100.0	100.0	94	3.7	0.4	5.1	0.5	4.5	0.4

Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Table R14b

6.4 Change in employment by gender and employment status

In 1982 males comprised 59% of those in employment in the West Midlands compared with 58% across the UK (Figure 6.1). This was the highest share for any English region except London. By 2002 this share had fallen to just over 53%, a share similar to the UK average. By 2012 it is projected that males will account for 51% of those in employment, a share slightly smaller than across the UK as a whole. In England only the East Midlands and Yorkshire and the Humber are projected to display smaller shares. At local LSC area level, within the West Midlands the projected share of male employment varies between 49% in Shropshire and 53% in the Black Country. The projected share of total employment accounted for by full-time employees varies from 55% in Herefordshire and Worcestershire to 59% in Birmingham and Solihull and 61% in the Black Country.

Between 2002 and 2012 a loss of about 40,000 full-time male jobs in the West Midlands is projected. This represents a 4% decline, compared with one of 0.5% across the UK as a whole. Within England such a relative loss is matched only by that projected for Yorkshire and the Humber, and exceeded by that expected in the East Midlands. At local level within the West Midlands, losses in male full-time employees are concentrated in the Black Country, Birmingham and Solihull, Coventry and Warwickshire and Staffordshire, contrasting with small gains or stability in employment levels elsewhere in the region. By contrast, the number of male part-time employees is projected to increase by over 55,000. At 3.1% per annum, this expected rate of growth is greater than the UK average (2.4% per annum) and is exceeded only by projected rate of increase in Wales. Hence, the national pattern of job losses for male full-time employees and of gains for male part-time employees is especially pronounced in the West Midlands. For females, gains are projected for both full-time employees (an increase of 20,000) and part-time employees (a rise of over 90,000). Rates of growth for female full-time employees are expected to be highest in the Black Country and in Birmingham and Solihull. At 0.4% per annum, the projected rate of growth for female full-time employees is slightly slower than the UK average (0.5% per annum). However, the projected rate of employment increase for female part-time employees (1.5% per annum), is greater than the UK average (1.1% per annum) and, within England, is second only to the increase expected in London. All local LSC areas display projected rates of increase in excess of the national average. Overall, there is a projected loss of 20,000 full-time employees, a gain of 150,000 part-time employees and a 35,000 reduction in self-employment. The projected rate of decline in self-employment exceeds

Table 6.2: Occupational change in the West Midlands

	West Midlands											England		UK	
	1982	1992	2002	2012	1982	1992	2002	2012	2002-2012			2002-2012		2002-2012	
Occupation groups	000s	000s	000s	000s	% of total	% of total	% of total	% of total	change 000s	% change	% per annum	% change	% per annum	% change	% per annum
Corporate managers	157	196	255	300	6.8	8.2	10.0	11.3	45	17.7	1.6	21.2	1.9	20.4	1.9
Managers / proprietors	83	84	79	68	3.6	3.5	3.1	2.6	-12	-14.7	-1.6	-6.7	-0.7	-7.0	-0.7
Managers and officials	*240*	*279*	*335*	*368*	*10.5*	*11.7*	*13.1*	*13.9*	*34*	*10.0*	*1.0*	*14.3*	*1.3*	*13.4*	*1.3*
Sc. and tech. profs.	48	59	74	90	2.1	2.5	2.9	3.4	17	22.8	2.1	23.4	2.1	22.5	2.0
Health professionals	11	13	19	22	0.5	0.6	0.7	0.8	3	18.6	1.7	20.2	1.9	19.1	1.8
Teaching and res. profs.	75	91	114	129	3.3	3.8	4.4	4.9	15	13.4	1.3	18.5	1.7	19.9	1.8
Business professionals	31	38	50	61	1.4	1.6	2.0	2.3	11	21.2	1.9	24.9	2.3	23.0	2.1
Professional occs	*164*	*201*	*256*	*302*	*7.2*	*8.4*	*10.0*	*11.4*	*46*	*18.0*	*1.7*	*21.6*	*2.0*	*21.3*	*1.9*
Sc. and tech. assoc. profs.	29	33	46	55	1.3	1.4	1.8	2.1	10	21.5	2.0	24.9	2.2	24.5	2.2
Health assoc. profs.	55	69	84	97	2.4	2.9	3.3	3.7	14	16.3	1.5	13.4	1.3	12.8	1.2
Protect. serv. occs	17	19	31	38	0.7	0.8	1.2	1.4	7	22.3	2.0	22.0	2.0	20.3	1.9
Culture, med. and sports	17	24	41	54	0.8	1.0	1.6	2.1	13	31.4	2.8	31.9	2.8	31.2	2.8
Business assoc. profs.	73	94	118	137	3.2	3.9	4.6	5.2	19	15.8	1.5	15.9	1.5	15.1	1.4
Assoc. prof. and tech.	*191*	*239*	*320*	*381*	*8.4*	*10.0*	*12.5*	*14.4*	*62*	*19.4*	*1.8*	*19.7*	*1.8*	*18.8*	*1.7*
Admin and clerical	223	245	247	252	9.7	10.3	9.7	9.5	5	2.0	0.2	-7.5	-0.8	-6.3	-0.7
Secretarial and related	93	100	81	64	4.1	4.2	3.2	2.4	-17	-21.2	-2.4	-25.0	-2.8	-24.0	-2.7
Admin. cler. and sec.	*316*	*345*	*328*	*316*	*13.8*	*14.4*	*12.9*	*11.9*	*-12*	*-3.7*	*-0.4*	*-12.2*	*-1.3*	*-11.0*	*-1.2*
Skilled agric. trades	33	37	37	37	1.5	1.5	1.4	1.4	0	-0.1	0.0	5.6	0.5	2.9	0.3
Skilled metal and electrical	230	196	147	98	10.0	8.2	5.8	3.7	-49	-33.4	-4.0	-30.3	-3.5	-31.2	-3.7
Skilled cons. and building	104	98	97	83	4.6	4.1	3.8	3.1	-14	-14.6	-1.6	-7.4	-0.8	-8.6	-0.9
Other skilled trades	68	71	53	49	3.0	3.0	2.1	1.9	-4	-7.2	-0.7	-7.9	-0.8	-8.4	-0.9
Skilled trades	*435*	*403*	*334*	*267*	*19.0*	*16.9*	*13.1*	*10.1*	*-67*	*-20.1*	*-2.2*	*-15.3*	*-1.6*	*-16.2*	*-1.8*
Caring personal service	40	72	150	227	1.7	3.0	5.9	8.6	77	51.5	4.2	46.0	3.9	44.8	3.8
Leisure occupations	35	41	48	53	1.5	1.7	1.9	2.0	5	10.1	1.0	9.0	0.9	7.8	0.8
Personal serv. occs	*75*	*113*	*199*	*281*	*3.3*	*4.7*	*7.8*	*10.6*	*82*	*41.4*	*3.5*	*36.0*	*3.1*	*34.8*	*3.0*
Sales occupations	127	146	166	186	5.5	6.1	6.5	7.0	21	12.4	1.2	11.4	1.1	10.5	1.0
Customer service occs.	8	11	36	57	0.4	0.5	1.4	2.2	21	58.3	4.7	47.0	3.9	48.2	4.0
Sales and cust. serv.	*135*	*157*	*202*	*244*	*5.9*	*6.6*	*7.9*	*9.2*	*42*	*20.7*	*1.9*	*17.6*	*1.6*	*17.0*	*1.6*

Table 6.2: Occupational change in the West Midlands (continued)

	West Midlands											England		UK	
	1982	1992	2002	2012	1982	1992	2002	2012	2002-2012			2002-2012		2002-2012	
Occupation groups	000s	000s	000s	000s	% of total	% of total	% of total	% of total	change 000s	% change	% per annum	% change	% per annum	% change	% per annum
Process machine ops.	250	210	179	143	10.9	8.8	7.0	5.4	-36	-20.3	-2.2	-23.3	-2.6	-22.0	-2.4
Drivers and other ops.	79	83	99	110	3.4	3.5	3.9	4.2	11	11.2	1.1	7.3	0.7	5.8	0.6
Machine and trans. ops.	*329*	*293*	*278*	*253*	*14.4*	*12.3*	*10.9*	*9.6*	*-25*	*-9.0*	*-0.9*	*-10.0*	*-1.0*	*-10.1*	*-1.1*
Elementary: trades	152	127	117	91	6.6	5.3	4.6	3.4	-25	-21.8	-2.4	-18.4	-2.0	-18.2	-2.0
Elementary: service	251	232	186	145	11.0	9.7	7.3	5.5	-41	-22.0	-2.5	-20.3	-2.2	-20.5	-2.3
Elementary occs	*403*	*358*	*302*	*236*	*17.6*	*15.0*	*11.8*	*8.9*	*-66*	*-21.9*	*-2.4*	*-19.7*	*-2.2*	*-19.7*	*-2.2*
All occupations	2289	2388	2554	2649	100.0	100.0	100.0	100.0	94	4	0	5.1	0.5	4.5	0.4

Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Table R15b

6.5 Occupational prospects

Overview

This section concentrates on the employment projections for different occupations. It should be remembered that such 'structural demand' provides only part of the overall picture of occupational change. For a fuller picture of the changing requirement for different occupations it is necessary to bear in mind the impact of retirements, inter-occupational moves, etc., as captured by 'replacement demand' (see Section 6.6).

At the level of SOC Major Groups, easily the largest increase in occupational employment between 2002 and 2012 is projected for personal service occupations, with an expected increase of over 80,000 jobs (see Figure 6.1). This represents an annual average growth rate of 3.5% compared with 3% across the UK as a whole. The SOC Major Group projected to record the next largest increase in employment is associate professional and technical occupations, with a projected increase of over 60,000 jobs between 2002 and 2012. Professional occupations, sales and customer service occupations, and managers and senior officials are also projected to record job increases.

Skilled trades occupations and elementary occupations dominate projected job losses, with over 65,000 jobs expected to be lost for each. However, in neither case does the projected rate of employment loss exceed the UK average. Employment for machine and transport operatives is expected to decline by 25,000. In addition, a loss of over 10,000 jobs for administrative, clerical and secretarial occupations is projected.

Managers and senior officials

In 2002 *managers and senior officials* accounted for 13% of employment in the West Midlands, compared with nearly 15% across the UK. Of the English regions only the North East recorded a smaller proportion. At local level, Coventry and Warwickshire LSC area displays the highest share of total employment in this SOC Major Group (around 13.5%), but this is lower than the England average. At 1% per annum, employment is projected to increase more slowly than across the UK as a whole. Females are expected to account for all the projected increase of around 35,000 jobs, while employment levels for males remain stable. The projected net gain of jobs in this Major Group in the West Midlands reflects different prospects for the two sub-major groups. There is a projected 45,000 increase in *corporate managers* offset by a loss of over 10,000 jobs for *managers and proprietors* (see Table 6.2).

Professional occupations

Although the share of professional occupations in total employment in the West Midlands is projected to increase from 10% to 11.4% by 2012, this Major Group remains under-represented in the West Midlands relative to the UK. It is in the Birmingham and Solihull LSC area, with 11% of employment in professional occupations in 2002 and a projected share of over 12% in 2012, that representation of this SOC Major Group comes closest to the national average. In Herefordshire and Worcestershire, professional occupations account for slightly less than 9% of total employment. The projected 18% increase in employment between 2002 and 2012, contrasts with an increase of 21% for the UK. All professional occupation sub-groups share in employment growth, with *science and technology professionals* (17,000 extra jobs) and *teaching and research professionals* (15,000 extra jobs) dominating in absolute terms. An increase of over 10,000 jobs is expected for *business professionals,* while the increase in jobs for *health professionals* is more modest. Only in the case of science and technology professionals is the projected rate of growth faster than that for the UK. Both males and females share in the projected 45,000 increase in *professional occupations* between 2002 and 2012, with females accounting for the majority of the additional jobs.

Associate professional and technical occupations

Within this Major Group, *business associate professionals* account for the largest employment gains (nearly 20,000 extra jobs), although substantial employment increase is expected for all sub-groups. Nearly 15,000 extra jobs are expected in each of *health associate professions,* and *culture, media and sports occupations.* Smaller increases are projected for *science and technology associate professions,* and for *protective service occupations.* Overall, rates of increase are similar to the UK average, so under-representation in associate professional and technical occupations is set to continue. Moreover, it is evident across all local LSC areas, although intra-regional variations are evident, with Birmingham and Solihull displaying the largest share of jobs for those in associate professional and technical occupations in total employment, and Herefordshire and Worcestershire the smallest share. Both males and females are expected to share in the projected employment gains.

Administrative, clerical and secretarial occupations

Administrative, clerical and secretarial occupations account for a slightly smaller proportion of total employment in the West Midlands than across the UK. At local LSC area level, proportions range from 12% in Staffordshire to 14% in Birmingham and Solihull. Between 2002 and 2012 this share is projected to decline from 13% to 12% of the total, with a loss of more than 10,000 jobs expected. However, at 0.4% per annum, the projected rate of employment loss is substantially slower than the 1.2% projected across the UK as a whole, and one of the slowest recorded by any region. All local LSC areas record slower than average projected rates of employment loss. At regional level, a projected loss of over 15,000 jobs for *secretarial and related occupations* is offset by a small gain expected in *administrative and clerical occupations,* which contrasts with a projected loss at national level. An increase of over 15,000 jobs for males is offset by a decline of around 30,000 jobs for females.

Skilled trades occupations

Males bear the brunt of projected job losses in *skilled trades occupations.* This Major Group accounted for over 19% of total employment in the West Midlands in 1982 and 17% in 1992, but by 2002 the share had fallen to 13%. By 2012 the percentage of total employment accounted for by this Major Group is projected to have reduced further to less than 10%, compared with 9% across the UK. In 2012 the shares of total employment accounted for by skilled trades occupations at local LSC area level are expected to range from under 9% in Birmingham and Solihull to over 11% in the Black Country (down from 14.5% in 2002). Across the region over 65,000 jobs are projected to be lost over the decade to 2012. In absolute terms this loss is exceeded only by London and matched by the North West. At 2.2% per annum, the projected rate of loss is faster than the UK average (1.8%) and is one of the fastest recorded by any region. The fastest rates of employment loss (at 2.6-2.7% per annum) are expected in the Black Country and Birmingham and Solihull. *Skilled metal/electrical trades* account for the majority of the projected reduction in employment, with an expected loss of 50,000 jobs, representing a decline by a third. A modest reduction of 5,000 jobs is projected for *other skilled trades,* whereas for *skilled agricultural trades* employment levels are projected to remain stable.

Personal service occupations

Employment in *personal service occupations* is expected to increase by around 80,000, with females being the main beneficiaries of the expected gains. A net increase of over 75,000 jobs (over half) is projected for *caring personal service occupations.* Employment in *leisure occupations* is projected to increase by 5,000 (43%). For both occupational groups, the regional rate of increase exceeds the national average. Overall, employment for personal service occupations is expected to expand by 3.5% per annum, compared with the UK rate of 3% per annum. Only the East Midlands records a marginally faster rate of growth. Within the West Midlands, projected growth rates at local LSC area level range from 3.2% per annum in Birmingham and Solihull, to 4% per annum in Coventry and Warwickshire. By 2012 personal service occupations are projected to account for nearly 11% of total employment in the West Midlands, compared with a mere 3% in 1982.

Sales and customer service occupations

Females account for around 70% of the projected 40,000 gain in *sales and customer service occupations* between 2002 and 2012. Around 20,000 extra jobs are expected in each of *sales occupations and customer service occupations.* At 1.9% per annum the projected overall rate of growth exceeds the UK average (1.6% per annum). Within the region, annual average growth rates range from 1.4% per annum in the Black Country, and Coventry and Warwickshire to 2.5% in Shropshire.

Machine and transport operatives

In 2012 *machine and transport operatives* comprised 11% of total employment in the West Midlands: a higher share than in any other English region. All local LSC areas share in the over-representation of such employment relative to the national average, with the Black Country displaying the largest share (12.5%). Over the period to 2012 employment levels are projected to contract by a tenth, with the loss of 25,000 jobs. This represents a slightly slower rate of increase than the UK average. Within the region projected rates of employment loss vary between 0.5% per annum in Hereford and Worcestershire to 1.2% per annum in the Black Country, and Birmingham and Solihull. Around 35,000 *process machine operative posts* are expected to be lost. This loss is only partially offset by a projected gain of over 10,000 jobs for *drivers and other operatives.* Females account for four fifths of the projected job losses.

Elementary occupations

The largest projected job loss in the West Midlands is recorded by *elementary occupations.* Between 2002 and 2012 a reduction of around 65,000 jobs is projected, with females accounting for nearly three quarters of the projected job loss. At 2.4% per annum the rate of loss is slightly faster than the UK average. At regional level, only London and the East Midlands record faster rates of decrease. A loss of around 40,000 jobs is expected for *elementary service occupations* and of 25,000 for *elementary trades occupations.* By 2012 elementary occupations are expected to account for 9% of total employment in the West Midlands (as nationally) compared with 12% in 2002 and 15% in 1992. At local LSC area level, the projected share of total employment accounted for by elementary occupations in 2012 ranges from just over 8% in Birmingham and Solihull to over 9.6% in Hereford and Worcestershire.

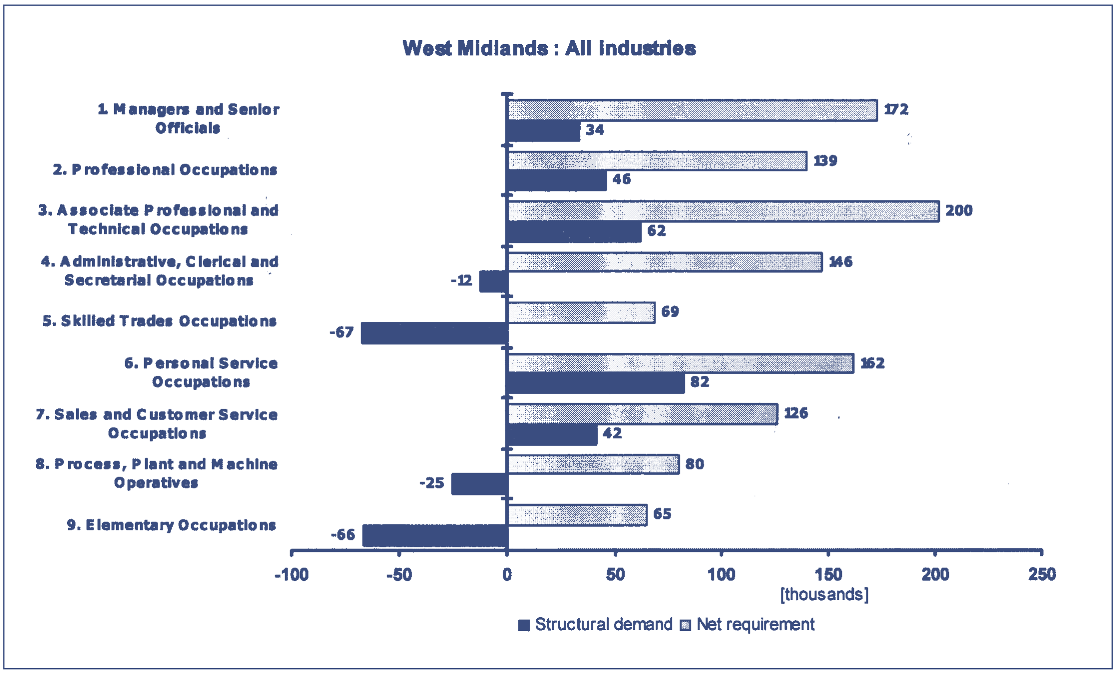
6.6 Projections of replacement demands

The key component of replacement demands is retirements from the workforce, especially those of older workers. However, replacement requirements for specific occupational groups, in particular geographical areas, can also arise for a number of other reasons. These include occupational mobility, as individuals change jobs for reasons of career progression (as well as other causes), and geographical mobility. Potentially, the latter may be quite important at a regional level. Unfortunately there are few reliable data on such flows, so the estimates presented here exclude replacement needs arising as a consequence of both occupational and geographical mobility. In both cases, there may be offsetting inflows to counterbalance some of the losses.

The key message here is that, whether expansion demand projections suggest an increase or decrease in employment levels, in the case of all SOC Major Groups total requirements are positive. At about 160,000, replacement demands are greatest for administrative, clerical and secretarial occupations. Despite a projected reduction of more than 10,000 jobs on the basis of structural demand changes, the total requirement for the period to 2012 is about 145,000. This total requirement exceeds those for both professional occupations (140,000 jobs), and sales and customer service occupations (about 125,000 jobs), where expansion demand projections indicate increases in excess of 40,000 jobs. The largest total requirements over the period to 2012 are for associate professional and technical occupations (200,000), managers and senior officials (about 170,000) and personal service occupations (about 160,000), with replacement demands serving to substantially inflate already sizeable projected net changes.

The largest net reductions in employment outlined in the previous section relate to skilled trades occupations and elementary occupations, with projected losses of more than 65,000 for each of these SOC Major Groups. However, once replacement demands are taken into account, the estimated total requirements are for about 70,000 in skilled trades occupations and 65,000 in elementary occupations. For machine and transport operatives the total requirement is 80,000.

Figure 6.3 Replacement Demands for the West Midlands



Source: CE/IER estimates, MDM95 C31 F95 Forecast, ReplacementDemands.xls

EAST MIDLANDS

7.1 Overview

The East Midlands comprises the counties of Derbyshire, Leicestershire, Nottinghamshire, Northamptonshire and Lincolnshire, and the unitary authorities of Derby, Leicester, Nottingham and Rutland. It is a large and diverse region. The East Midlands Regional Planning Guidance identifies five sub-areas, which have some internal coherence:

- *Southern sub-area* – Northamptonshire and the most southerly parts of Leicestershire, with close functional relationships with adjacent regions (the South East, the West Midlands and the East of England);
- *Three cities sub-area* – comprising the cities of Derby, Nottingham and Leicester, which act as major administrative/cultural centres, and are strong engines of existing and potential growth, but also have pockets of economic, social and physical deprivation;
- *Peak sub-area* – the National Park and surrounding areas in the west of the region, which are largely rural in character;
- *Northern sub-area* – has been adversely affected by economic restructuring, especially colliery closures and textiles and clothing, and is a priority area for regeneration;
- *Eastern sub-area* – incorporating Lincolnshire, Rutland and the eastern parts of Northamptonshire and Leicestershire, which are predominantly rural in character.

The East Midlands Framework for Regional Employment and Skills Action (FRESA) has as a key priority: the need to move the region towards a demand led approach for employment and skills. It emphasises the need to drive up the demand for skills from regional business through business productivity, and to address weaknesses in the skills profile of the region.

Across the East Midlands the population, labour force and employment are projected to grow at rates slightly lower than the UK average over the period to 2012. Within the region the projected rate of employment growth is highest in Northamptonshire.

Traditionally, a key feature of the East Midlands has been the higher than average share of employment in manufacturing. With a projected loss of nearly 65,000 jobs, manufacturing dominates employment decline, and despite the rate of decrease exceeding the national average, this broad sector remains more important regionally than nationally. Job losses are also expected in the primary sector and utilities, especially in Lincolnshire and Rutland. Employment in distribution, transport, etc. is projected to grow at a slightly faster rate than nationally. The largest job gains are expected in business and other services, but this broad sector accounts for less employment regionally than nationally, and only in Northamptonshire does projected growth exceed the national average. At 1% per annum, the projected growth in non-marketed services is the highest for any region.

In occupational terms, the largest absolute gains are expected for personal service occupations, with over 70,000 extra jobs (an increase of 43%, which is the largest percentage increase for any region in England). The East Midlands also records one of the fastest rates of regional increase for sales and customer service occupations. The region is characterised by smaller than UK average shares of employment for managers and senior officials, professional occupations and associate professional and technical occupations, and in these higher level non-manual occupations employment is projected to grow at a rate slightly slower than the UK average. Administrative, clerical and secretarial occupations are also under-represented, but projected employment losses are slower than those recorded in southern regions. Skilled trades occupations, transport and machine operatives and elementary occupations are all over-represented in the region, and further employment declines are expected as a result of structural change. However, an examination of replacement demands reveals that net requirements are positive for all Major Groups, and are largest for managers and senior officials, and associate professional and technical occupations.

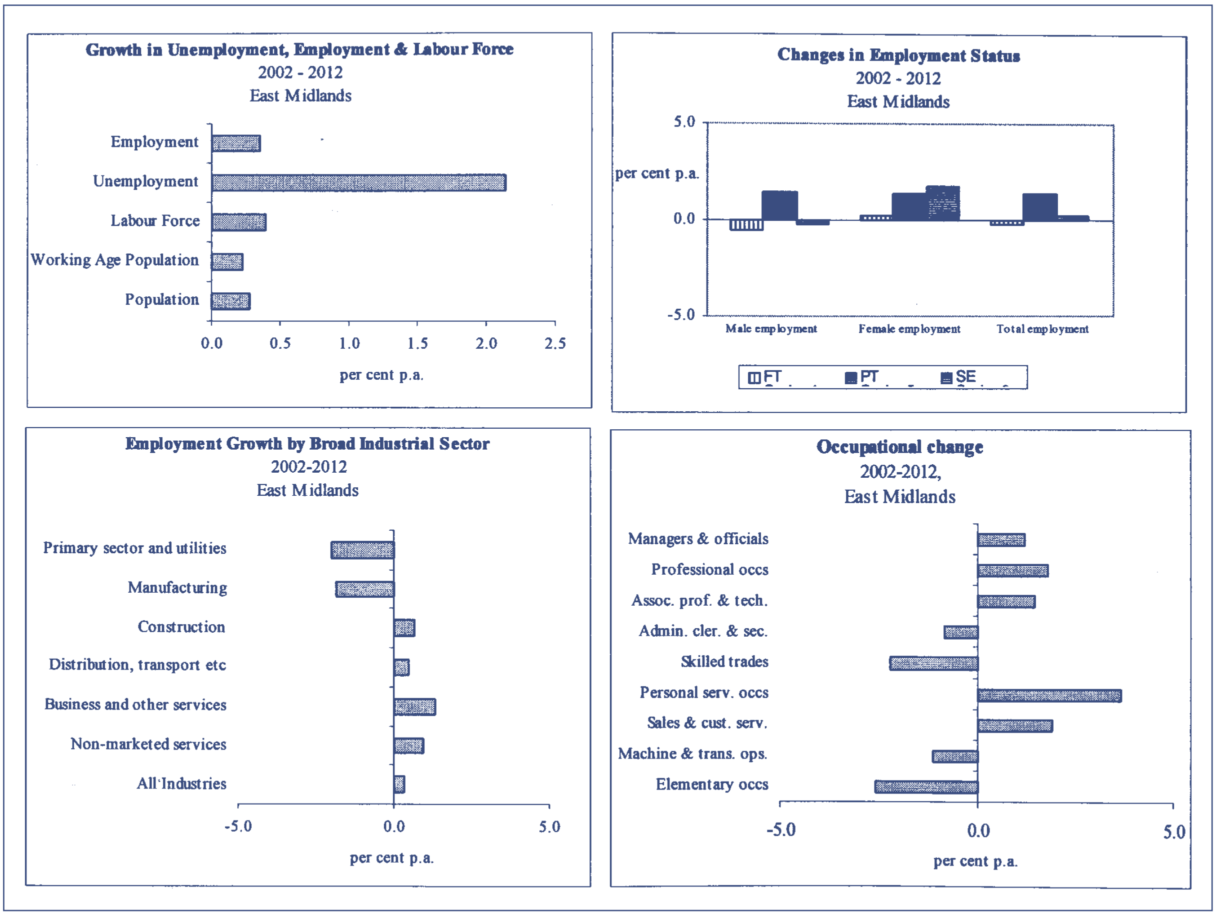
7.2 Labour supply and demand

The *population* in the East Midlands is projected to increase at a rate slightly below the UK average between 2002 and 2012, to reach around 4.3 million (see Figure 7.1). The *working age population* is projected to increase by about 60,000 between 2002 and 2012. However, the *labour force* is projected to increase by nearly 85,000, to reach just over 2.1 million in 2012. The annual per annum growth is slightly below the UK average of 0.5% per annum. *The economic activity rate* is expected to increase by nearly 1 percentage point in the East Midlands between 2002 and 2012, contrasting with a small decline nationally. However, at just below 77%, the projected economic activity rate for the East Midlands remains below the 78% projected for the UK.

Unemployment is projected to increase slightly between 2002 and 2012, to reach just over 70,000 by 2012. The unemployment rate is also projected to increase slightly, ending slightly above the UK average.

Total employment in the East Midlands increased steadily over the period from 1982 to 2002 to reach just under 2 million. Some increase is projected, with the level reaching just over the 2 million mark by 2012. The projected growth rate between 2002 and 2012, at 0.3% per annum, is slightly below the UK average. As in the period from 1992 to 2002, within the East Midlands, Northamptonshire displays the highest projected growth rate for the period from 2002 to 2012 at 0.5% per annum. This is the only part of the East Midlands where the rate of employment growth is expected to match or exceed the England average. Derbyshire and Lincolnshire and Rutland record rates of employment growth in excess of the regional average, while Leicestershire displays the slowest rate of employment growth (0.1% per annum). The four southern-most regions in England all record higher projected growth rates than the East Midlands, along with the West Midlands and Yorkshire and the Humber. The East Midlands' share of total UK employment is projected to decline slightly to 6.3%.

Figure 7.1 Key changes in the East Midlands % p.a.



Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Figure R.1 (%)

Figure 7.2 Key changes in the East Midlands (000s)

Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Figure R.1 (000s)

7.3 Sectoral prospects

At the broad sectoral level, the picture for the East Midlands is one of employment losses in the primary sector and utilities, and in manufacturing and employment gains in construction, distribution, transport, etc., business and other services, and non-marketed services (see Figure 7.1). In absolute terms, as across all other regions, the dominant feature of employment decline is the loss of 63,000 jobs in manufacturing. In relative terms, this represents only a slightly greater loss than that recorded across the UK as a whole. This contrasts with gains of 55,000 jobs in business and other services, and over 45,000 jobs in non-marketed services and 30,000 in distribution, transport, etc. In Construction the projected employment increase is for 10,000 jobs (see Figure 7.2).

The projected rate of employment loss for the *primary sector and utilities* is slightly greater than the UK average. *Agriculture* dominates projected job losses between 2002 and 2012, as long-term employment decline continues and nearly a fifth of jobs are lost (see Table 7.1). By 2012 there are projected to be less than 30,000 jobs in this industry, compared with nearly 60,000 in 1982. Employment decline in *mining and quarrying* is also projected to continue, although the massive reductions in jobs in this industry occurred in the 1980s and 1990s. By 2012 it is projected that there will be only 5,000 jobs in this industry in the region, compared with 24,000 in 1992 and 60,000 in 1982. *Utilities* also share in overall job losses as part of a trend of long-term decline, albeit at a slower rate than previously. Within the East Midlands, Lincolnshire and Rutland records the greatest concentration of jobs in this broad sector (reflecting the importance of agriculture and related industries to the total economy) and it is in this local area that the largest absolute and relative job losses are expected.

The rest of *manufacturing* dominates job losses in *manufacturing* with a projected loss of nearly 50,000 jobs between 2002 and 2012 to 200,000 out of 300,000 manufacturing jobs in the region by 2012. Males account for around three quarters of the projected job losses, as they suffer one of the fastest rates of decline (2% per annum) in the UK, whereas for females the expected rate of decline (1.5%) is slower than the UK average. This represents an annual average rate of loss of 2.2% per annum, which is somewhat faster than the national average. Around 10,000 jobs are projected to be lost in *engineering* as employment decline is expected to occur at a rate similar to that for the UK as a whole. In *food, drink and tobacco* projected job losses are more modest. Manufacturing contributes a larger share of regional GDP than the UK average. At local level manufacturing accounts for at least a fifth of total employment in Derbyshire and Leicestershire, and it is these two local areas that are projected to see the fastest rates of employment decline in manufacturing in the East Midlands. The slowest rate of loss is projected to occur in Lincolnshire and Rutland. All local LSC areas in the East Midlands are expected to retain a larger share of total employment in manufacturing in 2012 than the England average.

Employment in *construction* in the East Midlands is projected to expand by 10,000 jobs. This contrasts with relatively small job losses nationally. All local LSC areas in the East Midlands are expected to share in this employment increase, ranging from an annual average projected rate of 0.5% in Leicestershire to 1.1% in Northamptonshire.

The annual average rate of projected employment growth in *distribution, transport, etc.* in the East Midlands, at 0.5% per annum, is slightly higher than the UK average. At local LSC area level the projected rates of annual average employment growth range from 0.4% in Nottinghamshire to 0.8% in Lincolnshire and Rutland. This broad sector is dominated by an increase of over 30,000 jobs in *retail distribution.* A loss of over 10,000 jobs in *hotels and restaurants* is expected in the region, contrasting with employment gains nationally. Projected employment increase in *transport, storage and communications* exceeds the national average, with an additional 8,000 jobs expected. Although males account for only a quarter of the projected extra jobsin this broad sector, they fare relatively well compared with the national average experience.

As across the UK, the greatest projected employment increase is expected in *business and other services,* although projected growth is at a slower rate (1.3% per annum) than nationally (1.6% per annum). Males, in particular, record a slower rate of growth than the national average. *Other business activities* dominate projected job gains with an expected gain of over 40,000 jobs, although the rate of employment increase is slower than nationally. Employment levels in *banking and insurance* are projected to remain stable, contrasting with an increase nationally. Employment in other services is projected to increase, at a rate similar to the national average. However, projected job gains are more modest than those recorded in the 1990s. At local level only Northamptonshire records a faster rate of projected employment growth in this broad sector than the England average. However, in all local LSC areas the share of employment in business and other services is projected to remain below the England average. In the most rural part of the region - Lincolnshire and Rutland - this broad sector accounts for a mere 15% of total employment, and at 0.9% per annum the projected rate of employment growth is the slowest in the East Midlands.

Employment in *non-marketed services* is projected to expand by 1% per annum between 2002 and 2012. This is the fastest projected rate of growth expected for any region, and represents an increase of over 45,000 jobs, with females faring particularly well. Employment gains are fairly evenly distributed between *education and health and social services.* As at national level, employment levels in *public administration and defence* are projected to decline modestly. Within the East Midlands projected job gains are particularly concentrated in Derbyshire, which displays the fastest annual average rate of employment growth. In Derbyshire and Nottinghamshire 27-28% of total employment is projected to be accounted for by this broad sector, compared with the England average of 23%. By contrast, in Northamptonshire a slower than average increase in employment in non-marketed services is expected, with this broad sector projected to account for 19% of total employment in 2012.

Table 7.1: Sectoral change in the East Midlands

	East Midlands											England		UK	
	1982	1992	2002	2012	1982	1992	2002	2012	2002-2012			2002-2012		2002-2012	
Sectoral categories	000s	000s	000s	000s	% of total	% of total	% of total	% of total	change 000s	% change	% per annum	% change	% per annum	% change	% per annum
1. Agriculture hunting forestry fishing	58	47	34	28	3.4	2.5	1.7	1.4	-6	-18.3	-2.0	-15.2	-1.6	-15.2	-1.6
2. Mining and quarrying	62	24	7	5	3.6	1.3	0.4	0.3	-2	-27.2	-3.1	-20.5	-2.3	-19.0	-2.1
6. Electricity gas and water	19	18	11	10	1.1	1.0	0.6	0.5	-1	-12.2	-1.3	-19.5	-2.2	-19.2	-2.1
Primary sector and utilities	*139*	*89*	*53*	*43*	*8.1*	*4.8*	*2.7*	*2.1*	*-10*	*-18.3*	*-2.0*	*-16.7*	*-1.8*	*-16.5*	*-1.8*
3. Food drink and tobacco	58	51	56	53	3.4	2.8	2.8	2.6	-3	-5.8	-0.6	-9.3	-1.0	-9.7	-1.0
4. Engineering	91	73	59	48	5.3	4.0	3.0	2.4	-10	-17.8	-1.9	-16.0	-1.7	-18.0	-2.0
5. Rest of manufacturing	356	304	250	201	20.9	16.6	12.7	9.8	-49	-19.7	-2.2	-17.0	-1.8	-17.3	-1.9
Manufacturing	*505*	*428*	*364*	*301*	*29.6*	*23.3*	*18.5*	*14.8*	*-63*	*-17.3*	*-1.9*	*-15.9*	*-1.7*	*-16.5*	*-1.8*
7. Construction	104	140	136	146	6.1	7.6	6.9	7.1	10	7.2	0.7	-1.3	-0.1	-3.2	-0.3
8. Retail distribution	277	318	341	373	16.3	17.3	17.3	18.3	32	9.4	0.9	7.5	0.7	7.1	0.7
9. Hotels and restaurants	84	96	112	101	4.9	5.2	5.7	5.0	-11	-9.4	-1.0	2.2	0.2	0.8	0.1
10. Transport storage and communication	85	93	111	119	5.0	5.0	5.6	5.8	8	7.2	0.7	1.8	0.2	1.3	0.1
Distribution transport etc.	*447*	*506*	*564*	*594*	*26.2*	*27.5*	*28.6*	*29.1*	*30*	*5.2*	*0.5*	*5.2*	*0.5*	*4.5*	*0.4*
11. Banking and Insurance	38	48	42	42	2.3	2.6	2.2	2.0	-1	-2.2	-0.2	3.0	0.3	3.7	0.4
12. Other business activities	112	172	242	285	6.6	9.3	12.3	13.9	42	17.4	1.6	21.3	1.9	21.5	2.0
16. Other services	66	77	106	120	3.9	4.2	5.4	5.9	14	13.4	1.3	14.4	1.4	14.7	1.4
Business and other services	*217*	*296*	*391*	*446*	*12.7*	*16.1*	*19.8*	*21.8*	*55*	*14.2*	*1.3*	*16.9*	*1.6*	*17.1*	*1.6*
13. Public admin and defence	85	74	84	82	5.0	4.0	4.2	4.0	-1	-1.6	-0.2	-2.4	-0.2	-2.1	-0.2
14. Education	92	135	165	188	5.4	7.4	8.4	9.2	23	14.1	1.3	8.6	0.8	8.5	0.8
15. Health and social work	117	169	215	240	6.8	9.2	10.9	11.8	25	11.7	1.1	10.2	1.0	9.5	0.9
Non-marketed services	*293*	*378*	*464*	*511*	*17.2*	*20.6*	*23.5*	*25.0*	*47*	*10.2*	*1.0*	*7.0*	*0.7*	*6.7*	*0.6*
All Sectors	1705	1838	1972	2042	100.0	100.0	100.0	100.0	70	3.5	0.3	5.1	0.5	4.5	0.4

Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Table R14b

7.4 Change in employment by gender and employment Status

Between 1992 and 2002 the share of total employment accounted for by females in the East Midlands increased from over 45% to 48% – representing an increase from below to above the national average. By 2012 the share is projected to increase to nearly 51%: the highest proportion for any English region. At local LSC area level within the East Midlands the projected share of female employment varies between 49% in Northamptonshire to 53% in Nottinghamshire. The share of total employment accounted for by full-time employees has been consistently slightly lower than the UK average, but the regional:national gap is projected to widen, as in the East Midlands the share declines from 58% to 55%. At local level the share of full-time employees in 2012 is projected to vary from 57% in Northamptonshire to 53% in Lincolnshire and Rutland.

Between 2002 and 2012 a loss of 34,000 male full-time jobs in the East Midlands is expected, contrasting with a projected increase in female full-time employees of nearly 9,000. All local LSC areas are expected to share in the decline in male full-time employees. The highest rate of increase in female full-time employees is recorded in Northamptonshire, while in Lincolnshire and Rutland a small loss is expected. For both males and females increases in part-time employees are projected (of 20,000 for males and nearly 70,000 for females). A modest increase in self-employment (of around 6,000) is projected. In Lincolnshire and Rutland projected employment growth is confined to part-time employees.

7.5 Occupational prospects

Overview

This section concentrates on employment projections for different occupations. It should be remembered that such 'structural demand' provides only part of the overall picture of occupational change. For a fuller picture of the changing requirement for different occupations it is necessary to bear in mind the impact of retirements, inter-occupational moves, etc., as captured by 'replacement demand' (see Section 7.6).

At the level of SOC Major Groups, the largest increase in occupational employment between 2002 and 2012 is projected for personal service occupations, with an expected increase of over 70,000 jobs (see Figure 7.2). This represents an increase of over 43%, which is the fastest for any region, compared with 35% across the UK. The Major Groups projected to record the next largest increases in employment are professional occupations, with a projected increase of nearly 40,000 jobs between 2002 and 2012. This represents a rate of growth somewhat slower than the UK average. Increases of over 35,000 jobs are projected for associate professional and technical occupations and for managers and senior officials. Again, these increases represent rates of projected growth slightly slower than the UK average. An increase of nearly 35,000 jobs is expected for sales and customer service occupations, representing a rate of growth in excess of the UK average, and the highest outside Yorkshire and the Humber, and the South West. Projected job losses are concentrated in elementary occupations and skilled trades occupations with expected declines of over 55,000 and nearly 50,000 jobs, respectively. Only London is expected to record a faster rate of job loss for elementary occupations, while the rate of projected employment decline for skilled trades occupations is also faster than average. Losses of around 20,000 jobs are expected for machine and transport operatives (representing a rate of decrease slightly greater than the UK average), and administrative, clerical and secretarial occupations (representing a slightly slower rate of employment loss than the UK average).

Managers and senior officials

In 2002 *managers and senior officials* accounted for around 14% of employment in the East Midlands – a share slightly lower than the UK average. At 15%, Northamptonshire has the largest share of total employment in this SOC Major Group, but this is lower than the England average. Derbyshire, and Lincolnshire and Rutland display the greatest under-representation of managers and senior officials. The projected gain in employment of around 35,000 jobs across the region, representing a rate of increase slightly lower than the UK average, is a function of an expected gain of around 40,000 jobs for *corporate managers* easily offsetting a small projected loss of 5,000 jobs for *managers/proprietors* (see Table 7.2). Females are expected to account for around four fifths of the projected employment gains.

Professional occupations

Professional occupations account for 10% of total employment in the East Midlands, compared with over 11% for the UK. At local level the shares range from 9% in Lincolnshire and Rutland to nearly 11% in Nottinghamshire. After Nottinghamshire the next largest shares are recorded in Derbyshire and Leicestershire. Hence, representation of this Major Group is greatest in the local areas containing the three largest cities in the East Midlands. Over the period to 2012 employment is projected to increase at 1.8% per annum, which is slightly lower than the rate of increase expected across the UK as a whole. The main contributors to the projected increase of around 40,000 extra jobs are *science and technology professionals* (14,000 extra jobs) and *teaching and research professionals* and *business professionals,* each with an expected employment increase of 10,000 jobs. In the case of teaching and research professionals this represents a projected growth rate considerably slower than the UK average. A more modest increase of 4,000 jobs is projected for *health professionals.* Females account for over half the projected extra jobs.

Associate professional and technical occupations

This Major Group accounts for a smaller share of total employment in the East Midlands (around 13%) than in any other UK region. At local level Nottinghamshire has easily the largest proportion (around 12%) of total employment accounted for by this Major Group, while Lincolnshire and Rutland records the smallest share (11.5%). At 1.5% per annum, the projected rate of employment increase over the period to 2012 is slower than that expected across the UK as a whole. All occupation groups are expected to share in the projected employment increase, but *business associate professionals* account for the largest employment gain, with an additional 13,000 jobs. *Science and associate professionals* account for the next largest net gain, with nearly 10,000 extra jobs in 2012. The smallest net gains are expected for *health associate professionals* and *protective service professionals* – each with increases of around 4,000 jobs. Only in the case of *science and technology associate professionals* does the projected rate of employment growth match the UK average. Females account for three quarters of the overall projected net increase in associate professional and technical occupations between 2002 and 2012.

Administrative, clerical and secretarial occupations

Administrative, clerical and secretarial occupations account for a smaller share (12%) of total employment in the East Midlands than in any other English region. At local LSC area level, the shares range from just over 11% in Lincolnshire and Rutland, to well over 12% in Northamptonshire and Leicestershire. Nearly 20,000 jobs are expected to be lost over the period to 2012, representing an annual average rate of decrease of 0.8% per annum, slower than the 1.2% per annum employment decline projected across the UK. At local level, projected annual average rates of employment decline range from only 0.4% in Northamptonshire to around 1% in Derbyshire and Nottinghamshire. *Secretarial and related occupations* account for around two thirds of the expected employment decline. This represents a contraction of employment levels by approximately a fifth, compared with a quarter across the UK. The projected rate of decline for *administrative and clerical occupations* is much slower, and only half that projected across the UK. Females account for virtually all the job losses, while employment levels for males are projected to remain stable. By 2012 this Major Group is expected to account for the slightly less than 11% of total employment in the East Midlands – a proportion akin to, or slightly higher than, that expected in southern regions.

Skilled trades occupations

With 12.5% of total employment, skilled trades occupations are over-represented in the East Midlands relative to the UK average. Only in Nottinghamshire does the share of total employment accounted for by skilled trades occupations fall below the England average. Over the period to 2012, employment is projected to decline by 2.2% per annum, which along with the West Midlands, represents the fastest rate of decline experienced by an English region. The UK and England annual average rates of decrease are 1.8% and 1.6% respectively. All local areas record rates of employment decline in excess of the UK average, with Leicestershire recording the fastest rate of job loss (2.5% per annum). All occupation groups share in this decrease, except in *skilled agricultural trades* where employment levels remain stable, compared with a small increase nationally. The largest job losses are projected for *skilled metal and electrical trades* where a loss of around 30,000 jobs is expected. 9,000 and 8,000 jobs, respectively, are projected to be lost in *skilled construction and building trades and other skilled trades.* In all instances, the projected rate of job loss exceeds the UK average. Job losses are projected to fall almost entirely on males. By 2012, employment in this Major Group is projected to have fallen to around 190,000, compared with 310,000 in 1992.

Personal service occupations

The projected rate of increase in employment for this Major Group, at 36% per annum, is faster than the increase of 3% per annum expected for the UK, and the highest of any region in the UK. At local area level the projected annual average rate of growth ranges from 3.4% in Nottinghamshire to 3.9% in Leicestershire. Personal service occupations comprise a higher share of total employment in the East Midlands than in any other English region, and within the region Nottinghamshire displays the highest proportion of such employment. 68,000 out of the projected 71,000 projected increase in jobs in this Major Group is accounted for by *caring personal service occupations,* representing an annual average growth rate of 4.4% per annum. By 2012 *caring personal service occupations* are expected to account for 9.5% of regional employment, compared with less than 2% in 1982. Although much smaller in absolute terms, the projected rate of growth of employment in *leisure occupations* is higher than the UK average. Females account for virtually all the gains in this Major Group.

Sales and customer service occupations

Projected employment gains in sales and customer service occupations between 2002 and 2012 are more modest, with nearly 35,000 extra jobs. At 1.9% per annum, the projected rate of growth exceeds the UK average. Within the region, Northamptonshire displays the fastest annual average growth rate (2.2%). Only Yorkshire and the Humber and the South West record faster rates of growth than the East Midlands. Expected rates of employment growth exceed the UK average in the case of *sales occupations,* with nearly 20,000 additional jobs expected, and in the case of *customer service occupations.* Around three-quarters of the extra jobs are expected to be filled by females.

Machine and transport operatives

The East Midlands has nearly 11% of total employment in this Major Group, a share surpassed only by Wales and the West Midlands, compared with 8.4% across the UK. Within the region Leicestershire and Northamptonshire record the largest shares (nearly 12% in the case of the former). At 1.1% per annum, the projected rate of employment decline is akin to the UK average. At local level, Leicestershire displays the fastest rate of projected job loss (1.8% per annum), while in Northamptonshire, Lincolnshire and Rutland, and Derbyshire projected rates of employment decline are slower than the England average. An expected loss of 27,000 jobs for *process machine operatives* across the region contrasts with a projected gain of 4,000 jobs for *drivers and other operatives.* In both instances rates of change are similar to the UK average. Females are expected to account for around four fifths of the job losses.

Elementary occupations

The projected decline in employment in *elementary occupations* in the East Midlands is, at 2.6% per annum, slightly in excess of the UK average. All local LSC areas share in this faster than national average rate of employment decline. At regional level, only London displays a faster rate of employment decline. Of the 56,000 jobs projected to be lost between 2002 and 2012, females account for around 40,000. Around 40,000 jobs in *elementary service occupations* are expected to be lost, so that by 2012 this occupational group accounts for slightly over 5% of total employment compared with nearly 11% in 1982. In *elementary trades occupations* around 17,000 jobs are expected to be lost, at a rate akin to the UK average. At local LSC area level the share of total employment accounted for by elementary occupations ranges from less than 12% in Nottinghamshire to over 13% in Lincolnshire and Rutland.

Table 7.2: Occupational change in the East Midlands

	East Midlands											England		UK	
	1982	1992	2002	2012	1982	1992	2002	2012	2002-2012			2002-2012		2002-2012	
Occupation groups	000s	000s	000s	000s	% of total	% of total	% of total	% of total	change 000s	% change	% per annum	% change	% per annum	% change	% per annum
Corporate managers	113	155	208	249	6.6	8.4	10.6	12.2	41	19.5	1.8	21.2	1.9	20.4	1.9
Managers / proprietors	63	70	73	68	3.7	3.8	3.7	3.3	-5	-6.7	-0.7	-6.7	-0.7	-7.0	-0.7
Managers and officials	*176*	*225*	*281*	*317*	*10.3*	*12.2*	*14.3*	*15.5*	*36*	*12.7*	*1.2*	*14.3*	*1.3*	*13.4*	*1.3*
Sc. and tech. profs.	33	44	57	71	1.9	2.4	2.9	3.5	14	24.3	2.2	23.4	2.1	22.5	2.0
Health professionals	7	11	17	21	0.4	0.6	0.9	1.0	4	25.6	2.3	20.2	1.9	19.1	1.8
Teaching and res. profs.	55	69	81	91	3.2	3.8	4.1	4.5	10	12.6	1.2	18.5	1.7	19.9	1.8
Business professionals	23	31	43	54	1.3	1.7	2.2	2.6	10	23.7	2.2	24.9	2.3	23.0	2.1
Professional occs	*118*	*155*	*198*	*237*	*6.9*	*8.4*	*10.1*	*11.6*	*39*	*19.5*	*1.8*	*21.6*	*2.0*	*21.3*	*1.9*
Sc. and tech. assoc. profs.	21	25	36	45	1.2	1.4	1.8	2.2	9	24.7	2.2	24.9	2.2	24.5	2.2
Health assoc. profs.	41	52	63	67	2.4	2.8	3.2	3.3	4	7.0	0.7	13.4	1.3	12.8	1.2
Protect. serv. occs	12	13	22	26	0.7	0.7	1.1	1.3	4	17.9	1.7	22.0	2.0	20.3	1.9
Culture, med. and sports	13	18	28	35	0.8	1.0	1.4	1.7	7	24.3	2.2	31.9	2.8	31.2	2.8
Business assoc. profs.	53	71	88	100	3.1	3.9	4.4	4.9	13	14.5	1.4	15.9	1.5	15.1	1.4
Assoc. prof. and tech.	*139*	*179*	*237*	*274*	*8.2*	*9.8*	*12.0*	*13.4*	*37*	*15.6*	*1.5*	*19.7*	*1.8*	*18.8*	*1.7*
Admin and clerical	156	176	178	171	9.1	9.6	9.0	8.4	-7	-4.1	-0.4	-7.5	-0.8	-6.3	-0.7
Secretarial and related	63	71	60	48	3.7	3.9	3.1	2.4	-12	-19.8	-2.2	-25.0	-2.8	-24.0	-2.7
Admin. cler. and sec.	*219*	*247*	*239*	*219*	*12.8*	*13.4*	*12.1*	*10.8*	*-19*	*-8.1*	*-0.8*	*-12.2*	*-1.3*	*-11.0*	*-1.2*
Skilled agric. trades	34	29	27	27	2.0	1.6	1.4	1.3	0	0.5	0.0	5.6	0.5	2.9	0.3
Skilled metal and electrical	153	134	96	65	8.9	7.3	4.9	3.2	-31	-32.1	-3.8	-30.3	-3.5	-31.2	-3.7
Skilled cons. and building	78	82	72	63	4.6	4.5	3.7	3.1	-9	-12.4	-1.3	-7.4	-0.8	-8.6	-0.9
Other skilled trades	68	65	44	36	4.0	3.5	2.2	1.7	-8	-18.6	-2.0	-7.9	-0.8	-8.4	-0.9
Skilled trades	*333*	*309*	*239*	*191*	*19.5*	*16.8*	*12.1*	*9.4*	*-48*	*-20.0*	*-2.2*	*-15.3*	*-1.6*	*-16.2*	*-1.8*
Caring personal service	30	57	127	195	1.7	3.1	6.4	9.5	68	53.3	4.4	46.0	3.9	44.8	3.8
Leisure occupations	27	32	38	41	1.6	1.7	1.9	2.0	3	8.9	0.9	9.0	0.9	7.8	0.8
Personal serv. occs	*57*	*89*	*165*	*236*	*3.3*	*4.8*	*8.4*	*11.6*	*71*	*43.1*	*3.6*	*36.0*	*3.1*	*34.8*	*3.0*
Sales occupations	90	111	133	152	5.3	6.0	6.7	7.4	19	14.5	1.4	11.4	1.1	10.5	1.0
Customer service occs.	6	8	27	41	0.3	0.4	1.4	2.0	14	51.9	4.3	47.0	3.9	48.2	4.0
Sales and cust. serv.	*96*	*119*	*159*	*192*	*5.6*	*6.5*	*8.1*	*9.4*	*33*	*20.7*	*1.9*	*17.6*	*1.6*	*17.0*	*1.6*

Table 7.2: Occupational change in the East Midlands (continued)

	East Midlands											England		UK	
	1982	1992	2002	2012	1982	1992	2002	2012	2002-2012			2002-2012		2002-2012	
Occupation groups	000s	000s	000s	000s	% of total	% of total	% of total	% of total	change 000s	% change	% per annum	% change	% per annum	% change	% per annum
Process machine ops.	197	167	136	109	11.6	9.1	6.9	5.3	-27	-19.8	-2.2	-23.3	-2.6	-22.0	-2.4
Drivers and other ops.	66	67	74	79	3.9	3.7	3.8	3.8	4	5.6	0.6	7.3	0.7	5.8	0.6
Machine and trans. ops.	*263*	*235*	*211*	*188*	*15.4*	*12.8*	*10.7*	*9.2*	*-23*	*-10.8*	*-1.1*	*-10.0*	*-1.0*	*-10.1*	*-1.1*
Elementary: trades	122	102	95	77	7.1	5.6	4.8	3.8	-17	-18.0	-2.0	-18.4	-2.0	-18.2	-2.0
Elementary: service	183	179	148	110	10.7	9.7	7.5	5.4	-39	-26.2	-3.0	-20.3	-2.2	-20.5	-2.3
Elementary occs	*305*	*281*	*243*	*187*	*17.9*	*15.3*	*12.3*	*9.2*	*-56*	*-23.0*	*-2.6*	*-19.7*	*-2.2*	*-19.7*	*-2.2*
All occupations	1705	1838	1972	2042	100.0	100.0	100.0	100.0	70	4	0	5.1	0.5	4.5	0.4

Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Table R15b

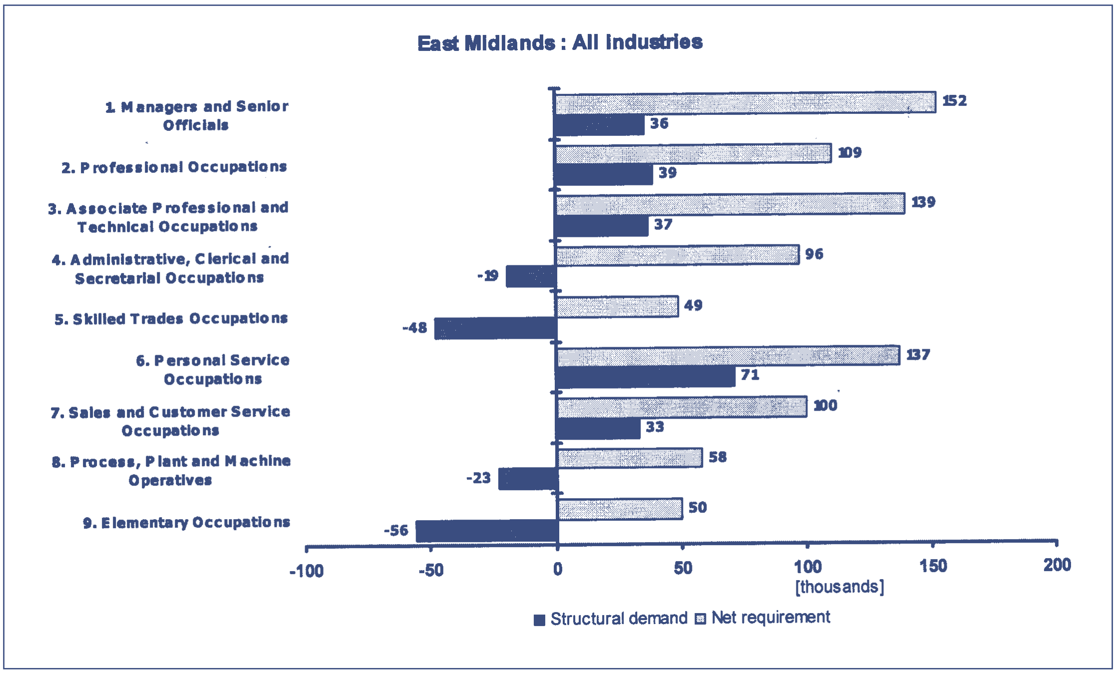
7.6 Projections of replacement demands

The key component of replacement demands is retirements from the workforce, especially those of older workers. However, replacement requirements for specific occupational groups, in particular geographical areas, can also arise for a number of other reasons. These include occupational mobility, as individuals change jobs for reasons of career progression (as well as other causes), and geographical mobility. Potentially, the latter may be quite important at a regional level. Unfortunately there are few reliable data on such flows, so the estimates presented here exclude replacement needs arising as a consequence of both occupational and geographical mobility. In both cases, there may be offsetting inflows to counterbalance some of the losses.

