Skills in England - Volume 2

2002

Learning+Skills Council

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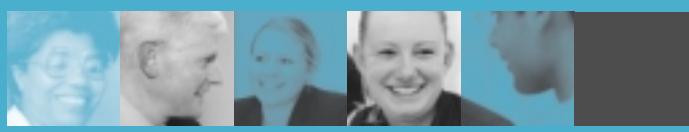
The authors of the report remain solely responsible for the content of the report (including any remaining errors) and the opinions expressed.

Chapter 1: Overview and Summary



Chapter 1

Overview and Summary

There is a growing body of research at sectoral and local levels on skill trends.

1.1 There is a growing body of evidence about skill requirements within sectors and at local level. This document is Volume 2 of the LSC's *Skills in England 2002*. It includes a detailed review of the evidence on changing skill requirements at a sectoral and local level. Volume 2 complements the more general overview of the literature contained in Volume 1. The remainder of the present volume is divided into 6 main chapters. These deal, in turn, with the enormous volume of research carried out by or on behalf of various Sectoral and regional/local organisations. This includes all information currently in the public domain, either in hard copy format or available via the World Wide Web. Despite all this effort, the evidence base remains somewhat patchy, with very good material for some sectors and localities and much less available for others. It is hoped that by comparing and contrasting the kinds of research carried out and the insights gained, the overall quality and standard of future research can be enhanced.

The economy is divided up into 22 broad sectors to organise this material.

1.2 The present review covers the whole economy. For convenience, this has been divided up into 22 broad sectors following discussions with the Sector Skills Development Agency (SSDA). Details are given in Chapter 2 which also describes the range of evidence available at