In the case of all SOC Major Groups total requirements are positive. Although expansion demand changes suggest that the largest increase in employment will be in personal service occupations, the total requirement (including replacement demands) for managers and senior officials (over 150,000) and for associate professional and technical occupations (nearly 140,000) exceeds those for personal service occupations (about 135,000). A disaggregation by gender (not presented in Figure 7.3) suggests that in each of these Major Groups the net requirement for females exceeds that for males. The next largest total requirements are for professional occupations (110,000) and sales and customer service occupations (100,000). In each of these Major Groups, projected replacement demand requirements suggest a need for around 70,000 individuals in addition to those projected as a result of positive structural change.

Despite a projected loss of nearly 50,000 jobs as a result of structural change, a replacement demand of over 115,000 jobs (the largest number for any SOC Major Group, along with managers and senior officials) for administrative, clerical and secretarial occupations translates into a total requirement of over 95,000 posts. A replacement demand of over 105,000 for elementary occupations translates into a total requirement for 50,000 individuals, despite a larger loss of over 55,000 jobs expected as a result of structural change. Similarly, there is a total requirement for around 50,000 individuals in skilled trades occupations. In the case of machine and transport operatives there is a total requirement for nearly 60,000 additional individuals over the period.

Figure 7.3 Replacement Demands for the East Midlands



Source: CE/IER estimates, MDM95 C31 F95 Forecast, ReplacementDemands.xls

YORKSHIRE AND THE HUMBER

8.1 Overview

Although the industrial structure of Yorkshire and the Humber has become more diverse over recent decades, concerns remain about low productivity. Earnings levels are significantly lower than the national average, but the cost of living is also lower. A further key issue identified in the Framework for Regional Employment and Skills Action (FRESA) is the region's low retention rate for first degree graduates.

At sub-regional level, important differences between local economies are evident. The economy of the Humberside sub-region is based on high output but low value-added industries and basic skills and unemployment remain key issues. In South Yorkshire the problems of a low-skill, low value-added labour market are recognised by Objective 1 status. Structural unemployment, high rates of inactivity and low levels of educational attainment are key issues, especially in the former coal-mining areas. By contrast, North Yorkshire has some of the highest educational attainment, skills levels and earnings in the region. However, the continuing decline of agriculture poses challenges in many rural areas and also in coastal areas with a low-wage seasonal economy. Leeds is a major regional centre and is the key driver in the West Yorkshire labour market. However, economic buoyancy co-exists alongside pockets of deprivation, such that the city has been identified as having a 'two-speed' economy.

The population of Yorkshire and the Humber is projected to increase slightly more slowly than the UK average. However, the annual average rates of expected labour force and employment growth are similar to those across the UK as a whole, and are the highest displayed by any region outside southern England. At local level, a faster than average rate of employment growth in North Yorkshire contrasts with a slower than average rate of increase in South Yorkshire.

Faster than national average rates of employment losses are projected in the primary sector and utilities, and in construction, whereas in manufacturing the expected rate of job loss is somewhat slower than that across the UK as a whole. Projected growth in distribution, transport, etc., is expected to proceed at a faster rate than nationally, with only the South East recording a greater percentage increase in employment in this broad sector. Employment is also expected to rise at a faster rate than the UK average in business and other services. Here other business activities are expected to grow particularly strongly, and West Yorkshire displays the major concentration of such employment. Despite a slower than average projected rate of employment growth, non-marketed services are expected to account for a greater share of total employment in Yorkshire and the Humber, and particularly in South Yorkshire, than the UK average.

The projected rate of decrease in male full-time employees in Yorkshire and the Humber is one of the fastest expected for any region. This contrasts with a gain in female full-time employees, and faster than national average growth rates for part-time employees.

The largest projected gains in employment by SOC Major Group are in personal service occupations and sales and customer service occupations. Whereas growth rates for these SOC Major Groups are akin to, or faster than, the UK average, in the case of high level non-manual occupations projected growth rates are slower than those expected across the UK as a whole. This is particularly the case for professional and associate professional and technical occupations. Employment levels for clerical, administrative and secretarial occupations are expected to remain stable, contrasting with projected losses at national level. The region exhibits an over-representation of employment in skilled trades occupations and for machine and transport operatives. Job losses are projected in both these SOC Major Groups and also in elementary occupations. However, projected replacement demands are such that total requirements are positive.

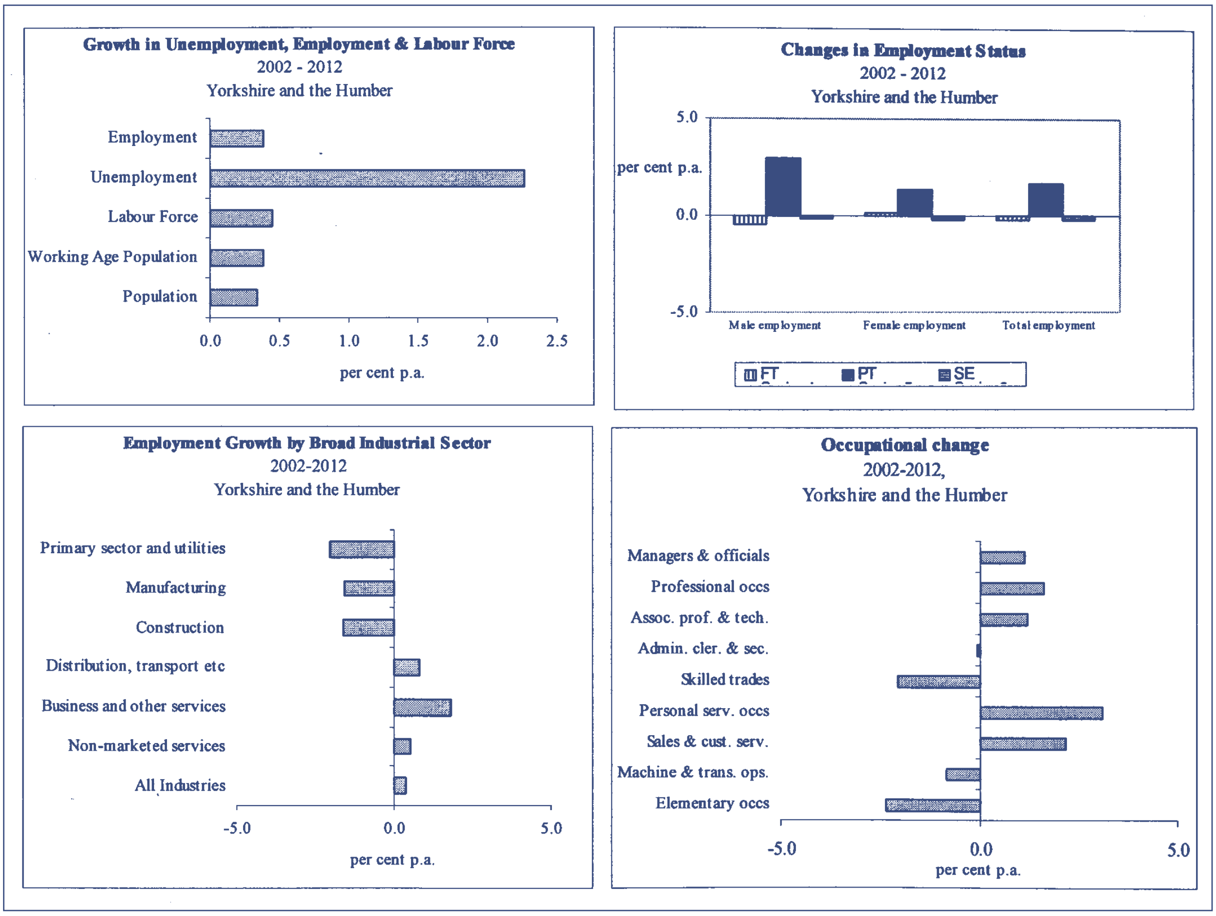
8.2 Labour supply and demand

The *population* in Yorkshire and the Humber is projected to increase by 175,000 between 2002 and 2012, to reach 5.27 million. This represents a growth rate of 0.3% per annum, slightly slower than the rate of growth projected across the UK as a whole (see Figure 8.1), but one of the highest rates of increase expected outside southern England. The *working age population* is projected to grow at a slightly faster rate, with a projected increase of about 120,000. The *labour force* is projected to increase by just over 110,000, to nearly 2.54 million in 2012. At 0.5% per annum, this rate is akin to the UK average, and represents the fastest rate of growth for any region outside southern England. The *economic activity rate* is projected to remain fairly stable at around 74%, which is lower than for any other region in England with the exception of the North East.

Unemployment is projected to increase by about 20,000 between 2002 and 2012, to reach over 110,000. This represents a rate of growth slightly greater than across the UK as a whole, and the unemployment rate is expected to remain higher than the UK average.

Total employment in Yorkshire and the Humber is projected to increase by 90,000 to reach 2.4 million in 2012. At 0.4% per annum, this rate of growth is similar to the UK average, and the highest for any region outside southern England. As in the period from 1992 to 2002, within Yorkshire and the Humber, North Yorkshire displays the highest projected growth rate for the period from 2002 to 2012 (at 0.7% per annum). West Yorkshire displays the next highest projected employment growth rate (0.5% per annum). Humberside and South Yorkshire display the slowest rates of employment growth (0.3 and 0.1% per annum, respectively). Yorkshire and the Humber accounts for just under 8% of total UK employment.

Figure 8.1 Key changes in Yorkshire and the Humber (% p.a.)



Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Figure R.1 (%)

Figure 8.2 Key changes in Yorkshire and the Humber (000s)

Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Figure R.1 (000s)

8.3 Sectoral prospects

At the broad sectoral level, the picture for Yorkshire and the Humber is one of employment losses in the primary sector and utilities sector, manufacturing and construction and employment gains in distribution, transport, etc., business and other services, and non-marketed services (see Figure 8.2, Table 8.1). In absolute terms, as across all other regions, the dominant feature of employment decline is the loss of over 55,000 jobs in manufacturing. This contrasts with gains of over 90,000 jobs in business and other services, nearly 60,000 jobs in distribution, transport, etc., and 30,000 jobs in non-marketed services.

Employment in the *primary sector and* utilities sector is projected to decline at a faster rate than the UK average (see Table 8.1). In *agriculture, hunting, forestry and fishing* the projected rate of employment loss is slower than the UK average. However, 4,000 jobs are expected to be lost over the period to 2012. *Electricity, gas and water* is expected to be the main contributor to employment decline in this broad sector, with a loss of 5,000 jobs (a decline of over 40%) between 2002 and 2012. After a massive shake-out of jobs in the 1980s, a loss of a quarter of the remaining jobs in *mining and quarrying* is expected, such that by 2012 there are projected to be 6,000 jobs in the industry, compared with over 75,000 in 1982. Within Yorkshire and the Humber, North Yorkshire records the greatest concentration of jobs in this broad sector (accounting for about 5% of total employment) and Humberside also displays a share in excess of the national average. These two local LSC areas exhibit the slowest rates of projected employment decline in the region in this broad sector.

The rate of employment decline projected for *manufacturing* in Yorkshire and the Humber is slightly slower than the UK average. Manufacturing accounted for over 530,000 jobs in the region in 1982, but by 2002 there were only 385,000 jobs in this broad sector, accounting for 17% of total employment compared with 25% twenty years earlier. 45,000 out of the 57,000 projected job losses in manufacturing are expected to occur in the *rest of manufacturing.* However, at 1.8% per annum the rate of projected job loss is similar to the UK average. 12% of jobs (7,000) in *engineering* are expected to be lost over the period to 2012. This represents a rate of loss of 1.3% per annum, which is lower than the UK average. 6,000 jobs are projected to be lost in *food, drink and tobacco.* Males account for over 70% of the projected job losses. At local level, manufacturing accounts for more than a fifth of total employment in Humberside and around 18% in West Yorkshire and 16% in South Yorkshire. Only in North Yorkshire is the share of such employment lower than the national average. South Yorkshire displays the fastest rate of projected employment decline, and is the only local LSC area in the region where this rate exceeds that expected across England as a whole.

Construction employment in Yorkshire and the Humber is projected to decline by over 20,000 between 2002 and 2012. This represents the greatest rate of job loss of any region in the UK. All local LSC areas in the region are expected to share in employment decline at a rate in excess of the national average according to these ‘benchmark’ projections, with annual average rates of loss ranging from just under 1% in North Yorkshire to over 2% in South Yorkshire.

At 0.8% per annum, the annual average rate of employment growth in *distribution, transport, etc.* in Yorkshire and the Humber is greater than the UK average. All local LSC areas record similar rates of growth. The region is expected to see the largest percentage increase in this broad sector outside the South East. Within this broad sector *retail distribution* accounts for over 35,000 out of nearly 60,000 extra jobs over the decade. Employment in *hotels and restaurants* is expected to increase by 1% per annum, which is considerably in excess of the UK average, and by 2012 this industry is projected to account for nearly 150,000 jobs, compared with 135,000 in 2002. Employment in *transport, storage and communication* is also projected to increase at a faster rate than the UK average, with an increase of 8,000 jobs over the decade. Although both males and females are expected to share in the projected employment growth, it is expected that females will fill the majority of the additional jobs.

As across the UK, the greatest projected employment increase in Yorkshire and the Humber is in *business and other services,* with a projected growth rate (1.8% per annum) slightly higher than the UK average. The single greatest contributor to the additional 90,000 jobs is *other business activities,* 70,000 extra jobs over the period to 2012. At 2.3% per annum, the region's projected growth rate is higher than the national average. Projected employment gains in *banking and insurance* are much more modest, but the 7,000 additional jobs represent increase at a faster growth rate than nationally. An extra 15,000 jobs are expected in *other services.* Males are projected to fill three quarters of the additional jobs in this broad sector. At local level, North Yorkshire and West Yorkshire record faster rates of projected employment growth in this broad sector than the England average. However, in all local LSC areas the share of employment in business and other services is projected to remain below the England average. In Humberside this broad sector accounts for a mere 15% of total employment (compared with more than 26% across England as a whole), and West Yorkshire displays the largest such share (23%).

Employment in *non-marketed services* is projected to expand at a slightly slower rate than across the UK as a whole. 20,000 of the 30,000 projected increase in jobs in this broad sector are accounted for by *health and social work,* with a further 13,000 jobs projected for *education.* Employment in *public administration and defence* is projected to decline slightly. Females are expected to fill all the new jobs, whereas male employment levels are expected to remain steady. Within the region, all local LSC areas display slower rates of projected employment increase than across England as a whole, with South Yorkshire displaying the slowest rate of growth (0.3% per annum). Nevertheless, in all local LSC areas the share of total employment accounted for by this broad sector is expected to remain greater than the national average. South Yorkshire displays the largest such share, with about 27% of total employment accounted for by non-marketed services.

Table 8.1: Sectoral change in Yorkshire and the Humber

	Yorkshire and the Humber											England		UK	
	1982	1992	2002	2012	1982	1992	2002	2012	2002-2012			2002-2012		2002-2012	
Sectoral categories	000s	000s	000s	000s	% of total	% of total	% of total	% of total	change 000s	% change	% per annum	% change	% per annum	% change	% per annum
1. Agriculture hunting forestry fishing	55	49	35	31	2.6	2.2	1.5	1.3	-4	-10.1	-1.1	-15.2	-1.6	-15.2	-1.6
2. Mining and quarrying	77	21	8	6	3.7	1.0	0.3	0.2	-2	-25.9	-2.9	-20.5	-2.3	-19.0	-2.1
6. Electricity gas and water	24	19	11	7	1.2	0.8	0.5	0.3	-5	-40.7	-5.1	-19.5	-2.2	-19.2	-2.1
Primary sector and utilities	*157*	*89*	*54*	*44*	*7.5*	*4.0*	*2.3*	*1.8*	*-10*	*-18.7*	*-2.0*	*-16.7*	*-1.8*	*-16.5*	*-1.8*
3. Food drink and tobacco	85	72	63	57	4.1	3.2	2.7	2.4	-6	-8.8	-0.9	-9.3	-1.0	-9.7	-1.0
4. Engineering	78	63	59	52	3.7	2.8	2.6	2.2	-7	-11.9	-1.3	-16.0	-1.7	-18.0	-2.0
5. Rest of manufacturing	370	304	263	219	17.7	13.8	11.4	9.1	-45	-16.9	-1.8	-17.0	-1.8	-17.3	-1.9
Manufacturing	*533*	*438*	*385*	*328*	*25.5*	*19.8*	*16.7*	*13.7*	*-57*	*-14.8*	*-1.6*	*-15.9*	*-1.7*	*-16.5*	*-1.8*
7. Construction	134	148	145	123	6.4	6.7	6.3	5.1	-22	-15.3	-1.6	-1.3	-0.1	-3.2	-0.3
8. Retail distribution	355	377	406	441	17.0	17.1	17.5	18.4	36	8.8	0.8	7.5	0.7	7.1	0.7
9. Hotels and restaurants	113	138	135	149	5.4	6.3	5.8	6.2	14	10.5	1.0	2.2	0.2	0.8	0.1
10. Transport storage and communication	122	122	141	149	5.8	5.5	6.1	6.2	8	5.9	0.6	1.8	0.2	1.3	0.1
Distribution transport etc.	*591*	*638*	*681*	*739*	*28.2*	*28.9*	*29.5*	*30.8*	*58*	*8.5*	*0.8*	*5.2*	*0.5*	*4.5*	*0.4*
11. Banking and Insurance	59	77	71	78	2.8	3.5	3.1	3.3	7	9.8	0.9	3.0	0.3	3.7	0.4
12. Other business activities	136	211	272	341	6.5	9.6	11.8	14.2	69	25.5	2.3	21.3	1.9	21.5	2.0
16. Other services	86	101	126	142	4.1	4.6	5.5	5.9	15	12.2	1.2	14.4	1.4	14.7	1.4
Business and other services	*281*	*389*	*470*	*561*	*13.4*	*17.6*	*20.3*	*23.3*	*92*	*19.5*	*1.8*	*16.9*	*1.6*	*17.1*	*1.6*
13. Public admin and defence	117	104	119	115	5.6	4.7	5.1	4.8	-4	-3.1	-0.3	-2.4	-0.2	-2.1	-0.2
14. Education	126	167	201	214	6.0	7.6	8.7	8.9	13	6.6	0.6	8.6	0.8	8.5	0.8
15. Health and social work	155	234	258	279	7.4	10.6	11.1	11.6	21	8.3	0.8	10.2	1.0	9.5	0.9
Non-marketed services	*399*	*505*	*578*	*609*	*19.0*	*22.9*	*25.0*	*25.3*	*31*	*5.3*	*0.5*	*7.0*	*0.7*	*6.7*	*0.6*
All Sectors	2095	2207	2313	2404	100.0	100.0	100.0	100.0	91	3.9	0.4	5.1	0.5	4.5	0.4

Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Table R14b

8.4 Change in employment by gender and employment status

In 1982 males comprised nearly 59% of those in employment in Yorkshire and the Humber, a slightly higher proportion than the UK average. By 1992 this share had declined to just over 52%, compared with a UK average of over 53%. Over the period to 2012, the share of males in total employment is projected to decline further to under 51%: a level about 1 percentage point lower than the UK average. This represents a share similar to that projected for the West Midlands, with the East Midlands being the only region in England recording a smaller share. At local LSC area level within the region the projected share of male employment varies between 48% in North Yorkshire and 52% in West Yorkshire. The share of total employment accounted for by full-time employees ranges from 52% in North Yorkshire to 57% in West Yorkshire and Humberside, compared with 56% across the region as a whole.

Between 2002 and 2012 a loss of over 35,000 jobs for male full-time employees in Yorkshire and the Humber is projected. The projected rate of loss is fastest in South Yorkshire, at 0.9% per annum. By contrast, the number of male part-time employees is projected to increase by over 45,000 (Figure 8.2). Along with the midlands regions, the projected rate of decrease for male full-time employees is one of the fastest in England. At 2.9% per annum, the projected rate of increase for male part-time employees is the fastest for any region in England, and is exceeded only by the rate of growth expected in Wales. All local areas share in faster than national average projected growth rates for male part-time employees. Gains of nearly 10,000 female full-time employees and over 75,000 female part-time employees are expected. The projected rate of growth for female full-time employees (0.2% per annum) is slower than the UK average (0.5% per annum), while that for female part-time employees (1.3% per annum) slightly exceeds that expected across the UK as a whole. North Yorkshire and West Yorkshire are both expected to see losses in female full-time employees. A modest overall loss of nearly 5,000 self-employed is projected. This represents a slower rate of decline than the UK average.

8.5 Occupational prospects

Overview

This section concentrates on the employment projections for different occupations. It should be remembered that such 'structural demand' provides only part of the overall picture of occupational change. For a fuller picture of the changing requirement for different occupations it is necessary to bear in mind the impact of retirements, inter-occupational moves, etc., as captured by 'replacement demand' (see Section 8.6).

At the level of SOC Major Groups, the largest increase in occupational employment between 2002 and 2012 is projected for personal service occupations, with an expected increase of around 65,000 jobs (see Figure 8.2). This represents a similar rate of increase to that expected across the UK as a whole. The Major Group projected to record the next largest increase in employment is sales and customer service occupations, with a projected increase of nearly 50,000 jobs between 1999 and 2010. At 2.2% per annum, the projected rate of growth is the fastest recorded by any region in the UK. Increases of 35,000-40,000 jobs are expected in each of professional occupations, associate professional and technical occupations and for managers and senior officials. For each of these higher level non-manual groups the projected rate of employment increase is slower than the UK average.

Employment levels for administrative, clerical and secretarial occupations are expected to remain relatively stable. This represents a more favourable experience of change than for any other region in the UK.

As across the UK, elementary occupations and skilled trades occupations dominate projected job losses, with expected declines of nearly 65,000 and over 50,000 jobs, respectively. In both instances, this represents a slightly faster rate of loss than the UK average. A more modest loss of 20,000 jobs is expected for transport and machine operatives. For this SOC Major Group the projected rate of decline at regional level is slower than that for the UK as a whole.

Managers and senior officials

Yorkshire and the Humber has a smaller than national average share of total employment in this SOC Major Group, and this is reflected across all constituent local LSC areas. The projected increase of over 35,000 jobs in this Major Group in Yorkshire and the Humber represents an annual average rate of growth (1.1% per annum) slightly slower than the UK average, but higher than the rates expected for any other part of northern Britain (see Table 8.2). The projected rates of increase are fastest in North Yorkshire and Humberside. The projected increase at regional level is a function of a gain of around 40,000 jobs for *corporate managers,* offset by small projected decline in the number of *managers and proprietors.* Females account for nearly all the projected job gains.

Professional occupations

The share of professional occupations in total employment in Yorkshire and the Humber is, at approximately 10%, the lowest proportion recorded by any UK region with the exception of the North East. At local LSC area level, West Yorkshire displays the highest share of total employment in professional occupations, and Humberside the lowest share. Moreover, at 1.6% per annum, the projected rate of employment growth is below the UK average (1.9% per annum), and the lowest for any English region – again excepting the North East. Within the region, Humberside displays the lowest projected rate of increase for this SOC Major Group. All occupational groups are projected to share in the expected expansion of employment in professional occupations of 40,000 jobs. Projected gains of around 12,000 jobs are expected in each of *science and technology professionals, business professionals and teaching/research professionals.* In the case of the latter occupation, the annual average rate of growth is slower than nationally, whereas for all other groups the projected rates of growth are similar to the national average. A gain of around 5,000 jobs is expected for *health professionals.* Females account for a slightly larger share of the projected increase in employment than males.

Associate professional and technical occupations

The share of total employment within this Major Group is, at just over 12%, the lowest for any UK region with the exception of the East Midlands. Moreover, the under-representation of associate professional and technical occupations in Yorkshire and the Humber is set to increase, since employment is projected to grow at only 1.2% per annum, compared to a UK average projected growth rate of nearly 1.7% per annum. This projected under-representation is evident across all local LSC areas. However, some intra-regional variations are evident, with West Yorkshire recording the largest share of total employment in associate professional and technical occupations of any local LSC area in the region, and Humberside displaying the smallest share. Only the North East and Scotland have slower projected growth rates for this Major Group. An increase of over 10,000 jobs is expected for *science and technology associate professionals:* for this group the annual average rate of increase slightly exceeds the UK average. A job gain of a similar size is expected for *business associate professionals,* whereas somewhat smaller increases are projected for *culture/media/sports occupations and protective service occupations.* In all three instances, projected rates of increase are slower than the UK average. A small decline in employment is expected for *health associate professionals,* in contrast with projected employment gains at UK level. As for managers and senior officials, females account for a slightly larger share of the projected increase in employment than males.

Administrative, clerical and secretarial occupations

Projected stability in employment levels for this occupational group contrasts with expected job loss across the UK as a whole. Hence, in the context of an overall decline of employment nationally in administrative, clerical and secretarial occupations, Yorkshire and the Humber is expected to be a beneficiary of decentralisation of such employment from higher cost locations in south-eastern England. At local LSC area level, it is apparent that projected gains are confined to West Yorkshire, which has the largest concentration of employment in administrative, secretarial and clerical occupations in Yorkshire and the Humber. However, in the remaining local LSC areas, rates of projected job loss are substantially slower than the national average. At regional level, a projected gain of around 10,000 jobs in *administrative and clerical occupations* (contrasting with an expected decline nationally) is offset by a similar sized loss for *secretarial occupations.* The projected stability in employment levels disguises a loss of around 20,000 jobs for females, and a gain of around 20,000 jobs for males.

Skilled trades occupations

Yorkshire and the Humber has a larger share of total employment in skilled trades occupations than the UK average. In all local LSC areas in the region the share of such employment exceeds the England average. At 2% per annum, the projected rate of job loss is slightly faster than the UK average (1.8% per annum). South Yorkshire displays the fastest projected rate of employment loss (2.6% per annum). By 2012 skilled trades occupations are expected to account for around 225,000 jobs in the region; about 50,000 fewer than in 2002. Projected job losses are concentrated in *skilled metal/electrical trades,* with an expected decline of about 35,000 jobs. A loss of nearly 15,000 jobs is expected for *skilled construction and building trades.* A modest job loss is expected for *other skilled trades,* while for *skilled agricultural* trades employment levels are projected to remain stable. Males are expected to account for the entire projected employment decline, while employment levels for females are maintained.

Personal service occupations

At 3.1% per annum, projected growth in personal service occupations is similar to the UK average. At local area level the projected annual average rate of growth ranges from 2.5% in South Yorkshire to 3.5% in North Yorkshire. Nearly all the projected increase of around 65,000 jobs for this Major Group is accounted for by *caring personal service occupations,* with *leisure occupations* accounting for the remainder. By 2012 personal service occupations are projected to account for more than 10% of employment in the region and across all local LSC areas. Females account for nearly all the projected employment gains.

Sales and customer service occupations

Yorkshire and the Humber is projected to witness a faster rate of growth in sales and customer service occupations than any other region. Only Humberside has a projected annual average growth rate of less than 2.2%. This will increase the over-representation of employment in this SOC Major Group: by 2012 over 10% of total regional employment is expected to be in sales and customer service occupations, compared with 9% nationally. All local LSC areas are expected to have at least 10% of total employment accounted for by this SOC Major Group, also. Both *customer service occupations* and *sales occupations* are expected to experience growth rates in excess of the UK average, with projected job gains of 20,000 and 30,000, respectively. Females are expected to account for around three-fifths of the expected job gains.

Machine and transport operatives

Yorkshire and the Humber has a greater share of employment in this Major Group than the UK average. Within the region, the share of total employment accounted for by this SOC Major Group ranges from 9% in North Yorkshire to over 11% in Humberside. At 0.8% per annum, the projected rate of job loss is slower than the UK average (1.1% per annum), so the over-representation of machine and transport operatives is set to continue. At local LSC area level, projected annual average rates of employment decline vary between 0.2% per annum in North Yorkshire and 1.1% per annum in South Yorkshire. The overall projected loss of around 20,000 jobs is a function of a decrease in employment for *process machine operatives* of 25,000, coupled with a modest increase in the number of *drivers and other operatives*. By 2012 machine and transport operatives are expected to account for 9% of employment in the region, compared with 14% in 1982. Females account for the majority of the projected job losses.

Elementary occupations

Nearly 65,000 jobs in elementary occupations are projected to be lost in Yorkshire and the Humber over the period to 2012. At 2.4% per annum, this represents a faster rate of loss than the UK average. At local LSC area level, projected annual average rates of employment decline range from 2.1% in North Yorkshire to 2.8% in South Yorkshire. Employment in *elementary service occupations* is projected to contract by over 40,000, while a job loss of around 20,000 is expected in *elementary trades occupations*. By 2012 less than 10% of regional employment is expected to be in elementary service occupations, compared with around 20% in 1982. At local LSC area level the share of total employment accounted for by elementary occupations ranges from 9% in West Yorkshire and South Yorkshire to 11% in North Yorkshire. Females account for around 70% of the projected employment decline.

Table 8.2: Occupational change in Yorkshire and the Humber

	Yorkshire and the Humber											England		UK	
	1982	1992	2002	2012	1982	1992	2002	2012	2002-2012			2002-2012		2002-2012	
Occupation groups	000s	000s	000s	000s	% of total	% of total	% of total	% of total	change 000s	% change	% per annum	% change	% per annum	% change	% per annum
Corporate managers	132	173	225	266	6.3	7.8	9.7	11.1	41	18.0	1.7	21.2	1.9	20.4	1.9
Managers / proprietors	76	84	84	80	3.6	3.8	3.6	3.3	-4	-4.2	-0.4	-6.7	-0.7	-7.0	-0.7
Managers and officials	*208*	*256*	*309*	*347*	*9.9*	*11.6*	*13.4*	*14.4*	*37*	*12.0*	*1.1*	*14.3*	*1.3*	*13.4*	*1.3*
Sc. and tech. profs.	34	44	55	68	1.6	2.0	2.4	2.8	13	23.1	2.1	23.4	2.1	22.5	2.0
Health professionals	11	14	20	24	0.5	0.6	0.9	1.0	4	21.0	1.9	20.2	1.9	19.1	1.8
Teaching and res. profs.	71	89	105	117	3.4	4.0	4.5	4.9	12	11.5	1.1	18.5	1.7	19.9	1.8
Business professionals	29	38	50	60	1.4	1.7	2.1	2.5	11	21.6	2.0	24.9	2.3	23.0	2.1
Professional occs	*145*	*186*	*230*	*269*	*6.9*	*8.4*	*9.9*	*11.2*	*40*	*17.3*	*1.6*	*21.6*	*2.0*	*21.3*	*1.9*
Sc. and tech. assoc. profs.	24	30	44	57	1.1	1.4	1.9	2.4	12	27.9	2.5	24.9	2.2	24.5	2.2
Health assoc. profs.	56	71	73	72	2.7	3.2	3.2	3.0	-2	-2.1	-0.2	13.4	1.3	12.8	1.2
Protect. serv. occs	17	20	33	39	0.8	0.9	1.4	1.6	6	18.5	1.7	22.0	2.0	20.3	1.9
Culture, med. and sports	17	23	35	42	0.8	1.0	1.5	1.8	8	21.9	2.0	31.9	2.8	31.2	2.8
Business assoc. profs.	67	82	97	109	3.2	3.7	4.2	4.5	11	11.7	1.1	15.9	1.5	15.1	1.4
Assoc. prof. and tech.	*180*	*227*	*282*	*318*	*8.6*	*10.3*	*12.2*	*13.2*	*36*	*12.7*	*1.2*	*19.7*	*1.8*	*18.8*	*1.7*
Admin and clerical	196	224	221	232	9.4	10.1	9.6	9.6	11	4.8	0.5	-7.5	-0.8	-6.3	-0.7
Secretarial and related	74	88	71	59	3.5	4.0	3.1	2.5	-12	-16.5	-1.8	-25.0	-2.8	-24.0	-2.7
Admin. cler. and sec.	*270*	*312*	*292*	*291*	*12.9*	*14.1*	*12.6*	*12.1*	*-1*	*-0.4*	*0.0*	*-12.2*	*-1.3*	*-11.0*	*-1.2*
Skilled agric. trades	37	29	29	30	1.8	1.3	1.3	1.3	1	3.8	0.4	5.6	0.5	2.9	0.3
Skilled metal and electrical	180	146	107	71	8.6	6.6	4.6	3.0	-36	-33.8	-4.0	-30.3	-3.5	-31.2	-3.7
Skilled cons. and building	93	89	90	76	4.5	4.0	3.9	3.2	-13	-14.8	-1.6	-7.4	-0.8	-8.6	-0.9
Other skilled trades	73	74	53	50	3.5	3.3	2.3	2.1	-4	-7.0	-0.7	-7.9	-0.8	-8.4	-0.9
Skilled trades	*383*	*337*	*279*	*227*	*18.3*	*15.3*	*12.1*	*9.4*	*-52*	*-18.7*	*-2.0*	*-15.3*	*-1.6*	*-16.2*	*-1.8*
Caring personal service	40	74	139	201	1.9	3.4	6.0	8.3	61	44.1	3.7	46.0	3.9	44.8	3.8
Leisure occupations	36	42	45	50	1.7	1.9	2.0	2.1	5	10.1	1.0	9.0	0.9	7.8	0.8
Personal serv. occs	*76*	*116*	*185*	*251*	*3.6*	*5.3*	*8.0*	*10.4*	*66*	*35.7*	*3.1*	*36.0*	*3.1*	*34.8*	*3.0*
Sales occupations	123	147	169	198	5.9	6.6	7.3	8.2	29	17.2	1.6	11.4	1.1	10.5	1.0
Customer service occs.	7	10	32	51	0.3	0.5	1.4	2.1	19	60.7	4.9	47.0	3.9	48.2	4.0
Sales and cust. serv.	*130*	*157*	*200*	*249*	*6.2*	*7.1*	*8.7*	*10.3*	*48*	*24.0*	*2.2*	*17.6*	*1.6*	*17.0*	*1.6*

Table 8.2: Occupational change in Yorkshire and the Humber (continued)

	Yorkshire and the Humber											England		UK	
	1982	1992	2002	2012	1982	1992	2002	2012	2002-2012			2002-2012		2002-2012	
Occupation groups	000s	000s	000s	000s	% of total	% of total	% of total	% of total	change 000s	% change	% per annum	% change	% per annum	% change	% per annum
Process machine ops.	205	169	147	121	9.8	7.6	6.4	5.0	-26	-17.7	-1.9	-23.3	-2.6	-22.0	-2.4
Drivers and other ops.	88	84	95	101	4.2	3.8	4.1	4.2	6	6.6	0.6	7.3	0.7	5.8	0.6
Machine and trans. ops.	*292*	*253*	*242*	*222*	*14.0*	*11.5*	*10.5*	*9.2*	*-20*	*-8.1*	*-0.8*	*-10.0*	*-1.0*	*-10.1*	*-1.1*
Elementary: trades	156	124	113	93	7.5	5.6	4.9	3.9	-21	-18.2	-2.0	-18.4	-2.0	-18.2	-2.0
Elementary: service	252	240	180	138	12.1	10.9	7.8	5.7	-42	-23.3	-2.6	-20.3	-2.2	-20.5	-2.3
Elementary occs	*409*	*363*	*293*	*231*	*19.5*	*16.5*	*12.7*	*9.6*	*-63*	*-21.3*	*-2.4*	*-19.7*	*-2.2*	*-19.7*	*-2.2*
All occupations	2095	2207	2313	2404	100.0	100.0	100.0	100.0	91	4	0	5.1	0.5	4.5	0.4

Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Table R15b

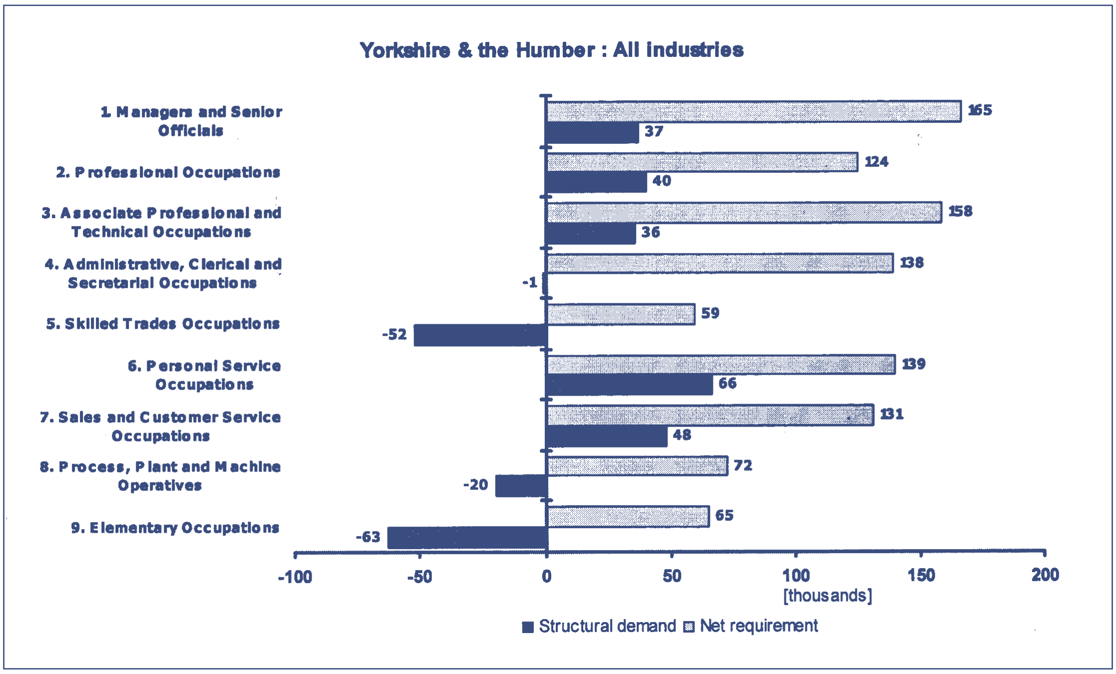
8.6 Projections of replacement demands

The key component of replacement demands is retirements from the workforce, especially those of older workers. However, replacement requirements for specific occupational groups, in particular geographical areas, can also arise for a number of other reasons. These include occupational mobility, as individuals change jobs for reasons of career progression (as well as other causes), and geographical mobility. Potentially, the latter may be quite important at a regional level. Unfortunately there are few reliable data on such flows, so the estimates presented here exclude replacement needs arising as a consequence of both occupational and geographical mobility. In both cases, there may be offsetting inflows to counterbalance some of the losses.

Even where projected structural changes suggest an overall reduction in employment levels, the total requirements are still positive. Hence, although the structural change projections outlined in the previous section indicate reductions in employment levels of nearly 65,000 for elementary occupations, over 50,000 in skilled trades occupations and 20,000 for machine and transport operatives, projected replacement demands more than offset these reductions. So, in the case of elementary occupations and skilled trades occupations, respectively, there are estimated replacement demands of over 125,000 and more than 110,000 (around 40% of the 2002 employment levels for each SOC Major Group). The total requirements are for 65,000 people in elementary occupations, about 60,000 in skilled trades occupations, and over 70,000 for transport and machine operatives. Although structural demand projections suggest relative stability in employment levels for administrative, clerical and secretarial occupations, replacement demands mean a total requirement for nearly 140,000 additional people over the period to 2012.

In personal service occupations and sales and customer service occupations where expansion demand changes suggest that the single largest number of new openings will be, the replacement demands are even more substantial. Hence, total requirements indicate a need for about 140,000 people in personal service occupations (75% of the 2002 employment level) and 130,000 in sales and customer service occupations (65% of the 2002 employment level). However, the largest estimated total requirements are for managers and senior officials (165,000) and for associate professional and technical occupations (nearly 160,000). These total requirements represent about 55% of the 2002 employment levels, as does the estimated total requirement for about 125,000 people in professional occupations over the period to 2012.

Figure 8.3 Replacement Demands for Yorkshire and the Humber



Source: CE/IER estimates, MDM95 C31 F95 Forecast, ReplacementDemands.xls

NORTH WEST

9.1 Overview

The North West was the cradle of the Industrial Revolution and is the most densely populated region after London, including two core cities: Manchester and Liverpool. Manchester used the 2002 Commonwealth Games to enhance its image and provide opportunities for economic development, while Liverpool's Capital of Culture bid has been successful. Lancashire and Cheshire have more mixed urban-rural environments, while Cumbria is predominantly rural in nature.

The North West is the fourth largest regional economy in the UK. It has a diverse business base offering a wide range of employment opportunities. Some parts of the North West are amongst the most prosperous parts of the UK, and have over-heated housing markets. A key strength of the region is its strong higher education institutions. However, the Framework for Regional Employment and Skills Action (FRESA) highlights that productivity levels are relatively low and are constrained by high levels of basic skills deficiencies amongst the adult workforce. There are also more general concerns about levels of educational attainment amongst school pupils relative to their peers in other regions.

Low activity rates are a particular concern in the Merseyside sub-region, which retains its Objective 1 status. Low demand for housing, and abandoned housing, is a growing problem in this sub-region. Indeed, the problem of obsolescence of the physical urban fabric of parts of the North West is illustrated by the fact that four out of the nine Market Renewal Pathfinder Areas announced in 2003 are in the region.

Despite projected stability in population levels, the labour force in the North West is expected to increase over the period to 2012, albeit at a slower rate than across the UK as a whole. The projected annual average rate of regional employment growth is slightly slower than the UK average. At local level, projected employment growth in Cheshire and Warrington exceeds that expected across the UK as a whole, while employment is projected to be maintained at the 2002 level in Greater Merseyside.

In all broad sectors other than business and other services, projected employment change is less favourable than the UK average. In absolute terms, the expected 90,000 reduction in manufacturing jobs is the largest projected for any region. Business and other services account for a larger proportion of total employment in Greater Manchester and in Cheshire and Warrington than in other parts of the North West, especially Cumbria. All local LSC areas in the North West, with the exception of Cheshire and Warrington, display a greater share of employment in non-marketed services than the UK average. In Greater Merseyside this broad sector is expected to account for a third of total employment (more than in any other local LSC area) by 2012.

Full-time employees account for a greater share of total employment in the major urban centres than in more rural areas. Projected employment gains are confined to females (both full-time and part-time employees) and to male part-time employees.

Projected growth rates of managers and senior officials are slower than the UK average. However, for professional and associate professional occupations projected growth rates are similar to the UK average. The large urban centres display the highest proportions of total employment accounted for by professional occupations and also administrative, clerical and secretarial occupations. Across all local LSC areas in the North West the projected rate of job loss in administrative, clerical and secretarial occupations is slower than the UK average. Job gains are expected in personal service occupations and in sales and customer service occupations. Projected rates of employment decline for skilled trades occupations, machine and transport operatives and elementary occupations exceed the national average. However, replacement demands are such that total requirements are still positive in all SOC Major Groups.

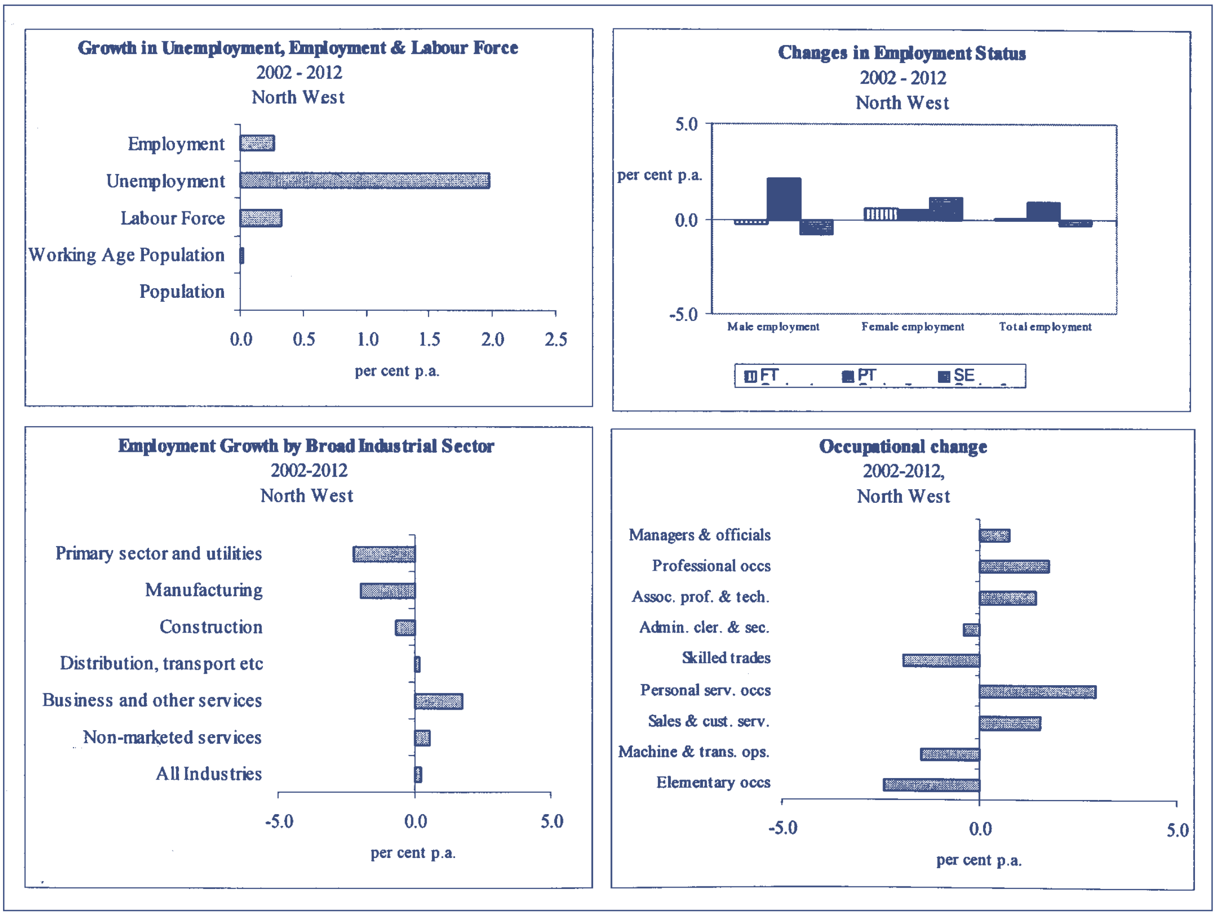
9.2 Labour supply and demand

The *population* in the North West is projected to remain stable in size between 2002 and 2012 at 6.89 million (see Figures 9.1 and 9.2). This contrasts with population growth at 0.4% per annum across the UK as a whole. The *working age population* of around 4.2 million is projected to increase very slightly in size over the same period. Nevertheless, the *labour force* is projected to increase by about 110,000 to reach 3.44 million in 2012. At an annual per annum growth rate of 0.3%, this increase is expected to occur at a slower rate than across the UK as a whole (0.5% per annum). The increase is the labour force is attributable to a rise in the *economic activity rate* of nearly 2 percentage points between 2002 and 2012: the largest increase expected for any region. This increase contrasts with a slight decline across the UK as a whole. However, even with this increase, the economic activity rate in the North West, at about 77%, is projected to remain about 1 percentage point lower than the UK average.

Unemployment is projected to increase by about 25,000 between 2002 and 2012, to reach nearly 145,000 in 2012. This represents a similar rate of growth to that projected across the UK as a whole. The unemployment rate is projected to remain higher than the UK average.

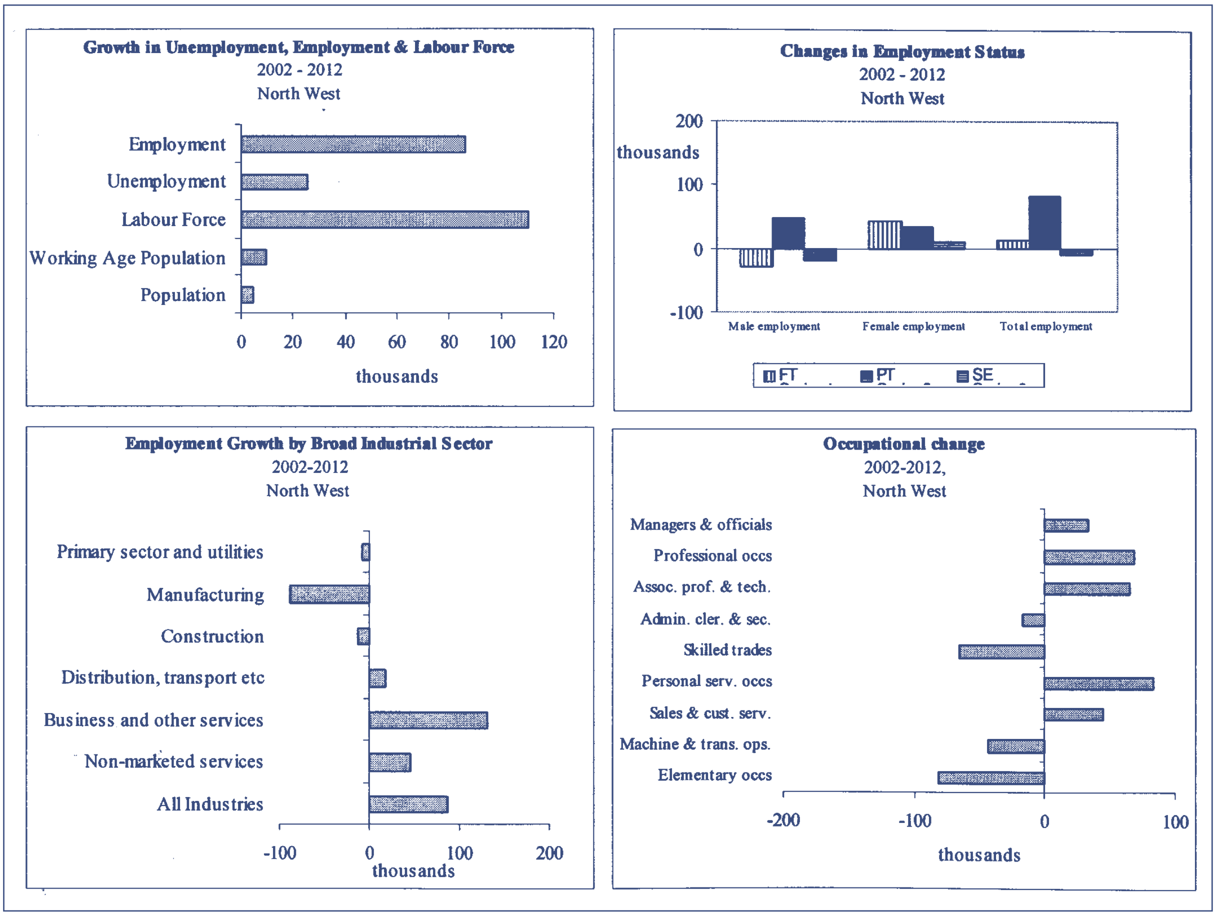
Total employment in the North West is expected to increase by about 85,000 between 2002 and 2012 to reach 3.28 million in 2012. The projected growth rate over this period, at 0.3% per annum, is below the UK average of 0.4% per annum. The pattern of decline in the North West's share of total UK employment is set to continue, with the region projected to account for 10.7% of the national total in 2012. Within the North West, at 0.6% per annum Cheshire and Warrington is the only LSC area to display a projected growth rate for the period from 2002 to 2012 in excess of the England average. At the opposite end of the spectrum Greater Merseyside, ranked in the 'bottom 3' in England on projected employment rates, is expected to maintain the 2002 level of employment over the decade. Elsewhere in the North West, Lancashire and Greater Manchester have projected growth rates of 0.3% per annum, while in Cumbria employment is expected to expand at a rate of 0.1% per annum.

Figure 9.1 Key changes in the North West % p.a.



Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Figure R.1 (%)

Figure 9.2 Key changes in the North West (000s)



Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Figure R.1 (000s)

9.3 Sectoral prospects

At the broad sectoral level, the picture for the North West is one of employment losses in the primary sector and utilities, manufacturing and construction, and employment gains in distribution, transport, etc., business and other services, and non-marketed services (see Figures 9.1 and 9.2, Table 9.1). In absolute terms, as across all other regions, the dominant feature of employment decline is the loss of 90,000 jobs in manufacturing. In relative terms, this represents a greater loss than that recorded across the UK as a whole. This contrasts with gains of around 130,000 jobs in business and other services, and with smaller, but substantial, increases of over 45,000 jobs in non-marketed services and 20,000 jobs in distribution, transport, etc. With the exception of business and other services, the projected rates of employment change for the North West are less favourable than the UK average.

In the *primary and utilities* sector a loss of 9,000 jobs is expected. *Agriculture and gas, electricity and water* account for job losses in nearly equal measures. Males account for two thirds of the projected job losses. Within the North West, Cumbria and Cheshire and Warrington record the greatest concentration of jobs in this broad sector. In all local LSC areas the projected annual average rate of loss exceeds the England average.

The projected loss of 90,000 jobs in *manufacturing* in the North West is the largest expected for any region in the UK, and, at 18%, represents the largest percentage job loss for any region in England. Manufacturing accounted for around 760,000 jobs in the North West in 1982, over 580,000 in 1992 and 490,000 in 2002. By 2012 there are projected to be 400,000 manufacturing jobs in the North West. Males account for over 70% of this overall decline. Job losses are overwhelmingly concentrated in the *rest of manufacturing,* with nearly 75,000 jobs expected to be lost over the decade. This represents a rate of loss of 2.3% per annum, which is considerably in excess of the UK average. 10,000 jobs are projected to be lost in *engineering.* This represents a 13% reduction over the period, compared with a loss of 18% across the UK. Employment in *food, drink and tobacco* is expected to contract by a tenth, with a loss of 6,000 jobs. At local level, manufacturing accounts for nearly a fifth of total employment in Lancashire and Cumbria. Greater Merseyside is the only local LSC area in the North West with a smaller share of such employment than the England average. There is little local variation in projected rates of job loss.

Employment in *construction* in the North West is projected to decline by 13,000 jobs. This represents a faster rate of loss than the UK average. All local LSC areas in the North West are expected to share in this employment decrease, ranging from an annual average projected rate of loss of 0.4% in Lancashire to 1.1% in Cumbria and Greater Merseyside.

The annual average rate of employment growth in *distribution, transport, etc.* in the North West, at 0.2% per annum, is slower than the UK average. At local LSC area level, in Greater Manchester and Greater Merseyside employment levels are expected to remain fairly stable, while in Cheshire and Warrington the projected rate of annual average employment growth reaches 0.8%. Employment for females in this broad sector is expected to increase by 20,000, contrasting with a projected loss of 10,000 jobs for males. Within this broad sector employment in each of *retail distribution* and *hotels and restaurants* is expected to expand by 15,000. In the former case this represents an annual average rate of employment growth below the national average, while in the latter instance the growth rate (0.7% per annum) is in excess of the national average. A loss of 13,000 jobs is expected in *transport, storage and communication;* this contrasts with projected employment gains at the national scale. The broad sector is expected to retain its 30% contribution to regional employment. Cumbria displays the largest share of total employment in this broad sector of any local LSC area in the region.

As across the UK, the greatest projected employment increase is expected in *business and other services.* 130,000 extra jobs are projected between 2002 and 2012, representing an increase of nearly 19%. At 1.7% per annum, the projected growth rate is slightly higher than the UK average. 100,000 additional jobs for males are expected; indeed, this is the only broad sector in which there is projected to be employment growth for males in the region. The majority of the increase in total employment is accounted for by *other business services,* with nearly 115,000 extra jobs. By 2012 this industry is expected to account for 16% of employment in the North West, compared with 13% in 2002 and 8% in 1982. An extra 20,000 jobs in *other services* are expected, while a modest reduction in employment in *banking and finance* is projected. At local level, only Greater Merseyside records a slower rate of projected employment growth in this broad sector than the England average. In all local LSC areas the share of employment in business and other services is projected to remain below the England average, although in Greater Manchester and Cheshire and Warrington the shares are close to the national average. In the most rural part of the region – Cumbria - this broad sector accounts for a mere 16% of total employment.

Employment in *non-marketed services* is projected to expand by over 45,000 jobs between 2002 and 2012, representing an annual average growth rate of 0.6%; this is the same rate of growth as projected across the UK as a whole. *Health and social work* account for half of the projected employment gains, with *education* accounting for the majority of the remainder. By contrast, employment levels in *public administration* and *defence* are projected to remain fairly stable. Within the North West only Lancashire records a projected rate of employment increase that matches the England average. Nevertheless, in all local LSC areas with the exception of Cheshire and Warrington, non-marketed services are projected to continue to account for a greater share of total employment than the England average. Here, the broad sector is expected to comprise 19% of total employment in 2012, compared with 33% in Greater Merseyside (the largest proportion for any local LSC area in England).

Table 9.1: Sectoral change in the North West

	North West											England		UK	
	1982	1992	2002	2012	1982	1992	2002	2012	2002-2012			2002-2012		2002-2012	
Sectoral categories	000s	000s	000s	000s	% of total	% of total	% of total	% of total	change 000s	% change	% per annum	% change	% per annum	% change	% per annum
1. Agriculture hunting forestry fishing	47	39	22	18	1.6	1.3	0.7	0.6	-4	-17.3	-1.9	-15.2	-1.6	-15.2	-1.6
2. Mining and quarrying	10	3	4	4	0.3	0.1	0.1	0.1	0	-9.8	-1.0	-20.5	-2.3	-19.0	-2.1
6. Electricity gas and water	53	22	17	13	1.8	0.7	0.5	0.4	-5	-26.5	-3.0	-19.5	-2.2	-19.2	-2.1
Primary sector and utilities	*110*	*64*	*44*	*35*	*3.7*	*2.1*	*1.4*	*1.1*	*-9*	*-20.2*	*-2.2*	*-16.7*	*-1.8*	*-16.5*	*-1.8*
3. Food drink and tobacco	99	71	63	57	3.3	2.4	2.0	1.7	-6	-9.6	-1.0	-9.3	-1.0	-9.7	-1.0
4. Engineering	137	99	80	70	4.6	3.3	2.5	2.1	-10	-12.9	-1.4	-16.0	-1.7	-18.0	-2.0
5. Rest of manufacturing	526	413	345	272	17.8	13.8	10.8	8.3	-73	-21.1	-2.3	-17.0	-1.8	-17.3	-1.9
Manufacturing	*762*	*583*	*488*	*399*	*25.8*	*19.4*	*15.3*	*12.2*	*-89*	*-18.2*	*-2.0*	*-15.9*	*-1.7*	*-16.5*	*-1.8*
7. Construction	184	188	193	181	6.2	6.3	6.1	5.5	-13	-6.6	-0.7	-1.3	-0.1	-3.2	-0.3
8. Retail distribution	502	534	567	584	17.0	17.8	17.8	17.8	16	2.9	0.3	7.5	0.7	7.1	0.7
9. Hotels and restaurants	169	189	200	216	5.7	6.3	6.3	6.6	15	7.6	0.7	2.2	0.2	0.8	0.1
10. Transport storage and communication	186	182	204	191	6.3	6.1	6.4	5.8	-13	-6.3	-0.6	1.8	0.2	1.3	0.1
Distribution transport etc.	*857*	*905*	*971*	*990*	*29.0*	*30.2*	*30.4*	*30.2*	*19*	*1.9*	*0.2*	*5.2*	*0.5*	*4.5*	*0.4*
11. Banking and Insurance	94	111	104	101	3.2	3.7	3.2	3.1	-2	-2.3	-0.2	3.0	0.3	3.7	0.4
12. Other business activities	233	319	411	524	7.9	10.6	12.9	16.0	113	27.4	2.5	21.3	1.9	21.5	2.0
16. Other services	123	151	187	208	4.2	5.0	5.8	6.3	21	11.3	1.1	14.4	1.4	14.7	1.4
Business and other services	*451*	*581*	*701*	*832*	*15.2*	*19.4*	*22.0*	*25.4*	*131*	*18.7*	*1.7*	*16.9*	*1.6*	*17.1*	*1.6*
13. Public admin and defence	174	159	169	172	5.9	5.3	5.3	5.2	2	1.3	0.1	-2.4	-0.2	-2.1	-0.2
14. Education	187	203	273	293	6.3	6.8	8.5	8.9	21	7.5	0.7	8.6	0.8	8.5	0.8
15. Health and social work	233	317	354	378	7.9	10.6	11.1	11.5	24	6.8	0.7	10.2	1.0	9.5	0.9
Non-marketed services	*594*	*678*	*796*	*842*	*20.1*	*22.6*	*24.9*	*25.7*	*47*	*5.9*	*0.6*	*7.0*	*0.7*	*6.7*	*0.6*
All Sectors	2957	3000	3194	3280	100.0	100.0	100.0	100.0	86	2.7	0.3	5.1	0.5	4.5	0.4

Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Table R14b

9.4 Change in employment by gender and employment status

In 1982 males comprised nearly 57% of those in employment in the North West, compared with a UK proportion of 59%. This was one of the lowest proportions of any region in the UK. By 2002 males accounted for just over 53% of all those in employment in the region; a share slightly greater than the UK average. It is projected that this regional:national differential will be maintained, and that by 2012 males will account for 52% of those in employment in the North West. At local LSC area level within the North West the projected share of male employment ranges from 49% in Greater Merseyside to 55% in Cheshire and Warrington. The share of full-time employees in 2012 is projected to vary from 57% in Cumbria and 58% in Greater Merseyside to 62% in Greater Manchester.

Between 2002 and 2012 a loss of 30,000 male full-time jobs in the North West is projected. By contrast, the number of male part-time employees is projected to increase by 50,000 (Figure 9.2). At 0.2% per annum, the projected rate of loss for male full-time employees exceeds the UK average, but is not as fast as the rates of decrease expected in the midlands regions and Yorkshire and the Humber. Within the North West, projected losses of male full-time employees are concentrated in Greater Merseyside, Lancashire and Cumbria, while stability in employment levels is expected elsewhere. At 2.1% per annum, the projected rate of increase for male part-time employment is somewhat slower than the UK average (2.4% per annum). For females, there are projected increases of nearly 45,000 full-time employees and 35,000 part-time employees. In the case of female full-time employees this represents a rate of increase slightly greater than the UK average. However, at 0.5% per annum, the projected rate of increase for female part-time employees is substantially slower than the UK average (1.1% per annum), and is the slowest for any region of the UK, along with the North East. However, all local areas are projected to share in these increases. A loss of just over 10,000 self-employed is expected.

9.5 Occupational prospects

Overview

This section concentrates on the employment projections for different occupations. It should be remembered that such 'structural demand' provides only part of the overall picture of occupational change. For a fuller picture of the changing requirements for different occupations it is necessary to bear in mind the impact of retirements, inter-occupational moves, etc, as captured by 'replacement demand' (see Section 9.6).

At the level of SOC Major Groups, the largest increase in occupational employment between 2002 and 2012 is projected for personal service occupations, with an expected increase of nearly 85,000 jobs. The next largest projected increases are for professional occupations and associate professional and technical occupations, with nearly 70,000 and 65,000 additional jobs, respectively (see Figure 9.1). Employment increases are also expected in sales and customer service occupations (around 45,000 jobs) and for managers and senior officials (nearly 35,000 additional jobs).

Employment in elementary occupations is projected to contract by 80,000 and in skilled trades occupations by around 65,000. Around 45,000 job losses are expected for machine and transport operatives. A more modest decline of nearly 20,000 jobs is expected for administrative, clerical and secretarial occupations.

Managers and senior officials

The net gain of nearly 35,000 jobs in this SOC Major Group is a function of a projected increase of nearly 45,000 jobs for *corporate managers* coupled with a loss of around 10,000 jobs for *managers and proprietors*. The rate of gain for the former occupational group and of decline for the latter exceeds the UK average, such that overall employment is projected to increase at 0.7% per annum compared with an annual average rate of 1.3% across the UK. This is the slowest projected rate of growth for any part of the UK except Wales. By 2012 *managers and senior officials* are expected to account for 14% of total employment in the region, compared with 16% nationally. Projected shares of total employment and growth rates are slower than the national average in all local LSC areas. At local area level, growth rates range from 0.4% per annum in Greater Merseyside to 1.1% in Cheshire and Warrington. Females are expected to account for all of the employment increase, while employment levels for males are expected to remain stable.

Professional occupations

At slightly over 11%, the share of regional employment accounted for by *professional occupations* is akin to the UK average. At local level the shares range from less than 10% in Cumbria (the most rural local LSC area in the region) to nearly 12% in the metropolitan areas covered by the Greater Merseyside and Greater Manchester LSC areas. With a projected increase of nearly 70,000 jobs, this share of the total is expected to rise to 13%. At 1.8% per annum, the projected rate of growth is similar to the UK average. Within the region, Greater Manchester and Cheshire and Warrington display the fastest rates of projected employment growth, at 2% per annum. At regional level, all occupations are expected to share in this employment increase, with *teaching and research professionals* leading the way with a projected increase of around 35,000 jobs, followed by *science and technology professionals* with 20,000 additional jobs. In both instances these gains represent rates of increase similar to the UK average. The projected gain of 10,000 jobs for *business professionals* is indicative of a slower rate of employment growth than nationally, while a rate of growth for *health professionals* only half the UK average results in only a small projected increase in employment. Females are expected to account for 60% of the increase in professional positions.

Associate professional and technical occupations

Within this Major Group, employment is expected to increase by around 15,000 for each of *science and technology associate professionals, business associate professionals, culture, media and sports occupations* and *health associate professionals.* Expected gains for *protective service occupations* are more modest at around 5,000. The rates of growth for science and technology associate professionals and health associate professionals are similar to the UK average, while for the other occupational groups the projected growth rates are somewhat slower than the UK average. Females account for somewhat more than half the projected net increase of 65,000 jobs in this SOC Major Group between 2002 and 2012. By 2012 the share of total regional employment in associate professional and technical occupations is set to rise to 15%, compared with 16% nationally. At local LSC area level, in the Greater Merseyside area the representation of this SOC Major Group in total employment is close to the national average, while elsewhere under-representation is evident. Within the region, Cumbria displays the smallest share of total employment accounted for by associate professional and technical occupations.

Administrative, clerical and secretarial occupations

A projected loss of around 20,000 jobs in administrative, clerical and secretarial occupations is accounted for solely by expected employment contraction in *secretarial and related occupations,* while employment levels in *administrative* and *clerical occupations* remain fairly stable, contrasting with a projected loss nationally. This is the only SOC Major Group in the North West where projected employment change is more favourable than the UK average. Even in Greater Merseyside, which displays the fastest rate of projected employment loss in the North West, the decrease is slower than average. In Cheshire and Warrington the projection is for a small increase in employment in this SOC Major Group. Expected to account for over 12% of regional employment in the North West in 2012, this share is larger than in any other English region. Within the North West, Greater Manchester and Greater Merseyside display the largest projected shares in 2012. A projected gain of around 30,000 jobs for males is insufficient to cancel out more substantial job losses expected amongst females.

Skilled trades occupations

The projected loss of around 65,000 jobs in this Major Group is similar to the decline expected in the West Midlands and is exceeded in absolute terms only by the projected job losses in London. At 2% per annum, the projected rate of job loss is only slightly faster than the UK average (1.8% per annum). At local LSC area level, there is relatively little variation in projected rates of employment loss over the period to 2012. 50,000 jobs are expected to be lost in *skilled metal and electrical trades,* so that by 2012 this occupational group is expected to account for 3% of regional employment compared with 8% in 1982. A reduction of over 10,000 jobs is projected for *skilled construction and building trades.* A loss of 5,000 jobs is expected in *other skilled trades,* while for *skilled agricultural trades* employment levels are projected to remain stable. By 2012 this SOC Major Group is expected to account for 300,000 jobs (just over 9% of the total) in the North West, compared with nearly 500,000 in 1992. At local LSC area level, the projected shares of total employment accounted for by skilled trades occupations range from 8% in Greater Merseyside to 10% in Cumbria. Males account for virtually all the projected reduction of employment in skilled trades occupations.

Personal service occupations

Employment in *personal service occupations* is projected to increase by nearly 85,000 (36%) between 2002 and 2012. At 3% per annum, the projected rate of employment growth is the same as the UK average.
At local area level the projected annual average rate of growth ranges from 2.7% in Greater Merseyside to 3.3% in Lancashire. Employment levels in *caring personal service occupations* are expected to increase by 80,000, while a modest increase in *leisure occupations* is expected also. By 2012 personal service occupations are expected to account for 10% of regional employment, compared with 5% in 1992. At local area level the projected shares of total employment in 2012 accounted for by this SOC Major Groups are expected to range from less than 9% in Cheshire and Warrington to over 11% in Greater Merseyside. Females are projected to account for nearly all of the expected job gains.

Sales and customer service occupations

At 1.5% per annum, the projected rate of employment growth in *sales and customer service occupations* between 2002 and 2012 is only slightly slower than the UK average (1.6% per annum). Within the region, projected annual average growth rates range from 1.1% per annum in Greater Merseyside to 2.3% per annum in Cheshire and Warrington. An additional 25,000 jobs in *customer service occupations* are expected, representing a 55% increase from 2002. The projected gain for *sales occupations* is about 20,000. In relative terms, this Major Group accounts for a slightly higher share of total employment in the North West than across the UK as a whole.

Machine and transport operatives

In the case of *machine and transport operatives* there is a projected loss of nearly 45,000 jobs. This represents an annual average rate of decrease of 1.5% per annum: the fastest of any English region outside London. All local LSC areas display projected rates of employment decline in excess of the national average. By 2012 machine and transport operatives are projected to comprise 8% of total employment in the North West (compared with about 7% across the UK as a whole). At local LSC area level, the projected share of total employment accounted for by this SOC Major Group varies between 7% in Greater Merseyside and 9% in Cumbria. A projected loss of 50,000 jobs for *process machine operatives* is offset by a much more modest expected increase for *drivers and other operatives.* Losses of at least 20,000 jobs are expected for both males and females.

Elementary occupations

The largest projected job loss between 2002 and 2012 is recorded for *elementary occupations,* with an expected reduction of 80,000 jobs. This is more than in any region outside London. However, at 2.4% per annum, the projected rate of loss is not that much greater than that expected across the UK as a whole (2.2% per annum). At local LSC area level, projected annual average rates of job loss vary from 2.1% in Cheshire and Warrington to 2.8% in Greater Merseyside. Females are projected to account for two thirds of the projected loss. By 2012 elementary occupations are expected to account for 290,000 jobs in the North West (9% of the total) compared with 550,000 (nearly 19% of the total) in 1982. Around 50,000 of the job losses are accounted for by *elementary service occupations,* while a reduction in employment levels of about 30,000 is expected for *elementary trades occupations.*

Table 9.2: Occupational change in the North West

	North West											England		UK	
	1982	1992	2002	2012	1982	1992	2002	2012	2002-2012			2002-2012		2002-2012	
Occupation groups	000s	000s	000s	000s	% of total	% of total	% of total	% of total	change 000s	% change	% per annum	% change	% per annum	% change	% per annum
Corporate managers	192	240	316	361	6.5	8.0	9.9	11.0	44	14.0	1.3	21.2	1.9	20.4	1.9
Managers / proprietors	111	110	112	101	3.8	3.7	3.5	3.1	-11	-10.2	-1.1	-6.7	-0.7	-7.0	-0.7
Managers and officials	*304*	*351*	*428*	*461*	*10.3*	*11.7*	*13.4*	*14.1*	*33*	*7.7*	*0.7*	*14.3*	*1.3*	*13.4*	*1.3*
Sc. and tech. profs.	62	75	97	117	2.1	2.5	3.0	3.6	20	21.1	1.9	23.4	2.1	22.5	2.0
Health professionals	16	19	26	28	0.5	0.6	0.8	0.9	2	8.1	0.8	20.2	1.9	19.1	1.8
Teaching and res. profs.	96	119	169	206	3.3	4.0	5.3	6.3	36	21.5	2.0	18.5	1.7	19.9	1.8
Business professionals	43	51	66	75	1.5	1.7	2.1	2.3	10	14.4	1.4	24.9	2.3	23.0	2.1
Professional occs	*217*	*264*	*358*	*427*	*7.3*	*8.8*	*11.2*	*13.0*	*68*	*19.1*	*1.8*	*21.6*	*2.0*	*21.3*	*1.9*
Sc. and tech. assoc. profs.	38	45	68	86	1.3	1.5	2.1	2.6	17	25.1	2.3	24.9	2.2	24.5	2.2
Health assoc. profs.	82	101	114	127	2.8	3.4	3.6	3.9	13	11.2	1.1	13.4	1.3	12.8	1.2
Protect. serv. occs	28	29	45	51	0.9	1.0	1.4	1.5	6	13.1	1.2	22.0	2.0	20.3	1.9
Culture, med. and sports	24	32	52	66	0.8	1.1	1.6	2.0	14	26.0	2.3	31.9	2.8	31.2	2.8
Business assoc. profs.	96	116	144	159	3.2	3.9	4.5	4.8	15	10.6	1.0	15.9	1.5	15.1	1.4
Assoc. prof. and tech.	*267*	*323*	*423*	*488*	*9.0*	*10.8*	*13.3*	*14.9*	*65*	*15.3*	*1.4*	*19.7*	*1.8*	*18.8*	*1.7*
Admin and clerical	321	339	324	326	10.9	11.3	10.1	9.9	1	0.4	0.0	-7.5	-0.8	-6.3	-0.7
Secretarial and related	115	125	97	78	3.9	4.2	3.0	2.4	-19	-19.7	-2.2	-25.0	-2.8	-24.0	-2.7
Admin. cler. and sec.	*436*	*464*	*421*	*403*	*14.7*	*15.5*	*13.2*	*12.3*	*-18*	*-4.2*	*-0.4*	*-12.2*	*-1.3*	*-11.0*	*-1.2*
Skilled agric. trades	34	29	31	33	1.1	1.0	1.0	1.0	1	4.7	0.5	5.6	0.5	2.9	0.3
Skilled metal and electrical	236	197	152	101	8.0	6.6	4.7	3.1	-50	-33.1	-3.9	-30.3	-3.5	-31.2	-3.7
Skilled cons. and building	123	108	109	97	4.2	3.6	3.4	2.9	-12	-11.0	-1.2	-7.4	-0.8	-8.6	-0.9
Other skilled trades	101	98	75	70	3.4	3.3	2.3	2.1	-5	-6.7	-0.7	-7.9	-0.8	-8.4	-0.9
Skilled trades	*494*	*433*	*366*	*301*	*16.7*	*14.4*	*11.5*	*9.2*	*-66*	*-17.9*	*-2.0*	*-15.3*	*-1.6*	*-16.2*	*-1.8*
Caring personal service	57	96	182	261	1.9	3.2	5.7	8.0	79	43.5	3.7	46.0	3.9	44.8	3.8
Leisure occupations	54	59	63	67	1.8	2.0	2.0	2.0	4	6.2	0.6	9.0	0.9	7.8	0.8
Personal serv. occs	*110*	*155*	*245*	*328*	*3.7*	*5.2*	*7.7*	*10.0*	*83*	*33.9*	*3.0*	*36.0*	*3.1*	*34.8*	*3.0*
Sales occupations	174	200	224	242	5.9	6.7	7.0	7.4	19	8.3	0.8	11.4	1.1	10.5	1.0
Customer service occs.	12	15	47	73	0.4	0.5	1.5	2.2	26	55.3	4.5	47.0	3.9	48.2	4.0
Sales and cust. serv.	*186*	*215*	*271*	*315*	*6.3*	*7.2*	*8.5*	*9.6*	*44*	*16.4*	*1.5*	*17.6*	*1.6*	*17.0*	*1.6*

Table 9.2: Occupational change in the North West (continued)

	North West											England		UK	
	1982	1992	2002	2012	1982	1992	2002	2012	2002-2012			2002-2012		2002-2012	
Occupation groups	000s	000s	000s	000s	% of total	% of total	% of total	% of total	change 000s	% change	% per annum	% change	% per annum	% change	% per annum
Process machine ops.	281	221	175	125	9.5	7.4	5.5	3.8	-50	-28.7	-3.3	-23.3	-2.6	-22.0	-2.4
Drivers and other ops.	114	113	135	142	3.9	3.8	4.2	4.3	7	5.4	0.5	7.3	0.7	5.8	0.6
Machine and trans. ops.	*395*	*334*	*310*	*267*	*13.4*	*11.1*	*9.7*	*8.1*	*-43*	*-13.9*	*-1.5*	*-10.0*	*-1.0*	*-10.1*	*-1.1*
Elementary: trades	188	141	122	93	6.4	4.7	3.8	2.8	-29	-24.0	-2.7	-18.4	-2.0	-18.2	-2.0
Elementary: service	361	320	249	198	12.2	10.7	7.8	6.0	-52	-20.7	-2.3	-20.3	-2.2	-20.5	-2.3
Elementary occs	*549*	*461*	*372*	*291*	*18.6*	*15.4*	*11.6*	*8.9*	*-81*	*-21.8*	*-2.4*	*-19.7*	*-2.2*	*-19.7*	*-2.2*
All occupations	2957	3000	3194	3280	100.0	100.0	100.0	100.0	86	3	0	5.1	0.5	4.5	0.4

Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Table R15b

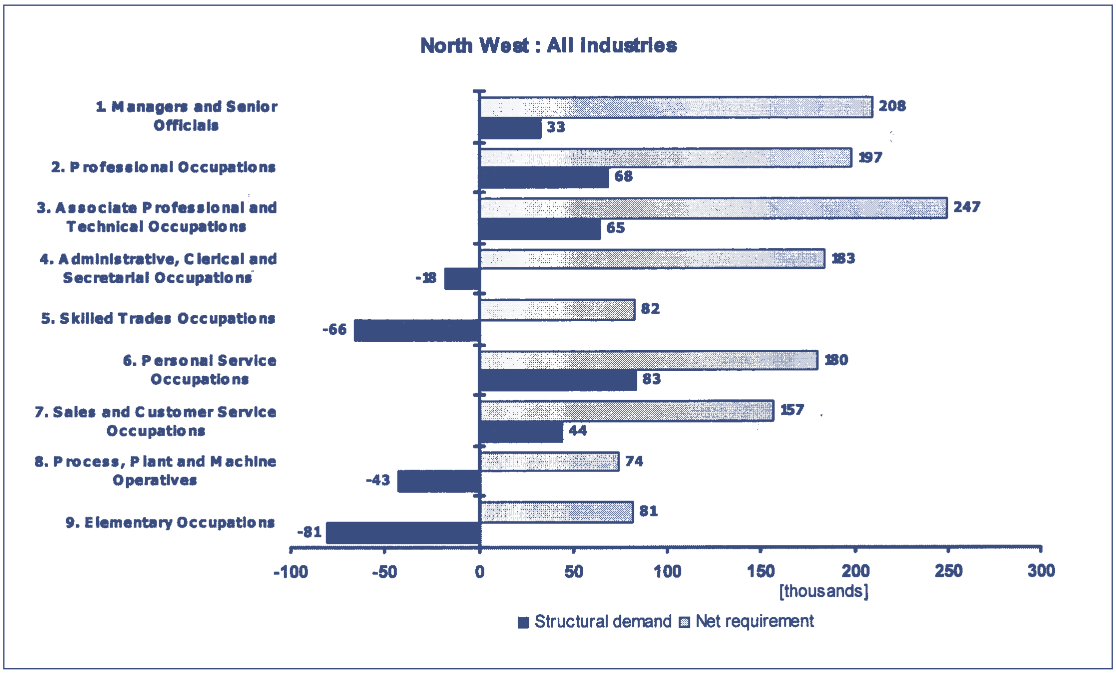
9.6 Projections of replacement demands

The key component of replacement demands is retirements from the workforce, especially those of older workers. However, replacement requirements for specific occupational groups, in particular geographical areas, can also arise for a number of other reasons. These include occupational mobility, as individuals change jobs for reasons of career progression (as well as other causes), and geographical mobility. Potentially, the latter may be quite important at a regional level. Unfortunately there are few reliable data on such flows, so the estimates presented here exclude replacement needs arising as a consequence of both occupational and geographical mobility. In both cases, there may be offsetting inflows to counterbalance some of the losses.

Although projected structural changes suggest an overall reduction in employment levels for four of the SOC Major Groups, the total requirements are still positive in each. The largest projected reductions in employment on the basis of structural demand changes involve elementary occupations (80,000 jobs) and skilled trades occupations (about 65,000 jobs). However, estimated replacement demands are for nearly 165,000 (45% of the 2002 employment level) and nearly 150,000 (40% of the 2002 employment level) in elementary occupations and for skilled trades occupations, respectively. The total requirements are for about 80,000 people in elementary occupations and 80,000 in skilled trades occupations. Likewise despite projected structural demand losses of nearly 45,000 transport and machine operatives and nearly 20,000 people in administrative, clerical and secretarial occupations, replacement demands mean, respectively, total requirements for nearly 75,000 and nearly 185,000 additional people over the period to 2012.

In personal service occupations where expansion demand changes suggest that the single largest number of new openings will be, the replacement demands are even more substantial. Hence, total requirements indicate a need for about 180,000 people (nearly 75% of the 2002 employment level) in this SOC Major Group by 2012. However, the largest total requirements are expected in the higher level non-manual occupations: for associate professional and technical occupations (nearly 250,000), managers and senior officials (nearly 210,000) and professional occupations (over 195,000). For sales and customer service occupations the estimated total requirement is for over 155,000 additional people.

Figure 9.3 Replacement Demands for the North West



Source: CE/IER estimates, MDM95 C31 F95 Forecast, ReplacementDemands.xls

NORTH EAST

10.1 Overview

On most labour market and socio-economic indicators the North East under-performs relative to most other regions. The North East Framework for Regional Employment and Skills Action (FRESA) acknowledges that the region faces more severe problems of high unemployment and inactivity, poverty and social exclusion and lower levels of productivity and skills than other regions. Benefits data suggest that 18% of the adult workforce is primarily dependent on income from benefits. Nearly a third of the population of the region live in the 10% most deprived wards in England. The North East suffers a low skill equilibrium, with low knowledge intensity sectors dominant in employment terms. The incidence of skill shortages reported by employers in the region is lower than the national average, although skill gaps are more prevalent than nationally. In some parts of the region (in particular parts of Tyne and Wear, the Tees Valley and various ex-coalfield areas) there are problems of no/low demand for housing, while in some rural and commuter areas demand for housing is high. Northumberland has seen population growth over the 1991-2001 inter-censal period, while major urban areas have witnessed population decline. However, two thirds of the region's population live in the major urban areas centred on the Tyne, Tees and Wear. Overall, the region has a strong identity, and is at the forefront of moves towards devolution in England.

The population of the North East is projected to remain relatively stable and the working age population is expected to decrease slightly over the period to 2012, in the context of overall growth across the UK. However, the labour force is projected to grow, but despite an increase in participation, the regional economic activity rate is expected to remain much lower than the national average. The North East is projected to experience the slowest growth in employment of any region in England.

Projected employment growth is confined to the service sectors, but expected growth rates are slower than the UK average. By contrast, projected rates of employment loss in the primary sector and utilities, and in manufacturing are somewhat slower than across the UK as a whole. Northumberland displays the largest concentration of employment in the primary sector and manufacturing of any local LSC area in England, while all local LSC areas in the North East exhibit larger proportions of total employment in manufacturing than the UK average. The fastest-growing business and other services broad sector is under-represented in all local LSC areas in the region, but the share of total employment in non-marketed services exceeds the national average in all parts of the region, so underlining the importance of the public sector in local economic development.

The share of total employment in the North East accounted for by full-time employees is somewhat greater than the UK average. Projected employment growth is confined to part-time employees.

Personal service occupations and sales and customer service occupations display the largest projected increases in employment in the North East over the period to 2012. These gains are built on larger than national average pre-existing shares of total employment in these SOC Major Groups. Elementary occupations and skilled trades occupations dominate expected job losses. The North East has a larger share of total employment accounted for by elementary occupations than any other English region, and one of the greatest proportions of employment in skilled trades occupations of any part of the UK. Projected rates of job loss for machine and transport operatives and in administrative, clerical and secretarial occupations are slower than the UK average. However, replacement demands are such that for all SOC Major Groups projected to experience job losses as a result of structural change, total requirements are positive. Despite projected increases in employment in professional and associate professional and technical occupations, the shares of total employment accounted for by these SOC Major Groups remain amongst the lowest exhibited by any part of the UK.

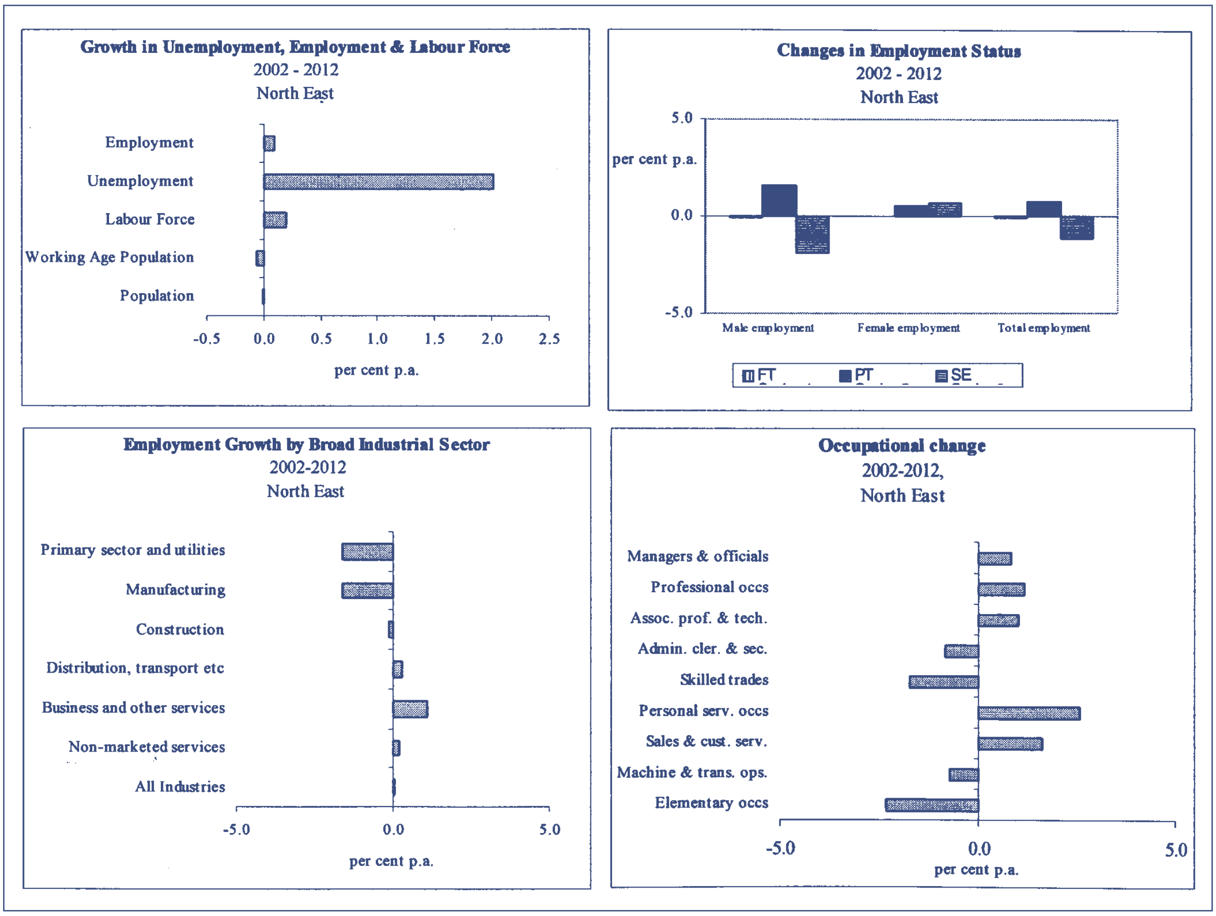
10.2 Labour supply and demand

The total *population* in the North East is projected to remain stable between 2002 and 2012, at about 2.57 million (see Figures 10.1 and 10.2). This contrasts with population growth across the UK as a whole and for all other parts of the UK except Scotland. The *working age population* is projected to decrease by 10,000, contrasting with a 0.5% per annum growth rate across the UK as a whole. However, despite the small reduction in the working population, the labour force is projected to increase by about 20,000, to nearly 1.13 million in 2012. This represents an annual average growth rate of 0.2%, compared with 0.5% per annum across the UK. Hence, an increase in labour market participation accounts for the increase in labour supply. The *economic activity rate* is projected to increase by one percentage point between 2002 and 2012 to just over 67% in 2002, by contrast with a small decline nationally. However, the economic activity rate in the North East is projected to remain around 10 percentage points lower than the UK average, with only Wales displaying a similarly low rate.

Unemployment is projected to increase by about 13,000 between 2002 and 2012, to reach 70,000, and the unemployment rate is projected to remain substantially higher than the national average.

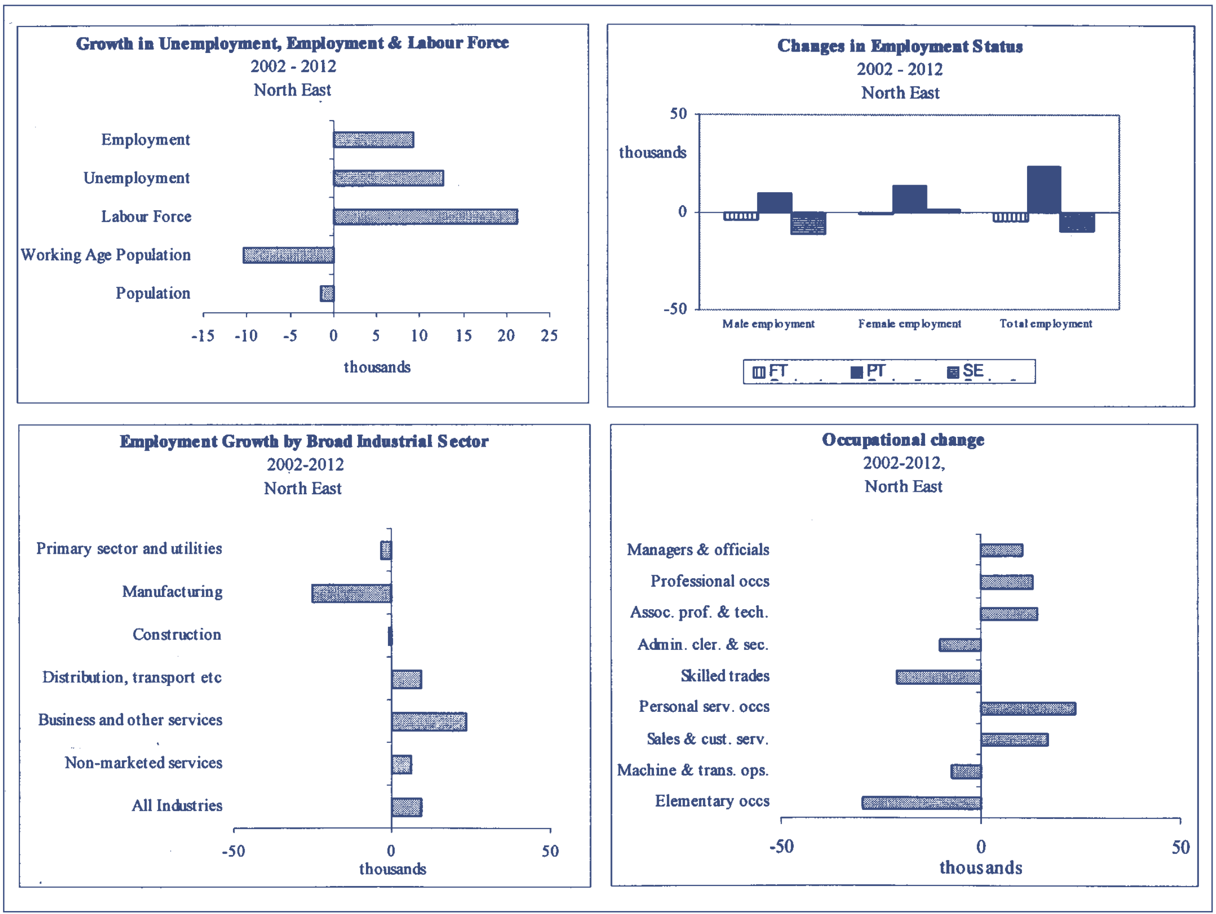
Total employment in the North East is set to increase by about 10,000 between 2002 and 2012, to reach 1.05 million. At about 0.1% per annum, the projected employment growth rate is the slowest for any region in England, with only Scotland displaying a slightly slower rate of increase. All local LSC areas in the North East are positioned in the lowest quartile on projected rates of employment growth for the period from 2002 to 2012. In Tyne and Wear and Northumberland and Tees Valley employment is projected to increase at 0.1% per annum. In the Tees Valley and County Durham (ranked in the 'bottom 2' local LSC areas on projected employment change, along with Greater Merseyside in the North West) it is expected that there will be a small reduction in employment. Hence, the North East's share of total UK employment is expected to continue to decline to 3.4%.

Figure 10.1 Key changes in the North East % p.a.



Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Figure R.1 (%)

Figure 10.2 Key changes in the North East (000s)



Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Figure R.1 (000s)

10.3 Sectoral prospects

At the broad sectoral level, the picture for the North East is one of employment losses in the primary sector and utilities, and in manufacturing, and employment gains in distribution, transport, etc., business and other services and non-marketed services (see Figures 10.1 and 10.2). Projected rates of employment increase are slower than the UK average in each of the three broad service sectors identified, but in the other broad sectors projected rates of employment change are more favourable than average. In absolute terms, as across all other regions, the dominant feature of employment decline is the loss of nearly 25,000 jobs in manufacturing. This contrasts with gains of 23,000 jobs in business and other services, 9,000 jobs in distribution, transport, etc., and 6,000 jobs in non-marketed services.

Within the *primary sector and utilities, agriculture* accounts for most of the projected 3,000 job loss across the broad sector, with employment declining at a slightly faster rate than the UK average. A modest job loss is also projected for *mining and quarrying* where employment levels are expected to decline to 3,000 in 2012, compared with over 40,000 in 1982 and over 10,000 in 1992. Employment levels in *electricity, gas and water* are expected to remain stable. All the job losses in the primary sector and utilities sector fall on males. Within the North East, Northumberland records easily the greatest concentration of jobs in this broad sector, and also the fastest projected rate of employment decline. At over 7%, the share of total employment accounted for by this broad sector is greater in Northumberland than in any other local LSC area in England. Tees Valley and County Durham also record shares of such employment slightly in excess of the England average.

Manufacturing employment is projected to decline to 140,000 by 2012, compared with 270,000 in 1982. The loss of 5,000 jobs in *engineering* represents a rate of loss slightly in excess of the UK average, while the projected loss of 20,000 jobs in the rest of *manufacturing* represents a loss of jobs at a rate slightly slower than the UK average. Across the broad sector of manufacturing 60% of projected job losses fall upon males. At local level, manufacturing accounts for over a fifth of total employment in County Durham, and in all the other local LSC areas in the region the share of such employment exceeds the England average. Projected annual average rates of job loss are faster than the national average in Tees Valley and County Durham, but slower than the national average in Northumberland and Tyne and Wear.

The level of employment in *construction* in the North East is projected to remain fairly steady at around 70,000. This relative stability in employment levels is reflected across all local LSC areas in the North East.

Employment growth in *distribution, transport, etc.* in the North East is slightly slower than the UK average, and this is evident in projected rates of employment growth in all local LSC areas in the region. Overall, a net gain of 9,000 jobs is expected. In *retail distribution* an additional 12,000 jobs are expected. Contrary to the national picture, job losses are projected in both *hotels and restaurants.* Employment levels in transport, *storage and communication* are expected to remain stable at slightly over 55,000. In contrast with the position nationally, males are expected to account for the majority of additional jobs in this broad sector.

As across the UK, the greatest projected employment increase is expected in *business and other services,* although only the South West records a slower rate of employment growth. This means that the North East's relative weakness in the business services sector is set to continue. An additional 23,000 jobs are projected between 2002 and 2012, with males expected to fill four fifths of these jobs. At 1.4% per annum, the projected growth rate for *other business activities* lags behind the UK growth rate of 2%. Nevertheless, 17,000 extra jobs are expected in this industry by 2012. The same annual average rate of growth in *other services* creates 9,000 additional jobs. A small loss of jobs is expected in *banking and insurance,* contrasting with employment growth nationally. At local level, Northumberland and County Durham record rates of projected employment growth in this broad sector akin to the England average. In all local LSC areas the share of employment in business and other services is projected to remain below the England average. Within the region, Tyne and Wear has easily the largest share of total employment accounted for by this broad sector (23%, compared with more than 26% across England as a whole).

The North East displays the slowest rate of growth in employment in *non-marketed services* of any region, and all local LSC areas share in this slower than national average projected rate of increase. Nevertheless, an additional 6,000 jobs are projected to be generated over the period to 2010. *Health and social work and education* account for all the growth, whereas in *public administration and defence* a loss of 3,000 jobs is expected. Females account for all the net gains in employment, as male employment is projected to decline by over 10,000. Despite the relatively slow rates of projected employment growth, all local LSC areas in the North East are expected to retain a much greater share of total employment in non-marketed services than the England average. In 2012 non-marketed services are expected to comprise nearly 33% of total employment in Northumberland. The fact that in Tees Valley (the local LSC area with the lowest projected share of such employment) the proportion is expected to reach nearly 28%, compared with 23% across England as a whole, underlines the importance of the public sector to the local economies of the region.

Table 10.1: Sectoral change in the North East

	North East											England		UK	
	1982	1992	2002	2012	1982	1992	2002	2012	2002-2012			2002-2012		2002-2012	
Sectoral categories	000s	000s	000s	000s	% of total	% of total	% of total	% of total	change 000s	% change	% per annum	% change	% per annum	% change	% per annum
1. Agriculture hunting forestry fishing	17	12	14	11	1.6	1.1	1.3	1.1	-3	-19.1	-2.1	-15.2	-1.6	-15.2	-1.6
2. Mining and quarrying	43	11	4	3	4.0	1.0	0.3	0.3	-1	-18.3	-2.0	-20.5	-2.3	-19.0	-2.1
6. Electricity gas and water	11	6	5	5	1.0	0.6	0.5	0.5	0	-1.7	-0.2	-19.5	-2.2	-19.2	-2.1
Primary sector and utilities	*71*	*29*	*23*	*20*	*6.7*	*2.7*	*2.2*	*1.9*	*-3*	*-14.9*	*-1.6*	*-16.7*	*-1.8*	*-16.5*	*-1.8*
3. Food drink and tobacco	20	20	18	17	1.8	1.9	1.7	1.6	-1	-3.7	-0.4	-9.3	-1.0	-9.7	-1.0
4. Engineering	47	36	32	28	4.4	3.3	3.1	2.6	-5	-14.3	-1.5	-16.0	-1.7	-18.0	-2.0
5. Rest of manufacturing	203	142	114	95	19.1	13.3	10.9	9.0	-20	-17.3	-1.9	-17.0	-1.8	-17.3	-1.9
Manufacturing	*269*	*198*	*164*	*139*	*25.3*	*18.5*	*15.7*	*13.2*	*-25*	*-15.2*	*-1.6*	*-15.9*	*-1.7*	*-16.5*	*-1.8*
7. Construction	72	83	73	73	6.7	7.8	7.0	6.9	-1	-1.2	-0.1	-1.3	-0.1	-3.2	-0.3
8. Retail distribution	175	173	165	177	16.5	16.2	15.8	16.8	12	7.5	0.7	7.5	0.7	7.1	0.7
9. Hotels and restaurants	58	61	66	63	5.5	5.7	6.3	5.9	-3	-4.6	-0.5	2.2	0.2	0.8	0.1
10. Transport storage and communication	57	58	56	56	5.4	5.4	5.4	5.3	0	-0.2	0.0	1.8	0.2	1.3	0.1
Distribution transport etc.	*290*	*292*	*287*	*296*	*27.3*	*27.3*	*27.4*	*28.1*	*9*	*3.2*	*0.3*	*5.2*	*0.5*	*4.5*	*0.4*
11. Banking and Insurance	26	29	30	28	2.4	2.7	2.8	2.6	-2	-6.5	-0.7	3.0	0.3	3.7	0.4
12. Other business activities	69	107	115	132	6.5	10.0	11.0	12.5	17	14.5	1.4	21.3	1.9	21.5	2.0
16. Other services	47	54	56	64	4.4	5.0	5.3	6.1	9	15.4	1.4	14.4	1.4	14.7	1.4
Business and other services	*141*	*189*	*200*	*223*	*13.3*	*17.7*	*19.2*	*21.2*	*23*	*11.6*	*1.1*	*16.9*	*1.6*	*17.1*	*1.6*
13. Public admin and defence	64	76	73	70	6.0	7.1	7.0	6.6	-3	-4.7	-0.5	-2.4	-0.2	-2.1	-0.2
14. Education	70	90	89	92	6.6	8.4	8.5	8.8	3	3.6	0.4	8.6	0.8	8.5	0.8
15. Health and social work	85	112	135	141	8.0	10.5	12.9	13.4	6	4.6	0.5	10.2	1.0	9.5	0.9
Non-marketed services	*219*	*278*	*297*	*304*	*20.6*	*26.0*	*28.5*	*28.8*	*6*	*2.0*	*0.2*	*7.0*	*0.7*	*6.7*	*0.6*
All Sectors	1062	1070	1045	1054	100.0	100.0	100.0	100.0	9	0.9	0.1	5.1	0.5	4.5	0.4

Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Table R14b

10.4 Change in employment by gender and employment status

In 1982 males comprised just under 58% of those in employment in the North East, a slightly smaller proportion than the UK average. By 2002 males accounted for only just over 52% of all those in employment in the region. Again this share was slightly lower than the UK average. Over the period to 2012 the proportion of total employment accounted for by males is projected to decline by one percentage point, to just over 51%. At local LSC area level within the North East the projected share of male employment is highest in County Durham (54%). The share of total employment accounted for by full-time employees has been consistently slightly greater than the national average, and over the period from 2002 to 2012 is projected to decline from 63% to 62%. The extent of intra-regional variation at local LSC level is somewhat smaller than in other regions, although Northumberland displays the lowest projected share of total employment accounted for by full-time employees (61%).

Between 2002 and 2012 a projected loss of about 5,000 male full-time jobs in the North East contrasts with an expected increase of 10,000 male part-time employees, and a loss of 11,000 male self-employed (Figure 10.2). In all instances, this represents a less favourable pattern of change than the UK average. Projected losses are greatest in Tyne and Wear, while in Northumberland a small increase in male full-time employees is expected. Employment levels for female full-time employees in the North East are expected to remain fairly stable, although at local LSC area level a projected decrease in County Durham contrasts with an expected increase in Northumberland and Tees Valley. While a decrease is expected in the South West, in the remainder of the UK increases in female full-time employees are projected. For female part-time employees there is a projected gain of 13,000, representing an increase of 0.5% per annum, compared with 1.1% across the UK as a whole. All local LSC areas share in this projected increase with the exception of the Tees Valley. Overall, these differential patterns of employment increase and decrease by gender correspond to a gain of about 25,000 part-time employees and losses of 5,000 full-time employees and 10,000 self-employed.

10.5 Occupational prospects

Overview

This section concentrates on the employment projections for different occupations. It should be remembered that such 'structural demand' provides only part of the overall picture of occupational change. For a fuller picture of the changing requirement for different occupations it is necessary to bear in mind the impact of retirements, inter-occupational moves, etc., as captured by 'replacement demand' (see Section 10.6).

The largest increase in occupational employment for any SOC Major Group between 2002 and 2012 is projected for personal service occupations, with an expected increase of nearly 25,000 jobs (see Figure 10.2). This represents an increase of more than a third. The SOC Major Group projected to record the next largest increase in employment is sales and customer service occupations, with a projected increase of 17,000 jobs between 2002 and 2012. Increases of 14,000 and 13,000 jobs, respectively, are expected for associate professional and technical occupations and professional occupations. In both instances these are the slowest rates of increase for any region in the UK; although it should be borne in mind that the North East displays, along with Scotland, the smallest rate of projected increase in total employment in the UK. An increase of 10,000 jobs for managers and senior officials is expected also.

Projected job losses are dominated by elementary occupations (with an expected 30,000 decline in employment) and skilled trades occupations (where a 20,000 reduction is expected). In both instances the projected rate of decrease in similar to the UK average. Employment in administrative, clerical and secretarial occupations is projected to decline by 10,000, while a somewhat smaller reduction is expected for machine and transport operatives. For these two latter SOC Major Groups the projected rates of employment decline for the North East are slower than the UK average.

Managers and senior officials

In 2012 *managers and senior officials* accounted for around 12% of employment in the North East. This was one of the lowest proportions of any region in the UK, along with Wales and Northern Ireland, and is reflected across all local LSC areas. A projected gain of 10,000 jobs over the period to 2012 means that the share of total employment accounted for by managers and senior officials is set to increase, but the under-representation of this SOC Major Group relative to the UK average is expected to be maintained. Job growth is accounted for by *corporate managers* (see Table 10.2) – but the projected rate of increase is slower than the UK average, while for *managers and proprietors* a small reduction in employment is expected. Females account for all the employment increase, while employment levels for males are expected to remain stable.

Professional occupations

With 10% of total employment in professional occupations, the North East shares with the Midlands regions and Yorkshire and the Humber the distinction of having the lowest proportion of employment in this Major Group of any part of the UK. At the local LSC area level, very little intra-regional variation is evident in the share of total employment accounted for by professional occupations. By 2012, 11% of regional employment is expected to be in professional occupations, compared with the UK average of 13%. At 1.2% per annum, the projected rate of employment growth in the region is easily the slowest for any part of the UK. However, all professional occupational groups identified in Table 10.2 are expected to share in the overall increase of 13,000 jobs. *Science and technology professionals* account for the largest single increase in employment. For *health professionals* the projected rate of employment growth is similar to the UK average, while for *teaching and research professionals* and *business professionals* the expected regional growth rate is only about half that projected for the UK. Females are expected to account for the majority of the extra jobs.

Associate professional and technical occupations

The North East also displays an under-representation of employment in associate professional and technical occupations relative to the UK average. Again this is evident across all local LSC areas, with County Durham recording the smallest share of associate professional and technical occupations in total employment. The projected annual average growth rate over the period to 2012 is 1% per annum (again the slowest for any UK region), compared with 1.7% per annum for the UK. Overall, an increase of nearly 15,000 jobs is expected for this SOC Major Group. *Science and technology associate professionals* are expected to account for nearly half this increase as employment grows at 2.2% per annum (the same rate as nationally). Only very modest increases are projected for *business associate professionals* and *culture, media and sports occupations,* where the expected rates of growth are far slower than the UK average. Females account for two thirds of the projected net increase in associate professional and technical occupations between 2002 and 2012.

Administrative, clerical and secretarial occupations

Contrary to the general pattern for total employment change, in the case of administrative, clerical and secretarial occupations, the southern regions are projected to witness a less favourable pattern of employment change than the northern ones. In the North East, employment for this SOC Major Group is expected to decline at an annual average rate of 0.8% per annum, compared with 1.2% across the UK. At local level within the North East, the Tees Valley records the fastest rate of employment decline (at 1.1% per annum). An expected gain of around 5,000 jobs for females is offset by a projected loss of 15,000 jobs for females. Nevertheless, by 2012 the North East is still expected to have a slightly smaller share of total employment accounted for by administrative, clerical and secretarial jobs than the UK average. However, with more than 12% of total employment in this SOC Major Group in Tyne and Wear, this under-representation is not evident in all parts of the region. Of the projected loss of 10,000 jobs, *secretarial and related occupations* are expected to account for three-fifths, and *administrative and clerical occupations* for two-fifths. An expected gain of around 5,000 jobs for females is offset by a projected loss of 15,000 jobs for females. In both instances the projected rates of job loss are slower than the UK average.

Skilled trades occupations

In 1982, 20% of total employment in the North East was in skilled trades occupations. This was one of the largest shares for any UK region. By 2002, skilled trades occupations accounted for less than 16% of regional employment. However, at local LSC area level the proportions ranged from less than 12% in Tyne and Wear to well over 14% in County Durham. Over the period to 2012 the loss of a further 20,000 jobs is expected. This represents a projected rate of loss of 1.7% per annum, which is similar to that expected for the UK as a whole (1.8% per annum). Within the North East, Northumberland records the slowest projected rate of employment loss. *Skilled metal and electrical trades* account for about four-fifths of the projected decline in employment, with other *skilled trades and skilled construction* and *building trades* accounting for the remainder. Employment levels are expected to be maintained in *skilled agricultural* trades. Nearly all the projected job losses in this Major Group in the North East are expected to fall on males, while employment levels for females are expected to remain stable.

Personal service occupations

The North East has a larger share of total employment in this Major Group than the UK average. At local LSC area level, Northumberland records the largest such share (at nearly 9%). Over the period to 2012, employment is projected to grow by 2.6% per annum, compared with the UK growth rate of 3.4% per annum. At local area level the projected annual average rate of growth ranges from 2.3% in County Durham to 2.8% in Tyne and Wear. By 2012 it is projected that personal service occupations will account for 10% of total employment in the North East – up from 8% in 1982. Around 25,000 additional jobs are expected, of which virtually all are *caring personal service occupations.* A very modest growth in *leisure occupations* is expected. Females account for the vast majority of the projected gains.

Sales and customer service occupations

This Major Group accounts for about 9% of total employment in the North East; the largest share for any part of the UK. In all local LSC areas the share of total employment accounted for by this SOC Major Group exceeds 8%. The trend of steady employment increase is projected to continue, with 17,000 additional jobs by 2012, making about 95,000 jobs in this Major Group overall. At 1.6% per annum, the projected rate of employment increase is the same as the UK average. Within the region, projected annual average growth rates range from 1.4% in County Durham to 1.8% in Tyne and Wear. *Sales occupations* are expected to account for 10,000 of the extra jobs between 2002 and 2012, with c*ustomer service occupations* accounting for the remainder. In both instances, these increases represent growth rates similar to the UK average. Males and females share fairly evenly in the projected employment gains.

Machine and transport operatives

The North East has a larger than UK average share of total employment in this Major Group (10.5%), and this over-representation relative to the national average is evident across all local LSC areas. A loss of nearly 10,000 jobs is expected over the period to 2012. This represents a reduction of 7%, compared with the 10% projected across the UK as a whole. At local LSC area level, projected annual average rates of employment decline vary between 0.3% per annum in Northumberland and 1.1% per annum in County Durham. *Process machine operatives* account for virtually all the projected job loss, while employment levels for *drivers and other operatives* are expected to remain stable. The job losses are expected to fall on females, while employment levels for males are expected to remain stable.

Elementary occupations

This SOC Major Group accounts for a larger share of total employment in the North East than in any other region of England. At local LSC area level the share of total employment accounted for by elementary occupations ranges from 13% in Tyne and Wear to 15% in Northumberland. A projected loss of 30,000 jobs means that by 2012 *elementary occupations* are expected to account for less than 11% of total employment in the North East, compared with 20% in 1982. At 2.3% the projected annual average rate of loss is similar to the UK average, and the over-representation of such jobs is the regional employment structure is maintained (vis-à-vis the UK average). Within the region, projected rates of job loss at LSC area level vary between 2% in Tyne and Wear and 2.8% in Northumberland. *Elementary service occupations* account for two thirds of the projected employment decline, with *elementary trades occupations* making up the remainder. The majority of the projected losses fall on females.

Table 10.2: Occupational change in the North East

	North East											England		UK	
	1982	1992	2002	2012	1982	1992	2002	2012	2002-2012			2002-2012		2002-2012	
Occupation groups	000s	000s	000s	000s	% of total	% of total	% of total	% of total	change 000s	% change	% per annum	% change	% per annum	% change	% per annum
Corporate managers	56	70	86	98	5.3	6.6	8.2	9.3	12	14.4	1.4	21.2	1.9	20.4	1.9
Managers / proprietors	33	34	37	35	3.1	3.2	3.5	3.3	-2	-5.3	-0.5	-6.7	-0.7	-7.0	-0.7
Managers and officials	*90*	*105*	*123*	*133*	*8.4*	*9.8*	*11.7*	*12.6*	*10*	*8.5*	*0.8*	*14.3*	*1.3*	*13.4*	*1.3*
Sc. and tech. profs.	19	24	26	31	1.8	2.2	2.5	2.9	4	16.8	1.6	23.4	2.1	22.5	2.0
Health professionals	5	7	12	14	0.5	0.7	1.1	1.4	3	21.3	2.0	20.2	1.9	19.1	1.8
Teaching and res. profs.	38	44	46	49	3.5	4.2	4.4	4.6	3	7.7	0.7	18.5	1.7	19.9	1.8
Business professionals	14	17	20	22	1.3	1.6	1.9	2.1	2	11.9	1.1	24.9	2.3	23.0	2.1
Professional occs	*76*	*92*	*104*	*116*	*7.2*	*8.6*	*9.9*	*11.0*	*13*	*12.4*	*1.2*	*21.6*	*2.0*	*21.3*	*1.9*
Sc. and tech. assoc. profs.	13	17	23	28	1.2	1.5	2.2	2.7	6	24.7	2.2	24.9	2.2	24.5	2.2
Health assoc. profs.	28	34	41	45	2.7	3.2	3.9	4.3	4	10.3	1.0	13.4	1.3	12.8	1.2
Protect. serv. occs	9	12	17	19	0.9	1.1	1.6	1.8	3	16.4	1.5	22.0	2.0	20.3	1.9
Culture, med. and sports	8	10	13	14	0.8	0.9	1.2	1.3	1	6.8	0.7	31.9	2.8	31.2	2.8
Business assoc. profs.	31	36	38	38	2.9	3.3	3.6	3.6	1	1.5	0.2	15.9	1.5	15.1	1.4
Assoc. prof. and tech.	*90*	*108*	*131*	*145*	*8.5*	*10.1*	*12.5*	*13.7*	*14*	*10.7*	*1.0*	*19.7*	*1.8*	*18.8*	*1.7*
Admin and clerical	104	112	101	97	9.8	10.5	9.7	9.2	-4	-4.3	-0.4	-7.5	-0.8	-6.3	-0.7
Secretarial and related	34	36	27	21	3.2	3.4	2.6	2.0	-6	-21.9	-2.4	-25.0	-2.8	-24.0	-2.7
Admin. cler. and sec.	*138*	*148*	*128*	*118*	*13.0*	*13.9*	*12.3*	*11.2*	*-10*	*-8.1*	*-0.8*	*-12.2*	*-1.3*	*-11.0*	*-1.2*
Skilled agric. trades	17	11	13	13	1.6	1.0	1.3	1.3	0	-1.4	-0.1	5.6	0.5	2.9	0.3
Skilled metal and electrical	101	75	52	37	9.6	7.0	5.0	3.5	-16	-30.1	-3.5	-30.3	-3.5	-31.2	-3.7
Skilled cons. and building	53	48	42	40	5.0	4.5	4.0	3.8	-2	-5.4	-0.6	-7.4	-0.8	-8.6	-0.9
Other skilled trades	36	34	23	21	3.3	3.2	2.2	2.0	-3	-12.1	-1.3	-7.9	-0.8	-8.4	-0.9
Skilled trades	*207*	*168*	*132*	*110*	*19.5*	*15.7*	*12.6*	*10.5*	*-21*	*-16.0*	*-1.7*	*-15.3*	*-1.6*	*-16.2*	*-1.8*
Caring personal service	20	33	61	84	1.9	3.1	5.8	7.9	23	37.0	3.2	46.0	3.9	44.8	3.8
Leisure occupations	20	22	21	22	1.9	2.1	2.0	2.1	1	6.2	0.6	9.0	0.9	7.8	0.8
Personal serv. occs	*40*	*55*	*82*	*106*	*3.7*	*5.2*	*7.8*	*10.0*	*24*	*29.1*	*2.6*	*36.0*	*3.1*	*34.8*	*3.0*
Sales occupations	68	79	81	91	6.4	7.4	7.8	8.6	10	12.2	1.2	11.4	1.1	10.5	1.0
Customer service occs.	4	5	14	20	0.3	0.4	1.3	1.9	7	49.9	4.1	47.0	3.9	48.2	4.0
Sales and cust. serv.	*71*	*84*	*95*	*111*	*6.7*	*7.8*	*9.1*	*10.6*	*17*	*17.6*	*1.6*	*17.6*	*1.6*	*17.0*	*1.6*

Table 10.2: Occupational change in the North East (continued)

	North East											England		UK	
	1982	1992	2002	2012	1982	1992	2002	2012	2002-2012			2002-2012		2002-2012	
Occupation groups	000s	000s	000s	000s	% of total	% of total	% of total	% of total	change 000s	% change	% per annum	% change	% per annum	% change	% per annum
Process machine ops.	94	83	69	60	8.9	7.7	6.6	5.7	-8	-12.1	-1.3	-23.3	-2.6	-22.0	-2.4
Drivers and other ops.	43	41	41	42	4.0	3.8	3.9	4.0	1	1.9	0.2	7.3	0.7	5.8	0.6
Machine and trans. ops.	*137*	*124*	*109*	*102*	*12.9*	*11.6*	*10.5*	*9.7*	*-8*	*-6.9*	*-0.7*	*-10.0*	*-1.0*	*-10.1*	*-1.1*
Elementary: trades	78	57	50	41	7.3	5.3	4.8	3.9	-9	-17.8	-1.9	-18.4	-2.0	-18.2	-2.0
Elementary: service	135	129	93	72	12.7	12.0	8.9	6.8	-21	-22.4	-2.5	-20.3	-2.2	-20.5	-2.3
Elementary occs	*213*	*186*	*142*	*113*	*20.0*	*17.3*	*13.6*	*10.7*	*-30*	*-20.8*	*-2.3*	*-19.7*	*-2.2*	*-19.7*	*-2.2*
All occupations	1062	1070	1045	1054	100.0	100.0	100.0	100.0	9	1	0	5.1	0.5	4.5	0.4

Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Table R15b

10.6 Projections of replacement demands

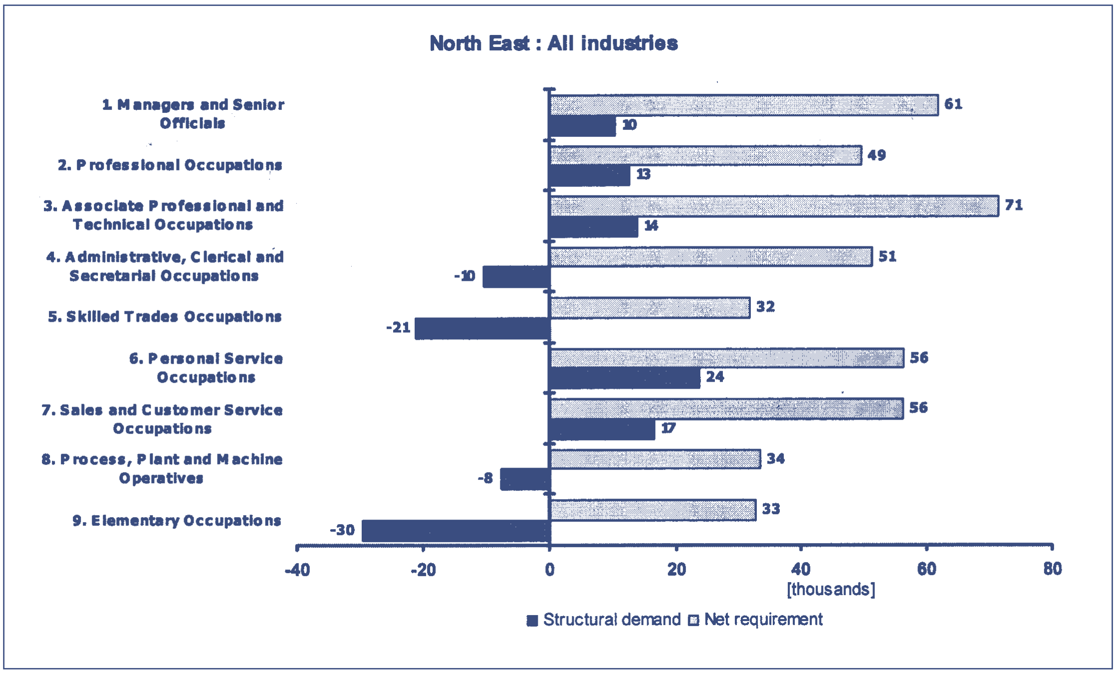
The key component of replacement demands is retirements from the workforce, especially those of older workers. However, replacement requirements for specific occupational groups, in particular geographical areas, can also arise for a number of other reasons. These include occupational mobility, as individuals change jobs for reasons of career progression (as well as other causes), and geographical mobility. Potentially, the latter may be quite important at a regional level. Unfortunately there are few reliable data on such flows, so the estimates presented here exclude replacement needs arising as a consequence of both occupational and geographical mobility. In both cases, there may be offsetting inflows to counterbalance some of the losses.

The key message here is that in the case of all SOC Major Groups total requirements are positive. In the personal service occupations and sales and customer service occupations, where structural demand changes suggest that the single largest number of new openings will be, the replacement demands are even more substantial. Hence, total requirements indicate a need for about 55,000 extra people in each of these SOC Major Groups (see Figure 10.3). This represents 70% of the 2002 employment level in the case of personal service occupations, and 60% for sales and customer service occupations.

The largest estimated total requirements are for associate professional and technical occupations. Here, a substantial replacement demand added to the net expansion demand of nearly 15,000, results in a total requirement for about 70,000 additional people (54% of the 2002 employment level). For managers and senior officials the total requirement is about 60,000. Both professional occupations and administrative, clerical and secretarial occupations display a total requirement of about 50,000.

In absolute and relative terms administrative, elementary occupations and skilled trades occupations are projected to see the largest reductions in employment (30,000 and 20,000 jobs, respectively). However, larger positive projected replacement demands more than offset these employment losses to result in total requirements of more than 30,000 for both SOC Major Groups. In the case of skilled trades occupations, this represents about a quarter of the 2002 employment level. For machine and transport operatives, which displayed a smaller projected loss of jobs as a result of structural demand changes, the estimated total requirement is for nearly 35,000 additional people over the period to 2012.

Figure 10.3 Replacement Demands for the North East



Source: CE/IER estimates, MDM95 C31 F95 Forecast, ReplacementDemands.xls North East

ENGLAND

11.1 Overview

England accounts for around 84% of the UK population and 85% of UK employment. Hence, England dominates the projected change across the UK as a whole.

Over the period to 2012 both the working age population and the labour force are projected to grow at a rate of 0.5% per annum. Employment is projected to increase at 0.5% per annum, with an extra 1.26 million jobs between 2002 and 2012.

At a broad sectoral level, projected employment increases are restricted to the service sectors, with business and other services projected to record the largest employment increase: 1.1 million additional jobs between 2002 and 2012 (representing an annual average growth rate of 1.6%). Employment in non-marketed services and in distribution, transport, etc., is projected to increase at rates of 0.7% per annum and 0.5% per annum, respectively. Manufacturing dominates job losses, with a projected reduction of 520,000 jobs (a rate of decrease of 1.7% per annum) between 2002 and 2012. The primary sector and utilities records a similar annual average rate of job loss.

The existing trend for males to account for a diminishing share of total employment is expected to continue. Job gains are expected for both males and females, but those projected for part-time employees outstrip those for full-time employees. Self-employment is projected to decline.

Associate professional and technical occupations comprise the single largest component of expected employment of any SOC Major Group over the period to 2012, with 690,000 additional jobs expected. The next largest increases are projected for personal service occupations (650,000 extra jobs), professional occupations (600,000 jobs) and managers and senior officials (540,000 jobs). Sales and customer service occupations also display a projected employment increase. Elementary occupations, administrative, clerical and secretarial occupations, and skilled trades occupations bear the brunt of job losses. A decline in employment is also projected for machine and transport operatives. However, even where projected structural changes suggest an overall reduction in employment levels, replacement demands mean that total requirements are positive.

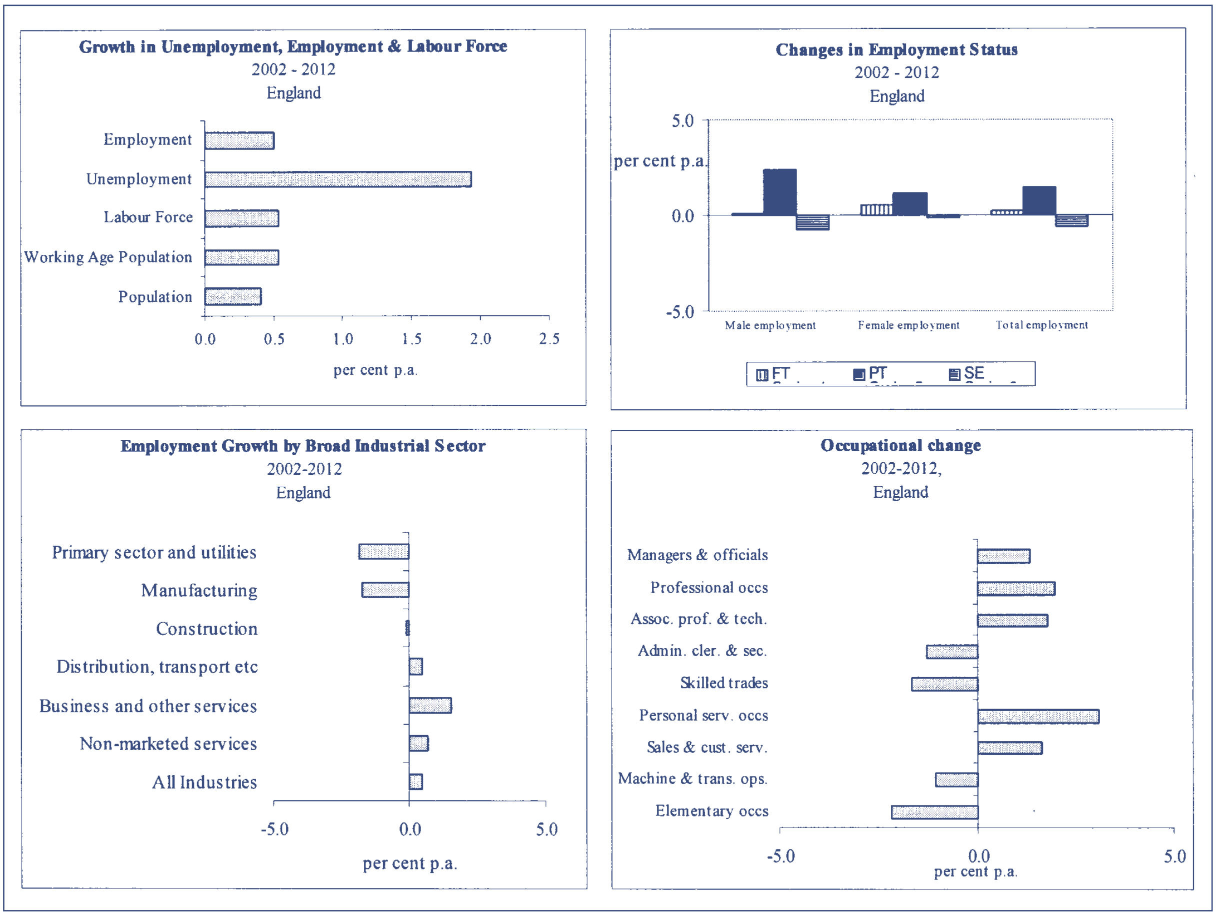
11.2 Labour supply and demand

The *population* of England is projected to increase by 2.1 million between 2002 and 2012, to 52.5 million. This represents a rate of increase of 0.4% per annum. The *working age population* is projected to increase by 1.7 million between 2002 and 2012, representing a slightly faster rate of increase of 0.5% per annum. The *labour force* is expected to increase by 1.4 million (an annual average rate of increase of 0.5% per annum), to reach 27.2 million in 2012. The *economic activity rate* is expected to remain fairly steady at around 79%, which is slightly higher than the UK average.

Unemployment is expected to increase by around 160,000 between 2002 and 2012, to reach about 920,000 in 2012. The unemployment rate for England is slightly lower than the UK rate, because Wales, Scotland and Northern Ireland all record higher unemployment rates than England.

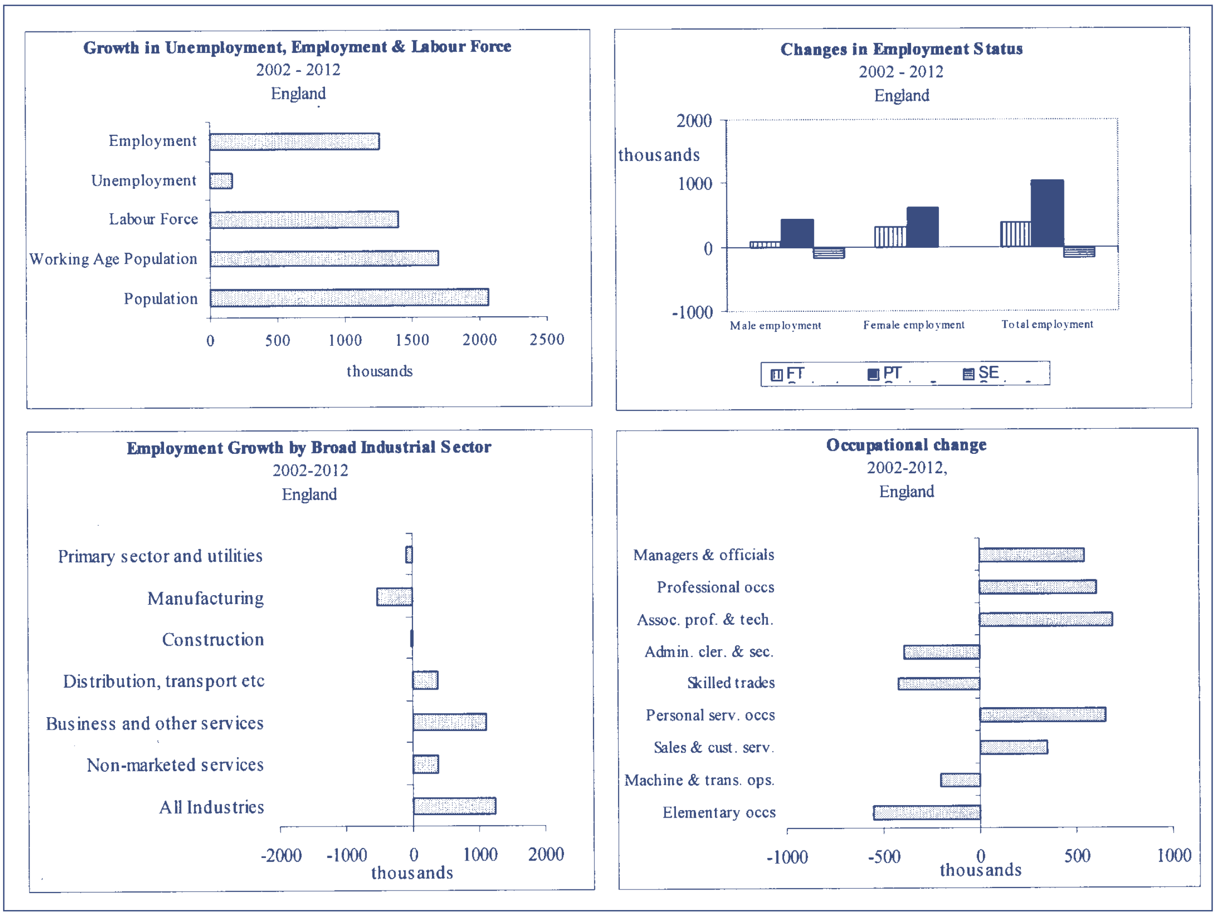
Total employment in England is projected to increase by 1.26 million to reach nearly 26.1 million in 2012. This represents a rate of increase of 0.5% per annum, compared with 0.4% per annum across the UK as a whole. In 2002 England accounted for 85% of total UK employment, and this share is projected to increase slightly over the decade to 2012.

Figure 11.1 Key changes in England % p.a.



Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Figure R.1 (%)

Figure 11.2 Key changes in England (000s)



Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Figure R.1 (000s)

Table 11.1: Sectoral change in England

	England											UK	
	1982	1992	2002	2012	1982	1992	2002	2012	2002-2012			2002-2012	
Sectoral categories	000s	000s	000s	000s	% of total	% of total	% of total	% of total	change 000s	% change	% per annum	% change	% per annum
1. Agriculture hunting forestry fishing	493	452	330	280	2.3	2.0	1.3	1.1	-50	-15.2	-1.6	-15.2	-1.6
2. Mining and quarrying	249	90	45	36	1.2	0.4	0.2	0.1	-9	-20.5	-2.3	-19.0	-2.1
6. Electricity gas and water	249	177	110	89	1.2	0.8	0.4	0.3	-22	-19.5	-2.2	-19.2	-2.1
Primary sector and utilities	*991*	*719*	*485*	*404*	*4.7*	*3.2*	*2.0*	*1.5*	*-81*	*-16.7*	*-1.8*	*-16.5*	*-1.8*
3. Food drink and tobacco	537	409	383	347	2.5	1.8	1.5	1.3	-36	-9.3	-1.0	-9.7	-1.0
4. Engineering	1049	758	661	555	4.9	3.4	2.7	2.1	-106	-16.0	-1.7	-18.0	-2.0
5. Rest of manufacturing	3332	2576	2229	1849	15.7	11.5	9.0	7.1	-379	-17.0	-1.8	-17.3	-1.9
Manufacturing	*4918*	*3743*	*3273*	*2751*	*23.1*	*16.7*	*13.2*	*10.5*	*-521*	*-15.9*	*-1.7*	*-16.5*	*-1.8*
7. Construction	1388	1544	1562	1542	6.5	6.9	6.3	5.9	-20	-1.3	-0.1	-3.2	-0.3
8. Retail distribution	3579	3850	4272	4592	16.8	17.2	17.2	17.6	320	7.5	0.7	7.1	0.7
9. Hotels and restaurants	1133	1329	1549	1583	5.3	5.9	6.2	6.1	33	2.2	0.2	0.8	0.1
10. Transport storage and communication	1373	1386	1568	1597	6.5	6.2	6.3	6.1	28	1.8	0.2	1.3	0.1
Distribution transport etc.	*6085*	*6564*	*7389*	*7772*	*28.6*	*29.2*	*29.8*	*29.8*	*382*	*5.2*	*0.5*	*4.5*	*0.4*
11. Banking and Insurance	778	1005	989	1019	3.7	4.5	4.0	3.9	30	3.0	0.3	3.7	0.4
12. Other business activities	1885	2766	4032	4889	8.9	12.3	16.2	18.7	857	21.3	1.9	21.5	2.0
16. Other services	944	1118	1536	1757	4.4	5.0	6.2	6.7	222	14.4	1.4	14.7	1.4
Business and other services	*3607*	*4888*	*6556*	*7665*	*17.0*	*21.8*	*26.4*	*29.4*	*1109*	*16.9*	*1.6*	*17.1*	*1.6*
13. Public admin and defence	1278	1202	1163	1135	6.0	5.4	4.7	4.3	-28	-2.4	-0.2	-2.1	-0.2
14. Education	1338	1589	1913	2078	6.3	7.1	7.7	8.0	165	8.6	0.8	8.5	0.8
15. Health and social work	1658	2193	2491	2744	7.8	9.8	10.0	10.5	253	10.2	1.0	9.5	0.9
Non-marketed services	*4274*	*4985*	*5567*	*5957*	*20.1*	*22.2*	*22.4*	*22.8*	*390*	*7.0*	*0.7*	*6.7*	*0.6*
All Sectors	21264	22444	24832	26091	100.0	100.0	100.0	100.0	1259	5.1	0.5	4.5	0.4

Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Table R14b

11.3 Sectoral prospects

At the broad sectoral level, the picture for England is one of employment losses in the primary sector and utilities, manufacturing and construction and employment gains in distribution, transport, etc., business and other services and non-marketed services.

The projected rate of job loss in the *primary sector and utilities* is 1.8% per annum. Job losses are projected in *agriculture, hunting, fishing and forestry* (50,000 jobs), *mining and quarrying* (nearly 10,000 jobs) and in *electricity, gas and water* (just over 20,000 jobs). By 2012 it is projected that only 280,000 people will be employed in *agriculture, hunting, fishing and forestry,* compared with 330,000 in 1992 and over 450,000 in 1982. Males account for about 90% of the job losses expected in this broad sector.

Manufacturing accounted for about 4.9 million jobs in England in 1982, but around 1.17 million jobs were lost over the decade to 1992 and a further 470,000 jobs were lost between 1992 and 2002. Between 2002 and 2012 a further 520,000 manufacturing jobs are expected to be lost in England. In 2012 there are expected to be around 2.75 million manufacturing jobs, representing 10.5% of total employment. Around 380,000 jobs are expected to be lost in the *rest of manufacturing,* as employment declines at a projected rate of 1.8% per annum. A similar rate of loss (1.7% per annum) is projected for engineering, as over 100,000 jobs are lost. Around 35,000 jobs are projected to be lost in *food, drink and tobacco.* Males are expected to account for two out of every three of the projected jobs lost in manufacturing.

Construction employment in England is projected to decline by around 20,000 between 2002 and 2012 according to these ‘benchmark’ projections. This is a function of projected gains in some regions and losses in others. Again, males bear the brunt of the job losses.

Employment in *distribution, transport, etc.* in England is projected to increase by 0.5% per annum, as the broad sector continues to account for about 30% of total employment. This represents a slightly faster rate of increase than across the UK as a whole. Within this broad sector, *retail distribution* dominates employment growth, with an additional 320,000 jobs expected between 2002 and 2012. Smaller increases of around 30,000 jobs are projected for *hotels and restaurants,* and in *transport, storage and communication.* Females are expected to account for at least 90% of the projected employment increase in this broad sector.

The greatest projected employment increase in England is in *business and other services.* An additional 1.1 million jobs are projected between 2002 and 2012, representing an increase of 17% and an annual average growth rate of 1.6% per annum. The single greatest projected increase within this sector is for *other business activities* with nearly 860,000 extra jobs. Over 220,000 additional jobs are expected in other services. A gain of 30,000 jobs is projected in *banking and finance.* Males are projected to be the main beneficiaries of employment growth in this broad sector, taking three-quarters of the additional jobs. By 2012 this broad sector is expected to account for about 30% of total employment in England.

The projected annual average rate of employment growth in *non-marketed services* is 0.7% per annum, representing an increase of 390,000 jobs. *Health and social work* accounts for the single largest number of job gains (around 250,000), as employment grows at a projected annual average rate of 1% per annum. Around 165,000 extra jobs are expected in *education.* A modest loss of nearly 30,000 jobs is expected in *public administration and defence.* A gain of around 480,000 jobs for females is expected in this broad sector, contrasting with a loss of about 90,000 jobs for males.

11.4 Change in employment by gender and employment status

In 1982 males comprised just over 58% of those in employment in England. By 2002 this proportion had declined to just over 53%. By 2012 it is projected that males will account for 52% of those in employment. This is a slightly greater share than the UK average, and reflects higher than average shares of total employment accounted for males in the regions covering southern England.

Over the decade from 2002 and 2012 England displays a projected gain of 80,000 male full-time employees and around 315,000 female full-time employees. The projected gains in part-time employees are considerably greater: 430,000 extra male part-time employees (a projected increase of 2.4% per annum from a relatively low base) and around 610,000 additional female part-time employees (representing an annual average rate of increase of 1.1%). Hence, the number of part-time employees is expected to increase by just over 1 million, while nearly 400,000 additional full-time employees are expected. By contrast, the number of self-employed is expected to contract by nearly 175,000, with males accounting for the vast majority of the projected losses.

11.5 Occupational prospects

Overview

This section concentrates on the employment projections for different occupations. It should be remembered that such 'structural demand' provides only part of the overall picture of occupational change. For a fuller picture of the changing requirement for different occupations it is necessary to bear in mind the impact of retirements, inter-occupational moves, etc., as captured by 'replacement demand' (see Section 11.6).

At the level of SOC Major Groups, the largest increase in occupational employment between 2002 and 2012 is projected for associate professional and technical occupations, with an expected increase of over 690,000 jobs, representing an increase of about a fifth. Employment for personal service occupations is projected to increase by around 650,000; while for professional occupations an additional 600,000 jobs are expected. The number of managers and senior officials is expected to rise by 540,000, while an increase of 350,000 is expected for sales and customer service occupations.

Job losses are dominated by elementary occupations with a projected loss of 550,000 jobs, representing a reduction of about a fifth. The next largest decreases are projected for skilled trades occupations, and administrative, clerical and secretarial occupations, with expected reductions of 430,000 and 400,000, respectively. Machine and transport operatives are expected to see a loss of around 200,000 jobs.

Table 11.2: Occupational change in England

	Wales											UK	
	1982	1992	2002	2012	1982	1992	2002	2012	2002-2012			2002-2012	
Occupation groups	000s	000s	000s	000s	% of total	% of total	% of total	% of total	change 000s	% change	% per annum	% change	% per annum
Corporate managers	1526	2015	2853	3458	7.2	9.0	11.5	13.3	605	21.2	1.9	20.4	1.9
Managers / proprietors	816	872	941	879	3.8	3.9	3.8	3.4	-63	-6.7	-0.7	-7.0	-0.7
Managers and officials	*2343*	*2888*	*3795*	*4337*	*11.0*	*12.9*	*15.3*	*16.6*	*542*	*14.3*	*1.3*	*13.4*	*1.3*
Sc. and tech. profs.	486	599	783	966	2.3	2.7	3.2	3.7	183	23.4	2.1	22.5	2.0
Health professionals	121	148	217	261	0.6	0.7	0.9	1.0	44	20.2	1.9	19.1	1.8
Teaching and res. profs.	714	886	1119	1326	3.4	3.9	4.5	5.1	207	18.5	1.7	19.9	1.8
Business professionals	381	481	685	855	1.8	2.1	2.8	3.3	171	24.9	2.3	23.0	2.1
Professional occs	*1702*	*2115*	*2804*	*3410*	*8.0*	*9.4*	*11.3*	*13.1*	*605*	*21.6*	*2.0*	*21.3*	*1.9*
Sc. and tech. assoc. profs.	297	343	504	630	1.4	1.5	2.0	2.4	125	24.9	2.2	24.5	2.2
Health assoc. profs.	570	705	831	942	2.7	3.1	3.3	3.6	111	13.4	1.3	12.8	1.2
Protect. serv. Occs	176	206	334	408	0.8	0.9	1.3	1.6	73	22.0	2.0	20.3	1.9
Culture, med. and sports	220	311	546	721	1.0	1.4	2.2	2.8	175	31.9	2.8	31.2	2.8
Business assoc. profs.	777	999	1310	1518	3.7	4.5	5.3	5.8	209	15.9	1.5	15.1	1.4
Assoc. prof. and tech.	*2040*	*2564*	*3525*	*4218*	*9.6*	*11.4*	*14.2*	*16.2*	*693*	*19.7*	*1.8*	*18.8*	*1.7*
Admin and clerical	2337	2506	2398	2218	11.0	11.2	9.7	8.5	-180	-7.5	-0.8	-6.3	-0.7
Secretarial and related	1023	1099	871	653	4.8	4.9	3.5	2.5	-218	-25.0	-2.8	-24.0	-2.7
Admin. cler. and sec.	*3360*	*3606*	*3269*	*2872*	*15.8*	*16.1*	*13.2*	*11.0*	*-398*	*-12.2*	*-1.3*	*-11.0*	*-1.2*
Skilled agric. Trades	287	261	278	294	1.4	1.2	1.1	1.1	16	5.6	0.5	2.9	0.3
Skilled metal and electrical	1685	1425	1110	773	7.9	6.3	4.5	3.0	-337	-30.3	-3.5	-31.2	-3.7
Skilled cons. and building	918	877	877	813	4.3	3.9	3.5	3.1	-65	-7.4	-0.8	-8.6	-0.9
Other skilled trades	670	679	535	492	3.2	3.0	2.2	1.9	-42	-7.9	-0.8	-8.4	-0.9
Skilled trades	*3561*	*3242*	*2799*	*2372*	*16.7*	*14.4*	*11.3*	*9.1*	*-428*	*-15.3*	*-1.6*	*-16.2*	*-1.8*
Caring personal service	395	674	1322	1931	1.9	3.0	5.3	7.4	608	46.0	3.9	44.8	3.8
Leisure occupations	375	424	493	537	1.8	1.9	2.0	2.1	44	9.0	0.9	7.8	0.8
Personal serv. Occs	*770*	*1098*	*1815*	*2468*	*3.6*	*4.9*	*7.3*	*9.5*	*653*	*36.0*	*3.1*	*34.8*	*3.0*
Sales occupations	1194	1388	1621	1806	5.6	6.2	6.5	6.9	185	11.4	1.1	10.5	1.0
Customer service occs.	83	110	345	508	0.4	0.5	1.4	1.9	162	47.0	3.9	48.2	4.0
Sales and cust. serv.	*1277*	*1498*	*1966*	*2313*	*6.0*	*6.7*	*7.9*	*8.9*	*347*	*17.6*	*1.6*	*17.0*	*1.6*

Table 11.2: Occupational change in England (continued)

	Wales											UK	
	1982	1992	2002	2012	1982	1992	2002	2012	2002-2012			2002-2012	
Occupation groups	000s	000s	000s	000s	% of total	% of total	% of total	% of total	change 000s	% change	% per annum	% change	% per annum
Process machine ops.	1729	1384	1158	888	8.1	6.2	4.7	3.4	-270	-23.3	-2.6	-22.0	-2.4
Drivers and other ops.	781	769	895	961	3.7	3.4	3.6	3.7	65	7.3	0.7	5.8	0.6
Machine and trans. ops.	*2510*	*2153*	*2053*	*1849*	*11.8*	*9.6*	*8.3*	*7.1*	*-204*	*-10.0*	*-1.0*	*-10.1*	*-1.1*
Elementary: trades	1285	1022	949	774	6.0	4.6	3.8	3.0	-174	-18.4	-2.0	-18.2	-2.0
Elementary: service	2418	2259	1856	1479	11.4	10.1	7.5	5.7	-377	-20.3	-2.2	-20.5	-2.3
Elementary occs	*3703*	*3281*	*2804*	*2253*	*17.4*	*14.6*	*11.3*	*8.6*	*-551*	*-19.7*	*-2.2*	*-19.7*	*-2.2*
All occupations	21264	22444	24832	26091	100.0	100.0	100.0	100.0	1259	5.1	0.5	4.5	0.4

Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Table R15b

Managers and senior officials

The number of managers and senior officials in England is projected to increase by 540,000 between 2002 and 2012 to reach 4.3 million. A projected increase of around 60,000 jobs for *corporate managers* is offset by the expected loss of nearly 10,000 jobs amongst *managers and proprietors*. Employment for females is expected to increase by about 390,000, compared with a projected gain of 150,000 for males.

Professional occupations

A projected increase of just over 600,000 jobs in professional occupations results in the share of professional occupations in total employment in England rising from just over 11% in 2002 to 13% in 2012. In absolute terms, *teaching and research professionals* account for the single largest number of extra jobs (nearly 210,000). However, the projected increases of over 180,000 jobs for *science and technology professionals* and 170,000 *business professionals* represent somewhat faster rates of growth (in both cases exceeding 2% per annum). A more modest employment increase of around 45,000 is projected for *health professionals*. Females and males are expected to share fairly evenly in the projected job gains.

Associate professional and technical occupations

Employment for associate professional and technical occupations is expected to rise by over 690,000 over the period to 2012. This represents the largest single absolute increase for any SOC Major Group. Within this SOC Major Group, *business associate professionals* account for the largest employment gain (210,000 jobs). In relative terms, faster rates of growth are projected for *culture, media and sports occupations* (2.8% per annum), *science and technology associate professionals* (2.2% per annum) and *protective service occupations* (2% per annum). *Health associate professions* record the slowest projected rate of growth (1.3% per annum). The share of total employment in England accounted for by this SOC Major Group is expected to increase from 14% in 2002 to 16% by 2012. Again, females and males are expected to share fairly evenly in the projected employment increase.

Administrative, clerical and secretarial occupations

Over the period to 2012, employment in this SOC Major Group is projected to decline at a rate of 1.3% per annum. The expected loss of around 400,000 jobs, in the context of overall employment increase, means that by 2012 the share of total employment accounted for by administrative, clerical and secretarial occupations is expected to have fallen to 11%, compared with 13% in 2002. Females account for all the projected job losses, while a modest increase of around 25,000 jobs is projected for males. *Secretarial and related occupations* and *clerical and administrative occupations* share in the projected employment decline, with expected losses of 220,000 and 180,000 jobs, respectively.

Skilled trades occupations

At 1.6% per annum, the projected rate of job loss for this Major Group is slightly slower than the UK average (1.8% per annum). By 2012, skilled trades occupations are expected to account for 9% of total employment in England, down from 11% in 2002 and over 14% in 1992. *Skilled metal and electrical trades* dominate projected job losses, with an expected reduction of nearly 340,000 jobs over the period to 2012. Much more modest losses of 65,000 jobs in *skilled construction and building trades* and 40,000 jobs in *other skilled trades* are expected. A small increase in employment in *skilled agricultural trades* is projected. Males account for virtually all the projected job loss in this SOC Major Group.

Personal service occupations

Employment in this SOC Major Group is projected to increase by around 650,000 over the period to 2012. Nearly 610,000 extra jobs are expected in *caring personal service occupations,* as employment is projected to increase at 3.9% per annum. Around 45,000 additional jobs in *leisure occupations* are expected. Females are the main beneficiaries of net employment growth in this SOC Major Group, with males accounting for only 6% of the projected job gains.

Sales and customer service occupations

There is a projected employment gain of nearly 350,000 jobs in this SOC Major Group between 2002 and 2012. Both *sales occupations* and *customer service occupations* contribute to this projected increase, with expected employment gains of 185,000 and about 160,000, respectively. Females are projected to take around 60% of the additional jobs in this SOC Major Group.

Machine and transport operatives

A loss of just over 200,000 jobs is projected for machine and transport operatives. This is a function of a projected loss of 270,000 *process machine operatives* offset by a projected gain of 65,000 *drivers and other operatives.* Females account for 70% of the projected job loss.

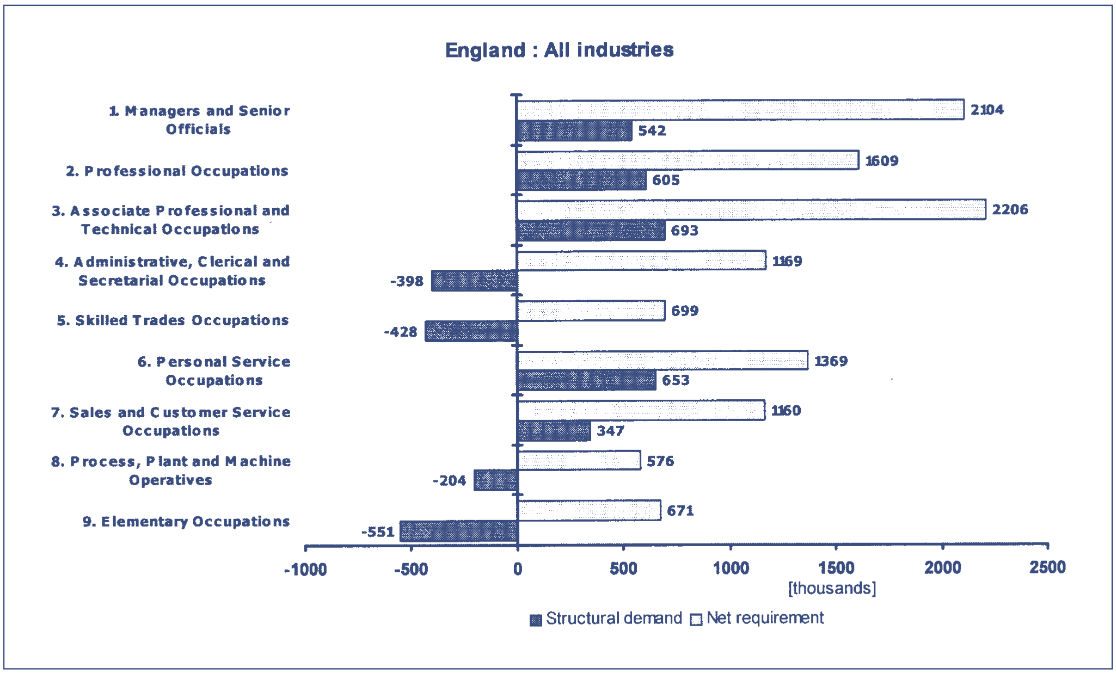
Elementary occupations

A loss of 550,000 jobs in *elementary occupations* is projected over the period from 2002 to 2012. This represents a rate of loss of 2.2% per annum. Females account for over 70% of the projected job losses. By 2012 less than 9% of total employment is expected to be accounted for by this SOC Major Group, compared with over 11% in 2002 and nearly 15% in 1992. Around 375,000 jobs are expected to be lost in *elementary service occupations* and a further 175,000 in *elementary trades occupations.*

11.6 Projections of replacement demands

The key component of replacement demands is retirements from the workforce, especially those of older workers. However, replacement requirements for specific occupational groups, in particular geographical areas, can also arise for a number of other reasons. These include occupational mobility, as individuals change jobs for reasons of career progression (as well as other causes), and geographical mobility. Potentially, the latter may be quite important at a regional level. Unfortunately there are few reliable data on such flows, so the estimates presented here exclude replacement needs arising as a consequence of both occupational and geographical mobility. In both cases, there may be offsetting inflows to counterbalance some of the losses.

Figure 11.3 Replacement Demands for England



Source: CE/IER estimates, MDM95 C31 F95 Forecast, ReplacementDemands.xls

Even where projected structural changes suggest an overall reduction in employment levels, the total requirements are still positive. Hence, although the projections outlined above indicate a reduction of around 550,000 in employment levels for elementary occupations, projected replacement demands exceed 1.2 million (44% of the 2002 employment level) and the total requirement is for about 670,000 extra people. Likewise, despite a projected decline of around 400,000 jobs in administrative, clerical and secretarial occupations, replacement demand estimates suggest a need for nearly 1.6 million extra people, and a projected total requirement of about 1.2 million. Skilled trades occupations and machine and transport operatives are the other SOC Major Groups where the previous section pointed to a reduction in employment on the basis of structural change. Replacement demands of 1.1 million and 780,000, respectively, mean total requirements of 700,000 in skilled trades occupations and about 575,000 for machine and transport operatives.

Taking professional and associate professional occupations where expansion demand changes suggest 690,000 new job openings, estimated replacement demands of around 1.5 million culminate in a projected total requirement of 2.2 million over the period to 2012. This is the largest single total requirement for any SOC Major Group. For managers and senior officials the total requirement exceeds 2.1 million, for professional occupations it is 1.6 million, while for personal service occupations it approaches 1.4 million (75% of the 2002 employment level).

WALES

12.1 Overview

Wales has been classed traditionally as one of the more poorly performing parts of the UK. Despite net in-migration, population growth has been slower than the UK average, but higher than in northern England. Historically, manufacturing has played an important role n the Welsh economy and has been a source for higher than average wages. In many of the local areas most closely associated with a manufacturing and mining heritage, non-employment rates are amongst the highest in the UK, and GDP levels are considerably lower than the UK average. West Wales and the Valleys have Objective 1 status. Prospects for inward investment in manufacturing are increasingly difficult, and wages in the service sector tend to be lower than average. The rural northern and western parts of Wales are characterised by particularly low wage levels. The economy of north east Wales and the North Wales coast has stronger functional links to the North West region than to the rest of Wales, while the south eastern part of Wales (around Cardiff and Newport) has the strongest links with southern England across the Severn.

Projected population, labour force and employment growth in Wales is somewhat slower than the UK average. A distinctive feature of labour supply and demand in Wales is the fact that economic activity rates are much lower than the UK average. The unemployment rate is higher than across the UK as a whole.

Job losses are expected to proceed at annual average rates in excess of the UK average in the primary sector and utilities, manufacturing and construction. Despite projected growth in all broad service sectors, only in business and other services does the expected rate of employment increase exceed the UK average. Non-marketed services are projected to continue to account for a much larger share of total employment in Wales than across the UK as a whole.

Over the 30 years from 1982, the 'feminisation' of the employment structure in Wales is illustrated by the changing gender profile of employment, as the Principality is transformed from having one of the highest shares of total employment accounted for by males of any part of the UK, to one of the lowest. The projected rates of loss of male full-time employees and gain for female part-time employees are the fastest for any part of Great Britain. For female full-time employees the projected rate of loss is also one of the fastest for any part of the UK. Self-employment is also projected to decline at a faster rate than the UK average. Projected employment gains over the period to 2012 are confined to part-time employees.

Wales displays a relatively small share of total employment accounted for by managers and senior officials, and one of the slowest projected growth rates of any region for this SOC Major Group. Professional and associate professional and technical occupations are also under-represented relative to the position across the UK as a whole, and public sector employees account for a particularly large share of people employed in such groups. As well as in these high level non-manual occupations, employment is projected to increase in personal service occupations and sales and customer service occupations. The projected rate of employment decline in administrative, clerical and secretarial occupations is slower than the UK average. By contrast, the projected rates of job loss in skilled trades occupations and elementary occupations are amongst the slowest expected in any part of the UK. Machine and transport operatives account for a larger share of total employment in Wales than in any other part of the UK, and the projected rate of job loss is slower than the UK average. However, projections of replacement demands are such that total requirements are positive in all SOC Major Groups.

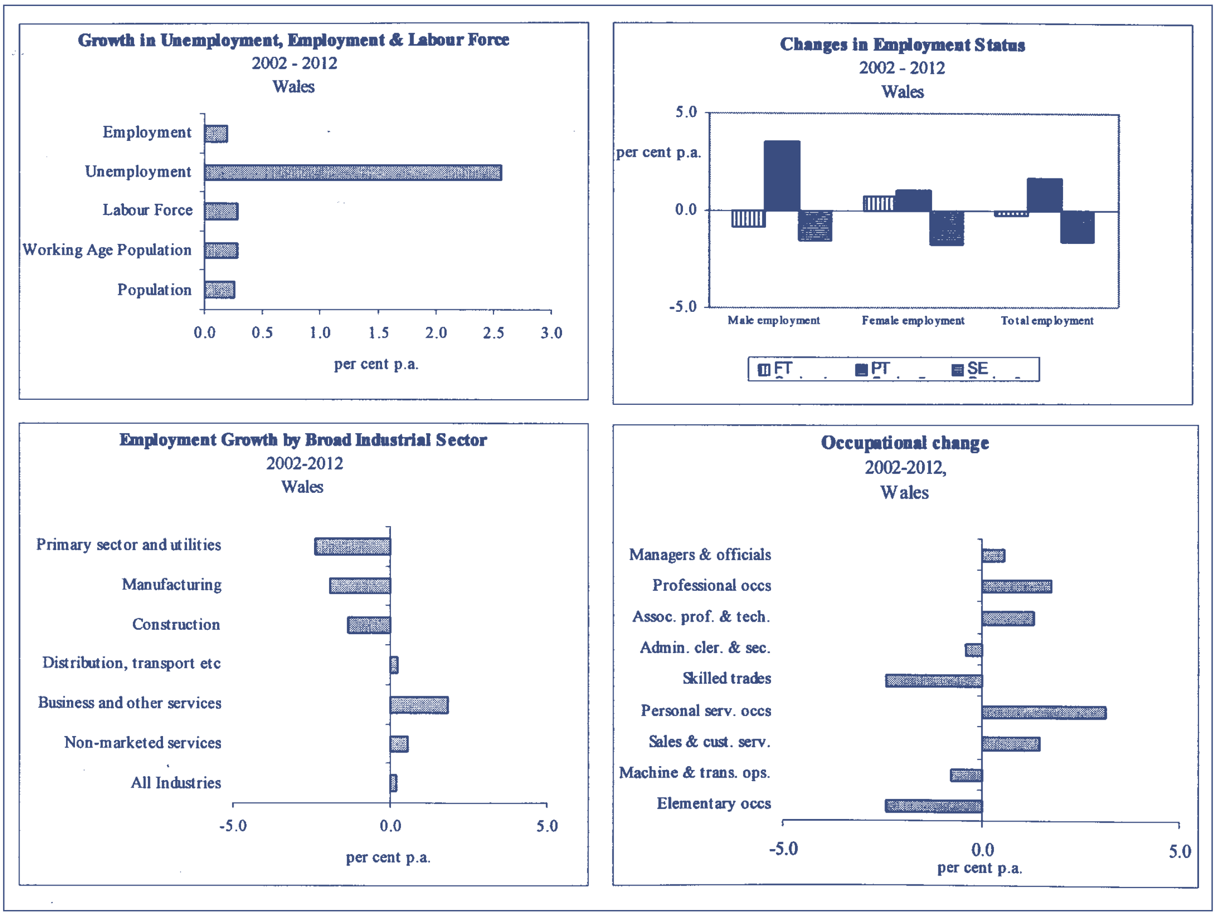
12.2 Labour supply and demand

The *population* of Wales is projected to increase by over 75,000, between 2002 and 2012, to reach 3.04 million (see Figures 12.1 and 12.2). At a rate of increase of 0.3% per annum, this represents a rate of growth only slightly slower than the UK average. The *working age population* is projected to grow at a similar rate, increasing by about 50,000 over the same period. The *labour force* is projected to increase by just over 35,000, to 1.34 million in 2012. At 0.3% per annum, this represents a slower growth rate than the UK average of 0.5% per annum. An increase in labour market participation accounts for the greater proportionate increase in labour supply. *The economic activity* rate is projected to decrease by 0.6 percentage points to 69%. This is substantially lower than the rate of 78% projected for the UK as a whole, and only the North East displays a lower economic activity rate.

Unemployment is projected to increase by nearly 15,000 between 2002 and 2012, to reach over 60,000. This represents a rate of increase in excess of the UK average, and so means that in Wales the unemployment rate is expected to remain higher than, and diverge from, the UK average.

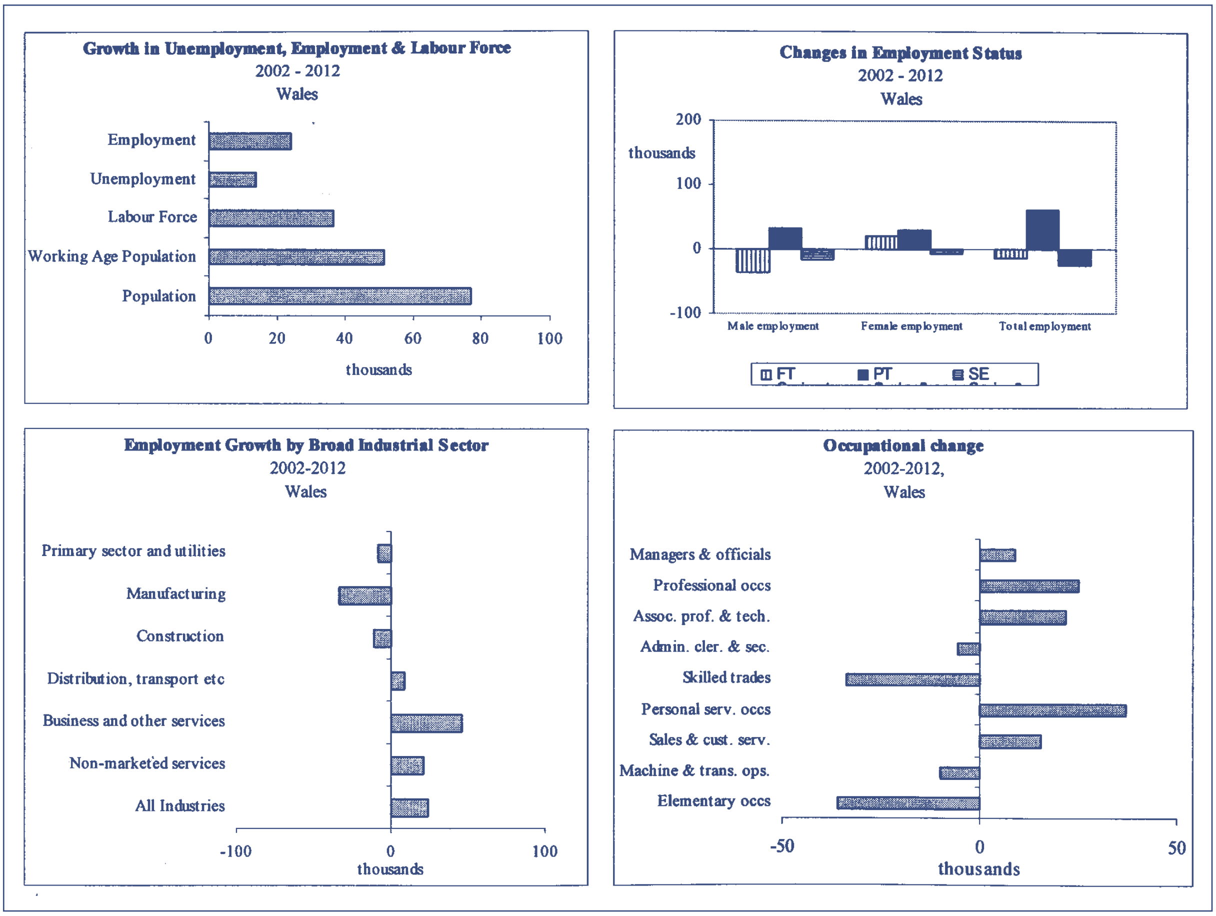
Total employment in Wales is expected to rise by about 25,000 to reach over 1.26 million by 2012. At 0.2% per annum, the projected growth rate in employment is below the UK average of 0.4%. Only Scotland and the North East record slower rates of projected employment growth.

Figure 12.1 Key changes in Wales % p.a.



Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Figure R.1 (%)

Figure 12.2 Key changes in Wales (000s)



Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Figure R.1 (000s)

12.3 Sectoral prospects

In Wales employment losses are projected in the primary sector and utilities, manufacturing and construction, while distribution, transport, etc., business and other services, and non-marketed services are expected to experience employment gains (see Figures 12.1 and 12.2). In absolute terms, as across all parts of the UK, the dominant feature of employment decline is the loss of around 35,000 jobs in manufacturing. A loss of 8,000 jobs is projected in the primary sector and utilities and 11,000 in construction. These job losses contrast with gains of over 45,000 jobs in business and other services, of over 20,000 in non-marketed services and of nearly 10,000 in distribution, transport, etc. Only in business and other services does the annual average rate of projected employment growth exceed the UK average.

Within the *primary sector and utilities,* employment is projected to decline at over 4% per annum, which is faster than the UK average. *Agriculture* dominates projected job losses between 2002 and 2012, as part of a trend of long-term decline. There are projected to be fewer than 25,000 jobs in *agriculture, hunting, forestry and fishing,* in 2012, compared with over 65,000 in 1982. *Mining and quarrying* is also expected to experience job losses, but there are few jobs remaining in this industry following the massive shake out of the 1980s. Job loss is also projected for *electricity, gas and water.* The majority of job losses in the primary sector and utilities sector fall on males.

The rate of employment decline recorded for *manufacturing* in Wales is only slightly greater than the UK average, but this contrasts with a slower rate of decline than nationally over the previous decade. The *rest of manufacturing* accounts for two thirds of the employment decline in the broad industrial sector. By 2012 it is projected that there will be just over 100,000 jobs in the rest of manufacturing compared with 125,000 a decade earlier. Job losses in *engineering* are also expected to occur at a rate slightly greater than the UK average. At 2.3% per annum this represents a faster rate of loss than was experienced over the previous decade. Only a small employment decrease is expected in *food, drink and tobacco.* Nearly three fifths of the job losses are projected to fall on males.

Employment in *construction* in Wales is projected to decline at a rate of 1.3% per annum, with over 10,000 jobs lost over the period to 2012. This is a faster rate of decline than the UK average.

The projected annual average rate of employment growth in *distribution, transport, etc.* in Wales is 0.3%, which is slightly slower than the UK average. Within this broad sector *retail distribution* is expected to account for 11,000 extra jobs. An additional 3,000 jobs are in *transport, storage and communication* as employment expands at a much greater rate than the UK average. However, a projected loss of jobs in *hotels and restaurants* contrasts with small employment gains at national level. Females account for all the employment gains, while male employment in the broad sector is expected to decline slightly.

As across the UK, the greatest projected employment increase is expected in *business and other services*. Over three fifths of the additional jobs are projected to be filled by females. In both *other business activities* (30,000 extra jobs) and *other services* (15,000 extra jobs) projected annual average growth rates exceed those expected for the UK. Across the broad sector, Wales experiences the highest projected growth rate in the UK with the exception of Yorkshire & the Humber. Employment levels in *banking and insurance* are expected to remain stable.

Employment in *non-marketed services* is projected to expand by over 20,000 jobs, with females accounting for all these extra jobs, while male employment declines by 10,000. An additional 16,000 jobs are expected in health and social work, and 8,000 in education. In *public administration and defence* employment is projected to decline slightly, at a rate in excess of the UK average. However, by 2012 this broad sector is expected to account for 29% of total employment, compared with 22% in 1982.

12.4 Change in employment by gender and employment status

In 1982 males comprised 60% of those in employment in Wales, compared with the UK average of 58%. This was the highest proportion of any part of the UK. By 1992 the Wales proportion had declined to the UK average (just over 53%). By 2012 it is projected that males will account for 49% of those in employment. Only the East Midlands is projected to display such a small proportion. These changes are indicative of the feminisation of the employment structure in Wales.

Between 2002 and 2012 a loss of 35,000 male full-time jobs in Wales is projected. This is nearly offset by a projected gain of over 30,000 male part-time employees (Figure 12.2). These rates of loss and gain are the fastest experienced in any part of Great Britain. For females there are projected gains of about 20,000 full-time employees and 30,000 part-time employees. These absolute gains represent growth rates of 0.7% per annum and 0.5% per annum, respectively. In the case of female full-time employees, this growth rate is the highest, along with that for London, of any region in the UK. For female part-time employees the projected growth rate is akin to that expected across the UK as a whole. Self-employment is expected to contract by nearly 25,000. At 1.6%, this is easily the fastest rate of decline expected for any part of the UK. Hence, in aggregate terms, net employment gains in Wales are confined to part-time employees.

Table 12.1: Sectoral change in Wales

	Wales											UK	
	1982	1992	2002	2012	1982	1992	2002	2012	2002-2012			2002-2012	
Sectoral categories	000s	000s	000s	000s	% of total	% of total	% of total	% of total	change 000s	% change	% per annum	% change	% per annum
1. Agriculture hunting forestry fishing	66	43	29	23	6.0	3.6	2.3	1.8	-6	-19.8	-2.2	-15.2	-1.6
2. Mining and quarrying	40	6	3	2	3.6	0.5	0.2	0.2	-1	-32.9	-3.9	-19.0	-2.1
6. Electricity gas and water	12	9	7	5	1.1	0.8	0.5	0.4	-1	-21.9	-2.4	-19.2	-2.1
Primary sector and utilities	*119*	*59*	*39*	*31*	*10.7*	*5.0*	*3.1*	*2.4*	*-8*	*-21.2*	*-2.4*	*-16.5*	*-1.8*
3. Food drink & tobacco	19	21	24	22	1.7	1.8	2.0	1.8	-2	-8.3	-0.9	-9.7	-1.0
4. Engineering	45	48	41	32	4.1	4.0	3.3	2.6	-8	-20.7	-2.3	-18.0	-2.0
5. Rest of manufacturing	160	148	126	103	14.4	12.5	10.2	8.2	-23	-18.3	-2.0	-17.3	-1.9
Manufacturing	*223*	*217*	*191*	*158*	*20.2*	*18.3*	*15.4*	*12.5*	*-34*	*-17.5*	*-1.9*	*-16.5*	*-1.8*
7. Construction	78	82	87	76	7.0	6.9	7.0	6.0	-11	-12.6	-1.3	-3.2	-0.3
8. Retail distribution	169	185	201	211	15.3	15.7	16.2	16.7	11	5.4	0.5	7.1	0.7
9. Hotels and restaurants	61	89	88	84	5.5	7.5	7.1	6.7	-4	-4.7	-0.5	0.8	0.1
10. Transport storage & communication	61	57	57	60	5.5	4.8	4.6	4.8	3	4.7	0.5	1.3	0.1
Distribution transport etc.	*291*	*332*	*346*	*356*	*26.3*	*28.0*	*27.9*	*28.1*	*9*	*2.7*	*0.3*	*4.5*	*0.4*
11. Banking and Insurance	27	30	32	32	2.4	2.5	2.6	2.5	0	0.7	0.1	3.7	0.4
12. Other business activities	74	99	116	147	6.7	8.4	9.3	11.6	31	26.5	2.4	21.5	2.0
16. Other services	52	62	80	95	4.7	5.2	6.5	7.5	15	18.4	1.7	14.7	1.4
Business and other services	*153*	*191*	*228*	*274*	*13.8*	*16.2*	*18.4*	*21.6*	*46*	*20.0*	*1.8*	*17.1*	*1.6*
13. Public admin & defence	72	82	76	73	6.5	6.9	6.1	5.8	-3	-3.8	-0.4	-2.1	-0.2
14. Education	77	88	112	120	6.9	7.4	9.0	9.5	8	7.4	0.7	8.5	0.8
15. Health and social work	94	134	162	178	8.5	11.3	13.0	14.1	16	10.0	1.0	9.5	0.9
Non-marketed services	*243*	*303*	*350*	*371*	*21.9*	*25.6*	*28.2*	*29.4*	*22*	*6.2*	*0.6*	*6.7*	*0.6*
All Sectors	1106	1184	1241	1265	100.0	100.0	100.0	100.0	24	1.9	0.2	4.5	0.4

Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Table R14b

12.5 Occupational prospects

Overview

This section concentrates on the employment projections for different occupations. It should be remembered that such 'structural demand' provides only part of the overall picture of occupational change. For a fuller picture of the changing requirement for different occupations it is necessary to bear in mind the impact of retirements, inter-occupational moves, etc., as captured by 'replacement demand' (see Section 12.6).

At the level of SOC Major Groups, the largest increase in occupational employment between 2002 and 2012 is projected for personal service occupations, with an expected increase of over 35,000 jobs (see Figure 12.2). This represents increase at a similar rate as across the UK as a whole. Other substantial employment gains are expected for professional occupations (25,000 jobs), associate professional and technical occupations (more than 20,000 jobs), sales and customer service occupations (more than 15,000 jobs) and managers and senior officials (nearly 10,000 jobs). In the case of professional occupations, and sales and customer service occupations, the rate of employment growth is similar to the UK average. For associate professional and technical occupations, and more particularly for managers and senior officials, the projected growth rates in Wales are slower than those expected across the UK as a whole.

Elementary occupations and skilled trades occupations dominate job losses, with employment expected to contract by about 35,000 for each SOC Major Group. In both instances these losses represent rates of decline in excess of the UK average. Losses of 10,000 and 5,000 jobs, respectively, are expected for machine and transport operatives and administrative, clerical and secretarial occupations. In these cases the projected rates of loss are slower than those expected across the UK as a whole.

Managers and senior officials

At 0.6% per annum, the projected rate of employment increase for this Major Group is the slowest in the UK. A net gain of around 10,000 jobs is a function of a projected 13,000 gain for *corporate managers,* coupled with an expected loss of nearly 5,000 jobs for *managers and proprietors* (see Table 12.2). Females are expected to account for all the extra jobs, while employment levels for males remain stable. By 2012, this Major Group is expected to account for 12.4% of total employment in Wales, compared with around 16% across the UK. This is one of the smallest shares in the UK, along with the North East and Northern Ireland.

Professional occupations

The share of professional occupations in total employment in Wales, at 10.6%, is slightly below the UK average. An additional 25,000 jobs are expected over the period to 2012. This represents an annual average growth rate of 1.8%, which is similar to the UK average. All occupational groups are projected to share in the expected employment increase, with the largest gains expected amongst *teaching and research professionals* (nearly 20,000 extra jobs). This represents an increase of about a quarter. Employment for *health professionals* is also expected to expand by a quarter, although in absolute terms this involves far fewer jobs. Projected annual average growth rates for both these occupational groups exceed those expected across the UK as a whole. Coupled with smaller absolute employment increases, and substantially slower rates of employment growth than the UK average for *science and technology professionals* and *business professionals,* these increases underline the greater importance of the public sector as a source of professional employment in Wales than across the UK as a whole. Females are projected to account for the vast majority of the expected job gains.

Associate professional and technical occupations

Associate professional and technical occupations are also under-represented in the employment structure of Wales relative to the UK. With a projected increase of more than 20,000 jobs, the share of employment accounted for by this Major Group is expected to rise from 10% to more than 12% over the period to 2012. *Health associate professionals* account for the largest single gain in employment, as employment is set to expand by 1.3% per annum (a rate akin to the UK average). Gains of around 5,000 job are expected for each of *culture, media and sports occupations, science and technology associate professionals* and *business associate professionals.* For all these occupations, and especially the latter, projected rates of growth are slower than the UK average. Employment levels in *protective service occupations* are expected to remain stable, contrasting with growth across the UK. Females are expected to take about four fifths of the extra jobs.

Administrative, clerical and secretarial occupations

Along with Yorkshire and the Humber, the West Midlands and the North West, Wales displays a projected rate of employment decrease (0.4% per annum) for the Major Group considerably slower than the UK average (1.2% per annum). The projected loss of 5,000 jobs is a function of job loss in *secretarial and related occupations* offset by a very small increase in *administrative and secretarial occupations* (contrasting with projected decline across the UK as a whole). A gain of 5,000 jobs for males is offset by a loss of about 10,000 jobs for females. In 2012 this SOC Major Group is expected to account for 11% of total employment in Wales.

Skilled trades occupations

In 1982, skilled trades occupations accounted for about a fifth of employment in Wales. By 1992 approximately 16% of employment in Wales was accounted for by this Major Group, and by 2002 this had reduced further to 12.5%. With a projected loss of nearly 35,000 jobs over the period to 2012, the share of total employment in Wales in skilled trades occupations is expected to have decreased to less than 10%. Although the projected job loss in Wales, at 2.4% per annum, is greater than that expected across the UK as a whole (1.8%) and the greatest in any part of the UK with the exception of Northern Ireland, skilled trades occupations are expected to remain over-represented relative to the UK average. All occupational groups share in the overall job loss, with *skilled metal and electrical trades* accounting for the largest single decline (20,000 jobs). Although the declines in *skilled construction and building trades, other skilled trades* and *skilled agricultural trades* are more modest, in all cases projected rates of loss exceed the UK average. Males are expected to account for the vast majority of projected job losses.

Personal service occupations

Only Northern Ireland and the East Midlands have a larger share of employment in this Major Group than the UK average. With a projected increase of more than 35,000 jobs, the share of total employment in personal service occupations is set to increase from more than 8% to over 11% in 2012. At 3.1% per annum, the projected rate of growth is similar to the UK average. Virtually all the expected employment growth is accounted for by *caring personal service occupations.* A small increase in employment is expected in *leisure occupations.* Females account for virtually all these projected gains, with only a very modest increase projected for males.

Sales and customer service occupations

Around 15,000 extra jobs are expected in *sales and customer service occupations* between 2002 and 2012. This represents an annual average growth rate of 1.5% per annum, which is similar to the UK average. *Sales occupations* and *customer service occupations* contribute in fairly even measure to this overall increase, but it is the latter occupational group that displays the fastest growth rate, and where the rate of growth is greater than the UK average. Males account for slightly more than a third of the extra jobs.

Machine and transport operatives

Wales has a greater share of total employment in this SOC Major Group (11%) than any other part of the UK. Over the period to 2012, a loss of 10,000 jobs is expected. This represents a rate of loss of 0.8% per annum, compared with a rate of 1.1% across the UK. Hence, the over-representation of machine and transport operatives in Wales is set to increase. Both *process machine operatives* and *drivers and other operatives* are expected to share in the employment reduction, but for the former occupational group the rate of employment loss (0.8% per annum) is substantially slower than that expected across the UK as a whole (2.4% per annum). Females are expected to account for all the job losses, while employment levels for males remain stable.

Elementary occupations

Wales, along with the North East and Scotland, has one of the highest shares of employment in this Major Group in the UK. The proportion of total employment accounted for by this Major Group declined from 19% in 1982 to around just over 13% in 2002. With a projected loss of about 35,000 jobs, elementary occupations are expected to account for just over 10% of total employment in Wales by 2012. At 2.4% per annum, the projected rate of job loss slightly exceeds the UK average. Around 25,000 jobs are expected to be lost in *elementary service occupations* and 10,000 in *elementary trades occupations.* Employment for males is projected to contract by about 10,000, and for females by around 25,000.

Table 12.2: Occupational change in Wales

	Wales											UK	
	1982	1992	2002	2012	1982	1992	2002	2012	2002-2012			2002-2012	
Occupation groups	000s	000s	000s	000s	% of total	% of total	% of total	% of total	change 000s	% change	% per annum	% change	% per annum
Corporate managers	63	82	102	115	5.7	6.9	8.2	9.1	13	12.8	1.2	20.4	1.9
Managers / proprietors	44	45	46	42	3.9	3.8	3.7	3.3	-4	-8.9	-0.9	-7.0	-0.7
Managers & officials	*107*	*127*	*148*	*157*	*9.7*	*10.7*	*12.0*	*12.4*	*9*	*6.1*	*0.6*	*13.4*	*1.3*
Sc. & tech. profs.	20	23	25	27	1.8	2.0	2.0	2.2	3	10.8	1.0	22.5	2.0
Health professionals	6	9	14	18	0.6	0.7	1.2	1.4	4	26.2	2.4	19.1	1.8
Teaching & res. profs.	41	52	72	90	3.7	4.4	5.8	7.1	18	24.6	2.2	19.9	1.8
Business professionals	16	18	20	21	1.5	1.5	1.6	1.7	1	5.6	0.5	23.0	2.1
Professional occs	*83*	*102*	*132*	*157*	*7.5*	*8.6*	*10.6*	*12.4*	*25*	*19.3*	*1.8*	*21.3*	*1.9*
Sc. & tech. assoc. profs.	12	15	20	24	1.1	1.2	1.6	1.9	4	20.7	1.9	24.5	2.2
Health assoc. profs.	35	44	54	61	3.1	3.8	4.3	4.9	8	14.1	1.3	12.8	1.2
Protect. serv. occs	10	11	14	15	0.9	0.9	1.2	1.2	0	3.3	0.3	20.3	1.9
Culture, med. & sports	8	12	19	25	0.8	1.0	1.5	1.9	5	28.7	2.6	31.2	2.8
Business assoc. profs.	32	40	46	50	2.9	3.4	3.7	4.0	4	8.8	0.8	15.1	1.4
Assoc. prof. & tech.	*97*	*121*	*154*	*175*	*8.8*	*10.3*	*12.4*	*13.9*	*22*	*14.1*	*1.3*	*18.8*	*1.7*
Admin & clerical	104	116	109	110	9.4	9.8	8.8	8.7	1	0.5	0.0	-6.3	-0.7
Secretarial and related	36	43	35	29	3.3	3.6	2.8	2.3	-6	-16.9	-1.8	-24.0	-2.7
Admin. cler. & sec.	*140*	*159*	*145*	*139*	*12.6*	*13.4*	*11.7*	*11.0*	*-5*	*-3.8*	*-0.4*	*-11.0*	*-1.2*
Skilled agric. trades	40	27	22	19	3.6	2.3	1.8	1.5	-3	-15.2	-1.6	2.9	0.3
Skilled metal & electrical	93	79	56	36	8.4	6.7	4.5	2.8	-20	-36.2	-4.4	-31.2	-3.7
Skilled cons. & building	51	49	51	44	4.6	4.1	4.1	3.5	-7	-13.9	-1.5	-8.6	-0.9
Other skilled trades	33	36	27	24	3.0	3.1	2.2	1.9	-3	-10.9	-1.2	-8.4	-0.9
Skilled trades	*217*	*191*	*155*	*122*	*19.6*	*16.1*	*12.5*	*9.6*	*-34*	*-21.6*	*-2.4*	*-16.2*	*-1.8*
Caring personal service	23	40	78	113	2.1	3.4	6.3	8.9	35	45.2	3.8	44.8	3.8
Leisure occupations	20	23	25	27	1.8	2.0	2.0	2.1	2	8.1	0.8	7.8	0.8
Personal serv. occs	*43*	*64*	*103*	*140*	*3.9*	*5.4*	*8.3*	*11.1*	*37*	*36.2*	*3.1*	*34.8*	*3.0*
Sales occupations	65	78	85	92	5.9	6.6	6.9	7.2	7	7.6	0.7	10.5	1.0
Customer service occs.	4	5	15	25	0.3	0.4	1.2	1.9	9	58.7	4.7	48.2	4.0
Sales & cust. serv.	*69*	*83*	*101*	*116*	*6.2*	*7.0*	*8.1*	*9.2*	*16*	*15.5*	*1.5*	*17.0*	*1.6*

Table 12.2: Occupational change in Wales (continued)

	Wales											UK	
	1982	1992	2002	2012	1982	1992	2002	2012	2002-2012			2002-2012	
Occupation groups	000s	000s	000s	000s	% of total	% of total	% of total	% of total	change 000s	% change	% per annum	% change	% per annum
Process machine ops.	94	95	94	87	8.5	8.0	7.6	6.8	-7	-7.8	-0.8	-22.0	-2.4
Drivers & other ops.	46	43	44	41	4.2	3.6	3.5	3.2	-3	-6.3	-0.6	5.8	0.6
Machine & trans. ops.	*141*	*138*	*138*	*128*	*12.7*	*11.6*	*11.1*	*10.1*	*-10*	*-7.3*	*-0.8*	*-10.1*	*-1.1*
Elementary: trades	84	69	66	56	7.6	5.9	5.3	4.4	-10	-15.0	-1.6	-18.2	-2.0
Elementary: service	125	131	100	74	11.3	11.0	8.1	5.9	-26	-25.9	-3.0	-20.5	-2.3
Elementary occs	*210*	*200*	*166*	*130*	*18.9*	*16.9*	*13.4*	*10.3*	*-36*	*-21.6*	*-2.4*	*-19.7*	*-2.2*
All occupations	1106	1184	1241	1265	100.0	100.0	100.0	100.0	24	1.9	0.2	4.5	0.4

Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Table R15b

12.6 Projections of replacement demands

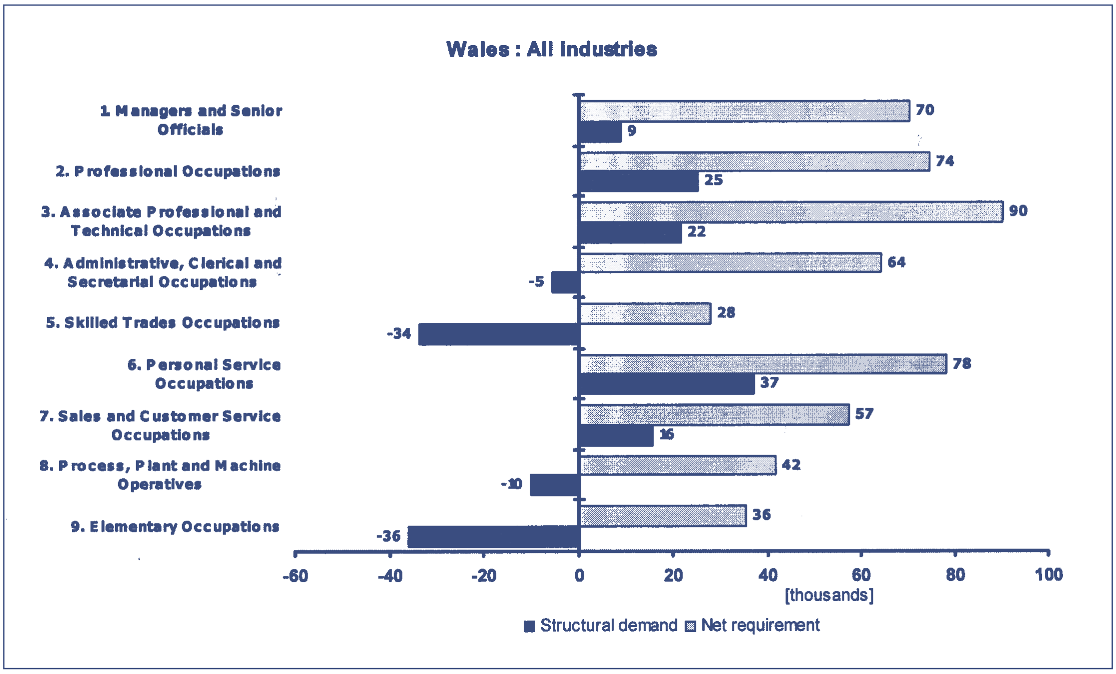
The key component of replacement demands is retirements from the workforce, especially those of older workers. However, replacement requirements for specific occupational groups, in particular geographical areas, can also arise for a number of other reasons. These include occupational mobility, as individuals change jobs for reasons of career progression (as well as other causes), and geographical mobility. Potentially, the latter may be quite important at a regional level. Unfortunately there are few reliable data on such flows, so the estimates presented here exclude replacement needs arising as a consequence of both occupational and geographical mobility. In both cases, there may be offsetting inflows to counterbalance some of the losses.

The key message of this section is that in the case of all SOC Major Groups total requirements are positive. Personal service occupations display the largest gain in employment on the basis of expansion demand, with more than 35,000 extra jobs expected. Replacement demand is slightly greater, so that the total requirement is for nearly 80,000 extra people in such occupations by 2012.

In absolute terms, replacement demands are highest, at about 70,000, for elementary occupations, administrative, clerical and secretarial occupations, and associate professional and technical occupations. On the basis of expansion demand these three SOC Major Groups display rather different fortunes: a loss of about 35,000 jobs in elementary occupations, a much smaller loss in administrative, secretarial and clerical occupations, and a gain of over 20,000 jobs for associate professional and technical occupations. Taken together, the replacement and expansion demands result in estimated total requirements for more than 35,000 people in elementary occupations, nearly 65,000 in administrative, clerical and secretarial occupations and 90,000 in associate professional and technical occupations.

Of the remaining SOC Major Groups where projected expansion demand suggests employment increase, replacement demands serve to increase the total requirements still further. Hence, there are total requirements of 75,000 in professional occupations, 70,000 for managers and senior officials and over 55,000 in sales and customer service occupations. In the case of skilled trades occupations, structural demand changes point to a reduction of 35,000 jobs, yet an estimated replacement demand of over 60,000, results in a total requirement of nearly 30,000 over the period to 2012. For machine and transport operatives the total requirement is over 40,000.

Figure 12.3 Replacement Demands for Wales



Source: CE/IER estimates, MDM95 C31 F95 Forecast, ReplacementDemands.xls

SCOTLAND

13.1 Overview

Within Scotland there are large urban areas, such as Glasgow and Edinburgh, and also, the most sparsely populated areas in the UK, in the Highlands and Islands. The two major urban areas have a strong business and financial services sector, which has a healthy skills pool on which to draw, and with a lower cost base than London. The large urban areas also include pockets of deprivation as well as more prosperous areas, and continue to see major regeneration activity. Scotland's more remote rural areas face distinctive problems of peripherality and lack of access to education, training and employment opportunities.

Across Scotland a small loss in population is expected between 2002 and 2012, but a modest increase in the labour force is projected. Employment is projected to grow much more slowly than across the UK as a whole, while the unemployment rate is expected to remain higher than the UK average.

At a broad sectoral level, projected employment increases are restricted to business and other services and non-marketed services. Contrary to the general pattern of slower than average employment growth, and faster than average employment decline, the rate of employment decrease in the primary sector and utilities is somewhat slower than that expected across the UK as a whole. In business and other services the rate of projected employment growth slightly exceeds the UK average. Males are expected to be the main beneficiaries of these job gains. Projected job losses are concentrated in manufacturing with an expected 70,000 decrease in employment levels over the period to 2012.

The existing trend, for males to account for a smaller share of employment in Scotland than across the UK as a whole, is expected to continue. Job losses are expected for both male and female full-time employees. Projected employment increases are confined to part-time employees – both males and females – and to the self-employed.

Professional occupations comprise the single largest component of expected employment of any SOC Major Group over the period to 2012. Only London and the East of England are expected to record faster rates of job growth. Associate professional and technical occupations account for the next largest share. Scotland is well represented in both these occupational groups. Personal service occupations, managers and senior officials, and sales and customer service occupations also display projected employment increases. Skilled trades occupations and elementary occupations are expected to bear the brunt of job losses, with the projected rate of decline in the former SOC Major Group exceeding that in any other part of the UK. Scotland has a larger share of total employment in elementary occupations than any other part of the UK. A slower than average projected rate of employment loss in administrative and secretarial occupations means that, by 2012, this SOC Major Group is expected to account for a larger share of total employment in Scotland than in any other part of the UK. Even where projected structural changes suggest an overall reduction in employment levels, replacement demands mean that total requirements are positive.

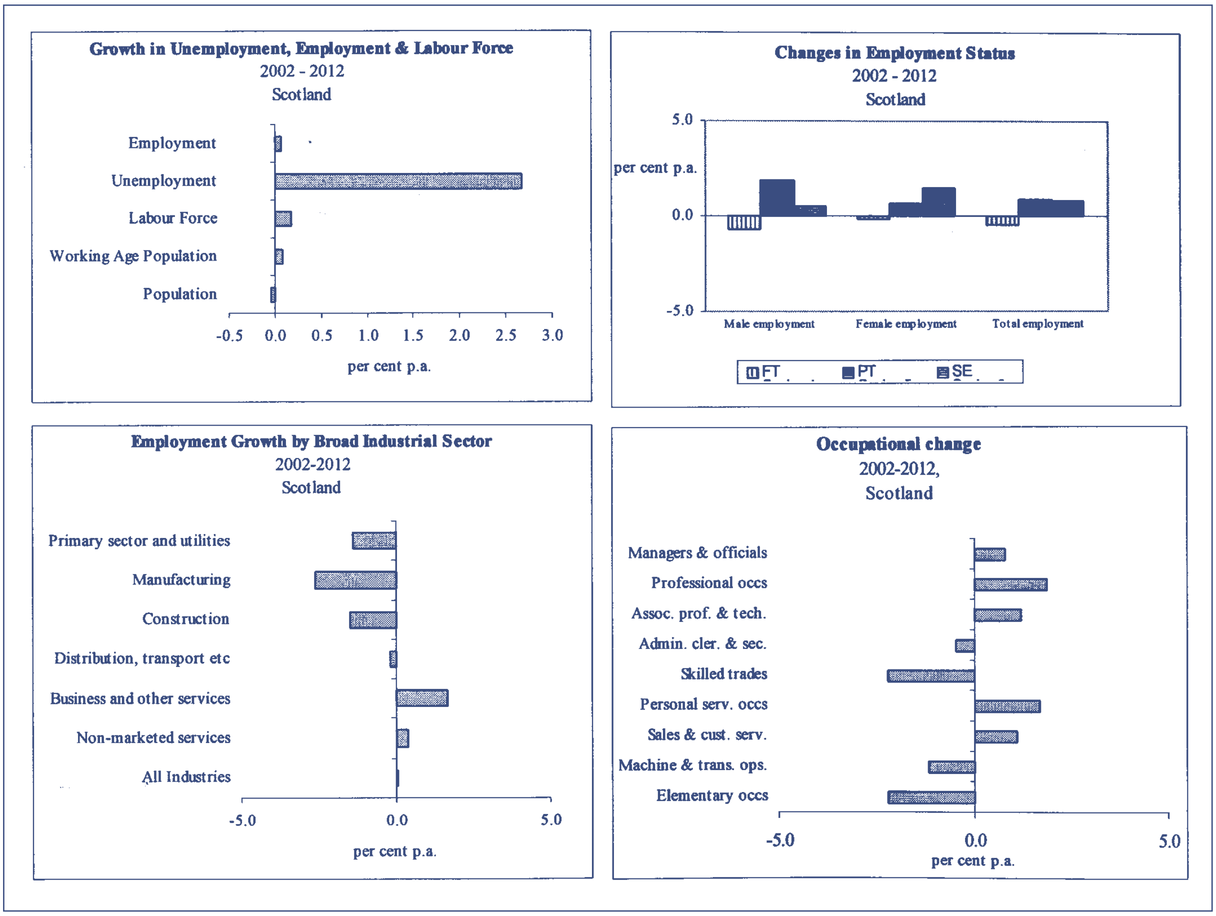
13.2 Labour supply and demand

The *population* of Scotland is projected to decline by 25,000 between 2002 and 2012, to 5.08 million (see Figure 13.2). The North East is the only other part of the UK where population growth is not expected. By contrast, the *working age population* is projected to increase by 25,000 between 2002 and 2012, representing an increase of 0.1% per annum, compared with a projected annual average growth rate of 0.5% across the UK as a whole. The *labour force* is projected to increase by 45,000, to reach 2.69 million in 2012. At an annual per annum growth rate of 0.2%, this represents the slowest rate of increase, along with the North East, expected in any part of the UK. The *economic activity rate* is expected to remain steady at just over 78%, which is akin to the UK average.

Unemployment is expected to increase by around 30,000 between 2002 and 2012, to reach nearly 135,000 in 2012. This represents a faster rate of increase than the UK average, such that the unemployment rate in Scotland is expected to remain higher than, and diverge from, the UK average. By 2012 the unemployment rate in Scotland is projected to be at a similar level to that in Northern Ireland, and to be exceeded only by the projected unemployment rate for the North East.

Total employment in Scotland is projected to increase by 15,000 to reach about 2.53 million in 2012. At 0.1% per annum, this represents the slowest rate of employment increase for any part of the UK, along with the North East. This lower than average employment growth rate continues a long-term pattern of decline in Scotland's share of total UK employment to about 8.2% in 2012.

Figure 13.1 Key changes in Scotland % p.a.



Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Figure R.1 (%)

Figure 13.2 Key changes in Scotland (000s)

Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Figure R.1 (000s)

13.3 Sectoral prospects

At the broad sectoral level, the picture for Scotland is one of employment losses in the primary sector and utilities, manufacturing, construction and distribution, transport, etc., and employment gains in business and other services, and non-marketed services (see Table 13.1). Only in the primary sector and utilities, and business and other services is the rate of employment change more favourable than the UK average. The projected loss of 70,000 jobs in manufacturing represents an annual average rate of decline of 2.6% per annum, which represents a faster rate of loss than in any other region/nation of the UK. Along with London, Scotland is the only region/nation in the UK expected to experience a loss of employment in distribution, transport, etc.

At 1.4% per annum, the projected rate of employment loss in the *primary sector and utilities* is slower than the UK rate of 1.8% per annum. Job losses are projected in *agriculture, hunting, fishing and forestry* (6,000 jobs), *mining and quarrying* (4,000 jobs) and in *electricity, gas and water* (3,000 jobs). By 2012 it is projected that just under 50,000 people will be employed in *agriculture, hunting, fishing and forestry,* compared with 60,000 in 1992 and over 75,000 in 1982. Males account for virtually all the job losses expected in this broad sector.

Manufacturing accounted for around 465,000 jobs in Scotland in 1992, but 100,000 jobs were lost over the following decade and a further 60,000 between 1992 and 2002. By 2012 there are projected to be 230,000 manufacturing jobs in Scotland, as employment contracts at 2.6% per annum, which is a faster rate than in the rest of the UK. The fastest rate of job loss (4% per annum, compared with 2% per annum across the UK) is projected for *engineering,* with a loss of over 25,000 jobs, as the industry shrinks by nearly a fifth in employment terms. Around 35,000 jobs are expected to be lost in the rest of manufacturing, where the rate of job loss again exceeds the UK average. Around 8,000 jobs are projected to be lost in food, drink and tobacco. Males are expected to account for 40,000 of the jobs lost, while female employment in *manufacturing* is expected to contract by 30,000.

Construction employment in Scotland is projected to decline by over 20,000 between 2002 and 2012. Again, males bear the brunt of the job losses.

Employment in *distribution, transport,* etc. in Scotland is projected to contract by 0.2% per annum. This contrasts with a picture of employment increase across the UK as a whole. Within this broad sector, employment growth is confined to *retail distribution.* A loss of 18,000 jobs is projected for *hotels and restaurants* as employment declines by 10%. A further 8,000 jobs are projected to be lost in *transport, storage and communication.* In each of these latter two industries, job losses in Scotland contrast with gains at UK level. The majority of the expected job losses fall on males.

As across the UK, the greatest projected employment increase in Scotland is in *business and other services*. An additional 105,000 jobs are projected between 2002 and 2012, representing an increase of 18% and an annual average growth rate of 1.7% per annum, which is slightly higher than that for the UK. The greatest projected increases within this sector are projected for *other business services* with 70,000 extra jobs. Over 25,000 additional jobs are expected in *other services.* A gain of nearly 10,000 jobs is expected in *banking and finance.* Males are projected to be the main beneficiaries of employment growth in this broad sector.

The projected annual average rate of employment growth in *non-marketed services* (0.4% per annum) is the lowest in the UK, with the exception of the North East. Job gains are fairly evenly distributed between *health and social work* and *education.* A modest increase in employment in *public administration* and defence is expected. A gain of over 45,000 jobs for females is expected in this broad sector, contrasting with a loss of 20,000 jobs for males.

13.4 Change in employment by gender and employment status

In 1982 males comprised nearly 57% of those in employment in Scotland, compared with a UK proportion of 58%. Along with the North West and South East, this was one of the smallest proportions recorded in any part of the UK. By 2002 males accounted for well over 51% of all those in employment in Scotland, again a proportion somewhat smaller than the UK average. By 2012 it is projected that males will account for 50% of those in employment. Only Northern Ireland, Wales and the East Midlands are projected to display smaller shares of male employment.

The key feature of projected employment change in Scotland between 2002 and 2012 is the expected loss of nearly 75,000 full-time employees. After Northern Ireland, at 0.5% per annum, this represents the fastest rate of loss for full-time employees of any part of the UK. Males account for 65,000 of this projected reduction in jobs. This represents a rate of loss of 0.7% per annum, which is expected to be exceeded only by the rates for Northern Ireland and Wales. Only the South West records a faster projected annual average rate of decline in female full-time employees, while across the UK as a whole the general pattern is one of increasing employment. Contrasting with the expected losses for full-time employees, gains of about 30,000 male part-time employees and 35,000 female part-time employees are expected. Contrary to the UK picture of a projected decline in the number of self-employed, in Scotland a 20,000 increase is expected.

Table 13.1: Sectoral change in Scotland

	Wales											UK	
	1982	1992	2002	2012	1982	1992	2002	2012	2002-2012			2002-2012	
Sectoral categories	000s	000s	000s	000s	% of total	% of total	% of total	% of total	change 000s	% change	% per annum	% change	% per annum
1. Agriculture hunting forestry fishing	77	60	54	48	3.4	2.5	2.2	1.9	-6	-11.8	-1.2	-15.2	-1.6
2. Mining and quarrying	45	26	27	23	2.0	1.1	1.1	0.9	-4	-13.9	-1.5	-19.0	-2.1
6. Electricity gas and water	20	18	20	17	0.9	0.8	0.8	0.7	-3	-14.8	-1.6	-19.2	-2.1
Primary sector and utilities	*142*	*105*	*101*	*88*	*6.3*	*4.4*	*4.0*	*3.5*	*-13*	*-12.9*	*-1.4*	*-16.5*	*-1.8*
3. Food drink & tobacco	78	62	55	47	3.5	2.6	2.2	1.9	-8	-15.3	-1.6	-9.7	-1.0
4. Engineering	102	79	81	53	4.5	3.3	3.2	2.1	-27	-33.8	-4.0	-18.0	-2.0
5. Rest of manufacturing	286	225	166	132	12.7	9.4	6.6	5.2	-34	-20.7	-2.3	-17.3	-1.9
Manufacturing	*466*	*366*	*302*	*232*	*20.8*	*15.3*	*12.0*	*9.2*	*-70*	*-23.2*	*-2.6*	*-16.5*	*-1.8*
7. Construction	169	194	152	130	7.5	8.1	6.0	5.2	-21	-14.0	-1.5	-3.2	-0.3
8. Retail distribution	371	377	403	416	16.5	15.8	16.0	16.5	13	3.3	0.3	7.1	0.7
9. Hotels and restaurants	126	168	181	162	5.6	7.1	7.2	6.4	-18	-10.1	-1.1	0.8	0.1
10. Transport storage & communication	144	141	150	142	6.4	5.9	6.0	5.6	-8	-5.2	-0.5	1.3	0.1
Distribution transport etc.	*641*	*687*	*733*	*720*	*28.6*	*28.8*	*29.2*	*28.5*	*-13*	*-1.8*	*-0.2*	*4.5*	*0.4*
11. Banking and Insurance	66	87	105	115	2.9	3.7	4.2	4.5	9	9.0	0.9	3.7	0.4
12. Other business activities	176	260	322	391	7.8	10.9	12.8	15.5	70	21.6	2.0	21.5	2.0
16. Other services	99	121	161	188	4.4	5.1	6.4	7.4	26	16.3	1.5	14.7	1.4
Business and other services	*341*	*469*	*588*	*693*	*15.2*	*19.7*	*23.4*	*27.5*	*105*	*17.9*	*1.7*	*17.1*	*1.6*
13. Public admin & defence	145	136	161	162	6.4	5.7	6.4	6.4	1	0.5	0.1	-2.1	-0.2
14. Education	155	167	194	208	6.9	7.0	7.7	8.2	14	7.2	0.7	8.5	0.8
15. Health and social work	187	260	281	293	8.3	10.9	11.2	11.6	12	4.4	0.4	9.5	0.9
Non-marketed services	*487*	*563*	*636*	*663*	*21.7*	*23.6*	*25.3*	*26.2*	*27*	*4.3*	*0.4*	*6.7*	*0.6*
All Sectors	2246	2383	2511	2526	100.0	100.0	100.0	100.0	15	0.6	0.1	4.5	0.4

Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Table R14b

13.5 Occupational prospects

Overview

This section concentrates on the employment projections for different occupations. It should be remembered that such 'structural demand' provides only part of the overall picture of occupational change. For a fuller picture of the changing requirement for different occupations it is necessary to bear in mind the impact of retirements, inter-occupational moves, etc., as captured by 'replacement demand' (see Section 13.6).

At the level of SOC Major Groups, the largest increase in occupational employment between 2002 and 2012 is projected for professional occupations, with an expected increase of about 60,000 jobs (see Figure 13.2), representing an increase of about a fifth. This rate of increase is akin to that expected across the UK as a whole. Employment for associate professional and technical occupations is projected to increase by around 45,000. This is slower than the rate expected across the UK, but it should be borne in mind that across all occupations the growth rate in Scotland is 0.1% per annum compared with 0.4% per annum for the UK. Increases in the range 24,000-30,000 jobs are expected for personal service occupations, managers and senior officials, and sales and customer service occupations.

Job losses are dominated by elementary occupations and skilled trades occupations where employment reductions of 70,000 and over 55,000, respectively, are expected. In the case of skilled trades occupations this represents a rate of loss in excess of the UK average, while for elementary occupations the rate of loss (2.2% per annum) is the same as that expected across the UK as a whole. 25,000 jobs are expected to be shed amongst machine and transport operatives. Administrative, clerical and secretarial occupations are expected to see a loss of around 15,000 jobs. This represents a slower rate of decline than the UK average.

Managers and senior officials

In 2002 *managers and senior officials* accounted for nearly 13% of employment in Scotland, compared with about 15% across the UK. With an expected 25,000 extra jobs, by 2012 this SOC Major Group is expected to account for nearly 14% of UK employment. A projected increase of nearly 35,000 jobs for *corporate managers* is offset by the expected loss of nearly 10,000 jobs amongst *managers and proprietors*. Employment for females is expected to increase by about 30,000, while a loss of 5,000 jobs is expected for males.

Professional occupations

The share of professional occupations in total employment in Scotland mirrors that for the UK as a whole. Over the period to 2012, the share of total employment accounted for by professional occupations is projected to increase from over 11% to nearly 14%. In absolute terms, projected growth in employment in Scotland is concentrated amongst *teaching and research professionals,* with a projected increase of nearly 40,000 jobs. At 2.5% per annum, this represents a rate of growth in excess of the UK average (1.8% per annum). *Science and technology professionals,* with nearly 15,000 extra jobs, record the next largest increase, and for this occupational group the rate of growth is similar to that expected across the UK as a whole. Much more modest employment increases are projected for *health professionals and business professionals;* with lower than UK average rates of growth. Only London and the East of England are projected to record faster rates of growth for professional occupations than Scotland, and by 2012 Scotland is expected to display a share of total employment in professional occupations slightly in excess of the UK average.

Associate professional and technical occupations

Employment for associate professional and technical occupations is expected to rise by nearly 45,000 over the period to 2012. This represents an annual average rate of growth of 1.2% per annum, which is somewhat slower than the UK average. Within this SOC Major Group, *science and technology associate professionals* and *culture, media and sports occupations* account for the largest employment gains, and display the fastest rates of growth, together accounting for nearly 25,000 extra jobs. Increases of nearly 10,000 jobs are also expected for each of *business associate professionals* and *personal service occupations.* Projected employment gains in *health associate professions* are more modest. Females are expected to account for about two thirds of the projected gains in associate professional and technical occupations. Scotland's share of total employment in this SOC Major Group is one of the highest in the UK, with the UK average being skewed by the very high proportion of such employment in London.

Administrative, clerical and secretarial occupations

Scotland has a similar proportion of total employment (around 14%) accounted for by administrative, clerical and secretarial occupations to London and the South East, which display the highest shares of any UK regions. Over the period to 2012, employment in this SOC Major Group is projected to decline at a slower rate (0.5% per annum) than the UK average (1.2% per annum). By 2012 Scotland is expected to have a larger share of total employment (about 13%) accounted for by this SOC Major Group than any other part of the UK. *Secretarial and related occupations* account for nearly all the projected loss of around 15,000 jobs, while employment for *clerical and administrative occupations* remains fairly stable. A projected loss of around 35,000 jobs for females is offset by an expected increase of 20,000 jobs for males.

Skilled trades occupations

Males bear the brunt of projected job losses in skilled trades occupations, with an expected reduction in employment levels of about 55,000, compared with 5,000 for females. At 2.2% per annum, the projected rate of job loss for this Major Group exceeds the UK average (1.8% per annum). By 2012 *skilled trades occupations* are expected to account for 9% of total employment in Scotland (the same proportion as across the UK as a whole), down from 15% in 1992. All occupational groups contribute to the projected reduction in employment, but *skilled metal and electrical trades* account for nearly 40,000 of the projected job losses. *Skilled construction and building trades* and *other skilled trades* together account for the loss of a further 20,000 jobs. Employment in *skilled agricultural trades* is projected to increase slightly.

Personal service occupations

The projected increase in *personal service occupations* in Scotland is, at a projected rate of growth of 1.7% per annum, much more modest than in other parts of the UK. This SOC Major Group continues to account for a smaller share of total employment in Scotland than across the UK as a whole, with only London recording a smaller share. Virtually all the projected employment increase of around 30,000 jobs is accounted for by *caring personal service occupations,* while in *leisure occupations* a small decline is expected, contrasting with a modest increase at UK level. Females are the main beneficiaries of net employment growth in this SOC Major Group, although a modest employment increase is expected for males.

Sales and customer service occupations

The projected employment gain of 25,000 jobs in *sales and customer service occupations* between 2002 and 2012 is split fairly evenly between males and females. At 1.1% per annum, the projected rate of employment growth in Scotland is the slowest of any region outside London. While the projected 20,000 increase in employment in *customer service occupations* represents growth at a faster rate than the UK average, the expected gain of 5,000 jobs in *sales occupations* represents a much slower rate of growth than across the UK as a whole. Scotland displays a share of total employment in this SOC Major Group similar to the UK average.

Machine and transport operatives

Scotland is characterised by a slightly higher proportion of total employment for machine and transport operatives than the UK average, but a smaller share than for any other region in the midlands and northern Britain. At 1.2% per annum, the projected rate of employment decline slightly exceeds that for the UK as a whole. *Process machine operatives* account for all the expected reduction of 25,000 jobs in this SOC Major Group. Employment levels for *drivers and other operatives* are expected to remain stable. Females account for approximately two thirds of the projected job loss.

Elementary occupations

Scotland has a larger share of total employment in elementary occupations (nearly 14%) than any other part of the UK. At 2.2% per annum, the projected rate of job loss is similar to the UK average and over-representation of employment in this SOC Major Group is set to increase slightly. About 70,000 jobs are expected to be lost overall (a 50,000 reduction for females and a 20,000 decrease for males), so that by 2012 *elementary occupations* are expected to account for 11% of total employment in Scotland, compared with 9% across the UK. Two thirds of the projected job loss is accounted for by *elementary service occupations,* but employment for *elementary trades occupations* is also expected to decline by a fifth.

Table 13.2: Occupational change in Scotland

	Scotland											UK	
	1982	1992	2002	2012	1982	1992	2002	2012	2002-2012			2002-2012	
Occupation groups	000s	000s	000s	000s	% of total	% of total	% of total	% of total	change 000s	% change	% per annum	% change	% per annum
Corporate managers	125	174	230	264	5.6	7.3	9.2	10.5	34	14.7	1.4	20.4	1.9
Managers / proprietors	74	85	91	83	3.3	3.6	3.6	3.3	-8	-8.3	-0.9	-7.0	-0.7
Managers & officials	*199*	*259*	*321*	*348*	*8.9*	*10.9*	*12.8*	*13.8*	*26*	*8.2*	*0.8*	*13.4*	*1.3*
Sc. & tech. profs.	44	61	74	89	1.9	2.5	3.0	3.5	14	19.4	1.8	22.5	2.0
Health professionals	14	18	24	26	0.6	0.7	0.9	1.0	2	9.8	0.9	19.1	1.8
Teaching & res. Profs.	78	101	135	173	3.5	4.2	5.4	6.8	38	28.0	2.5	19.9	1.8
Business professionals	36	43	52	57	1.6	1.8	2.1	2.2	4	8.0	0.8	23.0	2.1
Professional occs	*171*	*223*	*285*	*344*	*7.6*	*9.3*	*11.3*	*13.6*	*59*	*20.6*	*1.9*	*21.3*	*1.9*
Sc. & tech. assoc. profs.	28	37	53	65	1.3	1.5	2.1	2.6	13	24.0	2.2	24.5	2.2
Health assoc. profs.	76	91	99	103	3.4	3.8	4.0	4.1	4	4.1	0.4	12.8	1.2
Protect. serv. Occs	23	27	45	53	1.0	1.1	1.8	2.1	8	18.0	1.7	20.3	1.9
Culture, med. & sports	18	26	41	51	0.8	1.1	1.6	2.0	10	24.7	2.2	31.2	2.8
Business assoc. profs.	70	86	103	112	3.1	3.6	4.1	4.4	9	8.6	0.8	15.1	1.4
Assoc. prof. & tech.	*215*	*266*	*340*	*384*	*9.6*	*11.2*	*13.6*	*15.2*	*44*	*12.8*	*1.2*	*18.8*	*1.7*
Admin & clerical	228	250	263	263	10.1	10.5	10.5	10.4	-1	-0.2	0.0	-6.3	-0.7
Secretarial and related	87	98	84	69	3.9	4.1	3.4	2.7	-15	-17.9	-2.0	-24.0	-2.7
Admin. cler. & sec.	*314*	*348*	*348*	*332*	*14.0*	*14.6*	*13.8*	*13.1*	*-16*	*-4.5*	*-0.5*	*-11.0*	*-1.2*
Skilled agric. Trades	38	31	36	38	1.7	1.3	1.4	1.5	2	6.5	0.6	2.9	0.3
Skilled metal & electrical	180	151	104	66	8.0	6.3	4.1	2.6	-38	-37.0	-4.5	-31.2	-3.7
Skilled cons. & building	101	99	82	69	4.5	4.1	3.3	2.7	-13	-16.2	-1.8	-8.6	-0.9
Other skilled trades	78	81	62	55	3.5	3.4	2.5	2.2	-7	-12.0	-1.3	-8.4	-0.9
Skilled trades	*397*	*362*	*284*	*227*	*17.7*	*15.2*	*11.3*	*9.0*	*-57*	*-20.0*	*-2.2*	*-16.2*	*-1.8*
Caring personal service	44	65	113	145	2.0	2.7	4.5	5.8	32	28.4	2.5	44.8	3.8
Leisure occupations	42	45	46	43	1.9	1.9	1.8	1.7	-3	-6.2	-0.6	7.8	0.8
Personal serv. Occs	*86*	*110*	*160*	*189*	*3.8*	*4.6*	*6.4*	*7.5*	*29*	*18.3*	*1.7*	*34.8*	*3.0*
Sales occupations	141	153	169	174	6.3	6.4	6.7	6.9	5	3.1	0.3	10.5	1.0
Customer service occs.	8	11	36	55	0.4	0.5	1.4	2.2	19	51.9	4.3	48.2	4.0
Sales & cust. Serv.	*149*	*164*	*205*	*229*	*6.6*	*6.9*	*8.2*	*9.1*	*24*	*11.6*	*1.1*	*17.0*	*1.6*

Table 13.2: Occupational change in Scotland (continued)

	Scotland											UK	
	1982	1992	2002	2012	1982	1992	2002	2012	2002-2012			2002-2012	
Occupation groups	000s	000s	000s	000s	% of total	% of total	% of total	% of total	change 000s	% change	% per annum	% change	% per annum
Process machine ops.	173	151	129	105	7.7	6.3	5.1	4.1	-24	-18.9	-2.1	-22.0	-2.4
Drivers & other ops.	92	89	95	94	4.1	3.7	3.8	3.7	0	-0.4	0.0	5.8	0.6
Machine & trans. ops.	*264*	*240*	*224*	*199*	*11.8*	*10.1*	*8.9*	*7.9*	*-25*	*-11.1*	*-1.2*	*-10.1*	*-1.1*
Elementary: trades	159	129	121	97	7.1	5.4	4.8	3.9	-23	-19.2	-2.1	-18.2	-2.0
Elementary: service	291	283	224	178	13.0	11.9	8.9	7.0	-46	-20.5	-2.3	-20.5	-2.3
Elementary occs	*450*	*412*	*344*	*275*	*20.0*	*17.3*	*13.7*	*10.9*	*-69*	*-20.1*	*-2.2*	*-19.7*	*-2.2*
All occupations	2246	2383	2511	2526	100.0	100.0	100.0	100.0	15	0.6	0.1	4.5	0.4

Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Table R15b

13.6 Projections of replacement demands

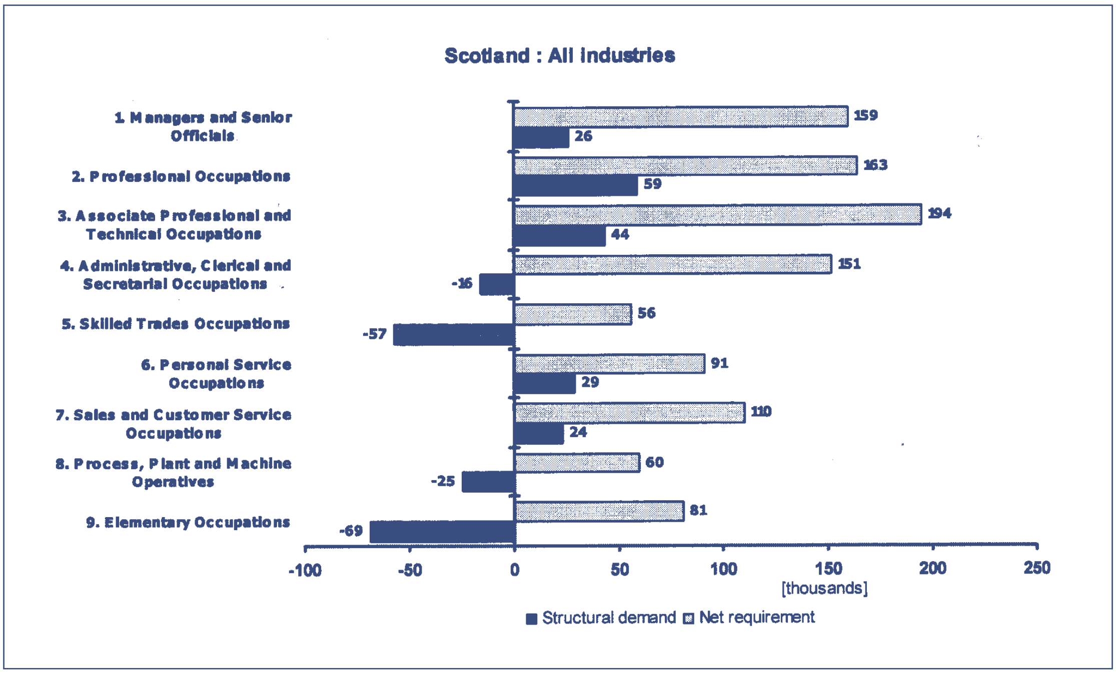
The key component of replacement demands is retirements from the workforce, especially those of older workers. However, replacement requirements for specific occupational groups, in particular geographical areas, can also arise for a number of other reasons. These include occupational mobility, as individuals change jobs for reasons of career progression (as well as other causes), and geographical mobility. Potentially, the latter may be quite important at a regional level. Unfortunately there are few reliable data on such flows, so the estimates presented here exclude replacement needs arising as a consequence of both occupational and geographical mobility. In both cases, there may be offsetting inflows to counterbalance some of the losses.

Even where projected structural changes suggest an overall reduction in employment levels, the total requirements are still positive. Hence, although the projections outlined above indicate a reduction of around 55,000 in employment levels for skilled trades occupations, projected replacement demands mean that there is a net requirement for around 55,000 extra people (see Figure 13.3).

Elementary occupations, machine and transport operatives, and administrative, clerical and secretarial occupations are the other SOC Major Groups where the previous section pointed to a reduction in employment on the basis of structural change. Replacement demands mean total requirements of 80,000 in elementary occupations, 60,000 for machine and transport operatives and around 150,000 for administrative, clerical and secretarial occupations.

Taking professional and associate professional occupations where expansion demand changes suggest around 60,000 and 44,000 new job openings, respectively, estimated replacement demands culminate in a projected total requirement of nearly 165,000 in professional occupations and around 195,000 in associate professional and technical occupations over the period to 2012. For managers and senior officials the total requirement is around 160,000, for sales and customer service occupations it is 110,000, and for personal service occupations it is around 90,000.

Figure 13.3 Replacement Demands for Scotland



Source: CE/IER estimates, MDM95 C31 F95 Forecast, ReplacementDemands.xls

NORTHERN IRELAND

14.1 Overview

Political stability in Northern Ireland is a key factor influencing prospects for long-term prosperity. As in other parts of the UK, the structure of the Northern Ireland economy has shifted towards services. The relative importance of both manufacturing and construction has diminished over recent years. Belfast is easily the main employment centre in Northern Ireland, and employment rates and GDP per head are lowest in the western parts of the Province.

In Northern Ireland the projected rate of population growth is similar to the UK average. However, the labour force is expected to grow more slowly than across the UK as a whole, as the participation rate declines. Northern Ireland has one of the lowest participation rates of any part of the UK. The projected rate of employment growth over the period to 2012 is slightly slower than the UK average.

Projected employment gains are confined to services. Expected job losses in the primary sector and utilities, and in construction occur at a slightly faster rate than the UK average, while the reduction in employment in manufacturing is more modest than across the UK as a whole. Within the distribution, transport, etc. broad sector, a much faster than UK average rate of employment growth in hotels and restaurants is apparent, although retail distribution dominates expected gains. Employment gains in business and other services, and in non-marketed services are expected to occur at a rate similar to the UK average. Non-marketed services comprise a greater share of total employment in Northern Ireland than in any other part of the UK.

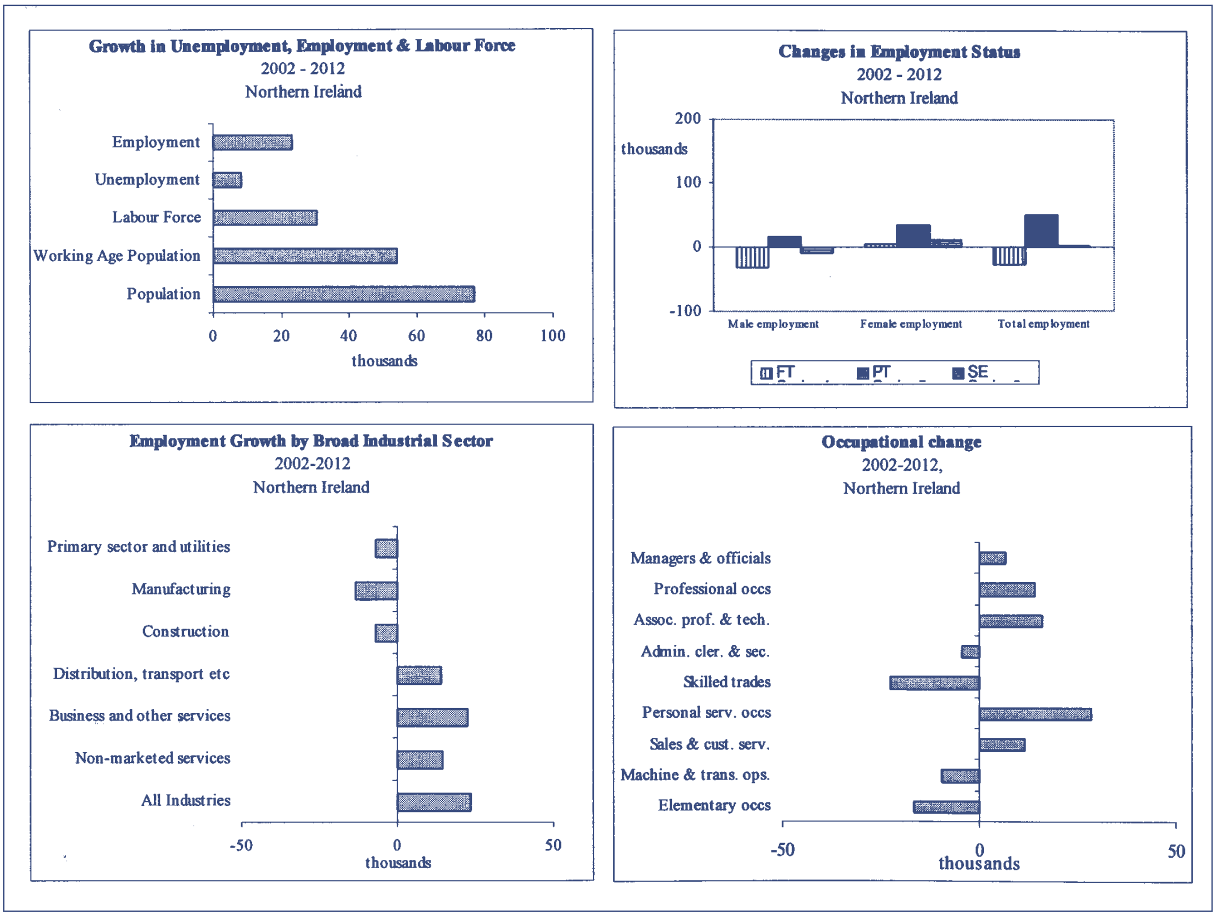
Whereas in 2002 males accounted for a slightly larger share of employment than across the UK as a whole, by 2012 this proportion falls below the UK average and females are expected to comprise a small majority of those in employment. A particularly rapid rate of job loss is expected for male full-time employees, while for female part-time employees the projected growth rate is higher than in other parts of the UK.

Personal service occupations account for the largest single projected employment increase of any SOC Major Group over the period to 2012, and are over-represented in the occupational profile of employment in Northern Ireland relative to the UK average. Associate professional and technical and professional occupations account for the next largest gains. The share of total employment accounted for by these SOC Major Groups in Northern Ireland is similar to the UK average. However, Northern Ireland displays a smaller proportion of managers and senior officials in total employment than across the UK as a whole. Over the period to 2012 the projections indicate that the previous trend of increase in administrative, clerical and secretarial occupations will be reversed. Skilled trades occupations and elementary occupations dominate projected job losses. The share of total employment accounted for by these occupations in Northern Ireland exceeds the UK average. Projected replacement demands are such that even in those SOC Major Groups expected to see job losses, total requirements are positive.

Figure 14.1 Key changes in Northern Ireland % p.a.

Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Figure R.1 (%)

Figure 14.2 Key changes in Northern Ireland (000s)



Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Figure R.1 (000s)

14.2 Labour supply and demand

The *population* of Northern Ireland is projected to increase by over 75,000 between 2002 and 2012, to reach over 1.79 million (see Figures 14.1 and 14.2). This represents a rate of population growth of 0.4% per annum, which is similar to that projected across the UK as a whole. The *working age population* is projected to increase by about 55,000 between 2002 and 2012. However, the *labour force* is projected to increase by only 30,000, to reach just over 835,000 in 2012. At an annual per annum growth rate of 0.4%, this represents a slightly slower growth rate than the UK average of 0.5% per annum. The *economic activity rate* is expected to decline by 1.4 percentage points between 2002 and 2012. At just over 70%, the projected economic activity rate is one of the lowest in the UK, along with the North East and Wales.

Unemployment is projected to increase by about 8,000 between 2002 and 2012. This represents a similar rate of increase to that projected across the UK as a whole. Along with the North East and Scotland, Northern Ireland is expected to maintain one of the highest unemployment rates of any part of the UK.

Total employment in Northern Ireland is projected to increase by nearly 25,000 over the period from 2002 to 2012, to about 776,000. The projected growth rate between 2002 and 2012, at 0.3% per annum, is below the UK average of 0.4% per annum. Northern Ireland accounts for about 2.5% of total UK employment.

14.3 Sectoral prospects

At the broad sectoral level, the picture for Northern Ireland is one of employment losses in the primary sector and utilities, manufacturing and construction, and employment gains in distribution, transport, etc., business and other services and non-marketed services (see Figure 14.2). In absolute terms, as across all other regions, manufacturing is the largest single contribute or to projected employment loss, although in relative terms the rate of decline is slower than across the UK as a whole. This employment decline contrasts with gains of at least 20,000 jobs in business and other services and 14,000 extra jobs in each of distribution, transport, etc. and in non-marketed services.

Within the *primary sector and utilities, agriculture* dominates projected job losses between 2002 and 2012, as part of a trend of long-term decline. 5,000 jobs are projected to be lost, representing an annual average rate of loss that is slightly greater than the UK average. Job losses are also expected in *mining and quarrying* and in *electricity, gas and water*. Males account for all the projected job losses in this sector.

Expected job losses in *manufacturing* fall predominantly on males. 11,000 out of the 14,000 job losses across the broad industrial sector are accounted for by *other manufacturing*. In *engineering and food, drink and tobacco* employment levels hold up better, but there are still some job losses expected. Although Northern Ireland boasts the slowest rate of employment decline in manufacturing of any UK region, by 2012 this broad sector is expected to account for less than 14% of total employment, compared with 20% in 1982.

Employment in *construction* in Northern Ireland is projected to decline at a faster rate than the UK average, following an increase in employment levels over the previous decade. Over the period to 2012 a loss of 7,000 jobs is expected as construction employment declines to 47,000. Males account for virtually all the projected job losses.

The annual average rate of employment growth in *distribution, transport, etc.* in Northern Ireland, at 0.7% per annum, is higher than the UK average. Projected employment gains are expected to be accounted for predominantly by females. Within this broad sector *retail distribution* dominates employment growth, with 9,000 extra jobs expected by 2012. However, at 0.9% per annum the rate of growth in *hotels and restaurants* is considerably greater than the UK average, with 4,000 additional jobs expected. Projected employment increases in *transport, storage and communications* are much more modest.

Employment increase in *business and other services* is projected to occur at the same rate as the UK average (1.6% per annum). Contrasting with the overall UK pattern, in Northern Ireland females are expected to be the beneficiaries of new jobs in this broad sector to a greater extent than males. The projected growth rate of 2.3% per annum in *other business activities* exceeds the UK average, as employment is expected to increase by a quarter (16,000 jobs) over the decade to 2012. In *other services* the rate of employment growth is slower than the UK average. Projected absolute increases in *banking and insurance* are more modest, although the rate of increase projected in Northern Ireland exceeds that in the UK. By 2012 employment in this broad sector is projected to have reached nearly 150,000, compared with less than 60,000 in 1982 and nearly 85,000 in 1992.

Non-marketed services account for approximately a third of total employment in Northern Ireland; a larger share than across the UK as a whole. Over the period to 2012, employment is projected to expand at annual average rate akin to the UK average. *Health and social work,* and *education* account for all the increase in this broad sector: in each of these industries an 8,000 jobs gain is projected. By contrast, employment in *public administration* and *defence* is projected to decline slightly, although by 2012 it is still projected to account for nearly 8% of total employment. Over the period to 2012, a decline in male employment in non-marketed services is projected, compared with substantial increases for females.

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Table 14.1: Sectoral change in Northern Ireland

	Northern Ireland											UK	
	1982	1992	2002	2012	1982	1992	2002	2012	2002-2012			2002-2012	
Sectoral categories	000s	000s	000s	000s	% of total	% of total	% of total	% of total	change 000s	% change	% per annum	% change	% per annum
1. Agriculture hunting forestry fishing	45	37	30	24	7.9	5.8	3.9	3.1	-5	-17.5	-1.9	-15.2	-1.6
2. Mining and quarrying	2	2	2	1	0.4	0.3	0.3	0.2	-1	-32.3	-3.8	-19.0	-2.1
6. Electricity gas and water	8	6	3	2	1.4	1.0	0.5	0.3	-1	-28.1	-3.3	-19.2	-2.1
Primary sector and utilities	*56*	*45*	*35*	*28*	*9.8*	*7.1*	*4.7*	*3.6*	*-7*	*-19.4*	*-2.1*	*-16.5*	*-1.8*
3. Food drink & tobacco	22	21	20	19	3.8	3.3	2.6	2.5	-1	-2.6	-0.3	-9.7	-1.0
4. Engineering	15	14	18	16	2.6	2.3	2.4	2.0	-2	-12.6	-1.3	-18.0	-2.0
5. Rest of manufacturing	77	70	64	53	13.4	11.1	8.5	6.9	-11	-16.8	-1.8	-17.3	-1.9
Manufacturing	*113*	*105*	*102*	*88*	*19.8*	*16.7*	*13.5*	*11.4*	*-14*	*-13.3*	*-1.4*	*-16.5*	*-1.8*
7. Construction	40	46	54	47	7.1	7.4	7.2	6.1	-7	-13.2	-1.4	-3.2	-0.3
8. Retail distribution	84	93	127	135	14.7	14.8	16.8	17.5	9	7.1	0.7	7.1	0.7
9. Hotels and restaurants	15	25	42	46	2.6	3.9	5.6	6.0	4	9.8	0.9	0.8	0.1
10. Transport storage & communication	22	24	32	33	3.9	3.9	4.2	4.2	1	3.5	0.3	1.3	0.1
Distribution transport etc.	*121*	*142*	*200*	*214*	*21.2*	*22.6*	*26.6*	*27.7*	*14*	*7.1*	*0.7*	*4.5*	*0.4*
11. Banking and Insurance	14	16	20	22	2.4	2.6	2.6	2.8	2	11.1	1.1	3.7	0.4
12. Other business activities	21	35	64	80	3.6	5.5	8.5	10.3	16	25.1	2.3	21.5	2.0
16. Other services	22	32	42	46	3.9	5.0	5.6	5.9	4	9.7	0.9	14.7	1.4
Business and other services	*57*	*83*	*126*	*148*	*9.9*	*13.1*	*16.7*	*19.1*	*22*	*17.8*	*1.6*	*17.1*	*1.6*
13. Public admin & defence	53	59	61	60	9.3	9.3	8.1	7.8	-1	-1.3	-0.1	-2.1	-0.2
14. Education	58	61	70	78	10.2	9.7	9.4	10.1	8	10.7	1.0	8.5	0.8
15. Health and social work	73	89	104	111	12.7	14.2	13.8	14.4	8	7.2	0.7	9.5	0.9
Non-marketed services	*184*	*208*	*235*	*250*	*32.2*	*33.1*	*31.3*	*32.2*	*14*	*6.1*	*0.6*	*6.7*	*0.6*
All Sectors	570	629	752	776	100.0	100.0	100.0	100.0	23	3.1	0.3	4.5	0.4

Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Table R14b

14.4 Change in employment by gender and employment status

In 1982 males comprised 59% of those in employment in Northern Ireland, a proportion 1 percentage point greater than the UK average. By 2002 males accounted for slightly less than 55% of all those in employment in Northern Ireland, again a share in excess of the UK average. However, by 2012 it is projected that males will account for just under 49% of those in employment; the lowest share for any part of the UK.

Between 2002 and 2012 a loss of over 30,000 male full-time employees in Northern Ireland is expected (Figure 14.2). This represents a faster rate of decline than in any other part of the UK. A gain of about 15,000 male part-time employees is projected, representing growth at the UK average rate. For females there are projected gains of about 5,000 full-time employees and 35,000 part-time employees. In the case of female full-time employees this represents a slower rate of growth than the UK average, while in the case of female part-time employees, no other part of the UK is expected to see such a fast rate of growth. Levels of self-employment are expected to remain steady in Northern Ireland, contrasting with a projected small decrease across the UK as a whole.

14.5 Occupational prospects

Overview

This section concentrates on the employment projections for different occupations. It should be remembered that such 'structural demand' provides only part of the overall picture of occupational change. For a fuller picture of the changing requirement for different occupations it is necessary to bear in mind the impact of retirements, inter-occupational moves, etc., as captured by 'replacement demand' (see Section 14.6).

At the level of SOC Major Groups, easily the largest increase in occupational employment between 2002 and 2012 is projected for personal service occupations, with an expected increase of nearly 30,000 jobs (see Figure 14.2). This represents an increase of approximately 40%, and is indicative of a faster rate of growth than across the UK as a whole. The next largest projected increases are for associate professional and technical occupations, and professional occupations, each with expected net gains of about 15,000 jobs. Further increases, in keeping with UK-wide patterns of change, are evident for sales and customer service occupations (about 10,000 extra jobs) and for managers and senior officials (a gain of 7,000 jobs).

Projected job losses are concentrated in skilled trades occupations (nearly 25,000 jobs), with a faster expected annual average rate of job loss than the UK average, and elementary occupations (over 15,000 jobs). Employment for machine and transport operatives is expected to decline by 10,000, and a loss of about 5,000 jobs is projected for administrative, clerical and secretarial occupations.

Managers and senior officials

Managers and senior officials account for only just over 11% of employment in Northern Ireland. This is the smallest proportion for any part of the UK. Over the period to 2012, the level of employment in this Major Group is projected to increase at an annual average rate of 0.8%, compared with a growth rate of 1.3% per annum across the UK as a whole. A projected increase of 10,000 jobs for *corporate administrators* is offset by an expected loss of 3,000 jobs for *managers and proprietors* (see Table 14.2). Females are expected to account for all the employment gains, while a small reduction in employment is projected for males.

Professional occupations

The share of professional occupations in total employment in Northern Ireland (slightly over 11%) is similar to that across the UK as a whole. With a projected annual average rate of increase of 1.6% per annum, expected employment gains in this Major Group in Northern Ireland are projected to occur at a slightly slower rate than the UK average (1.9% per annum). The largest contribution to the projected increase in employment in this Major Group is made by *teaching and research professionals,* with a projected 10,000 extra jobs by 2012, representing a growth rate (2.2% per annum) in excess of the UK average. Much more modest employment gains are expected for *science/technology professionals* and *business professionals,* with expected growth rates at rates only about half the UK average. Employment levels are projected to remain stable for *health professionals.* Females are projected to account for around five sixths of the extra jobs.

Associate professional and technical occupations

The share of total employment within this Major Group is only slightly lower than the UK average, and at 1.7% per annum, the projected annual average growth rate is slightly slower than that expected across the UK as a whole. Nearly half the projected 15,000 job gains are accounted for by *health associate professionals,* with the annual average rate of employment growth easily exceeding the UK average. More modest increases are projected for *business associate professionals, culture, media and sports occupations* and *science and technology associate professionals,* where expected rates of employment growth are slower than the UK average. Employment levels in *protective service occupations* are expected to remain fairly stable. Females account for nearly all the projected job gains between 2002 and 2012.

Administrative, clerical and secretarial occupations

The medium-term trend of employment increase in this Major Group is projected to be reversed, with a loss of about 5,000 jobs projected over the period to 2012. However, at 0.5% per annum, the projected rate of job loss is slower than the UK average (1.2% per annum). All the projected job losses are in *secretarial and related occupations,* while for *administrative and clerical occupations* employment levels are expected to remain stable. The expected job losses fall entirely on females, with a small increase projected in male employment. Administrative, clerical and secretarial occupations account for a similar share of total employment in Northern Ireland to the UK average.

Skilled trades occupations

Northern Ireland has the largest share of total employment in skilled trades occupations of any part of the UK. Over the period to 2012, the share of total employment accounted for by this SOC Major Group is projected to decline to 10%, compared with 20% in 1982, as nearly 25,000 jobs are lost. At 2.5% per annum, the projected rate of employment decrease is greater than in any other part of the UK. *Skilled metal and electrical trades* account for about half the projected job losses. Losses of about 5,000 jobs are expected in each of *skilled agricultural trades* and *skilled construction and building trades.* A more modest loss is projected for other skilled trades with some offsetting employment gains expected in *textiles/printing/other skilled trades.* For this latter group, the projected annual average rate of employment increase is considerably in excess of the UK rate. Job losses are projected to fall almost entirely on males.

Personal service occupations

This Major Group accounts for a larger share of total employment in Northern Ireland (8%) than in any other part of the UK. Employment is projected to increase at 3.5% per annum over the period to 2012, a rate in excess of the UK average (3% per annum), and one matched only by the midlands regions. This represents an increase of nearly 30,000 jobs. *Caring personal service occupations* are projected to contribute the majority of employment gains, with a further 2,000 jobs expected in *leisure occupations.* Females account for all these gains, while male employment in this Major Group is projected to remain stable.

Sales and customer service occupations

The share of employment in sales and customer service occupations in Northern Ireland is similar to the UK average. At 1.7% per annum, the projected growth rate over the period to 2012 is similar to the UK average rate. The projected gain of about 10,000 jobs is split fairly evenly between *sales occupations* and *customer service occupations*. Males and females are expected to share evenly in these additional jobs.

Machine and transport operatives

Employment in this Major Group is projected to decline at 1.8% per annum over the period to 2012. This is the fastest rate of loss projected outside London. The projected loss of 10,000 jobs means that this Major Group is expected to account for 50,000 jobs in 2012. Process machine operatives account for virtually all the projected losses, with only a very small decrease expected for *drivers and other operatives.* Males are expected to account for three fifths of the projected employment losses.

Elementary occupations

The share of total employment in elementary occupations in Northern Ireland is greater than the UK average, but at 1.9% per annum, the projected rate of employment loss in Northern Ireland over the period to 2012 is slower than the UK average (2.2% per annum). Only the regions of southern England outside London are projected to see slower rates of job loss. About 10,000 jobs are expected to be lost in *elementary service occupations,* while a loss of 5,000 jobs is projected for *elementary trades occupations.* By 2012 there are expected to be just under 80,000 jobs in elementary occupations in Northern Ireland, down from 100,000 in 1982.

Table 14.2: Occupational change in Northern Ireland

	Northern Ireland											UK	
	1982	1992	2002	2012	1982	1992	2002	2012	2002-2012			2002-2012	
Occupation groups	000s	000s	000s	000s	% of total	% of total	% of total	% of total	change 000s	% change	% per annum	% change	% per annum
Corporate managers	31	44	65	75	5.4	7.0	8.6	9.6	10	15.0	1.4	20.4	1.9
Managers / proprietors	19	19	20	17	3.3	3.1	2.7	2.2	-3	-14.3	-1.5	-7.0	-0.7
Managers & officials	*50*	*63*	*85*	*92*	*8.7*	*10.0*	*11.3*	*11.8*	*7*	*8.1*	*0.8*	*13.4*	*1.3*
Sc. & tech. profs.	9	13	18	21	1.6	2.1	2.5	2.6	2	11.3	1.1	22.5	2.0
Health professionals	4	5	6	7	0.7	0.8	0.9	0.8	0	0.8	0.1	19.1	1.8
Teaching & res. profs.	25	32	43	53	4.4	5.1	5.7	6.8	10	23.9	2.2	19.9	1.8
Business professionals	8	12	16	18	1.5	1.8	2.2	2.3	2	10.1	1.0	23.0	2.1
Professional occs	*46*	*61*	*84*	*98*	*8.1*	*9.8*	*11.2*	*12.6*	*14*	*16.7*	*1.6*	*21.3*	*1.9*
Sc. & tech. assoc. profs.	6	8	12	14	1.1	1.3	1.6	1.9	2	18.1	1.7	24.5	2.2
Health assoc. profs.	20	25	33	40	3.4	4.0	4.4	5.2	7	21.5	2.0	12.8	1.2
Protect. serv. occs	8	9	14	15	1.4	1.5	1.9	1.9	1	5.8	0.6	20.3	1.9
Culture, med. & sports	4	6	11	14	0.7	1.0	1.5	1.8	3	25.1	2.3	31.2	2.8
Business assoc. profs.	16	22	31	34	2.9	3.5	4.1	4.4	3	10.1	1.0	15.1	1.4
Assoc. prof. & tech.	*54*	*71*	*101*	*117*	*9.5*	*11.3*	*13.5*	*15.1*	*16*	*15.8*	*1.5*	*18.8*	*1.7*
Admin & clerical	59	67	73	73	10.3	10.6	9.6	9.4	0	0.1	0.0	-6.3	-0.7
Secretarial and related	22	26	23	19	3.9	4.1	3.1	2.4	-5	-19.4	-2.1	-24.0	-2.7
Admin. cler. & sec.	*81*	*92*	*96*	*91*	*14.3*	*14.7*	*12.7*	*11.8*	*-4*	*-4.6*	*-0.5*	*-11.0*	*-1.2*
Skilled agric. trades	29	21	19	14	5.1	3.3	2.5	1.9	-4	-23.2	-2.6	2.9	0.3
Skilled metal & electrical	40	39	36	23	7.0	6.2	4.7	3.0	-12	-34.6	-4.2	-31.2	-3.7
Skilled cons. & building	26	26	30	25	4.5	4.2	4.0	3.3	-5	-16.2	-1.8	-8.6	-0.9
Other skilled trades	19	20	18	17	3.4	3.2	2.4	2.1	-1	-6.7	-0.7	-8.4	-0.9
Skilled trades	*114*	*106*	*102*	*80*	*19.9*	*16.9*	*13.6*	*10.3*	*-23*	*-22.2*	*-2.5*	*-16.2*	*-1.8*
Caring personal service	16	27	54	81	2.8	4.3	7.2	10.5	27	49.2	4.1	44.8	3.8
Leisure occupations	10	12	15	16	1.7	1.9	2.0	2.1	2	10.9	1.0	7.8	0.8
Personal serv. occs	*26*	*39*	*69*	*98*	*4.5*	*6.1*	*9.2*	*12.6*	*28*	*41.0*	*3.5*	*34.8*	*3.0*
Sales occupations	30	36	52	58	5.3	5.8	6.9	7.4	5	10.4	1.0	10.5	1.0
Customer service occs.	2	3	10	16	0.3	0.4	1.3	2.0	6	60.6	4.9	48.2	4.0
Sales & cust. serv.	*32*	*39*	*62*	*73*	*5.6*	*6.2*	*8.2*	*9.5*	*11*	*18.3*	*1.7*	*17.0*	*1.6*

Table 14.2: Occupational change in Northern Ireland (continued)

	Northern Ireland											UK	
	1982	1992	2002	2012	1982	1992	2002	2012	2002-2012			2002-2012	
Occupation groups	000s	000s	000s	000s	% of total	% of total	% of total	% of total	change 000s	% change	% per annum	% change	% per annum
Process machine ops.	46	41	34	25	8.1	6.5	4.5	3.2	-9	-27.1	-3.1	-22.0	-2.4
Drivers & other ops.	20	20	25	24	3.4	3.2	3.3	3.1	-1	-2.3	-0.2	5.8	0.6
Machine & trans. ops.	*66*	*61*	*59*	*49*	*11.6*	*9.7*	*7.8*	*6.3*	*-10*	*-16.6*	*-1.8*	*-10.1*	*-1.1*
Elementary: trades	35	32	35	30	6.2	5.1	4.7	3.8	-5	-15.6	-1.7	-18.2	-2.0
Elementary: service	66	64	59	48	11.6	10.2	7.9	6.2	-11	-18.7	-2.1	-20.5	-2.3
Elementary occs	*101*	*96*	*94*	*78*	*17.7*	*15.3*	*12.5*	*10.0*	*-17*	*-17.6*	*-1.9*	*-19.7*	*-2.2*
All occupations	570	629	752	776	100.0	100.0	100.0	100.0	23	3.1	0.3	4.5	0.4

Source: CE/IER estimates, MDM95 C31 F95 Forecast, SSDACrossRegional.xls Table R15b

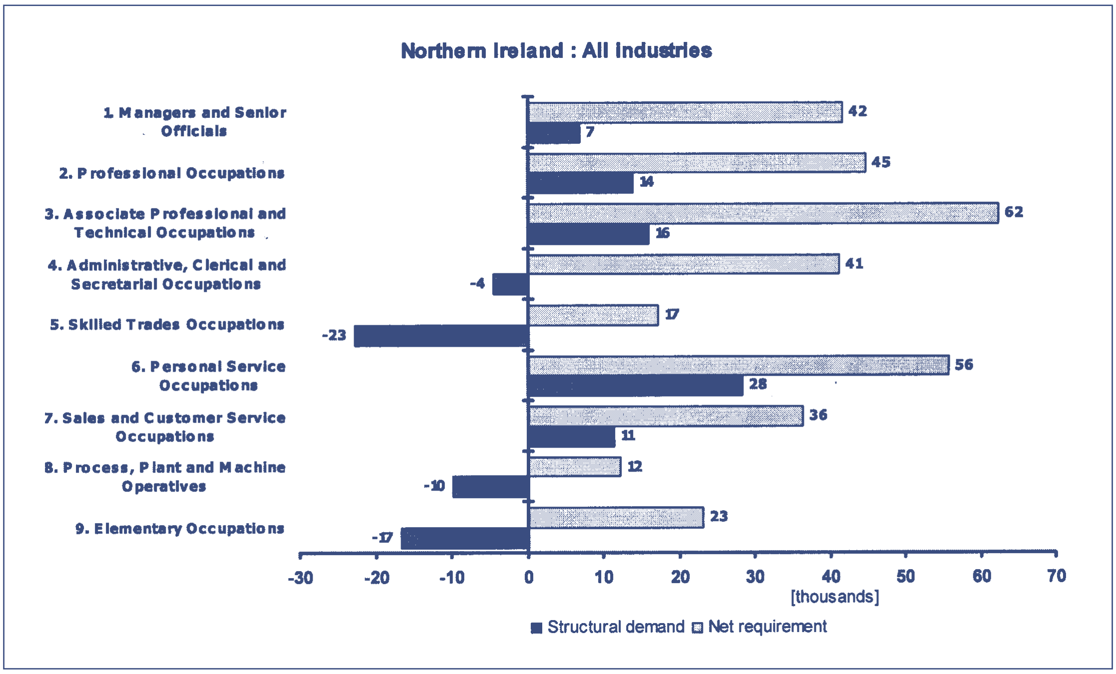
14.6 Projections of replacement demands

The key component of replacement demands is retirements from the workforce, especially those of older workers. However, replacement requirements for specific occupational groups, in particular geographical areas, can also arise for a number of other reasons. These include occupational mobility, as individuals change jobs for reasons of career progression (as well as other causes), and geographical mobility. Potentially, the latter may be quite important at a regional level. Unfortunately there are few reliable data on such flows, so the estimates presented here exclude replacement needs arising as a consequence of both occupational and geographical mobility. In both cases, there may be offsetting inflows to counterbalance some of the losses.

The key message here is that, whether expansion demand projections suggest an increase or decrease in employment levels, in the case of all SOC Major Groups total requirements are positive. At about 45,000, replacement demands are greatest for administrative, clerical and secretarial occupations and associate professional and technical occupations. Despite a projected reduction of around 5,000 jobs on the basis of structural demand changes, the total requirement for administrative, clerical and secretarial occupations over the period to 2012 is about 40,000. In the case of associate professional and technical occupations, once the replacement demand is added to a positive projected expansion demand, the total requirement exceeds 60,000. This is the largest estimated total requirement for any SOC Major Group. The next largest total requirements are for personal service occupations (about 55,000), professional occupations (45,000) and managers and senior officials (over 40,000). In all three instances, both expansion and replacement demands are positive. Sales and customer service occupations is the remaining SOC Major Group displaying positive expansion demand (about 10,000 jobs) and replacement demand (25,000).

The largest net reductions in employment outlined in the previous section relate to skilled trades occupations and elementary occupations, with projected losses of nearly 25,000 and over 15,000, respectively. However, once replacement demands are taken into account, the estimated total requirements are for over 15,000 in skilled trades occupations and nearly 25,000 in elementary occupations. For machine and transport operatives the total requirement exceeds 10,000, since a projected loss of 10,000 jobs is more than offset by a 20,000 replacement demand.

Figure 14.3 Replacement Demands for Northern Ireland



Source: CE/IER estimates, MDM95 C31 F95 Forecast, ReplacementDemands.xls

LLSC RESULTS

This Chapter of the report sets out statistics on employment and projected employment change at Local Learning and Skills Council (LLSC) area level.[1] There are 47 local LSC areas in England. In the Tables the local LSC areas are ordered by region, for ease of comparison:

- London
- South East
- East of England
- South West
- West Midlands
- East Midlands
- Yorkshire and the Humber
- North West
- North East

Accompanying tables present statistics at regional level. In most instances, a short commentary follows – in bullet point format – the regional level table, highlighting the main features of variation at local LSC area and regional levels. The tables presented in this Chapter are intended to be used for reference purposes, providing information on employment levels, shares and rates of change, and so can be referred to alongside Chapters 2-10 on the English regions. In those Chapters, reference is made to intra-regional variations in experience.

The tables presented in this Chapter cover the following dimensions of employment:

1: Total employment and employment change, 1992, 2002 and 2012.

2-7: Employment and employment change by broad sector, 2002 and 2012.

8-13: Employment and employment change by gender and status, 2002 and 2012.

14-22: Employment and employment change by SOC Major Group, 2002 and 2012.

[1]Hence, the statistics cover England only.

Table 15.1: Total Employment by LLSC Area, 1992-2012

	1992	1992-2002			2002	2002-2012			2012
		%change	%pa	rank on %pa		%change	%pa	rank on % pa	
England	22444	10.6	1.0		24832	5.1	0.5		26091
London North	347	6.0	0.6	33	367	4.3	0.4	30	383
London West	668	18.7	1.7	7	793	7.2	0.7	8	850
London Central	1306	26.7	2.4	1	1655	7.3	0.7	7	1776
London East	950	15.7	1.5	10	1100	4.9	0.5	22	1153
London South	553	3.9	0.4	36	575	6.9	0.7	10	615
Milton Keynes, Oxon and Bucks	610	22.6	2.1	4	748	8.9	0.9	5	814
Berkshire	411	22.9	2.1	3	505	10.5	1.0	2	559
Hampshire and Isle of Wight	808	12.1	1.1	19	906	5.4	0.5	18	955
Surrey	493	20.6	1.9	5	594	9.4	0.9	4	650
Sussex	638	12.4	1.2	17	717	6.1	0.6	11	761
Kent and Medway	659	7.7	0.7	30	709	6.0	0.6	12	752
Norfolk	344	4.6	0.5	35	360	4.7	0.5	25	377
Cambridgeshire	329	17.6	1.6	9	387	10.3	1.0	3	427
Suffolk	306	11.0	1.1	21	340	5.5	0.5	17	359
Luton and Bedfordshire	252	2.1	0.2	41	258	3.4	0.3	33	267
Hertfordshire	492	19.0	1.8	6	586	11.0	1.0	1	650
Essex	595	15.0	1.4	11	684	5.9	0.6	14	724
Devon and Cornwall	652	8.2	0.8	29	705	5.0	0.5	21	740
Somerset	208	9.5	0.9	24	227	5.4	0.5	19	240
Bournemouth, Dorset and Poole	279	14.7	1.4	12	320	4.7	0.5	24	335
West of England	507	13.9	1.3	14	577	4.7	0.5	26	604
Wiltshire	280	24.8	2.2	2	349	5.8	0.6	16	370
Gloucestershire	255	13.8	1.3	15	291	3.6	0.4	32	301
Shropshire	180	12.2	1.2	18	202	7.7	0.7	6	217
Staffordshire	422	9.8	0.9	23	463	4.4	0.4	29	483
Black Country	496	2.1	0.2	40	507	0.9	0.1	43	511
Birmingham and Solihull	610	3.9	0.4	37	634	2.3	0.2	38	649
Herefordshire and Worcestershire	303	11.9	1.1	20	339	5.9	0.6	15	359
Coventry and Warwickshire	377	8.7	0.8	25	410	4.8	0.5	23	430
Derbyshire	407	8.7	0.8	26	443	4.5	0.4	28	462
Nottinghamshire	463	3.3	0.3	38	478	3.4	0.3	34	494
Lincolnshire and Rutland	261	10.6	1.0	22	288	3.6	0.4	31	299
Leicestershire	431	1.7	0.2	42	438	1.4	0.1	41	444
Northamptonshire	276	17.7	1.6	8	325	5.3	0.5	20	342
North Yorkshire	334	13.3	1.3	16	379	7.1	0.7	9	406
West Yorkshire	970	5.2	0.5	34	1021	4.7	0.5	27	1069
South Yorkshire	499	8.3	0.8	27	540	1.3	0.1	42	547
Humberside	404	-7.5	-0.8	45	374	2.7	0.3	37	384
Cumbria	223	-9.0	-0.9	46	203	0.6	0.1	45	204
Lancashire	596	8.2	0.8	28	645	2.8	0.3	35	663
Greater Merseyside	551	3.3	0.3	39	569	0.2	0.0	46	571
Greater Manchester	1172	6.9	0.7	32	1253	2.7	0.3	36	1287
Cheshire and Warrington	457	14.5	1.4	13	523	6.0	0.6	13	555
Northumberland	116	-10.2	-1.1	47	104	1.4	0.1	40	106
Tyne and Wear	500	-1.2	-0.1	43	494	1.5	0.1	39	501
County Durham	167	7.2	0.7	31	179	-1.0	-0.1	47	177
Tees Valley	287	-6.6	-0.7	44	268	0.8	0.1	44	270

Table 15.1a: Total Employment by Region, 1992-2012

	1992	1992-2002			2002	2002-2012			2012
		%change	%pa	rank		%change	%pa	rank	
England	22444	10.6	1.0		24832	5.1	0.5		26091
London	3824	17.4	1.6	1	4490	6.4	0.6	3	4777
South East	3618	15.5	1.5	2	4179	7.5	0.7	1	4491
East of England	2319	12.8	1.2	4	2614	7.2	0.7	2	2803
South West	2181	13.3	1.3	3	2470	4.9	0.5	4	2590
West Midlands	2388	7.0	0.7	6	2554	3.7	0.4	6	2649
East Midlands	1838	7.3	0.7	5	1972	3.5	0.3	7	2042
Yorkshire and the Humber	2207	4.8	0.5	8	2313	3.9	0.4	5	2404
North West	3000	6.5	0.6	7	3194	2.7	0.3	8	3280
North East	1070	-2.3	-0.2	9	1045	0.9	0.1	9	1054

Employment change

- Across *England* total employment increased by 1% per annum between 1992 and 2002 to reach 24.8 million. The annual average rate of increase is expected to slow to 0.5% from 2002 with a projected 26.1 million jobs in England by 2012.
- There are substantial intra-regional variations in projected rates of employment change in most, but not all regions. For example, less intra-regional variation is evident at local LSC area level in the North East and South West than in the South East, the East of England and the North West.
- Local LSC areas projected to see the fastest rates of employment growth are drawn predominantly from the East of England, the South East and London, and from predominantly 'rural' local LSC areas (such as Shropshire and North Yorkshire) from other regions.
- The slowest rates of employment growth are recorded in the local LSC areas in the North East, but also include major urban areas, such as Greater Merseyside and South Yorkshire, from other regions.

Table 15.2: Total Employment, Primary Sector and Utilities, by LLSC Area, 2002-2012

	2002		2012		2002-2012	
		Industry		Industry	Change	
Primary sector and utilities	000s	share %	000s	share %	%	%pa
England	485	2.0	404	1.5	-16.7	-1.8
London North	1	0.4	1	0.3	-16.8	-1.8
London West	2	0.3	2	0.2	-25.6	-2.9
London Central	10	0.6	8	0.4	-23.3	-2.6
London East	3	0.3	2	0.2	-29.6	-3.4
London South	3	0.6	2	0.4	-28.4	-3.3
Milton Keynes, Oxon and Bucks	13	1.7	10	1.3	-16.5	-1.8
Berkshire	9	1.8	8	1.4	-12.9	-1.4
Hampshire and Isle of Wight	22	2.4	20	2.1	-9.8	-1.0
Surrey	13	2.2	11	1.8	-10.4	-1.1
Sussex	17	2.4	14	1.9	-14.7	-1.6
Kent and Medway	23	3.2	19	2.5	-15.1	-1.6
Norfolk	12	3.4	11	3.0	-8.3	-0.9
Cambridgeshire	10	2.6	9	2.1	-11.5	-1.2
Suffolk	11	3.3	10	2.9	-7.2	-0.7
Luton and Bedfordshire	4	1.4	3	1.1	-13.0	-1.4
Hertfordshire	5	0.9	5	0.7	-13.1	-1.4
Essex	11	1.5	10	1.3	-9.0	-0.9
Devon and Cornwall	29	4.1	24	3.2	-18.2	-2.0
Somerset	10	4.4	8	3.3	-20.9	-2.3
Bournemouth, Dorset and Poole	8	2.5	6	1.7	-29.7	-3.5
West of England	10	1.8	8	1.3	-23.9	-2.7
Wiltshire	15	4.2	12	3.4	-14.6	-1.6
Gloucestershire	15	5.3	13	4.2	-18.4	-2.0
Shropshire	8	3.9	7	3.0	-15.8	-1.7
Staffordshire	10	2.2	9	1.8	-14.9	-1.6
Black Country	4	0.8	3	0.7	-18.5	-2.0
Birmingham and Solihull	7	1.1	6	0.9	-15.8	-1.7
Herefordshire and Worcestershire	15	4.4	12	3.5	-16.0	-1.7
Coventry and Warwickshire	11	2.8	9	2.2	-16.3	-1.8
Derbyshire	8	1.9	7	1.5	-16.3	-1.8
Nottinghamshire	12	2.5	10	2.0	-17.1	-1.9
Lincolnshire and Rutland	18	6.4	14	4.7	-22.9	-2.6
Leicestershire	10	2.4	9	2.0	-12.1	-1.3
Northamptonshire	4	1.1	3	0.9	-20.3	-2.2
North Yorkshire	20	5.3	18	4.4	-11.4	-1.2
West Yorkshire	15	1.5	11	1.0	-28.5	-3.3
South Yorkshire	6	1.1	4	0.8	-22.9	-2.6
Humberside	13	3.5	11	2.8	-16.9	-1.8
Cumbria	5	2.7	4	2.0	-23.1	-2.6
Lancashire	10	1.6	8	1.3	-17.8	-1.9
Greater Merseyside	3	0.5	2	0.3	-26.7	-3.1
Greater Manchester	15	1.2	12	0.9	-19.6	-2.2
Cheshire and Warrington	11	2.1	9	1.6	-20.3	-2.2
Northumberland	8	7.4	6	5.6	-24.0	-2.7
Tyne and Wear	4	0.9	4	0.8	-11.2	-1.2
County Durham	5	2.8	4	2.3	-18.0	-2.0
Tees Valley	6	2.2	6	2.1	-3.2	-0.3

Table 15.2a: Total Employment, Primary Sector and Utilities, by Region, 2002-2012

	2002		2012		2002-2012 Change	
Primary sector and utilities	000s	Industry share %	000s	Industry share %	%	%pa
England	485	2.0	404	1.5	-16.7	-1.8
London	20	0.5	15	0.3	-24.8	-2.8
South East	96	2.3	83	1.9	-13.2	-1.4
East of England	53	2.0	48	1.7	-9.6	-1.0
South West	87	3.5	70	2.7	-19.7	-2.2
West Midlands	55	2.2	46	1.8	-16.0	-1.7
East Midlands	53	2.7	43	2.1	-18.3	-2.0
Yorkshire and the Humber	54	2.3	44	1.8	-18.7	-2.0
North West	44	1.4	35	1.1	-20.2	-2.2
North East	23	2.2	20	1.9	-14.9	-1.6

Employment change by broad sector

- Employment in the *primary sector and utilities* in *England* is projected to decline at 1.8% per annum from 485,000 (2% of total employment) in 2002 to about 405,000 (1.5% of total employment) in 2012.
- The shares of total employment in this broad sector are greatest in 'rural' areas, such as Northumberland, Lincolnshire and Rutland, North Yorkshire and Gloucestershire.
- The smallest proportions are found in London and large metropolitan areas.
- All local LSC areas are projected to experience a reduction in employment in this broad sector between 2002 and 2012. Local LSC areas in the East of England record some of the slowest rates of decrease.

Table 15.3: Total Employment, Manufacturing, by LLSC Area, 2002-2012

	2002		2012		2002-2012	
		Industry		Industry	Change	
Manufacturing	000s	share %	000s	share %	%	%pa
England	3273	13.2	2751	10.5	-15.9	-1.7
London North	30	8.2	24	6.2	-21.0	-2.3
London West	65	8.2	52	6.2	-19.5	-2.1
London Central	75	4.6	67	3.8	-11.6	-1.2
London East	83	7.5	67	5.8	-19.0	-2.1
London South	40	6.9	33	5.3	-17.7	-1.9
Milton Keynes, Oxon and Bucks	90	12.1	76	9.4	-15.3	-1.6
Berkshire	49	9.6	44	7.8	-10.8	-1.1
Hampshire and Isle of Wight	103	11.3	85	8.9	-17.3	-1.9
Surrey	48	8.1	41	6.3	-15.3	-1.6
Sussex	65	9.0	55	7.2	-14.6	-1.6
Kent and Medway	85	12.0	74	9.9	-12.6	-1.3
Norfolk	54	15.1	46	12.3	-14.7	-1.6
Cambridgeshire	58	15.1	51	12.1	-11.9	-1.3
Suffolk	51	15.1	45	12.6	-11.9	-1.3
Luton and Bedfordshire	43	16.8	37	13.9	-14.5	-1.6
Hertfordshire	56	9.6	46	7.2	-17.3	-1.9
Essex	92	13.4	81	11.2	-11.5	-1.2
Devon and Cornwall	83	11.8	70	9.4	-16.0	-1.7
Somerset	36	15.9	30	12.3	-18.1	-2.0
Bournemouth, Dorset and Poole	37	11.6	31	9.3	-15.7	-1.7
West of England	63	11.0	52	8.7	-17.5	-1.9
Wiltshire	48	13.8	43	11.5	-11.9	-1.3
Gloucestershire	44	15.1	37	12.2	-16.5	-1.8
Shropshire	38	18.7	34	15.5	-10.6	-1.1
Staffordshire	97	21.0	82	17.0	-15.2	-1.6
Black Country	114	22.5	95	18.6	-16.7	-1.8
Birmingham and Solihull	97	15.3	80	12.4	-17.5	-1.9
Herefordshire and Worcestershire	58	17.2	50	14.0	-13.8	-1.5
Coventry and Warwickshire	66	16.1	54	12.6	-18.3	-2.0
Derbyshire	98	22.1	78	16.8	-20.5	-2.3
Nottinghamshire	70	14.6	58	11.8	-16.0	-1.7
Lincolnshire and Rutland	46	16.0	40	13.4	-13.2	-1.4
Leicestershire	94	21.5	77	17.4	-18.2	-2.0
Northamptonshire	56	17.4	48	14.0	-15.0	-1.6
North Yorkshire	42	11.0	36	8.9	-12.8	-1.4
West Yorkshire	182	17.8	154	14.5	-15.0	-1.6
South Yorkshire	85	15.7	69	12.6	-19.0	-2.1
Humberside	77	20.7	69	17.9	-11.1	-1.2
Cumbria	38	18.8	31	15.2	-18.7	-2.1
Lancashire	120	18.6	98	14.7	-18.8	-2.1
Greater Merseyside	66	11.6	54	9.4	-18.9	-2.1
Greater Manchester	180	14.3	148	11.5	-17.6	-1.9
Cheshire and Warrington	84	16.1	69	12.5	-18.1	-2.0
Northumberland	15	14.4	13	12.6	-11.5	-1.2
Tyne and Wear	70	14.2	61	12.3	-12.6	-1.3
County Durham	39	21.8	32	18.0	-18.4	-2.0
Tees Valley	40	15.0	33	12.2	-18.1	-2.0

Table 15.3a: Total Employment, Manufacturing, by Region, 2002-2012

	2002		2012		2002-2012 Change	
Manufacturing	000s	Industry share %	000s	Industry share %	%	%pa
England	3273	13.2	2751	10.5	–15.9	–1.7
London	293	6.5	243	5.1	–17.2	–1.9
South East	439	10.5	375	8.4	–14.6	–1.6
East of England	355	13.6	308	11.0	–13.4	–1.4
South West	312	12.6	262	10.1	–16.0	–1.7
West Midlands	471	18.4	396	14.9	–15.9	–1.7
East Midlands	364	18.5	301	14.8	–17.3	–1.9
Yorkshire and the Humber	385	16.7	328	13.7	–14.8	–1.6
North West	488	15.3	399	12.2	–18.2	–2.0
North East	164	15.7	139	13.2	–15.2	–1.6

- Employment in *manufacturing* in *England* is projected to decline at 1.7% per annum from 3.27 million (13% of total employment) in 2002 to 2.75 million (10.5% of total employment) in 2012.
- The shares of total employment in this broad sector in 2002 range from under 10% in London LSC areas and some neighbouring 'Home Counties' areas to more than 20% in Derbyshire, the Black Country, Leicestershire, Staffordshire and Humberside. In general, the share of total employment accounted for by manufacturing tends to be greater in the midlands and northern regions than in south eastern England.
- All local LSC areas are projected to experience a reduction in employment in this broad sector between 2002 and 2012. Local LSC areas in London record some of the slowest rates of decrease, but similar faster than average rates of loss are also recorded in Derbyshire, South Yorkshire, Greater Merseyside and the Tees Valley. Some 'rural' local LSC areas and local LSC areas in southern and eastern England display some of the slowest projected rates of job loss.

Table 15.4: Total Employment, Construction, by LLSC Area, 2002-2012

	2002		2012		2002-2012	
		Industry		Industry	Change	
Construction	000s	share %	000s	share %	%	%pa
England	1562	6.3	1542	5.9	-1.3	-0.1
London North	26	7.2	23	6.1	-11.1	-1.2
London West	45	5.7	40	4.7	-11.3	-1.2
London Central	41	2.5	35	2.0	-14.9	-1.6
London East	53	4.8	48	4.2	-9.5	-1.0
London South	45	7.9	40	6.4	-12.5	-1.3
Milton Keynes, Oxon and Bucks	47	6.3	51	6.3	9.6	0.9
Berkshire	31	6.1	33	6.0	8.6	0.8
Hampshire and Isle of Wight	70	7.7	76	8.0	8.6	0.8
Surrey	33	5.5	35	5.4	7.1	0.7
Sussex	40	5.5	42	5.5	6.4	0.6
Kent and Medway	59	8.3	66	8.7	11.3	1.1
Norfolk	31	8.5	31	8.3	2.1	0.2
Cambridgeshire	19	4.8	18	4.3	-2.4	-0.2
Suffolk	24	6.9	23	6.3	-3.7	-0.4
Luton and Bedfordshire	18	7.0	18	6.7	-1.1	-0.1
Hertfordshire	60	10.3	62	9.5	2.6	0.3
Essex	54	8.0	56	7.7	2.4	0.2
Devon and Cornwall	45	6.3	52	7.0	16.2	1.5
Somerset	10	4.5	12	4.9	15.4	1.4
Bournemouth, Dorset and Poole	23	7.1	26	7.7	13.8	1.3
West of England	47	8.1	56	9.3	20.5	1.9
Wiltshire	21	6.0	23	6.1	9.0	0.9
Gloucestershire	22	7.7	26	8.6	15.5	1.4
Shropshire	10	5.1	9	4.0	-16.4	-1.8
Staffordshire	29	6.2	23	4.8	-18.7	-2.0
Black Country	36	7.1	30	5.8	-17.9	-1.9
Birmingham and Solihull	32	5.1	27	4.2	-16.0	-1.7
Herefordshire and Worcestershire	19	5.6	17	4.7	-11.5	-1.2
Coventry and Warwickshire	24	5.8	22	5.1	-7.9	-0.8
Derbyshire	35	7.8	37	8.0	7.2	0.7
Nottinghamshire	30	6.2	31	6.4	6.4	0.6
Lincolnshire and Rutland	22	7.7	24	8.0	7.0	0.7
Leicestershire	29	6.7	31	7.0	4.9	0.5
Northamptonshire	20	6.2	23	6.6	12.0	1.1
North Yorkshire	27	7.0	24	6.0	-9.0	-0.9
West Yorkshire	56	5.5	48	4.5	-14.2	-1.5
South Yorkshire	42	7.7	33	6.1	-19.8	-2.2
Humberside	21	5.7	18	4.6	-17.0	-1.8
Cumbria	10	4.9	9	4.4	-10.4	-1.1
Lancashire	45	7.0	43	6.5	-4.2	-0.4
Greater Merseyside	29	5.0	26	4.5	-10.1	-1.1
Greater Manchester	73	5.8	68	5.3	-7.3	-0.8
Cheshire and Warrington	36	6.9	35	6.3	-4.2	-0.4
Northumberland	6	6.2	6	6.1	-0.6	-0.1
Tyne and Wear	31	6.3	31	6.2	-0.9	-0.1
County Durham	15	8.1	14	8.1	-1.5	-0.2
Tees Valley	21	7.9	21	7.7	-1.5	-0.2

Table 15.4a: Total Employment, Construction, by Region, 2002-2012

Construction	2002 000s	2002 Industry share %	2012 000s	2012 Industry share %	2002-2012 Change %	2002-2012 Change %pa
England	1562	6.3	1542	5.9	-1.3	-0.1
London	211	4.7	186	3.9	-11.8	-1.2
South East	279	6.7	304	6.8	8.9	0.9
East of England	206	7.9	208	7.4	1.0	0.1
South West	168	6.8	194	7.5	16.0	1.5
West Midlands	150	5.9	128	4.8	-15.1	-1.6
East Midlands	136	6.9	146	7.1	7.2	0.7
Yorkshire and the Humber	145	6.3	123	5.1	-15.3	-1.6
North West	193	6.1	181	5.5	-6.6	-0.7
North East	73	7.0	73	6.9	-1.2	-0.1

- Employment in *construction* in *England* is projected to decline at 0.1% per annum from 1.56 million (over 6% of total employment) in 2002 to 1.54 million (just under 6% of total employment) in 2012.
- There is no clear regional or urban-rural pattern of variation in the shares of total employment in this broad sector.
- 20 out of 47 local LSC areas are projected to see a growth in construction employment over the period to 2012. Projected rates of increase tend to be greatest in the South West and other parts of southern England, while large urban areas have amongst the fastest rates of projected job loss according to these ‘benchmark’ projections.

Table 15.5: Total Employment, Distribution, Transport, etc, by LLSC Area, 2002-2012

	2002		2012		2002-2012	
		Industry		Industry	Change	
Distribution and transport, etc.	**000s**	**share %**	**000s**	**share %**	**%**	**%pa**
England	7389	29.8	7772	29.8	5.2	0.5
London North	121	33.1	119	31.1	-1.8	-0.2
London West	298	37.6	301	35.4	0.9	0.1
London Central	465	28.1	455	25.6	-2.0	-0.2
London East	252	22.9	247	21.4	-2.0	-0.2
London South	178	31.0	179	29.2	0.6	0.1
Milton Keynes, Oxon and Bucks	225	30.1	252	30.9	11.7	1.1
Berkshire	151	29.8	169	30.3	12.2	1.2
Hampshire and Isle of Wight	258	28.5	280	29.3	8.5	0.8
Surrey	176	29.6	193	29.7	9.5	0.9
Sussex	222	31.0	237	31.1	6.6	0.6
Kent and Medway	229	32.3	248	33.0	8.2	0.8
Norfolk	105	29.1	111	29.5	6.2	0.6
Cambridgeshire	104	26.9	111	26.1	7.0	0.7
Suffolk	120	35.2	130	36.3	8.9	0.9
Luton and Bedfordshire	82	31.6	87	32.7	6.8	0.7
Hertfordshire	182	31.2	202	31.0	10.6	1.0
Essex	224	32.8	241	33.3	7.7	0.7
Devon and Cornwall	228	32.4	245	33.0	7.1	0.7
Somerset	77	33.7	84	35.2	10.0	1.0
Bournemouth, Dorset and Poole	96	29.8	102	30.3	6.5	0.6
West of England	165	28.7	175	28.9	5.7	0.6
Wiltshire	101	28.9	108	29.3	7.4	0.7
Gloucestershire	84	28.9	91	30.2	8.2	0.8
Shropshire	57	28.1	63	28.8	10.6	1.0
Staffordshire	139	30.0	150	31.0	7.9	0.8
Black Country	149	29.3	152	29.8	2.4	0.2
Birmingham and Solihull	162	25.5	166	25.6	2.6	0.3
Herefordshire and Worcestershire	109	32.3	120	33.4	9.7	0.9
Coventry and Warwickshire	126	30.7	133	30.9	5.5	0.5
Derbyshire	117	26.4	123	26.6	5.4	0.5
Nottinghamshire	135	28.1	139	28.2	3.6	0.4
Lincolnshire and Rutland	89	30.9	96	32.2	7.8	0.8
Leicestershire	119	27.1	124	28.0	4.7	0.5
Northamptonshire	105	32.4	111	32.5	5.5	0.5
North Yorkshire	121	32.0	132	32.5	8.9	0.9
West Yorkshire	286	28.0	310	29.0	8.2	0.8
South Yorkshire	155	28.6	168	30.7	8.5	0.8
Humberside	119	32.0	130	33.9	8.9	0.9
Cumbria	70	34.3	72	35.1	2.9	0.3
Lancashire	187	29.0	194	29.2	3.3	0.3
Greater Merseyside	172	30.3	172	30.2	-0.1	0.0
Greater Manchester	376	30.0	373	29.0	-0.6	-0.1
Cheshire and Warrington	167	31.8	179	32.4	7.8	0.8
Northumberland	24	23.3	25	23.9	4.2	0.4
Tyne and Wear	136	27.6	140	28.0	2.8	0.3
County Durham	47	26.1	48	27.1	2.8	0.3
Tees Valley	79	29.5	82	30.4	3.9	0.4

Table 15.5a: Total Employment, Distribution, Transport, etc, by Region, 2002-2012

	2002		2012		2002-2012	
		Industry		Industry	Change	
Distribution and transport, etc.	**000s**	**share %**	**000s**	**share %**	**%**	**%pa**
England	7389	29.8	7772	29.8	5.2	0.5
London	1315	29.3	1302	27.3	-1.0	-0.1
South East	1262	30.2	1379	30.7	9.3	0.9
East of England	817	31.2	883	31.5	8.1	0.8
South West	751	30.4	805	31.1	7.2	0.7
West Midlands	741	29.0	784	29.6	5.7	0.6
East Midlands	564	28.6	594	29.1	5.2	0.5
Yorkshire and the Humber	681	29.5	739	30.8	8.5	0.8
North West	971	30.4	990	30.2	1.9	0.2
North East	287	27.4	296	28.1	3.2	0.3

- Employment in *distribution and transport* in *England* is projected to increase at 0.5% per annum from 7.39 million 2002 to 7.77 million in 2012. This broad sector is expected to continue to account for 30% of total employment over this period.
- The shares of total employment in this broad sector in 2002 range from less than 25% in London East and Northumberland to more than 35% in London West (including Heathrow) and Suffolk.
- All except five local LSC areas (London Central, London East, London North, Greater Manchester and Greater Merseyside) are projected to experience an increase in employment in this broad sector between 2002 and 2012. The fastest rates of employment growth (in excess of 1% per annum) are confined to local LSC areas drawn mainly from southern England outside London (Berkshire, Milton Keynes, Oxfordshire and Buckinghamshire, Shropshire, Hertfordshire and Somerset).

Table 15.6: Total Employment, Business and Other Services, by LLSC Area, 2002-2012

	2002		2012		2002-2012	
		Industry		Industry	Change	
Business and other services	000s	share %	000s	share %	%	%pa
England	6556	26.4	7665	29.4	16.9	1.6
London North	96	26.2	120	31.4	25.3	2.3
London West	251	31.7	318	37.4	26.5	2.4
London Central	738	44.6	865	48.7	17.3	1.6
London East	520	47.3	591	51.3	13.7	1.3
London South	190	32.9	237	38.5	25.0	2.3
Milton Keynes, Oxon and Bucks	228	30.5	271	33.3	18.8	1.7
Berkshire	178	35.2	209	37.4	17.5	1.6
Hampshire and Isle of Wight	253	27.9	277	29.0	9.8	0.9
Surrey	212	35.7	251	38.6	18.2	1.7
Sussex	202	28.2	224	29.4	10.8	1.0
Kent and Medway	156	22.1	174	23.1	10.9	1.0
Norfolk	75	20.7	84	22.2	12.4	1.2
Cambridgeshire	106	27.4	137	32.2	29.3	2.6
Suffolk	68	20.1	79	21.9	15.1	1.4
Luton and Bedfordshire	59	23.1	68	25.4	13.8	1.3
Hertfordshire	181	30.8	227	34.9	25.5	2.3
Essex	169	24.7	197	27.2	16.4	1.5
Devon and Cornwall	125	17.7	137	18.6	9.8	0.9
Somerset	38	16.8	45	18.8	17.5	1.6
Bournemouth, Dorset and Poole	79	24.8	85	25.5	7.7	0.7
West of England	156	27.0	168	27.9	7.9	0.8
Wiltshire	98	28.2	113	30.6	15.2	1.4
Gloucestershire	67	23.0	74	24.6	10.6	1.0
Shropshire	39	19.3	50	23.0	28.1	2.5
Staffordshire	77	16.6	95	19.7	24.0	2.2
Black Country	97	19.1	113	22.2	16.9	1.6
Birmingham and Solihull	180	28.3	203	31.2	12.8	1.2
Herefordshire and Worcestershire	63	18.5	77	21.4	22.5	2.1
Coventry and Warwickshire	95	23.1	113	26.3	19.2	1.8
Derbyshire	76	17.1	88	19.0	16.1	1.5
Nottinghamshire	104	21.8	119	24.2	14.5	1.4
Lincolnshire and Rutland	43	14.9	47	15.7	8.8	0.9
Leicestershire	89	20.4	99	22.3	10.9	1.0
Northamptonshire	78	24.0	93	27.1	18.6	1.7
North Yorkshire	76	20.0	96	23.7	26.7	2.4
West Yorkshire	232	22.7	280	26.2	20.9	1.9
South Yorkshire	108	19.9	122	22.3	13.3	1.3
Humberside	55	14.6	63	16.5	16.0	1.5
Cumbria	32	15.8	38	18.8	19.2	1.8
Lancashire	121	18.8	149	22.4	22.3	2.0
Greater Merseyside	121	21.2	129	22.7	7.1	0.7
Greater Manchester	304	24.3	361	28.0	18.7	1.7
Cheshire and Warrington	123	23.4	155	28.0	26.6	2.4
Northumberland	17	16.4	20	19.2	18.7	1.7
Tyne and Wear	111	22.6	123	24.5	10.4	1.0
County Durham	23	12.9	27	15.2	17.2	1.6
Tees Valley	49	18.1	53	19.7	9.5	0.9

Table 15.6a: Total Employment, Business and Other Services, by Region, 2002-2012

	2002		2012		2002-2012	
		Industry		Industry	Change	
Business and other services	000s	share %	000s	share %	%	%pa
England	6556	26.4	7665	29.4	16.9	1.6
London	1794	40.0	2131	44.6	18.8	1.7
South East	1229	29.4	1405	31.3	14.3	1.3
East of England	658	25.2	791	28.2	20.2	1.9
South West	564	22.8	623	24.1	10.6	1.0
West Midlands	550	21.5	651	24.6	18.4	1.7
East Midlands	391	19.8	446	21.8	14.2	1.3
Yorkshire and the Humber	470	20.3	561	23.3	19.5	1.8
North West	701	22.0	832	25.4	18.7	1.7
North East	200	19.2	223	21.2	11.6	1.1

- Employment in *business and other services* in *England* is projected to increase at 1.6% per annum from 6.56 million (over 26% of total employment) in 2002 to about 7.67 million (over 29% of total employment) in 2012.
- London East (including the City of London) and London Central local LSC areas display easily the largest shares of total employment in this broad sector at 47% and 45%, respectively, in 2002. In both these local LSC areas the business and other services broad sector is expected to account for about half of total employment by 2012.
- ‘Rural’ and more ‘peripheral’ local LSC areas (such as County Durham, Humberside, Lincolnshire and Rutland, Cumbria and Northumberland) display amongst the smallest proportions of such employment (less than 17% of total employment in 2002).
- All local LSC areas are projected to display job gains in business and other services over the period to 2012. Parts of London (those local LSC areas with smaller concentrations of such employment than the London average in 2002), the East of England (Cambridgeshire and Hertfordshire) and the North West (Cheshire and Warrington) display amongst the fastest projected growth rates. Some ‘peripheral’ areas and local areas in the North East have amongst the slowest rates of employment growth.

Table 15.7: Total Employment, Non-marketed Services, by LLSC Area, 2002-2012

	2002		2012		2002-2012 Change	
Non-marketed services	000s	Industry share %	000s	Industry share %	%	%pa
England	5567	22.4	5957	22.8	7.0	0.7
London North	92	25.0	95	24.8	3.6	0.4
London West	131	16.6	137	16.2	4.5	0.4
London Central	326	19.7	346	19.5	6.3	0.6
London East	190	17.2	198	17.2	4.5	0.4
London South	119	20.7	124	20.2	4.3	0.4
Milton Keynes, Oxon and Bucks	145	19.3	153	18.8	6.1	0.6
Berkshire	89	17.5	96	17.2	8.5	0.8
Hampshire and Isle of Wight	200	22.1	217	22.7	8.2	0.8
Surrey	112	18.8	118	18.2	6.0	0.6
Sussex	172	24.0	189	24.8	9.9	0.9
Kent and Medway	157	22.1	171	22.8	9.0	0.9
Norfolk	83	23.2	93	24.7	11.6	1.1
Cambridgeshire	90	23.2	100	23.3	10.9	1.0
Suffolk	66	19.5	72	20.0	8.4	0.8
Luton and Bedfordshire	52	20.1	54	20.2	3.7	0.4
Hertfordshire	101	17.2	108	16.7	7.7	0.7
Essex	134	19.5	139	19.2	4.3	0.4
Devon and Cornwall	195	27.7	213	28.8	9.2	0.9
Somerset	56	24.7	61	25.5	8.8	0.8
Bournemouth, Dorset and Poole	77	24.2	85	25.4	10.2	1.0
West of England	135	23.4	144	23.9	7.0	0.7
Wiltshire	66	19.0	70	19.0	6.0	0.6
Gloucestershire	58	20.0	61	20.3	5.2	0.5
Shropshire	50	24.9	56	25.6	10.9	1.0
Staffordshire	111	24.0	124	25.6	11.4	1.1
Black Country	107	21.0	117	23.0	10.2	1.0
Birmingham and Solihull	156	24.6	167	25.7	7.0	0.7
Herefordshire and Worcestershire	75	22.1	83	23.0	10.3	1.0
Coventry and Warwickshire	88	21.5	98	22.9	11.6	1.1
Derbyshire	109	24.7	130	28.1	18.6	1.7
Nottinghamshire	128	26.8	135	27.4	5.8	0.6
Lincolnshire and Rutland	69	24.1	78	26.0	11.9	1.1
Leicestershire	96	21.9	104	23.3	8.0	0.8
Northamptonshire	61	18.9	65	19.0	5.7	0.6
North Yorkshire	94	24.7	99	24.5	6.3	0.6
West Yorkshire	251	24.5	266	24.9	6.0	0.6
South Yorkshire	145	26.9	150	27.5	3.4	0.3
Humberside	88	23.6	93	24.3	5.7	0.6
Cumbria	48	23.5	50	24.5	5.1	0.5
Lancashire	161	24.9	172	25.9	6.8	0.7
Greater Merseyside	179	31.4	188	32.9	5.0	0.5
Greater Manchester	306	24.4	326	25.3	6.4	0.6
Cheshire and Warrington	102	19.6	107	19.3	4.7	0.5
Northumberland	34	32.2	34	32.6	2.7	0.3
Tyne and Wear	140	28.4	142	28.3	1.2	0.1
County Durham	50	28.2	52	29.3	2.6	0.3
Tees Valley	73	27.3	75	27.9	2.9	0.3

Table 15.7a: Total Employment, Non-marketed Services, by Region, 2002-2012

	2002		2012		2002-2012 Change	
Non-marketed services	000s	Industry share %	000s	Industry share %	%	%pa
England	5567	22.4	5957	22.8	7.0	0.7
London	857	19.1	901	18.9	5.1	0.5
South East	874	20.9	944	21.0	8.1	0.8
East of England	525	20.1	566	20.2	7.7	0.7
South West	588	23.8	635	24.5	8.0	0.8
West Midlands	587	23.0	645	24.3	9.9	0.9
East Midlands	464	23.5	511	25.0	10.2	1.0
Yorkshire and the Humber	578	25.0	609	25.3	5.3	0.5
North West	796	24.9	842	25.7	5.9	0.6
North East	297	28.5	304	28.8	2.0	0.2

- Employment in *non-marketed services* in *England* is projected to increase at 0.7% per annum from 5.57 million in 2002 to 5.96 million in 2012. The share of total employment accounted for by this broad sector is expected to increase only marginally to 23%.
- The shares of total employment in this broad sector range from less than 19% in some local LSC areas drawn predominantly from London and south eastern England (such as London West, London East, Hertfordshire, Berkshire and Surrey) to more than 27% in several local LSC areas from the North East and in Greater Merseyside, South Yorkshire and Devon and Cornwall. This underlines the importance of the public sector as a local economic driver in many of the 'traditionally' depressed urban areas and in some peripheral areas. In general, the non-marketed services sector accounts for smaller share of total employment in local LSC areas in south eastern England than in northern England.
- All local LSC areas are projected to see an increase in employment in non-marketed services. Local LSC in the North East and London display amongst the slowest projected rates of employment increase.

Table 15.8: Total Employment by Gender and Status, LLSC Area, 2002

2002	M	F	FT	MFT	FFT	PT	MPT	FPT	000s SE
England	13209	11623	15013	9397	5616	6804	1628	5176	3015
London North	191	176	233	135	98	87	22	65	48
London West	447	346	534	324	210	164	52	112	95
London Central	905	750	1121	666	455	356	121	235	178
London East	615	485	766	462	303	209	61	148	125
London South	295	280	370	208	162	134	35	99	72
Milton Keynes, Oxon and Bucks	413	334	438	284	153	206	55	151	104
Berkshire	292	213	303	205	98	135	39	96	67
Hampshire and Isle of Wight	462	444	521	316	205	260	57	203	125
Surrey	332	262	349	231	118	161	42	119	84
Sussex	351	366	411	241	170	213	47	166	94
Kent and Medway	359	350	393	239	154	215	48	166	102
Norfolk	187	173	205	128	77	103	21	82	52
Cambridgeshire	206	181	239	145	94	98	25	74	49
Suffolk	172	168	197	121	76	98	19	79	45
Luton and Bedfordshire	148	110	153	105	49	68	17	51	36
Hertfordshire	336	250	347	229	118	150	38	111	89
Essex	361	323	391	248	143	198	45	153	95
Devon and Cornwall	353	352	372	225	148	229	55	174	104
Somerset	115	113	118	77	41	77	17	60	32
Bournemouth, Dorset and Poole	163	157	167	104	63	104	25	79	49
West of England	317	260	317	208	109	171	44	127	89
Wiltshire	189	161	196	125	71	99	24	74	54
Gloucestershire	155	136	157	100	57	87	21	66	46
Shropshire	102	100	124	75	49	57	11	46	21
Staffordshire	239	224	281	178	103	135	26	109	47
Black Country	287	220	318	215	103	136	32	104	53
Birmingham and Solihull	342	293	393	252	141	178	43	135	63
Herefordshire and Worcestershire	167	172	194	118	76	107	21	86	37
Coventry and Warwickshire	222	188	249	162	86	117	27	90	44
Derbyshire	224	219	259	162	97	134	25	109	49
Nottinghamshire	236	242	273	162	111	150	34	116	55
Lincolnshire and Rutland	150	139	164	102	63	87	19	68	37
Leicestershire	235	203	263	165	98	123	31	92	52
Northamptonshire	179	147	190	126	65	95	23	72	40
North Yorkshire	184	195	210	125	85	124	25	98	45
West Yorkshire	550	471	625	407	218	285	63	223	110
South Yorkshire	283	257	313	207	106	165	31	134	62
Humberside	196	177	222	144	77	111	21	90	42
Cumbria	109	94	120	81	39	62	13	49	20
Lancashire	342	303	409	251	158	169	41	128	68
Greater Merseyside	286	283	338	208	130	173	36	137	58
Greater Manchester	669	584	790	488	302	330	81	249	134
Cheshire and Warrington	297	226	322	219	104	144	34	109	57
Northumberland	54	50	63	41	22	31	5	26	9
Tyne and Wear	258	236	312	198	113	142	30	112	40
County Durham	97	82	116	75	41	48	10	38	15
Tees Valley	139	130	166	108	58	79	14	66	22

Table 15.8a: Total Employment by Gender and Status by Region, 2002

2002	M	F	FT	MFT	FFT	PT	MPT	FPT	000s SE
England	13209	11623	15013	9397	5616	6804	1628	5176	3015
London	2453	2037	3023	1795	1228	950	291	659	517
South East	2210	1970	2414	1516	899	1189	288	901	576
East of England	1410	1205	1532	975	557	715	165	550	36S
outh West	1291	1179	1328	840	488	767	187	581	374
West Midlands	1359	1196	1559	1001	558	730	161	569	265
East Midlands	1023	949	1150	716	434	590	131	458	233
Yorkshire and the Humber	1213	1100	1370	884	486	685	140	545	259
North West	1704	1490	1979	1246	733	879	206	673	336
North East	547	498	658	423	234	300	59	241	87

Key:
M: Males
F: Females
FT: Full-time
MFT: Male Full-time
FFT: Female Full-time
PT: Part-time
MPT: Male Part-time
FPT: Female Part-time
SE: Self-employed

Table 15.9: Total Employment by Gender and Status, LLSC Area, 2012

000s

2012	M	F	FT	MFT	FFT	PT	MPT	FPT	SE
England	13556	12535	15408	9478	5930	7840	2056	5784	2842
London North	204	179	247	141	106	93	33	60	44
London West	458	392	555	328	226	208	67	141	88
London Central	922	854	1158	674	484	448	137	311	170
London East	621	532	796	452	344	238	84	154	119
London South	334	282	388	230	157	159	54	105	69
Milton Keynes, Oxon and Bucks	437	377	494	313	181	230	62	168	90
Berkshire	305	253	348	221	127	150	42	108	60
Hampshire and Isle of Wight	498	457	547	342	205	299	80	219	109
Surrey	346	304	400	246	154	179	51	128	71
Sussex	382	379	433	265	168	244	64	180	84
Kent and Medway	385	366	415	263	151	242	56	187	95
Norfolk	192	185	211	129	82	116	28	88	50
Cambridgeshire	227	199	262	161	101	115	30	85	50
Suffolk	191	168	211	134	77	103	25	78	45
Luton and Bedfordshire	147	119	158	102	57	73	19	54	35
Hertfordshire	366	284	384	247	137	180	52	128	86
Essex	382	342	423	256	167	206	54	151	95
Devon and Cornwall	366	374	358	225	133	283	71	212	100
Somerset	118	122	120	75	46	90	22	68	29
Bournemouth, Dorset and Poole	172	163	169	106	64	121	33	88	45
West of England	325	279	321	207	115	195	54	141	88
Wiltshire	198	171	200	130	70	118	31	87	51
Gloucestershire	163	138	157	104	53	99	26	73	45
Shropshire	107	110	125	76	49	74	17	57	18
Staffordshire	242	240	278	174	104	165	41	124	40
Black Country	271	240	310	197	113	158	42	116	44
Birmingham and Solihull	327	322	386	237	148	208	50	158	56
Herefordshire and Worcestershire	180	179	197	123	74	129	32	97	33
Coventry and Warwickshire	219	211	245	153	92	146	37	109	39
Derbyshire	227	235	255	158	97	154	32	123	53
Nottinghamshire	234	260	268	155	113	169	38	131	57
Lincolnshire and Rutland	145	153	158	96	61	106	23	83	35
Leicestershire	222	222	251	152	98	141	33	108	52
Northamptonshire	175	167	194	119	74	107	25	81	42
North Yorkshire	195	210	209	126	83	150	34	116	47
West Yorkshire	557	511	610	393	217	350	85	265	109
South Yorkshire	274	273	303	190	113	183	40	143	60
Humberside	194	190	220	138	82	125	27	98	39
Cumbria	107	96	117	77	41	66	17	49	21
Lancashire	334	329	401	237	164	193	48	145	69
Greater Merseyside	279	292	334	197	137	182	46	136	55
Greater Manchester	679	608	801	487	314	361	101	259	126
Cheshire and Warrington	304	251	339	219	121	160	43	117	55
Northumberland	54	52	64	42	23	33	6	27	9
Tyne and Wear	255	246	308	195	113	158	36	122	35
County Durham	96	81	111	75	37	52	12	41	14
Tees Valley	138	133	169	108	62	81	16	65	20

Table 15.9a: Total Employment by Gender and Status by Region, 2012

000s

2012	M	F	FT	MFT	FFT	PT	MPT	FPT	SE
England	13556	12535	15408	9478	5930	7840	2056	5784	2842
London	2538	2239	3143	1826	1318	1145	373	771	489
South East	2354	2137	2637	1650	987	1344	355	989	509
East of England	1506	1298	1649	1029	620	793	209	584	361
South West	1343	1247	1326	847	479	907	239	668	357
West Midlands	1348	1301	1540	961	579	879	218	661	230
East Midlands	1004	1038	1125	682	443	678	151	526	239
Yorkshire and the Humber	1220	1185	1342	847	494	809	187	622	254
North West	1703	1577	1992	1217	775	962	255	707	326
North East	542	512	653	419	234	324	70	254	78

Key:

M: Males
F: Females
FT: Full-time
MFT: Male Full-time
FFT: Female Full-time
PT: Part-time
MPT: Male Part-time
FPT: Female Part-time
SE: Self-employed

Table 15.10: Change in Employment by Gender and Status, LLSC Area, 2002-12 (% change)

					Change %				
2002-2012	M	F	FT	MFT	FFT	PT	MPT	FPT	SE
England	2.6	7.8	2.6	0.9	5.6	15.2	26.3	11.8	-5.7
London North	6.6	1.8	6.2	4.3	8.8	6.5	48.4	-7.6	-8.8
London West	2.5	13.2	3.9	1.2	8.0	26.6	28.3	25.8	-7.9
London Central	1.9	14.0	3.3	1.2	6.3	25.8	12.9	32.5	-4.3
London East	1.0	9.8	4.0	-2.2	13.4	13.9	38.3	3.9	-4.9
London South	13.1	0.5	4.9	11.0	-2.9	18.3	52.4	6.1	-3.8
Milton Keynes, Oxon and Bucks	5.8	12.8	12.8	9.9	18.2	11.6	12.7	11.3	-13.0
Berkshire	4.5	18.8	15.0	7.9	29.8	11.2	7.9	12.6	-10.9
Hampshire and Isle of Wight	7.8	3.0	5.0	8.3	0.0	15.0	40.4	7.9	-12.8
Surrey	4.1	16.0	14.6	6.5	30.3	11.0	21.4	7.4	-15.4
Sussex	8.8	3.6	5.5	10.2	-1.2	14.7	36.5	8.5	-10.3
Kent and Medway	7.3	4.7	5.5	10.1	-1.6	13.0	14.9	12.5	-6.9
Norfolk	2.5	7.1	2.9	0.5	6.8	12.8	30.4	8.2	-4.0
Cambridgeshire	10.4	10.2	9.5	11.0	7.2	16.8	23.2	14.6	0.9
Suffolk	10.6	0.3	7.2	10.7	1.5	5.3	32.0	-1.2	-1.2
Luton and Bedfordshire	-0.4	8.5	3.2	-2.7	15.9	7.5	16.2	4.7	-3.4
Hertfordshire	9.1	13.6	10.7	7.9	16.2	20.4	36.1	15.0	-3.8
Essex	5.9	5.8	8.2	3.5	16.2	4.1	21.9	-1.1	0.1
Devon and Cornwall	3.6	6.3	-3.8	0.2	-10.0	23.4	28.8	21.8	-4.1
Somerset	2.4	8.5	1.9	-2.9	11.0	16.5	32.4	12.1	-8.5
Bournemouth, Dorset and Poole	5.5	4.0	1.2	1.6	0.5	16.4	31.3	11.6	-8.0
West of England	2.8	7.0	1.5	-0.7	5.6	14.1	24.2	10.6	-1.9
Wiltshire	5.2	6.6	1.9	3.9	-1.6	19.9	28.8	17.0	-5.7
Gloucestershire	5.6	1.3	-0.2	3.8	-7.2	14.0	24.9	10.5	-3.1
Shropshire	4.9	10.5	0.7	1.7	-0.7	30.2	50.1	25.3	-12.7
Staffordshire	2.0	6.9	-1.0	-2.4	1.3	22.4	57.2	14.2	-14.9
Black Country	-5.4	9.2	-2.8	-8.5	9.0	16.2	30.0	11.9	-16.1
Birmingham and Solihull	-4.3	10.0	-1.8	-6.0	5.6	16.5	15.0	17.0	-11.9
Herefordshire and Worcestershire	7.7	4.0	1.4	4.0	-2.6	19.8	48.7	12.6	-11.4
Coventry and Warwickshire	-1.5	12.2	-1.6	-5.7	6.0	25.0	36.0	21.7	-12.6
Derbyshire	1.5	7.5	-1.5	-2.5	0.2	14.8	26.3	12.1	7.8
Nottinghamshire	-0.8	7.5	-1.8	-4.0	1.4	13.0	14.4	12.6	2.7
Lincolnshire and Rutland	-2.9	10.6	-4.2	-5.3	-2.4	21.5	18.8	22.2	-4.2
Leicestershire	-5.6	9.4	-4.7	-7.5	0.0	14.8	6.3	17.7	0.3
Northamptonshire	-1.8	13.9	1.7	-4.9	14.7	12.2	11.9	12.3	5.6
North Yorkshire	5.9	8.2	-0.4	0.8	-2.1	21.0	34.4	17.6	3.5
West Yorkshire	1.4	8.5	-2.5	-3.5	-0.6	22.7	36.1	19.0	-1.6
South Yorkshire	-3.2	6.2	-3.2	-8.3	6.7	11.2	30.7	6.8	-2.7
Humberside	-1.4	7.1	-0.9	-4.4	5.7	13.5	29.7	9.8	-7.3
Cumbria	-1.4	2.9	-2.3	-5.0	3.3	6.0	26.2	0.6	0.4
Lancashire	-2.4	8.6	-1.8	-5.3	3.7	14.2	17.0	13.3	2.0
Greater Merseyside	-2.6	3.1	-1.3	-5.3	5.1	4.7	24.9	-0.6	-4.2
Greater Manchester	1.5	4.2	1.4	-0.2	4.0	9.4	24.9	4.3	-5.7
Cheshire and Warrington	2.1	11.1	5.2	0.0	16.3	11.4	25.8	6.8	-3.4
Northumberland	-0.5	3.6	1.5	0.4	3.6	4.2	11.0	2.8	-8.3
Tyne and Wear	-1.2	4.5	-1.2	-1.6	-0.5	11.3	18.3	9.4	-12.3
County Durham	-0.5	-1.5	-4.2	-0.9	-10.3	9.6	17.2	7.6	-8.9
Tees Valley	-0.8	2.5	1.7	-0.3	5.5	2.0	16.1	-1.0	-11.0

Table 15.10a: Change in Employment by Gender and Status by Region, 2002-12 (% change)

	Change %								
2002-2012	M	F	FT	MFT	FFT	PT	MPT	FPT	SE
England	2.6	7.8	2.6	0.9	5.6	15.2	26.3	11.8	-5.7
London	3.5	9.9	4.0	1.7	7.3	20.5	28.4	17.0	-5.5
South East	6.5	8.5	9.2	8.9	9.8	13.0	23.0	9.9	-11.5
East of England	6.8	7.8	7.6	5.5	11.4	11.0	27.1	6.2	-1.8
South West	4.0	5.8	-0.1	0.9	-1.8	18.2	27.9	15.0	-4.6
West Midlands	-0.8	8.8	-1.2	-4.1	3.8	20.5	35.3	16.3	-13.4
East Midlands	-1.9	9.4	-2.1	-4.8	2.3	14.9	15.0	14.9	2.7
Yorkshire and the Humber	0.6	7.7	-2.1	-4.1	1.7	18.2	33.6	14.2	-1.9
North West	-0.1	5.8	0.7	-2.3	5.8	9.5	23.6	5.1	-3.1
North East	-0.9	2.9	-0.7	-1.0	-0.3	7.8	16.9	5.6	-10.9

Key:

M: Males
F: Females
FT: Full-time
MFT: Male Full-time
FFT: Female Full-time
PT: Part-time
MPT: Male Part-time
FPT: Female Part-time
SE: Self-employed

Table 15.11: Change in Employment by Gender and Status, LLSC Area, 2002-12 (% p.a.)

					Change %				
2002-2012	M	F	FT	MFT	FFT	PT	MPT	FPT	SE
England	0.3	0.8	0.3	0.1	0.5	1.4	2.4	1.1	-0.6
London North	0.6	0.2	0.6	0.4	0.8	0.6	4.0	-0.8	-0.9
London West	0.2	1.2	0.4	0.1	0.8	2.4	2.5	2.3	-0.8
London Central	0.2	1.3	0.3	0.1	0.6	2.3	1.2	2.9	-0.4
London East	0.1	0.9	0.4	-0.2	1.3	1.3	3.3	0.4	-0.5
London South	1.2	0.0	0.5	1.0	-0.3	1.7	4.3	0.6	-0.4
Milton Keynes, Oxon and Bucks	0.6	1.2	1.2	1.0	1.7	1.1	1.2	1.1	-1.4
Berkshire	0.4	1.7	1.4	0.8	2.6	1.1	0.8	1.2	-1.2
Hampshire and Isle of Wight	0.8	0.3	0.5	0.8	0.0	1.4	3.5	0.8	-1.4
Surrey	0.4	1.5	1.4	0.6	2.7	1.1	2.0	0.7	-1.7
Sussex	0.8	0.4	0.5	1.0	-0.1	1.4	3.2	0.8	-1.1
Kent and Medway	0.7	0.5	0.5	1.0	-0.2	1.2	1.4	1.2	-0.7
Norfolk	0.3	0.7	0.3	0.1	0.7	1.2	2.7	0.8	-0.4
Cambridgeshire	1.0	1.0	0.9	1.1	0.7	1.6	2.1	1.4	0.1
Suffolk	1.0	0.0	0.7	1.0	0.2	0.5	2.8	-0.1	-0.1
Luton and Bedfordshire	0.0	0.8	0.3	-0.3	1.5	0.7	1.5	0.5	-0.3
Hertfordshire	0.9	1.3	1.0	0.8	1.5	1.9	3.1	1.4	-0.4
Essex	0.6	0.6	0.8	0.3	1.5	0.4	2.0	-0.1	0.0
Devon and Cornwall	0.4	0.6	-0.4	0.0	-1.0	2.1	2.6	2.0	-0.4
Somerset	0.2	0.8	0.2	-0.3	1.1	1.5	2.8	1.1	-0.9
Bournemouth, Dorset and Poole	0.5	0.4	0.1	0.2	0.0	1.5	2.8	1.1	-0.8
West of England	0.3	0.7	0.1	-0.1	0.5	1.3	2.2	1.0	-0.2
Wiltshire	0.5	0.6	0.2	0.4	-0.2	1.8	2.6	1.6	-0.6
Gloucestershire	0.5	0.1	0.0	0.4	-0.7	1.3	2.3	1.0	-0.3
Shropshire	0.5	1.0	0.1	0.2	-0.1	2.7	4.1	2.3	-1.3
Staffordshire	0.2	0.7	-0.1	-0.2	0.1	2.0	4.6	1.3	-1.6
Black Country	-0.6	0.9	-0.3	-0.9	0.9	1.5	2.7	1.1	-1.7
Birmingham and Solihull	-0.4	1.0	-0.2	-0.6	0.5	1.5	1.4	1.6	-1.3
Herefordshire and Worcestershire	0.7	0.4	0.1	0.4	-0.3	1.8	4.1	1.2	-1.2
Coventry and Warwickshire	-0.2	1.2	-0.2	-0.6	0.6	2.3	3.1	2.0	-1.3
Derbyshire	0.2	0.7	-0.1	-0.3	0.0	1.4	2.4	1.2	0.8
Nottinghamshire	-0.1	0.7	-0.2	-0.4	0.1	1.2	1.4	1.2	0.3
Lincolnshire and Rutland	-0.3	1.0	-0.4	-0.5	-0.2	2.0	1.7	2.0	-0.4
Leicestershire	-0.6	0.9	-0.5	-0.8	0.0	1.4	0.6	1.6	0.0
Northamptonshire	-0.2	1.3	0.2	-0.5	1.4	1.2	1.1	1.2	0.5
North Yorkshire	0.6	0.8	0.0	0.1	-0.2	1.9	3.0	1.6	0.3
West Yorkshire	0.1	0.8	-0.3	-0.4	-0.1	2.1	3.1	1.8	-0.2
South Yorkshire	-0.3	0.6	-0.3	-0.9	0.6	1.1	2.7	0.7	-0.3
Humberside	-0.1	0.7	-0.1	-0.5	0.6	1.3	2.6	0.9	-0.8
Cumbria	-0.1	0.3	-0.2	-0.5	0.3	0.6	2.4	0.1	0.0
Lancashire	-0.2	0.8	-0.2	-0.5	0.4	1.3	1.6	1.3	0.2
Greater Merseyside	-0.3	0.3	-0.1	-0.5	0.5	0.5	2.2	-0.1	-0.4
Greater Manchester	0.1	0.4	0.1	0.0	0.4	0.9	2.2	0.4	-0.6
Cheshire and Warrington	0.2	1.1	0.5	0.0	1.5	1.1	2.3	0.7	-0.3
Northumberland	-0.1	0.3	0.1	0.0	0.4	0.4	1.1	0.3	-0.9
Tyne and Wear	-0.1	0.4	-0.1	-0.2	0.0	1.1	1.7	0.9	-1.3
County Durham	-0.1	-0.1	-0.4	-0.1	-1.1	0.9	1.6	0.7	-0.9
Tees Valley	-0.1	0.2	0.2	0.0	0.5	0.2	1.5	-0.1	-1.2

Table 15.11a: Change in Employment by Gender and Status by Region, 2002-12 (% p.a.)

					Change %				
2002-2012	**M**	**F**	**FT**	**MFT**	**FFT**	**PT**	**MPT**	**FPT**	**SE**
England	0.3	0.8	0.3	0.1	0.5	1.4	2.4	1.1	-0.6
London	0.3	1.0	0.4	0.2	0.7	1.9	2.5	1.6	-0.6
South East	0.6	0.8	0.9	0.9	0.9	1.2	2.1	0.9	-1.2
East of England	0.7	0.7	0.7	0.5	1.1	1.0	2.4	0.6	-0.2
South West	0.4	0.6	0.0	0.1	-0.2	1.7	2.5	1.4	-0.5
West Midlands	-0.1	0.8	-0.1	-0.4	0.4	1.9	3.1	1.5	-1.4
East Midlands	-0.2	0.9	-0.2	-0.5	0.2	1.4	1.4	1.4	0.3
Yorkshire and the Humber	0.1	0.7	-0.2	-0.4	0.2	1.7	2.9	1.3	-0.2
North West	0.0	0.6	0.1	-0.2	0.6	0.9	2.1	0.5	-0.3
North East	-0.1	0.3	-0.1	-0.1	0.0	0.8	1.6	0.5	-1.2

Key:

M: Males
F: Females
FT: Full-time
MFT: Male Full-time
FFT: Female Full-time
PT: Part-time
MPT: Male Part-time
FPT: Female Part-time
SE: Self-employed

- Across *England male employment* is projected to increase by 0.3% per annum while female employment is projected to increase at an annual average rate of 0.8%.
- *Full-time employment* is projected to increase by 0.3% per annum while *part-time* employment is projected to increase at an annual average rate of 1.4%. The projected rate of increase for *male full-time employees* is 0.1% per annum compared with 0.5% per annum for *female full-time employees.* For *male part-time employees* the projected annual average growth rate is 2.4% (from a relatively low initial base) while for *female part-time employees* the projected annual average growth rate is 2.4%. *Self-employment* is expected to contract at 0.6% per annum.
- 14 local LSC areas display a projected reduction in male employment between 2002 and 2012, with Leicestershire, the Black Country, Birmingham and Solihull, South Yorkshire and Greater Merseyside displaying the fastest rates of loss. By contrast, London South, Suffolk, Cambridgeshire, Hertfordshire and Sussex display the greatest projected rates of increase in male employment.
- In the case of females all local LSC areas display projected employment increase over the period to 2012.
- 16 local LSC areas display a projected reduction in full-time employees between 2002 and 2012, while for male full-time employees the number displaying a decrease rises to 21. The Black Country and South Yorkshire display the fastest rates of projected employment loss (0.9% per annum) for full-time male employees. This contrasts with a projected increase of 1.1% per annum in Cambridgeshire. 11 local LSC areas display a projected reduction in female full-time employees, with Devon and Cornwall, Gloucestershire and County Durham recording the largest projected losses. By contrast, in Berkshire, Surrey and Milton Keynes, Oxfordshire and Buckinghamshire projected rates of increase exceed 1.5% per annum.
- All local LSC areas exhibit overall growth in part-time employees and for male part-time employees. Five local LSC areas (London North, Tees Valley, Suffolk, Essex and Greater Merseyside) display a projected loss in female full-time employees.
- Nine local LSC areas escape a projected decline in self-employment. Four of these are from the East Midlands.

Table 15.12: Shares of Employment by Gender and Status, LLSC Area, 2002 (%)

2002	M	F	FT	MFT	FFT	PT	MPT	FPT	% SE
England	53	47	63	37	24	76	60	27	12
London North	52	48	58	42	25	75	63	24	13
London West	56	44	61	39	32	68	67	21	12
London Central	55	45	59	41	34	66	68	22	11
London East	56	44	60	40	29	71	70	19	11
London South	51	49	56	44	26	74	64	23	12
Milton Keynes, Oxon and Bucks	55	45	65	35	27	73	59	28	14
Berkshire	58	42	68	32	29	71	60	27	13
Hampshire and Isle of Wight	51	49	61	39	22	78	58	29	14
Surrey	56	44	66	34	26	74	59	27	14
Sussex	49	51	59	41	22	78	57	30	13
Kent and Medway	51	49	61	39	23	77	55	30	14
Norfolk	52	48	63	37	21	79	57	29	14
Cambridgeshire	53	47	61	39	25	75	62	25	13
Suffolk	51	49	62	38	19	81	58	29	13
Luton and Bedfordshire	57	43	68	32	25	75	60	26	14
Hertfordshire	57	43	66	34	26	74	59	26	15
Essex	53	47	63	37	23	77	57	29	14
Devon and Cornwall	50	50	60	40	24	76	53	32	15
Somerset	51	49	65	35	22	78	52	34	14
Bournemouth, Dorset and Poole	51	49	62	38	24	76	52	33	15
West of England	55	45	66	34	26	74	55	30	15
Wiltshire	54	46	64	36	25	75	56	28	16
Gloucestershire	53	47	64	36	24	76	54	30	16
Shropshire	51	49	61	39	20	80	61	28	10
Staffordshire	52	48	63	37	19	81	61	29	10
Black Country	57	43	68	32	24	76	63	27	10
Birmingham and Solihull	54	46	64	36	24	76	62	28	10
Herefordshire and Worcestershire	49	51	61	39	20	80	57	32	11
Coventry and Warwickshire	54	46	65	35	23	77	58	30	11
Derbyshire	51	49	63	37	19	81	58	30	11
Nottinghamshire	49	51	59	41	22	78	57	31	12
Lincolnshire and Rutland	52	48	62	38	22	78	57	30	13
Leicestershire	54	46	63	37	25	75	60	28	12
Northamptonshire	55	45	66	34	24	76	59	29	12
North Yorkshire	49	51	60	40	21	79	55	33	12
West Yorkshire	54	46	65	35	22	78	61	28	11
South Yorkshire	52	48	66	34	19	81	58	31	11
Humberside	53	47	65	35	19	81	59	30	11
Cumbria	54	46	67	33	21	79	59	31	10
Lancashire	53	47	61	39	24	76	63	26	10
Greater Merseyside	50	50	62	38	21	79	59	30	10
Greater Manchester	53	47	62	38	25	75	63	26	11
Cheshire and Warrington	57	43	68	32	24	76	62	27	11
Northumberland	52	48	65	35	17	83	61	30	9
Tyne and Wear	52	48	64	36	21	79	63	29	8
County Durham	54	46	65	35	21	79	65	27	8
Tees Valley	51	48	65	35	18	82	62	30	8

Table 15.12a: Shares of Employment by Gender and Status by Region, 2002 (%)

2002	M	F	FT	MFT	FFT	PT	MPT	FPT	% SE
England	53	47	63	37	24	76	60	27	12
London	55	45	59	41	31	69	67	21	12
South East	53	47	63	37	24	76	58	28	14
East of England	54	46	64	36	23	77	59	27	14
South West	52	48	63	37	24	76	54	31	15
West Midlands	53	47	64	36	22	78	61	29	10
East Midlands	52	48	62	38	22	78	58	30	12
Yorkshire and the Humber	52	48	65	35	20	80	59	30	11
North West	53	47	63	37	23	77	62	28	11
North East	52	48	64	36	20	80	63	29	8

Key:
M: Males
F: Females
FT: Full-time
MFT: Male Full-time
FFT: Female Full-time
PT: Part-time
MPT: Male Part-time
FPT: Female Part-time
SE: Self-employed

- Across *England males* accounted for 13.2 million jobs (53% of total employment) in 2002, while 11.6 million jobs were filled by *females*. 15 million employee jobs (60% of total employment) were *full-time* and 6.8 million were *part-time.*
- In 2002 *males* accounted for a minority of those in employment in four local LSC areas (North Yorkshire, Sussex, Herefordshire and Worcestershire and Nottinghamshire). By contrast, in Berkshire, Luton and Bedfordshire, Hertfordshire and Cheshire and Warrington males comprised at least 57% of those in employment.
- The share of total employment accounted for by *full-time employees* was highest in the London local LSC areas, County Durham, Lancashire and the Black Country in 2002. In all these local LSC areas males comprised 64-70% of those in employment. By contrast, in the South West local LSC areas only 52-55% of total employment was accounted for by males.
- *Self-employment* is most prevalent in the South West (accounting for about 16% of total employment) and accounts for the smallest shares of total employment (8-9%) in the North East.

Table 15.13: Shares of Employment by Gender and Status, LLSC Area, 2012 (%)

2012	M	F	FT	MFT	FFT	PT	MPT	FPT	% SE
England	52	48	62	38	26	74	59	30	11
London North	53	47	57	43	35	65	64	24	11
London West	54	46	59	41	32	68	65	24	10
London Central	52	48	58	42	30	70	65	25	10
London East	54	46	57	43	35	65	69	21	10
London South	54	46	59	41	34	66	63	26	11
Milton Keynes, Oxon and Bucks	54	46	63	37	27	73	61	28	11
Berkshire	55	45	64	36	28	72	62	27	11
Hampshire and Isle of Wight	52	48	62	38	27	73	57	31	11
Surrey	53	47	61	39	28	72	62	27	11
Sussex	50	50	61	39	26	74	57	32	11
Kent and Medway	51	49	64	36	23	77	55	32	13
Norfolk	51	49	61	39	24	76	56	31	13
Cambridgeshire	53	47	62	38	26	74	61	27	12
Suffolk	53	47	64	36	24	76	59	29	12
Luton and Bedfordshire	55	45	64	36	27	73	59	27	13
Hertfordshire	56	44	64	36	29	71	59	28	13
Essex	53	47	61	39	26	74	58	28	13
Devon and Cornwall	49	51	63	37	25	75	48	38	13
Somerset	49	51	62	38	25	75	50	38	12
Bournemouth, Dorset and Poole	51	49	63	37	28	72	51	36	13
West of England	54	46	64	36	28	72	53	32	14
Wiltshire	54	46	65	35	27	73	54	32	14
Gloucestershire	54	46	66	34	26	74	52	33	15
Shropshire	49	51	61	39	23	77	58	34	8
Staffordshire	50	50	63	37	25	75	58	34	8
Black Country	53	47	64	36	26	74	61	31	9
Birmingham and Solihull	50	50	62	38	24	76	59	32	9
Herefordshire and Worcestershire	50	50	63	37	25	75	55	36	9
Coventry and Warwickshire	51	49	63	37	25	75	57	34	12
Derbyshire	49	51	62	38	20	80	55	33	11
Nottinghamshire	47	53	58	42	23	77	54	34	12
Lincolnshire and Rutland	49	51	61	39	22	78	53	36	12
Leicestershire	50	50	61	39	23	77	57	32	12
Northamptonshire	51	49	62	38	24	76	57	31	12
North Yorkshire	48	52	60	40	23	77	52	37	12
West Yorkshire	52	48	64	36	24	76	57	33	10
South Yorkshire	50	50	63	37	22	78	55	34	11
Humberside	50	50	63	37	22	78	57	33	10
Cumbria	53	47	65	35	25	75	57	32	10
Lancashire	50	50	59	41	25	75	61	29	10
Greater Merseyside	49	51	59	41	25	75	58	32	10
Greater Manchester	53	47	61	39	28	72	62	28	10
Cheshire and Warrington	55	45	64	36	27	73	61	29	10
Northumberland	51	49	65	35	19	81	61	31	8
Tyne and Wear	51	49	63	37	23	77	61	32	7
County Durham	54	46	67	33	22	78	63	29	8
Tees Valley	51	49	64	36	20	80	63	30	7

Table 15.13a: Shares of Employment by Gender and Status by Region, 2012 (%)

									%
2012	**M**	**F**	**FT**	**MFT**	**FFT**	**PT**	**MPT**	**FPT**	**SE**
England	52	48	62	38	26	74	59	30	11
London	53	47	58	42	33	67	66	24	10
South East	52	48	63	37	26	74	59	30	11
East of England	54	46	62	38	26	74	59	28	13
South West	52	48	64	36	26	74	51	35	14
West Midlands	51	49	62	38	25	75	58	33	9
East Midlands	49	51	61	39	22	78	55	33	12
Yorkshire and the Humber	51	49	63	37	23	77	56	34	11
North West	52	48	61	39	26	74	61	29	10
North East	51	49	64	36	21	79	62	31	7

Key:
M: Males
F: Females
FT: Full-time
MFT: Male Full-time
FFT: Female Full-time
PT: Part-time
MPT: Male Part-time
FPT: Female Part-time
SE: Self-employed

Table 15.14: Total Employment, Managers and Senior Officials, by LLSC Area, 2002-2012

	2002		2012		2002-2012	
		Occupation		Occupation	Change	
Managers and Senior Officials	000s	share %	000s	share %	%	%pa
England	3795	15.3	4337	16.6	14.3	1.3
London North	61	16.7	73	19.0	18.4	1.7
London West	141	17.8	167	19.7	18.9	1.7
London Central	311	18.8	367	20.6	17.9	1.7
London East	197	17.9	231	20.0	17.4	1.6
London South	99	17.3	118	19.2	19.0	1.8
Milton Keynes, Oxon and Bucks	132	17.6	158	19.4	19.7	1.8
Berkshire	91	18.0	110	19.6	20.7	1.9
Hampshire and Isle of Wight	154	17.0	177	18.5	14.9	1.4
Surrey	107	18.0	127	19.5	18.5	1.7
Sussex	122	17.0	140	18.5	15.4	1.4
Kent and Medway	118	16.6	138	18.4	17.2	1.6
Norfolk	57	15.7	66	17.4	16.1	1.5
Cambridgeshire	62	16.1	77	18.0	22.8	2.1
Suffolk	53	15.7	64	17.8	20.1	1.8
Luton and Bedfordshire	42	16.4	48	18.0	13.3	1.3
Hertfordshire	99	16.9	119	18.3	20.4	1.9
Essex	112	16.3	132	18.2	17.9	1.7
Devon and Cornwall	102	14.4	112	15.1	9.5	0.9
Somerset	33	14.4	36	15.1	10.7	1.0
Bournemouth, Dorset and Poole	48	14.9	52	15.4	8.1	0.8
West of England	85	14.7	94	15.6	11.1	1.1
Wiltshire	52	14.8	60	16.2	15.3	1.4
Gloucestershire	42	14.5	47	15.6	11.4	1.1
Shropshire	26	13.0	30	13.9	15.2	1.4
Staffordshire	60	12.9	67	13.9	12.6	1.2
Black Country	67	13.2	72	14.0	7.5	0.7
Birmingham and Solihull	83	13.0	89	13.7	7.4	0.7
Herefordshire and Worcestershire	44	13.0	50	14.0	14.8	1.4
Coventry and Warwickshire	55	13.5	60	13.9	8.0	0.8
Derbyshire	60	13.6	70	15.0	15.7	1.5
Nottinghamshire	69	14.4	78	15.9	13.6	1.3
Lincolnshire and Rutland	40	13.9	45	15.0	11.5	1.1
Leicestershire	63	14.4	69	15.6	9.8	0.9
Northamptonshire	49	15.1	55	16.1	12.6	1.2
North Yorkshire	51	13.5	59	14.4	14.9	1.4
West Yorkshire	139	13.7	153	14.3	9.8	0.9
South Yorkshire	69	12.8	77	14.2	11.5	1.1
Humberside	50	13.3	57	15.0	15.9	1.5
Cumbria	27	13.3	29	14.2	6.7	0.7
Lancashire	86	13.3	94	14.2	9.6	0.9
Greater Merseyside	75	13.1	78	13.7	4.2	0.4
Greater Manchester	169	13.5	181	14.1	6.9	0.7
Cheshire and Warrington	71	13.6	79	14.2	11.2	1.1
Northumberland	12	11.1	13	12.3	12.4	1.2
Tyne and Wear	60	12.1	63	12.6	5.7	0.6
County Durham	20	11.4	23	12.7	10.3	1.0
Tees Valley	31	11.6	35	12.8	11.5	1.1

Table 15.14a: Total Employment, Managers and Senior Officials by Region, 2002-2012

	2002		2012		2002-2012	
		Occupation		Occupation	Change	
Managers and Senior Officials	**000s**	**share %**	**000s**	**share %**	**%**	**%pa**
England	3795	15.3	4337	16.6	14.3	1.3
London	809	18.0	956	20.0	18.1	1.7
South East	723	17.3	850	18.9	17.5	1.6
East of England	425	16.3	505	18.0	18.8	1.7
South West	361	14.6	400	15.5	10.9	1.0
West Midlands	335	13.1	368	13.9	10.0	1.0
East Midlands	281	14.3	317	15.5	12.7	1.2
Yorkshire and the Humber	309	13.4	347	14.4	12.0	1.1
North West	428	13.4	461	14.1	7.7	0.7
North East	123	11.7	133	12.6	8.5	0.8

Employment change by occupation

- Employment for *managers and senior officials* in *England* is projected to increase at 1.3% per annum from 3.8 million (15% of total employment) in 2002 to 4.34 million (nearly 17% of total employment) in 2012.
- The shares of total employment in this SOC Major Group range from less than 12% in 2002 in the North East local LSC areas to around 18% in London Central, London East, London West, Surrey and Berkshire. A clear regional pattern is evident with shares of total employment in this SOC Major Group tending to be greatest in southern and eastern England.
- All local LSC areas are projected to experience an increase in employment in this SOC Major Group. Local LSC areas in London and south eastern England display the fastest rates of employment increase. Large urban centres in other parts of England – such as Greater Merseyside, Tyne and Wear, Greater Manchester, Birmingham and Solihull and the Black Country record the slowest projected rates of increase.

Table 15.15: Total Employment, Professional Occupations, by LLSC Area, 2002-2012

	2002		2012		2002-2012	
		Occupation		Occupation	Change	
Professional occupations	000s	share %	000s	share %	%	%pa
England	2804	11.3	3410	13.1	21.6	2.0
London North	51	13.9	67	17.5	31.1	2.7
London West	101	12.8	132	15.6	30.3	2.7
London Central	240	14.5	307	17.3	28.0	2.5
London East	155	14.1	197	17.1	27.2	2.4
London South	78	13.5	105	17.0	34.2	3.0
Milton Keynes, Oxon and Bucks	88	11.8	107	13.1	21.2	1.9
Berkshire	62	12.3	75	13.5	21.1	1.9
Hampshire and Isle of Wight	105	11.6	124	13.0	18.4	1.7
Surrey	74	12.5	89	13.7	19.8	1.8
Sussex	83	11.5	99	13.0	19.8	1.8
Kent and Medway	72	10.2	87	11.5	20.3	1.9
Norfolk	37	10.2	45	11.8	21.4	2.0
Cambridgeshire	49	12.6	63	14.7	28.5	2.5
Suffolk	31	9.0	38	10.6	24.8	2.2
Luton and Bedfordshire	30	11.5	34	12.9	16.2	1.5
Hertfordshire	69	11.7	87	13.4	27.3	2.4
Essex	70	10.2	85	11.7	21.2	1.9
Devon and Cornwall	77	10.9	92	12.5	20.2	1.9
Somerset	23	10.2	29	11.9	23.6	2.1
Bournemouth, Dorset and Poole	34	10.6	41	12.4	22.6	2.1
West of England	67	11.7	79	13.1	17.3	1.6
Wiltshire	36	10.2	42	11.4	18.3	1.7
Gloucestershire	28	9.7	34	11.2	19.7	1.8
Shropshire	19	9.7	24	10.9	21.1	1.9
Staffordshire	46	10.0	55	11.5	19.0	1.8
Black Country	47	9.3	56	10.9	17.3	1.6
Birmingham and Solihull	70	11.1	80	12.3	18.8	1.3
Herefordshire and Worcestershire	30	8.9	37	10.4	23.3	2.1
Coventry and Warwickshire	42	10.3	51	11.8	19.6	1.8
Derbyshire	46	10.5	58	12.6	25.6	2.3
Nottinghamshire	51	10.7	59	12.0	15.9	1.5
Lincolnshire and Rutland	26	9.1	31	10.5	19.8	1.8
Leicestershire	44	10.0	51	11.4	15.3	1.4
Northamptonshire	31	9.4	37	10.9	21.9	2.0
North Yorkshire	37	9.8	45	11.1	20.9	1.9
West Yorkshire	107	10.4	125	11.7	17.3	1.6
South Yorkshire	53	9.9	62	11.4	16.7	1.6
Humberside	33	8.7	37	9.7	14.3	1.3
Cumbria	20	9.8	23	11.5	18.2	1.7
Lancashire	69	10.8	81	12.2	16.6	1.5
Greater Merseyside	67	11.8	77	13.5	14.9	1.4
Greater Manchester	147	11.7	178	13.9	21.3	2.0
Cheshire and Warrington	55	10.5	67	12.1	21.8	2.0
Northumberland	11	10.1	12	11.5	15.1	1.4
Tyne and Wear	49	9.9	54	10.8	10.3	1.0
County Durham	18	10.2	21	11.8	14.1	1.3
Tees Valley	26	9.6	29	10.9	14.0	1.3

Table 15.15a: Total Employment, Professional Occupations by Region, 2002-2012

	2002		2012		2002-2012	
		Occupation		Occupation	Change	
Professional occupations	000s	share %	000s	share %	%	%pa
England	2804	11.3	3410	13.1	21.6	2.0
London	625	13.9	807	16.9	29.2	2.6
South East	484	11.6	581	12.9	20.0	1.8
East of England	284	10.9	352	12.6	23.8	2.2
South West	265	10.7	317	12.3	19.7	1.8
West Midlands	256	10.0	302	11.4	18.0	1.7
East Midlands	198	10.1	237	11.6	19.5	1.8
Yorkshire and the Humber	230	9.9	269	11.2	17.3	1.6
North West	358	11.2	427	13.0	19.1	1.8
North East	104	9.9	116	11.0	12.4	1.2

- Employment in *professional occupations* in *England* is projected to increase at 2% per annum from 2.8 million (11% of total employment) in 2002 to 3.4 million (nearly 13% of total employment) in 2012.
- The shares of total employment in this SOC Major Group in 2002 range from around 9% in parts of the midlands and in more rural areas (such as Humberside, Herefordshire and Worcestershire and Suffolk) to over 14% in London. The five London local LSC areas head the rankings on the share of total employment accounted for by this SOC Major Group, followed by Cambridgeshire, Surrey, Berkshire, Milton Keynes, Oxfordshire and Buckinghamshire, Greater Merseyside and Greater Manchester.
- All local LSC areas are projected to experience an increase in employment in this SOC Major Group. As in the case of managers and senior officials, local LSC areas in London and south eastern England display the fastest projected rates of employment increase – indicating a general widening of the 'gap' in the uneven regional and local distribution of high level occupations. Large urban areas in the midlands and northern England (such as Tyne and Wear, Tees Valley and Birmingham and Solihull) display amongst the slowest projected rates of increase.

Table 15.16: Total Employment, Associate Professional and Technical Occupations, by LLSC Area, 2002-2012

	2002		2012		2002-2012	
		Occupation		Occupation	Change	
Associate Professional and Technical	000s	share %	000s	share %	%	%pa
England	3525	14.2	4218	16.2	19.7	1.8
London North	64	17.4	81	21.0	26.4	2.4
London West	144	18.2	186	21.9	28.9	2.6
London Central	330	19.9	424	23.9	28.5	2.5
London East	201	18.2	254	22.0	26.4	2.4
London South	104	18.1	133	21.7	28.1	2.5
Milton Keynes, Oxon and Bucks	109	14.6	133	16.4	21.8	2.0
Berkshire	76	14.9	93	16.6	22.5	2.1
Hampshire and Isle of Wight	132	14.6	154	16.1	16.6	1.5
Surrey	93	15.6	112	17.2	20.3	1.9
Sussex	108	15.1	126	16.5	16.4	1.5
Kent and Medway	100	14.1	117	15.6	17.3	1.6
Norfolk	49	13.5	57	15.0	16.6	1.5
Cambridgeshire	56	14.4	70	16.5	26.7	2.4
Suffolk	44	12.9	53	14.9	21.5	2.0
Luton and Bedfordshire	34	13.4	41	15.4	19.0	1.8
Hertfordshire	82	13.9	102	15.7	25.0	2.3
Essex	92	13.4	113	15.6	23.3	2.1
Devon and Cornwall	92	13.0	103	13.9	12.1	1.1
Somerset	28	12.2	33	13.7	17.7	1.6
Bournemouth, Dorset and Poole	41	12.7	48	14.2	16.5	1.5
West of England	77	13.3	88	14.6	14.8	1.4
Wiltshire	45	12.8	52	14.1	17.1	1.6
Gloucestershire	35	12.0	41	13.6	16.9	1.6
Shropshire	25	12.6	31	14.5	23.7	2.1
Staffordshire	56	12.1	68	14.0	21.0	1.9
Black Country	61	12.0	71	14.0	17.5	1.6
Birmingham and Solihull	87	13.8	101	15.5	15.6	1.5
Herefordshire and Worcestershire	40	11.8	50	13.9	24.3	2.2
Coventry and Warwickshire	50	12.2	60	14.1	20.4	1.9
Derbyshire	52	11.8	62	13.5	19.2	1.8
Nottinghamshire	62	12.9	70	14.2	13.7	1.3
Lincolnshire and Rutland	33	11.5	38	12.8	14.5	1.4
Leicestershire	52	11.9	59	13.3	13.5	1.3
Northamptonshire	38	11.6	44	12.9	17.2	1.6
North Yorkshire	45	11.8	52	12.8	15.9	1.5
West Yorkshire	129	12.7	146	13.6	12.6	1.2
South Yorkshire	65	12.1	73	13.3	11.3	1.1
Humberside	43	11.5	48	12.5	11.8	1.1
Cumbria	25	12.1	28	13.9	15.3	1.4
Lancashire	85	13.2	99	14.9	15.8	1.5
Greater Merseyside	81	14.2	90	15.8	11.6	1.1
Greater Manchester	168	13.4	193	15.0	15.2	1.4
Cheshire and Warrington	65	12.4	77	13.9	19.4	1.8
Northumberland	13	12.7	15	14.1	12.4	1.2
Tyne and Wear	63	12.8	69	13.8	9.3	0.9
County Durham	21	11.6	23	13.2	12.1	1.1
Tees Valley	33	12.4	37	13.8	11.8	1.1

Table 15.16a: Total Employment, Associate Professional and Technical Occupations by Region, 2002-2012

	2002		2012		2002-2012	
		Occupation		Occupation	Change	
Associate Professional and Technical	**000s**	**share %**	**000s**	**share %**	**%**	**%pa**
England	3525	14.2	4218	16.2	19.7	1.8
London	842	18.8	1077	22.5	27.9	2.5
South East	618	14.8	734	16.4	18.9	1.7
East of England	356	13.6	436	15.6	22.7	2.1
South West	317	12.8	365	14.1	15.1	1.4
West Midlands	320	12.5	381	14.4	19.4	1.8
East Midlands	237	12.0	274	13.4	15.6	1.5
Yorkshire and the Humber	282	12.2	318	13.2	12.7	1.2
North West	423	13.3	488	14.9	15.3	1.4
North East	131	12.5	145	13.7	10.7	1.0

- Employment for *associate professional and technical occupations* in *England* is projected to increase at 1.8% per annum from 3.53 million (14% of total employment) in 2002 to 4.22 million (16% of total employment) in 2012.
- The shares of total employment in this SOC Major Group in 2002 range from less than 12% in 2002 in parts of the East and West Midlands (such as Lincolnshire and Rutland, Northamptonshire, Coventry and Warwickshire, Derbyshire, and Herefordshire and Worcestershire) to at least 17% in the London local LSC areas. Hence, there are key similarities here with the local and regional distribution of employment in professional occupations.
- All local LSC areas are projected to experience an increase in employment in this SOC Major Group. Local LSC areas in London, along with Cambridgeshire and Hertfordshire, display the fastest projected rates of employment increase. As in the case of professional occupations, large urban centres in other parts of England – such as Greater Merseyside, Tyne and Wear, the Tees Valley and South Yorkshire, and more peripheral areas such as Devon and Cornwall and Humberside, record the slowest projected growth rates.

Table 15.17: Total Employment, Administrative, Clerical and Secretarial Occupations, by LLSC Area, 2002-2012

	2002		2012		2002-2012	
		Occupation		Occupation	Change	
Administrative and Secretarial	000s	share %	000s	share %	%	%pa
England	3269	13.2	2872	11.0	-12.2	-1.3
London North	44	11.9	31	8.0	-29.9	-3.5
London West	100	12.6	79	9.3	-20.8	-2.3
London Central	226	13.6	169	9.5	-25.2	-2.9
London East	186	16.9	144	12.5	-22.5	-2.5
London South	74	12.9	54	8.8	-27.2	-3.1
Milton Keynes, Oxon and Bucks	102	13.6	87	10.7	-14.0	-1.5
Berkshire	69	13.6	61	11.0	-10.6	-1.1
Hampshire and Isle of Wight	126	13.9	100	10.5	-20.9	-2.3
Surrey	81	13.7	73	11.2	-10.0	-1.0
Sussex	109	15.2	88	11.5	-19.6	-2.2
Kent and Medway	95	13.4	77	10.2	-19.2	-2.1
Norfolk	45	12.4	38	10.1	-14.8	-1.6
Cambridgeshire	52	13.6	46	10.7	-12.9	-1.4
Suffolk	46	13.4	37	10.4	-17.8	-1.9
Luton and Bedfordshire	31	12.0	27	10.0	-13.5	-1.4
Hertfordshire	75	12.8	71	10.9	-5.6	-0.6
Essex	94	13.7	79	10.9	-16.4	-1.8
Devon and Cornwall	79	11.3	68	9.2	-13.9	-1.5
Somerset	26	11.4	23	9.5	-12.6	-1.3
Bournemouth, Dorset and Poole	43	13.4	35	10.6	-17.2	-1.9
West of England	75	13.1	65	10.8	-13.5	-1.4
Wiltshire	46	13.3	41	11.2	-10.6	-1.1
Gloucestershire	37	12.9	31	10.2	-17.5	-1.9
Shropshire	27	13.2	26	12.1	-1.0	-0.1
Staffordshire	55	12.0	54	11.1	-3.0	-0.3
Black Country	61	12.1	58	11.3	-6.0	-0.6
Birmingham and Solihull	89	14.1	87	13.4	-2.8	-0.3
Herefordshire and Worcestershire	42	12.4	38	10.7	-8.3	-0.9
Coventry and Warwickshire	54	13.1	53	12.4	-1.1	-0.1
Derbyshire	52	11.9	47	10.2	-10.5	-1.1
Nottinghamshire	58	12.2	53	10.7	-9.5	-1.0
Lincolnshire and Rutland	33	11.3	30	9.9	-8.9	-0.9
Leicestershire	54	12.4	51	11.4	-7.1	-0.7
Northamptonshire	41	12.6	39	11.5	-3.7	-0.4
North Yorkshire	47	12.5	47	11.6	-0.9	-0.1
West Yorkshire	132	12.9	135	12.6	2.6	0.3
South Yorkshire	69	12.7	66	12.0	-4.5	-0.5
Humberside	44	11.8	43	11.2	-2.5	-0.3
Cumbria	23	11.3	21	10.4	-7.4	-0.8
Lancashire	82	12.8	78	11.8	-5.4	-0.5
Greater Merseyside	79	13.8	70	12.3	-10.6	-1.1
Greater Manchester	168	13.4	162	12.6	-3.7	-0.4
Cheshire and Warrington	69	13.1	72	12.9	4.5	0.4
Northumberland	12	11.1	11	10.2	-6.9	-0.7
Tyne and Wear	66	13.4	62	12.3	-7.0	-0.7
County Durham	19	10.6	17	9.7	-9.1	-0.9
Tees Valley	32	11.7	28	10.5	-10.1	-1.1

Table 15.17a: Total Employment, Administrative, Clerical and Secretarial Occupations by Region, 2002-2012

	2002		2012		2002-2012	
		Occupation		Occupation	Change	
Administrative and Secretarial	**000s**	**share %**	**000s**	**share %**	**%**	**%pa**
England	3269	13.2	2872	11.0	-12.2	-1.3
London	629	14.0	477	10.0	-24.3	-2.7
South East	582	13.9	486	10.8	-16.4	-1.8
East of England	342	13.1	297	10.6	-13.2	-1.4
South West	307	12.4	264	10.2	-14.1	-1.5
West Midlands	328	12.9	316	11.9	-3.7	-0.4
East Midlands	239	12.1	219	10.8	-8.1	-0.8
Yorkshire and the Humber	292	12.6	291	12.1	-0.4	0.0
North West	421	13.2	403	12.3	-4.2	-0.4
North East	128	12.3	118	11.2	-8.1	-0.8

- Employment in *administrative, clerical and secretarial occupations* in *England* is projected to decrease at 1.3% per annum from 3.23 million (13% of total employment) in 2002 to 2.87 million (11% of total employment) in 2012.
- London East records the highest share of total employment (17%) in this SOC Major Group in 2002, with Sussex, Birmingham and Solihull, Hampshire and the Isle of Wight, Greater Merseyside and Essex occupying the next positions in the rankings on this indicator. 'Rural' and 'peripheral' areas – including County Durham, Northumberland, Cumbria, Devon and Cornwall, Lincolnshire and Rutland and Somerset - record the smallest shares of total employment in this SOC Major Group (about 11%).
- A clear regional dimension is evident in the pattern of projected employment change, with local LSC areas in London, the South East, the East of England and the South West displaying the fastest rates of employment decline. By contrast, Cheshire and Warrington and West Yorkshire display projected gains in employment and northern and midlands local LSC areas more generally tend to display the slowest rates of projected employment decline. This is indicative of a decentralisation of such employment towards lower cost locations.

Table 15.18: Total Employment, Skilled Trades Occupations, by LLSC Area, 2002-2012

Skilled Trades Occupations	2002 000s	2002 Occupation share %	2012 000s	2012 Occupation share %	2002-2012 Change %	2002-2012 Change %pa
England	2799	11.3	2372	9.1	-15.3	-1.6
London North	37	10.1	30	7.9	-18.5	-2.0
London West	79	9.9	62	7.3	-21.4	-2.4
London Central	120	7.3	97	5.4	-19.7	-2.2
London East	92	8.4	73	6.3	-21.1	-2.3
London South	57	10.0	48	7.8	-16.3	-1.8
Milton Keynes, Oxon and Bucks	80	10.7	73	8.9	-9.3	-1.0
Berkshire	54	10.7	48	8.7	-10.4	-1.1
Hampshire and Isle of Wight	99	10.9	91	9.5	-8.6	-0.9
Surrey	58	9.8	53	8.2	-8.2	-0.8
Sussex	68	9.5	64	8.4	-6.6	-0.7
Kent and Medway	80	11.3	75	10.0	-6.5	-0.7
Norfolk	44	12.3	39	10.4	-11.7	-1.2
Cambridgeshire	41	10.7	37	8.7	-10.4	-1.1
Suffolk	40	11.9	37	10.2	-9.5	-1.0
Luton and Bedfordshire	32	12.4	27	10.1	-15.6	-1.7
Hertfordshire	72	12.3	64	9.8	-11.3	-1.2
Essex	79	11.6	71	9.8	-10.5	-1.1
Devon and Cornwall	90	12.7	82	11.0	-9.3	-1.0
Somerset	28	12.4	25	10.3	-11.9	-1.3
Bournemouth, Dorset and Poole	39	12.2	36	10.8	-6.7	-0.7
West of England	72	12.4	67	11.1	-6.5	-0.7
Wiltshire	45	12.8	40	10.9	-10.1	-1.1
Gloucestershire	41	14.0	37	12.4	-8.1	-0.8
Shropshire	26	12.6	21	9.8	-15.9	-1.7
Staffordshire	63	13.6	51	10.6	-18.4	-2.0
Black Country	74	14.5	57	11.1	-22.8	-2.6
Birmingham and Solihull	74	11.6	56	8.7	-23.3	-2.6
Herefordshire and Worcestershire	44	13.1	38	10.6	-14.9	-1.6
Coventry and Warwickshire	54	13.2	43	10.0	-20.6	-2.3
Derbyshire	56	12.6	44	9.5	-21.2	-2.4
Nottinghamshire	53	11.0	43	8.6	-18.8	-2.1
Lincolnshire and Rutland	38	13.2	31	10.5	-18.0	-2.0
Leicestershire	54	12.3	42	9.5	-22.0	-2.5
Northamptonshire	39	11.9	31	9.1	-19.2	-2.1
North Yorkshire	45	11.8	39	9.7	-11.7	-1.2
West Yorkshire	119	11.7	97	9.1	-18.5	-2.0
South Yorkshire	68	12.7	52	9.6	-23.4	-2.6
Humberside	47	12.6	38	10.0	-18.8	-2.1
Cumbria	26	12.7	20	10.0	-20.4	-2.3
Lancashire	79	12.3	66	9.9	-16.9	-1.8
Greater Merseyside	56	9.8	46	8.0	-18.3	-2.0
Greater Manchester	140	11.1	114	8.8	-18.4	-2.0
Cheshire and Warrington	66	12.6	55	9.9	-16.9	-1.8
Northumberland	14	13.0	12	11.1	-13.0	-1.4
Tyne and Wear	58	11.8	49	9.7	-16.1	-1.7
County Durham	26	14.4	22	12.1	-16.4	-1.8
Tees Valley	34	12.7	28	10.5	-16.7	-1.8

Table 15.18a: Total Employment, Skilled Trades Occupations by Region, 2002-2012

Skilled Trades Occupations	2002 000s	2002 Occupation share %	2012 000s	2012 Occupation share %	2002-2012 Change %	2002-2012 Change %pa
England	2799	11.3	2372	9.1	-15.3	-1.6
London	386	8.6	309	6.5	-19.8	-2.2
South East	440	10.5	404	9.0	-8.2	-0.9
East of England	310	11.8	275	9.8	-11.2	-1.2
South West	314	12.7	287	11.1	-8.5	-0.9
West Midlands	334	13.1	267	10.1	-20.1	-2.2
East Midlands	239	12.1	191	9.4	-20.0	-2.2
Yorkshire and the Humber	279	12.1	227	9.4	-18.7	-2.0
North West	366	11.5	301	9.2	-17.9	-2.0
North East	132	12.6	110	10.5	-16.0	-1.7

- Employment in *skilled trades occupations* in *England* is projected to decline at 1.6% per annum from 2.8 million (11% of total employment) in 2002 to 2.37 million (9% of total employment) in 2012.
- The shares of total employment in this SOC Major Group range from 10% or less in 2002 in the London local LSC areas and in Surrey, Sussex and Greater Merseyside to around 14% in County Durham, Coventry and Warwickshire, Gloucestershire, the Black Country and Staffordshire.
- All local LSC areas are projected to experience a reduction in employment in this SOC Major Group. The Black Country, Birmingham and Solihull, South Yorkshire, Leicestershire, London West and London East display the fastest rates of employment decrease. Local LSC areas in southern England outside London (such as the West of England, Kent and Medway, Sussex, Bournemouth Dorset and Poole and Gloucestershire) exhibit some of the slowest rates of job loss.

Table 15.19: Total Employment, Personal Service Occupations, by LLSC Area, 2002-2012

	2002		2012		2002-2012	
		Occupation		Occupation	Change	
Personal Service Occupations	000s	share %	000s	share %	%	%pa
England	1815	7.3	2468	9.5	36.0	3.1
London North	24	6.6	28	7.2	13.4	1.3
London West	48	6.1	64	7.5	33.3	2.9
London Central	99	6.0	133	7.5	34.3	3.0
London East	57	5.2	69	6.0	21.4	2.0
London South	37	6.5	43	7.0	16.0	1.5
Milton Keynes, Oxon and Bucks	49	6.6	71	8.7	43.7	3.7
Berkshire	32	6.3	47	8.4	48.5	4.0
Hampshire and Isle of Wight	65	7.2	90	9.5	38.9	3.3
Surrey	41	7.0	57	8.8	38.0	3.3
Sussex	57	7.9	78	10.3	38.0	3.3
Kent and Medway	53	7.5	73	9.7	37.1	3.2
Norfolk	27	7.6	39	10.3	41.4	3.5
Cambridgeshire	27	6.9	38	9.0	44.2	3.7
Suffolk	25	7.3	33	9.3	34.4	3.0
Luton and Bedfordshire	17	6.7	23	8.5	31.4	2.8
Hertfordshire	38	6.4	54	8.4	44.2	3.7
Essex	47	6.9	62	8.6	32.7	2.9
Devon and Cornwall	60	8.5	83	11.2	38.5	3.3
Somerset	19	8.3	25	10.4	32.6	2.9
Bournemouth, Dorset and Poole	27	8.4	35	10.5	31.4	2.8
West of England	43	7.4	56	9.3	30.7	2.7
Wiltshire	26	7.4	36	9.6	38.0	3.3
Gloucestershire	21	7.4	28	9.1	28.3	2.5
Shropshire	16	8.0	23	10.7	45.0	3.8
Staffordshire	36	7.7	50	10.4	41.4	3.5
Black Country	36	7.1	52	10.1	43.1	3.6
Birmingham and Solihull	52	8.2	71	11.0	37.2	3.2
Herefordshire and Worcestershire	29	8.5	40	11.2	38.3	3.3
Coventry and Warwickshire	30	7.3	44	10.3	47.6	4.0
Derbyshire	38	8.7	55	11.8	42.6	3.6
Nottinghamshire	43	9.1	61	12.3	39.5	3.4
Lincolnshire and Rutland	25	8.6	36	12.1	44.7	3.8
Leicestershire	33	7.5	48	10.9	46.0	3.9
Northamptonshire	25	7.8	37	10.7	44.2	3.7
North Yorkshire	31	8.2	44	10.9	41.7	3.5
West Yorkshire	78	7.7	108	10.1	38.4	3.3
South Yorkshire	46	8.5	59	10.7	27.5	2.5
Humberside	29	7.9	40	10.3	35.1	3.1
Cumbria	16	7.8	21	10.2	32.5	2.9
Lancashire	49	7.6	68	10.2	38.8	3.3
Greater Merseyside	49	8.6	64	11.2	30.1	2.7
Greater Manchester	96	7.6	127	9.8	32.5	2.9
Cheshire and Warrington	35	6.8	49	8.8	37.1	3.2
Northumberland	9	8.7	12	11.1	28.2	2.5
Tyne and Wear	39	7.8	51	10.2	32.2	2.8
County Durham	13	7.2	16	9.1	26.7	2.3
Tees Valley	21	7.9	27	10.0	25.1	2.4

Table 15.19a: Total Employment, Personal Service Occupations by Region, 2002-2012

	2002		2012		2002-2012	
		Occupation		Occupation	Change	
Personal Service Occupations	000s	share %	000s	share %	%	%pa
England	1815	7.3	2468	9.5	36.0	3.1
London	266	5.9	338	7.1	26.9	2.4
South East	297	7.1	417	9.3	40.1	3.4
East of England	181	6.9	250	8.9	38.2	3.3
South West	195	7.9	262	10.1	34.0	3.0
West Midlands	199	7.8	281	10.6	41.4	3.5
East Midlands	165	8.4	236	11.6	43.1	3.6
Yorkshire and the Humber	185	8.0	251	10.4	35.7	3.1
North West	245	7.7	328	10.0	33.9	3.0
North East	82	7.8	106	10.0	29.1	2.6

- Employment in *personal service occupations* in *England* is projected to increase at 3.1% per annum from 1.82 million (7% of total employment) in 2002 to 2.47 million (nearly 10% of total employment) in 2012.
- The shares of total employment in this SOC Major Group in 2002 are lowest in London and surrounding local LSC areas and are greatest in parts of the midlands, northern England and the far South West (such as Nottinghamshire, Northumberland, Lincolnshire and Rutland, Derbyshire, Greater Merseyside and Devon and Cornwall).
- All local LSC areas are projected to experience an increase in employment in this SOC Major Group. Local LSC areas in London and the North East display some of the slowest rates of employment increase, while Berkshire, Leicestershire, the Black Country, Shropshire, Lincolnshire and Rutland, Cambridgeshire, Northamptonshire and Hertfordshire display the fastest rates of projected employment growth.

Table 15.20: Total Employment, Sales and Customer Service Occupations, by LLSC Area, 2002-2012

Sales and Customer Service Occupations	2002 000s	2002 Occupation share %	2012 000s	2012 Occupation share %	2002-2012 Change %	2002-2012 Change %pa
England	1966	7.9	2313	8.9	17.6	1.6
London North	28	7.7	31	8.1	10.2	1.0
London West	54	6.9	62	7.3	13.4	1.3
London Central	96	5.8	101	5.7	5.0	0.5
London East	66	6.0	74	6.4	12.4	1.2
London South	44	7.7	49	8.0	11.8	1.1
Milton Keynes, Oxon and Bucks	59	8.0	71	8.7	19.0	1.8
Berkshire	38	7.5	47	8.4	23.8	2.2
Hampshire and Isle of Wight	70	7.8	82	8.6	16.4	1.5
Surrey	44	7.5	53	8.2	19.5	1.8
Sussex	55	7.6	64	8.4	16.5	1.5
Kent and Medway	58	8.2	67	8.9	15.2	1.4
Norfolk	29	8.0	32	8.5	10.7	1.0
Cambridgeshire	28	7.2	32	7.5	15.6	1.5
Suffolk	28	8.2	31	8.6	11.9	1.1
Luton and Bedfordshire	18	7.2	21	7.8	13.1	1.2
Hertfordshire	46	7.8	54	8.4	19.6	1.8
Essex	58	8.5	65	8.9	11.5	1.1
Devon and Cornwall	63	8.9	77	10.4	22.9	2.1
Somerset	22	9.8	28	11.6	24.6	2.2
Bournemouth, Dorset and Poole	29	9.0	35	10.3	20.4	1.9
West of England	50	8.6	60	9.9	20.4	1.9
Wiltshire	30	8.6	37	9.9	21.4	2.0
Gloucestershire	25	8.8	31	10.2	20.8	1.9
Shropshire	17	8.3	21	9.9	28.5	2.5
Staffordshire	38	8.1	46	9.5	21.6	2.0
Black Country	40	7.8	46	9.0	15.3	1.4
Birmingham and Solihull	45	7.1	54	8.3	19.7	1.8
Herefordshire and Worcestershire	31	9.1	37	10.4	21.2	1.9
Coventry and Warwickshire	33	7.9	40	9.3	22.9	2.1
Derbyshire	33	7.5	40	8.7	20.3	1.9
Nottinghamshire	40	8.4	47	9.5	17.1	1.6
Lincolnshire and Rutland	26	8.9	32	10.6	23.2	2.1
Leicestershire	33	7.6	40	9.1	21.2	1.9
Northamptonshire	27	8.3	34	9.8	24.0	2.2
North Yorkshire	33	8.6	41	10.1	25.4	2.3
West Yorkshire	86	8.5	108	10.1	24.9	2.2
South Yorkshire	47	8.7	59	10.7	24.5	2.2
Humberside	34	9.2	41	10.7	19.8	1.8
Cumbria	19	9.5	22	10.9	14.8	1.4
Lancashire	54	8.3	63	9.5	17.1	1.6
Greater Merseyside	50	8.9	56	9.9	11.8	1.1
Greater Manchester	102	8.1	117	9.1	14.6	1.4
Cheshire and Warrington	45	8.6	57	10.2	25.6	2.3
Northumberland	9	8.3	10	9.1	10.7	1.0
Tyne and Wear	46	9.3	55	11.0	19.4	1.8
County Durham	14	8.0	17	9.3	15.1	1.4
Tees Valley	25	9.5	30	11.1	18.0	1.7

Table 15.20a: Total Employment, Sales and Customer Service Occupations by Region, 2002-2012

Sales and Customer Service Occupations	2002 000s	2002 Occupation share %	2012 000s	2012 Occupation share %	2002-2012 Change %	2002-2012 Change %pa
England	1966	7.9	2313	8.9	17.6	1.6
London	288	6.4	317	6.6	9.8	0.9
South East	325	7.8	384	8.5	18.0	1.7
East of England	207	7.9	235	8.4	13.9	1.3
South West	219	8.9	267	10.3	21.7	2.0
West Midlands	202	7.9	244	9.2	20.7	1.9
East Midlands	159	8.1	192	9.4	20.7	1.9
Yorkshire and the Humber	200	8.7	249	10.3	24.0	2.2
North West	271	8.5	315	9.6	16.4	1.5
North East	95	9.1	111	10.6	17.6	1.6

- Employment in *sales and customer service occupations* in *England* is projected to increase at 1.6% per annum from 1.97 million (8% of total employment) in 2002 to 2.31 million (9% of total employment) in 2012.
- The shares of total employment in this SOC Major Group in 2002 range from around 6% or less in London, Sussex and Surrey local LSC areas to over 11% in parts of the midlands and northern England (such as the Black Country, Leicestershire, County Durham, Humberside, Northamptonshire and Staffordshire).
- All local LSC areas are projected to experience an increase in employment in this SOC Major Group. Local LSC areas in London, Leicestershire, Greater Merseyside, Lancashire and Greater Manchester display the fastest rates of projected employment decline. Some more rural local LSC areas (such as North Yorkshire and Northumberland) and areas in southern England outside London (notably the Home Counties) display the slowest rates of projected job loss.

Table 15.21: Total Employment, Machine and Transport Operatives, by LLSC Area, 2002-2012

	2002		2012		2002-2012	
		Occupation		Occupation	Change	
Machine and Transport Operatives	000s	share %	000s	share %	%	%pa
England	2053	8.3	1849	7.1	-10.0	-1.0
London North	22	6.0	17	4.5	-21.3	-2.4
London West	47	5.9	37	4.4	-20.6	-2.3
London Central	76	4.6	58	3.3	-23.9	-2.7
London East	54	4.9	42	3.7	-22.0	-2.5
London South	28	4.9	24	3.9	-14.5	-1.5
Milton Keynes, Oxon and Bucks	51	6.9	48	5.9	-5.6	-0.6
Berkshire	33	6.6	32	5.7	-5.0	-0.5
Hampshire and Isle of Wight	57	6.2	54	5.6	-5.0	-0.5
Surrey	36	6.1	35	5.4	-3.7	-0.4
Sussex	42	5.8	39	5.2	-5.0	-0.5
Kent and Medway	49	7.0	47	6.2	-5.4	-0.6
Norfolk	29	8.2	27	7.1	-9.2	-1.0
Cambridgeshire	30	7.7	28	6.6	-5.4	-0.6
Suffolk	30	8.8	28	7.9	-5.3	-0.5
Luton and Bedfordshire	23	8.9	21	7.9	-7.3	-0.8
Hertfordshire	45	7.7	44	6.8	-1.9	-0.2
Essex	54	7.9	52	7.2	-3.1	-0.3
Devon and Cornwall	54	7.7	50	6.8	-8.0	-0.8
Somerset	20	8.7	18	7.4	-10.2	-1.1
Bournemouth, Dorset and Poole	23	7.3	22	6.6	-5.0	-0.5
West of England	46	7.9	42	7.0	-7.7	-0.8
Wiltshire	29	8.2	27	7.4	-5.0	-0.5
Gloucestershire	24	8.3	22	7.5	-6.6	-0.7
Shropshire	22	10.7	20	9.4	-5.4	-0.6
Staffordshire	51	11.0	47	9.8	-7.5	-0.8
Black Country	63	12.5	56	10.9	-11.4	-1.2
Birmingham and Solihull	65	10.3	57	8.8	-12.0	-1.3
Herefordshire and Worcestershire	35	10.4	33	9.3	-4.7	-0.5
Coventry and Warwickshire	42	10.3	39	9.0	-8.3	-0.9
Derbyshire	47	10.7	43	9.3	-8.9	-0.9
Nottinghamshire	46	9.6	41	8.2	-11.4	-1.2
Lincolnshire and Rutland	29	10.2	27	9.1	-7.7	-0.8
Leicestershire	52	11.8	43	9.8	-16.4	-1.8
Northamptonshire	36	11.2	34	9.8	-7.2	-0.7
North Yorkshire	35	9.2	34	8.4	-2.2	-0.2
West Yorkshire	110	10.7	100	9.3	-8.9	-0.9
South Yorkshire	55	10.2	49	9.0	-10.6	-1.1
Humberside	43	11.4	39	10.3	-7.7	-0.8
Cumbria	22	10.6	19	9.2	-12.5	-1.3
Lancashire	64	9.9	54	8.2	-15.0	-1.6
Greater Merseyside	48	8.5	41	7.2	-15.2	-1.6
Greater Manchester	122	9.8	105	8.1	-14.5	-1.6
Cheshire and Warrington	54	10.3	48	8.7	-10.5	-1.1
Northumberland	10	9.8	10	9.4	-2.6	-0.3
Tyne and Wear	49	9.9	46	9.3	-5.2	-0.5
County Durham	22	12.0	19	10.7	-11.8	-1.2
Tees Valley	29	10.7	27	9.8	-7.5	-0.8

Table 15.21a: Total Employment, Machine and Transport Operatives by Region, 2002-2012

	2002		2012		2002-2012	
		Occupation		Occupation	Change	
Machine and Transport Operatives	000s	share %	000s	share %	%	%pa
England	2053	8.3	1849	7.1	-10.0	-1.0
London	227	5.1	179	3.7	-21.4	-2.4
South East	268	6.4	255	5.7	-5.0	-0.5
East of England	211	8.1	201	7.2	-4.8	-0.5
South West	196	7.9	182	7.0	-7.2	-0.7
West Midlands	278	10.9	253	9.6	-9.0	-0.9
East Midlands	211	10.7	188	9.2	-10.8	-1.1
Yorkshire and the Humber	242	10.5	222	9.2	-8.1	-0.8
North West	310	9.7	267	8.1	-13.9	-1.5
North East	109	10.5	102	9.7	-6.9	-0.7

- Employment for *transport and machine operatives* in *England* is projected to decline at an annual average rate of 1% from 2.05 million (just over 8% of total employment) in 2002 to 1.85 million (7% of total employment) in 2012.
- The shares of total employment in this SOC Major Group range from around 6% (or less) in 2002 in the London local LSC areas, Surrey and Sussex to 11-12% in parts of the East Midlands (Leicestershire and Northamptonshire) and West Midlands (the Black Country and Staffordshire), County Durham and Humberside. This is indicative of a broader regional pattern of under-representation of such employment relative to the England average in much of southern and eastern England and over-representation throughout much of the midlands and northern regions.
- All local LSC areas are projected to experience a reduction in employment in this SOC Major Group. Hertfordshire, North Yorkshire, Northumberland, Essex and Coventry and Warwickshire display the slowest projected rates of decrease of 0.2-0.3% per annum. Four out of the five London local LSC areas fill the four bottom places in the rankings, with projected declines of over 2% per annum. Leicestershire, Greater Merseyside, Lancashire and Greater Manchester are other local LSC areas exhibiting amongst the fastest projected rates of job loss.

Table 15.22: Total Employment, Elementary Occupations, by LLSC Area, 2002-2012

	2002		2012		2002-2012	
		Occupation		Occupation	Change	
Elementary Occupations	000s	share %	000s	share %	%	%pa
England	2804	11.3	2253	8.6	-19.7	-2.2
London North	35	9.7	26	6.7	-27.2	-3.1
London West	79	9.9	60	7.1	-23.2	-2.6
London Central	157	9.5	121	6.8	-22.7	-2.5
London East	93	8.4	70	6.1	-24.7	-2.8
London South	53	9.2	40	6.5	-23.8	-2.7
Milton Keynes, Oxon and Bucks	77	10.3	67	8.2	-13.0	-1.4
Berkshire	51	10.1	45	8.1	-11.0	-1.2
Hampshire and Isle of Wight	97	10.7	83	8.7	-14.5	-1.6
Surrey	59	9.9	51	7.8	-13.5	-1.4
Sussex	75	10.4	63	8.3	-15.4	-1.7
Kent and Medway	83	11.7	71	9.4	-14.4	-1.5
Norfolk	44	12.1	36	9.4	-18.3	-2.0
Cambridgeshire	42	10.8	35	8.3	-15.7	-1.7
Suffolk	44	12.8	36	10.2	-16.5	-1.8
Luton and Bedfordshire	30	11.7	25	9.3	-17.2	-1.9
Hertfordshire	62	10.5	54	8.3	-12.0	-1.3
Essex	78	11.4	66	9.1	-15.9	-1.7
Devon and Cornwall	88	12.5	74	9.9	-16.7	-1.8
Somerset	29	12.7	24	10.1	-16.2	-1.7
Bournemouth, Dorset and Poole	37	11.5	31	9.1	-16.8	-1.8
West of England	62	10.8	52	8.6	-16.3	-1.8
Wiltshire	42	11.9	34	9.3	-17.1	-1.9
Gloucestershire	36	12.5	30	10.1	-16.1	-1.7
Shropshire	24	12.0	19	8.8	-21.3	-2.4
Staffordshire	58	12.6	44	9.2	-23.5	-2.6
Black Country	58	11.4	44	8.7	-22.9	-2.6
Birmingham and Solihull	69	10.9	54	8.3	-22.1	-2.5
Herefordshire and Worcestershire	44	12.8	34	9.6	-21.2	-2.4
Coventry and Warwickshire	50	12.1	40	9.3	-19.7	-2.2
Derbyshire	57	12.8	44	9.5	-22.8	-2.5
Nottinghamshire	56	11.7	43	8.6	-23.7	-2.7
Lincolnshire and Rutland	38	13.3	29	9.7	-24.6	-2.8
Leicestershire	53	12.0	41	9.2	-22.5	-2.5
Northamptonshire	39	12.1	31	9.0	-21.6	-2.4
North Yorkshire	55	14.6	45	11.0	-19.0	-2.1
West Yorkshire	121	11.8	97	9.1	-19.8	-2.2
South Yorkshire	67	12.4	50	9.2	-25.0	-2.8
Humberside	51	13.6	39	10.2	-22.7	-2.5
Cumbria	26	12.9	20	9.7	-24.2	-2.7
Lancashire	76	11.8	60	9.1	-21.0	-2.3
Greater Merseyside	64	11.3	48	8.5	-24.8	-2.8
Greater Manchester	141	11.3	111	8.6	-21.6	-2.4
Cheshire and Warrington	64	12.2	52	9.3	-19.1	-2.1
Northumberland	16	15.2	12	11.3	-24.3	-2.8
Tyne and Wear	63	12.8	52	10.3	-18.4	-2.0
County Durham	26	14.5	20	11.3	-22.6	-2.5
Tees Valley	37	13.9	29	10.7	-22.2	-2.5

Table 15.22a: Total Employment, Elementary Occupations by Region, 2002-2012

	2002		2012		2002-2012 Change	
Elementary Occupations	000s	Occupation share %	000s	Occupation share %	%	%pa
England	2804	11.3	2253	8.6	-19.7	-2.2
London	417	9.3	318	6.6	-23.8	-2.7
South East	442	10.6	381	8.5	-13.8	-1.5
East of England	299	11.4	252	9.0	-15.6	-1.7
South West	294	11.9	246	9.5	-16.6	-1.8
West Midlands	302	11.8	236	8.9	-21.9	-2.4
East Midlands	243	12.3	187	9.2	-23.0	-2.6
Yorkshire and the Humber	293	12.7	231	9.6	-21.3	-2.4
North West	372	11.6	291	8.9	-21.8	-2.4
North East	142	13.6	113	10.7	-20.8	-2.3

- Employment in *elementary occupations* in *England* is projected to decline at 2.2% per annum from 2.8 million (11% of total employment) in 2002 to 2.25 million (less than 9% of total employment) in 2012.
- The shares of total employment in this SOC Major Group in 2002 range from less than 10% in the London local LSC areas and Surrey to at least 14% in the local LSC areas in the North East which head the rankings on this indicator.
- All local LSC areas are projected to experience a reduction in employment in this SOC Major Group. Projected rates of decrease range from about 1.3% per annum in Berkshire and Hertfordshire to about 3% per annum in London North, South Yorkshire, Greater Merseyside and London East.

ANNEX A: SOURCES AND METHODS

This annex provides a brief technical description of the methods and data sources used to produce the projections. A more detailed explanation may be found in the separate *Technical Report* (Wilson *et al.* (2003). The results described in the present document form part of a wider programme of work. The *National Report* (Wilson *et al.* 2003a), provides a more general description of this.

A.1 The macroeconomic model: sectoral and regional dimensions

Labour market projections need to be firmly grounded on an understanding of how the economy as a whole is changing. Analysis of changes in employment structure is therefore intimately tied up with a detailed analysis of the development of the economy more generally. This has been operationalised in the form of the multi-sectoral dynamic model of the economy (MDM) developed by Cambridge Econometrics (CE). Details of MDM and its relationship with other model elements are given in the *Technical Report.*[1]

MDM is based on a detailed analysis of economic and other behavioural relationships, statistically estimated via robust econometric methods. The current version is based on a 'bottom up' treatment of regional economic prospects. The model offers a combination of great detail, and a high level of sophistication. The use of a fully specified, formal macroeconomic regional multi-sectoral model provides a number of advantages over more *ad hoc* extrapolation methods. These include enforcement of logical and accounting constraints, and emphasis on making explicit the underlying assumptions built into the projections.

MDM therefore projects future trends using a complex set of behavioural equations. Together these provide an explanation of the various phenomena which have resulted in past patterns of structural change. These relate the derived demand for labour to the prospects for output growth in each sector, and the relative costs of labour and other inputs. The model reflects the various sources of demand for goods and services. It also incorporates the various technical linkages between different sectors, including the impact of technological change on productivity levels as well as the effects of changes in the way activities are classified as a result of the sub-contracting out of many functions.

The sectoral analysis therefore derives directly from the multi-sectoral regional macroeconomic model of the economy as described above. This model is used to generate estimates for output and productivity for the main industrial sectors and projections of total employment by industry, based on the 1992 Standard Industrial Classification (SIC). In all, 67 industries are distinguished, although for presentational purposes these have often been reduced to much more aggregate groups. The estimates and projections of employment produced are consistent with the official ONS estimates.

The latest version of MDM incorporates the system of UK National Accounts consistent with ESA95, the 1995 price base and the input-output table for 1995 estimated from official data. The latest National Accounts and associated data from the ONS have also been incorporated into the model database and equation estimates.

[1] See Wilson *et al* (2003).

A.2 Occupational projections

The methods for projecting occupational employment change are based on extrapolative procedures. The present methodology is based on the use of the SOC 2000 classification. Projections were developed for the 25 Sub-Major Groups. The approach involves two stages. First, projections of the likely changes in industrial employment by region are made using the multi-sectoral dynamic macroeconomic model of the economy. Secondly, projections of the occupational structure of employment within each industry are made using material from the Censuses of Population (basically extrapolations of past trends). These occupational coefficients are then combined with the projected levels of industrial employment to obtain projected levels of employment by occupation. All this is undertaken at a regional level for the 25 Sub-Major Groups.

The occupational employment projections are therefore based on a sub-model, which takes as input the regional/industrial projections produced by the macroeconomic model. It is a 'top-down' approach, the industrial and regional employment projections being disaggregated into the 25 occupational categories for each industry.

A further important element is the use of data from recent Labour Force Surveys (LFS). This information is used to calibrate the occupation model over the recent past and to modify the projections. The LFS data are used to make an estimate of occupation structure in the base year. This is then compared with that emerging from the occupational model. The results of this exercise are used to modify the projected changes in the light of recent and current developments in occupational structure that may not reflect a simple continuation of long-term trends in the 1980s and early 1990s.

The present results only incorporate headline data from the Census of Population for 2001. More detailed information is being made available which will enable a reassessment of trends over the past decade. From previous experience, this can result in quite significant changes to the perception of detailed historical developments and therefore future prospects. Users of the results are cautioned that they should not be seen as precise predictions but rather indicative of general trends and tendencies. This applies with particular force to the more detailed disaggregations.

Margins of error

The employment estimates make use of a wide variety of sources, as described in more detail below. As a consequence, it is not possible to calculate precise margins of error.[2] From an analysis of previous projections it is clear that these margins can be quite large. Industry employment levels are typically projected within ±10% over a 5-10 year horizon. The directions of change are projected correctly in almost 90% of cases. The errors in terms of annual percentage growth rates are usually of the same order of magnitude as the observed changes.

Occupational employment levels are typically projected with ±7% over a 5-10 year horizon. The direction of change is correctly projected in about 80% of all cases. Occupational shares are usually projected within ±2 percentage points. (The typical share is around four percentage points).

Historical revisions to the data account for a very large part of the forecast errors. However, it is important to appreciate that the purpose of the projections is not to make precise forecasts of employment **levels.** Rather, the aim is to provide policy analysts with useful information about the general nature of **changing employment patterns** and their implications for skill requirements.

The results provide a useful benchmark for debate and policy deliberations about underlying employment trends. However, they should not be regarded as more precise than the general statements in the text. Many years of international research have demonstrated that detailed manpower planning is not a practicable proposition. The results presented here should be regarded as indicative of general trends and orders of magnitude, given the assumptions set out below, rather than precise forecasts of what will necessarily happen.[3]

A.3 Development of new databases and procedures

Need for a new database

A new employment database has been developed in order to meet the requirements of the present set of projections. These developments fall into three main categories:

- extended sectoral detail, covering all 2-digit SIC 1992 categories;
- revised geographies covering the LLSC areas;
- revised treatment of occupations, including development of SOC 2000 historical data series and projections for the new sectors and local areas described above.

[2] For further discussion see the *Technical Report* (Wilson *et al.*,2003).

[3] See Wilson and Briscoe (2002) for further discussion.

This had a number of important elements:

- establishing a new historical database of employment and output by detailed sector and LLSC area;
- development of occupational data and relating to the new sectors and geographical areas;
- development of models and procedures to generate consistent projections across these various dimensions;
- development of a new replacement demand (RD) module to generate RD estimates across the various dimensions.

Detailed sectoral estimates

The starting point was existing databases. Historical data on employees in employment for male and female, full-time and part-time and estimates for self-employment, by 49 industries, for all the local authority districts, were available based on information from the ABI. This was expanded using various official data to cover 67 SIC 2-digit categories and all 47 LLSC areas. The results incorporate the latest sectoral employment data from ONS, including the 2001 Annual Business Inquiry.

For economic indicators such as GDP, the total employment estimates by 49 industries for the counties was multiplied by regional productivity to create an estimate of GDP for the area. Other variables were treated in an analogous fashion, using data from CE's counties databank to do the reallocation and create historical data.

Occupation gender and status

Historical data on employment for male and female, full-time and part-time, and estimates for self-employment by 49 industries for all the local authority districts were available from the orginal IER database. These were expanded to provide an occupation dimension within each sector using data from the Census of Population and LFS. These were extended to 67 SIC categories assuming common patterns of occupation, gender and status mix as for the broader sectoral categories.

The revised occupational employment projections are based on data taken from the Census of Population (CoP), supplemented by information from the Labour Force Survey (LFS). Together these were used to generate a series of employment matrices based on 49 industries (SIC92) and the old 22 SOC 1990 Sub-Major Occupational Groups for each of the new RDA areas.

Information from the Census of Population 2001 was used to calibrate the estimates at an aggregate level. More detailed data are expected to become available in due course. Previous experience suggests that the publication of such data usually results in significant revisions to the perception of historical changes, as well as to likely future developments. The present results should be seen in this light. The results should be regarded as providing a benchmark for thinking about changing employment structure. They paint a broad-brush picture of such trends and should be regarded as indicative and not a precise forecast.

Industry by occupation employment matrices were produced for 1981 and 1991 using the latest available information base on similar matrices already developed for the old Standard Planning Regions and using SOC 1990. These were based on estimates from both the CoP for 1991 and Census of Employment (CoE) estimates. Conversion matrices were developed to translate the data on to the new Government Office/ RDA definitions and on to a SOC 2000 basis. The CoP data were enhanced by use of the Labour Force Survey in order to provide more up to date information on ongoing trends by occupation beyond 1991, providing a firm base year estimate for 2002.

These matrices were then used to develop projections of occupational employment in selected future years by applying projected occupational shares in each industry to the sectoral forecasts from the macroeconomic model. Details of the basic procedures are given in the *Technical Report.*[4]

Projections of occupational shares at this level place considerable demands on the data available, and the situation on the ground can be changed rapidly and substantially by technological and other changes. It is important to appreciate the assumptions used, and the range of factors which it is felt are likely to influence immediate future trends, including how these may diverge from previous patterns of change. These issues are discussed in more detail in the main text.

A.4 Replacement demand

Net changes in occupational employment are only one indicator of future demand. Another measure, which is important for assessing education and training provision, is the replacement demand needed to offset outflows due to retirements, occupational mobility etc. Procedures have been developed to produce such estimates linked to the main occupational projections.

The analysis of occupational trends and prospects described above provide predictions of the changes in the number of people employed in particular occupational categories. However, education and training requirements are not simply dependent on which occupations are growing rapidly. Even in those occupations where employment levels are expected to decline substantially, there may be a need to train, simply to maintain the existing stock of skills at the required level. In addition to examining likely **net changes** in the numbers in each occupational category, it is also important, therefore, to assess **replacement demands.** These represent the numbers needed to maintain the existing stock of skills due to losses resulting from retirements and other outflows.

The use of common assumptions across all geographical areas and sectors ensures that the estimates add up. In practice such parameters are likely to vary across these dimensions.

[4]See Wilson *et al.* (2003).

The key components are:

- information on the age and gender structure of occupational employment;
- information on rates of outflows due to
- retirement (and other reasons for leaving the workforce);
- inter-occupational mobility;
- mortality.

Data on age structure are required, since many of the flows, especially retirements and mortality, are age specific. Age structures also vary significantly by occupation.

Retirement rates also vary by gender and by age. The estimates are based on data from the LFS, which show the percentage of those employed one year ago, who have retired from employment either temporarily or permanently. For males the main outflows are associated with retirement per se. For females, in particular, there is a significant outflow for younger age groups associated with family formation.

Another potential outflow is due to mortality. Information on mortality rates is available by age and gender from ONS. While losses due to death are not great for individual age groups up to the age of 65, they can cumulate to produce significant losses over an extended period of time. The rates used are again based on data for the whole of the UK. However, mortality rates are unlikely to vary very much across broad occupational categories.

Potentially, occupational mobility is a more important source of loss for many occupations. Some occupations tend to gain employment as people are promoted from other occupations. For other occupations, losses due to retirement understate the overall replacement demands. Although data on such flows are available from the LFS, for the whole of the UK, they proved insufficiently robust to obtain estimates customised by industry and geographical areas. The replacement demand estimates presented here, therefore exclude both occupational and geographical mobility flows.

A.5 Choice of sectors for analysis and reporting

Industries used in RMDM

The industries used in the CE multisectoral dynamic macroeconomic model (MDM) are as set out in Table A.1. These are based on data available from the ONS, especially data relating to input-output information which is central to MDM. They are classified according to the 1992 Standard Industrial classification (1992 SIC), as shown in the table.

Detailed industries

For the purposes of the present project, the analysis has been extended to cover all 2-digit categories based on the 1992 SIC. These are shown in Table A.2. Including employment in private households and extra territorial organisations expands the total number of categories to 67. However, very few data are available for these last two categories. Also, it is not possible to identify any output data for Sector 6, Uranium Mining. So effectively there are 64 substantive industries for which there are comprehensive data. These are the groupings for which most of the detailed analysis was undertaken. They are referred to as **detailed industries.**

Reporting at national (UK) level (Industries)

SSDA/LSC have adopted 27 industrial categories for the *New Employer Skills Survey* and other purposes. These are shown in Table A.3. This compares with the 22 categories adopted in *Skills In England 2002* (as shown in Table A.4).

The 27-fold categorization has obvious attractions from the point of view of consistency with other things the SSDA and LSC are doing. However, a number of the categories used in Table A.3 (and also in Table A.4) are very small (notably mining and quarrying, wood and paper, manufacturing n.e.s, and electricity, gas and water). These pose problems in terms of obtaining statistically reliable historical and projected employment data, especially when additional breaks are required by gender, employment status and occupation.

For the purpose of reporting of the national projections in the *National* (UK) report, a slightly more aggregated set of categories (as shown in Table A.5) is used. There are 25 categories here, most of which correspond to those in Table A.3. Even so, categories 2 (mining and quarrying and utilities), 4 (textiles and clothing) and 10 (manufacturing nes) remain small. These are referred to as **Industries.**

Reporting at regional level (Regional) Sectors)

At regional level, the categories published by ONS for 'Government Office Regions' are shown in Table A.6. These are even more aggregated than those for the UK, for obvious reasons. This level of categorization does not present any detail for manufacturing industries.

In order to provide some detail within manufacturing, the categories set out in Table A.7 have been developed. These allow for some sub-manufacturing detail, while maintaining the minimum cell sizes required for statistical reliability across the regional dimension.

Note that these are not the same as those based on the groupings used by ONS for the 'Standard Regions'. The latter do not correspond very closely with the aggregations used in Table A.5. In particular, category DL adopted by ONS, cuts across the engineering grouping used there. ONS category DL includes only SIC 1992 sectors 30-33, with mechanical engineering (SIC 1992, 29) included in the remainder of manufacturing. In the present analysis the DL category and the residual 'remainder of D' adopted by ONS, are replaced by two categories based on categories or aggregations of those used in Table A.5. These are 'engineering' (category 8 in Table A.5) and the corresponding residual. These are referred to as **(Regional) Sectors.**

Headline reporting at national (UK) level (Broad Sectors)

For summary/ headline reporting, a 6-fold categorization is used. This is shown in Table A.8. The purpose of the reporting at this level is to give an overview of the main sectoral developments rather than providing sectoral detail (which is presented later in the report).

This was the main 'aggregate' categorization used in previous reports produced for DfES. It therefore allows comparison with earlier projections. It can also be replicated across the constituent countries and regions within the UK for comparability.

Table A.1: Classification of Industries in RMDM

Industries		SIC92	25 industries	27 industries
1.	Agriculture	01,01,05	1	1
2.	Coal etc.	10	2	2
3.	Oil & gas	11,12	2	2
4.	Other mining	13,14	2	2
5.	Food	15.1-15.8	3	3
6.	Drink	15.9	3	3
7.	Tobacco	16	3	3
8.	Textiles	17	4	4
9.	Clothing & leather	18,19	4	4
10.	Wood & wood products	20	5	5 (part)
11.	Paper, printing & publishing	21,22	5	5 (part), 6
12.	Manufactured fuels	23	6	7
13.	Pharmaceuticals	24.4	6	7
14.	Chemicals nes	24 (ex 24.4)	6	7
15.	Rubber & plastics	25	6	7
16.	Non-metallic mineral products	26	6	7
17.	Basic metals	27	7	8
18.	Metal goods	28	7	8
19.	Mechanical engineering	29	8	9
20.	Electronics	30,32	8	9
21.	Electrical engineering	31	8	9
22.	Instruments	33	8	9
23.	Motor vehicles	34	8	10
24.	Aerospace	35.3	9	10
25.	Other transport equipment	35 (ex 35.3)	9	10
26.	Manufacturing nes & recycling	36,37	10	11
27.	Electricity	40.1,40.3	2	12
28.	Gas supply	40.2	2	12
29.	Water supply	41	2	12
30.	Construction	45	11	13
31.	Retailing	52	14	16
32.	Distribution nes	50,51	12, 13	14,15
33.	Hotels & catering	55	15	17
34.	Rail transport	60.1	16	18
35.	Other land transport	60.2,60.3	16	18
36.	Water transport	61	16	18
37.	Air transport	62	16	18
38.	Other transport services	63	16	18
39.	Communications	64	17	19
40.	Banking & finance	65	18	20
41.	Insurance	66	18	20
42.	Professional services	67,73,74.1-74.4	19 (part)	21 (part)
43.	Computing services	72	20	22
44.	Other business services	70,71,74.5-74.8	21 (part)	23 (part)
45.	Public administration & defence	75	22	24
46.	Education	80	23	25
47.	Health & social work	85	24	26
48.	Waste treatment	90	25	27
49.	Other service activities	91-99	25	27
50.	Unallocated			

Table A.2: Detailed Industries (Ind67)

Ind67	Ind67 name[5]	SIC 1992	SAM49 (MDM)	25 industries
1	Agriculture	01	1	1
2	Forestry	02	1	1
3	Fishing	05	1	1
4	Coal mining	10	2	2
5	Oil and gas	11	3	2
6	Uranium mining	12	3	2
7	Metal ores	13	4	2
8	Other mining	14	4	2
9	Food	15.1-15.8	5	3
10	Drink	15.9	6	3
11	Tobacco	16	7	3
12	Textiles	17	8	4
13	Clothing	18	9	4
14	Leather	19	9	4
15	Wood and wood products	20	10	5
16	Paper and paper products	21	11	5
17	Publishing and printing	22	11	5
18	Manufactured fuels	23	12	6
19	Pharmaceuticals	24.4	13	6
20	Chemicals nes	24 (ex 24.4)	14	6
21	Rubber and plastics	25	15	6
22	Non-metallic mineral products	26	16	6
23	Basic metals	27	17	7
24	Metal goods	28	18	7
25	Mechanical engineering	29	19	8
26	Computers and office machinery	30	20	8
27	Electrical engineering	31	21	8
28	TV and radio	32	20	8
29	Instruments	33	22	8
30	Motor vehicles	34	23	9
31	Aerospace	35.3	24	9
32	Other transport equipment	35 (ex 35.3)	25	9
33	Manufacturing nes	36	26	10
34	Recycling	37	26	10
35	Electricity	40.1, 40.3	27	2
36	Gas supply	40.2	28	2
37	Water supply	41	29	2
38	Construction	45	30	11
39	Sale and maintenance of motor vehicles	50	32	12
40	Distribution nes	51	32	13
41	Retailing nes	52	31	14
42	Hotels and catering	55	33	15
43	Rail transport	60.1	34	16
44	Other land transport	60.2, 60.3	35	16
45	Water transport	61	36	16

Table A.2: Detailed Industries (Ind67) (Continued)

Ind67	Ind67 name[5]	SIC 1992	SAM49 (MDM)	25 industries
46	Air transport	62	37	16
47	Other transport services	63	38	16
48	Post and courier services	64.1	39	17
49	Telecommunications	64.2	39	17
50	Banking and finance	65	40	18
51	Insurance	66	41	18
52	Financial support services	67	42	18
53	Real estate	70	44	19
54	Renting of goods	71	44	19
55	Computing services	72	43	20
56	Research and development	73	42	19
57	Professional services nes	74.1-74.4	42	21
58	Other business services	74.5-74.8	44	21
59	Public administration and defence	75	45	22
60	Education	80	46	23
61	Health and social work	85	47	24
62	Waste disposal	90	48	25
63	Membership organisations	91	49	25
64	Culture and sport	92	49	25
65	Other services	93	49	25
66	Private household	95	49	25
67	Extra-territorial organisations	99	49	25

Table A.3: Classification of 27 SSDA *Sector Matrix* Industries[a]

Industries		SIC92	Total Employment in 2002 (000s)
1.	Agriculture	01-02, 05	443
2.	Mining & quarrying	10-14	77
3.	Food, drink & tobacco	15-16	482
4.	Textiles & clothing	17-19	247
5.	Wood, paper,	20-21	192
6.	Printing & publishing	22	389
7.	Chemicals, & non-metallic mineral products	23-26	637
8.	Metals & metal goods	27-28	497
9.	Engineering	29-33	800
10.	Transport equipment	34-35	388
11.	Manufacturing nes & recycling	36-37	234
12.	Electricity, gas and water	40-41	140
13.	Construction	45	1854
14.	Sale & maintenance of motor vehicles	50	664
15.	Wholesale distribution	51	1286
16.	Retailing	52	3052
17.	Hotels & catering	55	1860
18.	Transport	60-63	1261
19.	Communications	64	547
20.	Banking & insurance	65-67	1146
21	Professional services	70, 71, 73	734
22	Computing & related	72	548
23	Other business services	74	3252
24.	Public administration & defence	75	1461
25.	Education	80	2289
26.	Health & social work	85	3038
27.	Miscellaneous services	90-99	1819

Note: a) As also used in the LSC's new *National Employer Skills Survey*

Table A.4: Classification of 22 Sectors as used in *Skills in England 2002*

Industries		SIC92
1.	Agriculture	01-02,05
2.	Mining & quarrying	10-14
3.	Food, drink & clothing	15-16
4.	Textiles & clothing	17-19
5.	Wood, paper, printing & publishing	20-22
6.	Manufactured fuels	23
7.	Chemicals, plastics, etc.	24-25
8.	Non-metallic mineral products	26
9.	Metals & metal goods	27-28
10.	Engineering	29-33
11.	Transport equipment	34-35
12.	Manufacturing nes & recycling	36-37
13.	Electricity, gas and water	40-41
14.	Construction	45
15.	Distribution	50-52
16.	Hotels & catering	55
17.	Transport	60-63
18.	Communications	64
19.	Banking & insurance	65-66
20	Business services	67, 70-74
21.	Public services	75, 80, 85
22.	Miscellaneous services	90-99

Table A.5: General Classification for Presenting Industries in National Reports

Industries		SIC92	MDM Industries	Total Employment 2002 (000s)
1.	Agriculture, etc.	01-02, 05	1	443
2.	Mining & quarrying, utilities	10-14,40-41	2,3,4, 27,28,29	217
3.	Food, drink & tobacco	15-16	5,6,7	482
4.	Textiles & clothing	17-19	8,9	247
5.	Wood, paper, printing & publishing	20-22	10,11	581
6.	Chemicals, & non-metallic mineral products	23-26	12,13,14,15	637
7.	Metals & metal goods	27-28	16,17,18	497
8.	Engineering	29-33	19,20,21,22	800
9.	Transport equipment	34-35	23,24,25	388
10.	Manufacturing nes & recycling	36-37	26	234
11.	Construction	45	30	1854
12.	Sale & maintenance of motor vehicles	50	32 (part)	664
13.	Wholesale distribution nes	51	32 (part)	1286
14.	Retailing	52	31	3052
15.	Hotels & catering	55	33	1860
16.	Transport	60-63	34,35,36,37,38	1261
17.	Communications	64	39	547
18.	Banking & insurance	65-67	40,41	1146
19.	Professional services	70, 71,73	42 (part), 44 (part)	734
20.	Computing & related	72	43	548
21.	Other business services	74	42 (part), 44 (part)	3252
22.	Public administration & defence	75	45	1461
23.	Education	80	46	2289
24.	Health & social work	85	47	3038
25.	Miscellaneous services	90-99	48,49,50	1819

Note: a) Most of these sectors are identical to the 27 categories in Table 4. The exceptions are industries 2 and 5, which are aggregates of 2 such categories.

Table A.6: ONS *Sectors:* Industries for which ONS supply data for the Government Office Regions (employees only)

		SIC 1992		SAM49 (MDM)
1	Agriculture hunting, forestry, fishing	(AB)	01 to 05	1
2	Mining & quarrying	(C)	10-14	2-4
3	Manufacturing	(D)	15-37	5-26
4	Electricity gas & water supply	(E)	40/41	27-29
5	Construction	(F)	45	30
6	Personal household goods	(G)	50 to 52	
7	Hotels & restaurants	(H)	55	33
8	Transport storage & communication	(I)	60 to 64	34-39
9	Financial intermediation	(J)	65 to 67	40,41,42(pt)
10	Real estate renting & business activities	(K)	70 to 74	42(pt),43,44
11	Public admin. & defence; compulsory social security	(L)	75	45
12	Education	(M)	80	46
13	Health & social work	(N)	85	47
14	Other community, social & personal service activities; private households organisations & bodies	(O,P,Q)	90 to 99	48-49

Table A.7: *Regional Sectors*

		SIC 1992		SAM49 (MDM)	Broad Sector Group
1	Agriculture, hunting, forestry, fishing[a]	(AB)	01-05	1	1
2	Mining & quarrying[a]	(C)	10-14	2-4	1
	Manufacturing, of which:[b]	(D)	15-37	5-26	2
3	Food drink & tobacco	(DA)	15-16	5-7	2
4	Engineering	(DL+)	29-33	19-22	2
5	Rest of manufacturing	(rest of D)		8-18,23-26	2
6	Electricity, gas & water[a]	(E)	40/41	27-29	1
7	Construction	(F)	45	30	3
8	Retail, distribution	(G)	50-52	31,32	4
9	Hotels & restaurants	(H)	55	33	4
10	Transport, storage & communication	(I)	60-64	34-39	4
11	Banking & insurance	(J)	65-67	40,41	5
12	Other business activities	(K)	70-74	42,43,44	5
13	Public admin. & defence	(L)	75	45	6
14	Education	(M)	80	46	6
15	Health & social work	(N)	85	47	6
16	Other services	(O,P,Q)	90-99	48-49	5

Note: a) Although these categories are shown here, small sample sizes preclude producing some detailed breaks for these sectors.
b) These categories are modified from those adopted by ONS for regional reporting in order to avoid cutting across the categories used in Table 6.

Table A.8: *Broad Sectors* (and Comparison with Industry Groups used in Previous Projections)

Broad Sector	Old Industry Group[a]	MDM Industries
1. Primary and utilities	1. Agriculture	1
	2. Mining etc.	2,3,4
	9. Utilities	27,28,29
2. Manufacturing	3. Food, drink and tobacco	5,6,7
	4. Textiles and clothing	8,9
	5. Chemicals	12,13,14,15
	6. Metals, and mineral products	16,17
	7. Engineering	18-25
	8. Other manufacturing	10,11,26
3. Construction	10. Construction	30
4. Distribution, transport etc.	11. Distribution, hotels etc.	31,32,33
	12. Transport and communication	34-39
5. Business and other services	13. Banking and business services	40,41,44
	14. Professional services	42,43
	15. Other services	48,49
6. Non-marketed services	16. Health and education services	46,47
	17. Public administration and defence	45

Note: a) As used in Wilson (2001).

A.9: Broad Sectors, Sector Matrix Industries[a] and MDM Industries

Broad Sector	25 / 27 industries[b]	MDM Industries
1. Primary and utilities	1. Agriculture, etc.	1
	2. Mining and quarrying	2,3,4
	Utilities[a]	27,28,29
2. Manufacturing	3. Food, drink and tobacco	5,6,7
	4. Textiles and clothing	8,9
	5. Wood, paper	10 (part)
	Printing & publishing[a]	10 (part), 11
	6. Chemicals, non-metallic min. prods.	12,13,14,15
	7. Metals and metal goods	16,17,18
	8. Engineering	19,20,21,22
	9. Transport equipment	23,24,25
	10. Manufacturing nes and recycling	26
3. Construction	11. Construction	30
4. Distribution, transport etc.	12. Sale & maintenance of motors.	32 (part)
	13. Distribution nes	32 (part)
	14. Retailing	31
	15. Hotels & catering	33
	16. Transport and storage	34,35,36,37,38
	17. Communications	39
5. Business and other services	18. Banking and insurance	40,41
	19. Professional services	42 (part),44 (part)
	20. Computing & related activities	43
	21. Other business services	42 (part),44 (part)
	25. Miscellaneous services	48,49,50
6. Non-marketed services	22. Public administration and defence	45
	23. Education services	46
	24. Health and social work	47

Note: a) For further information on the SSDA Sector Matrix go to www.ssdamatrix.org.uk/

b) Aggregation from 27 to 25 industries:
Mining and Utilities are combined to give industry 2
Wood and paper and printing and publishing are combined to give industry 5.

Table A.10: Relationship between Industry (25) and Detailed Industry (67)

Industry		Detailed Industry		SIC1992
1	Agriculture and associated industries	1	Agriculture	01
		2	Forestry	02
		3	Fishing	05
2	Mining and quarrying, utilities	4	Coal mining	10
		5	Oil and gas	11
		6	Uranium mining	12
		7	Metal ores	13
		8	Other mining	14
		35	Electricity	40.1, 40.3
		36	Gas supply	40.2
		37	Water supply	41
3	Food, drink and tobacco	9	Food	15.1-15.8
		10	Drink	15.9
		11	Tobacco	16
4	Textiles and clothing	12	Textiles	17
		13	Clothing	18
		14	Leather	19
5	Wood, paper, printing and publishing	15	Wood and wood products	20
		16	Paper and paper products	21
		17	Publishing and printing	22
6	Chemicals and non-metallic mineral products	18	Manufactured fuels	23
		19	Pharmaceuticals	24.4
		20	Chemicals nes	24 (ex 24.4)
		21	Rubber and plastics	25
		22	Non-metallic mineral products	26
7	Metals and metal goods	23	Basic metals	27
		24	Metal goods	28
8	Engineering	25	Mechanical engineering	29
		26	Computers and office machinery	30
		27	Electrical engineering	31
		28	TV and radio	32
		29	Instruments	33
9	Transport equipment	30	Motor vehicles	34
		31	Aerospace	35.3
		32	Other transport equipment	35 (ex 35.3)
10	Manufacturing nes and recycling	33	Manufacturing nes	36
		34	Recycling	37
11	Construction	38	Construction	45
12	Sale and maintenance of motor vehicles	39	Distribution relating to motors	50
13	Wholesale distribution	40	Distribution nes	51
14	Retailing	41	Retailing nes	52
15	Hotels and catering	42	Hotels and catering	55

Table A.10: Relationship between Industry (25) and Detailed Industry (67) (Continued)

Industry		Detailed Industry		SIC1992
16	Transport	43	Rail transport	60.1
		44	Other land transport	60.2, 60.3
		45	Water transport	61
		46	Air transport	62
		47	Other transport services	63
17	Communications	48	Post and courier services	64.1
		49	Telecommunications	64.2
18	Banking and insurance	50	Banking and finance	65
		51	Insurance	66
		52	Financial support services	67
19	Professional services	53	Real estate	70
		54	Renting of goods	71
		56	Research and development	73
20	Computing and related activities	55	Computing services	72
21	Other business services	57	Professional services nes	74.1-74.4
		58	Other business services	74.5-74.8
22	Public administration	59	Public administration and defence	75
23	Education	60	Education	80
24	Health	61	Health and social work	85
25	Miscellaneous services	62	Waste disposal	90
		63	Membership organisations	91
		64	Culture and sport	92
		65	Other services	93
		66	Private household	95
		67	Extra-territorial organisations	99

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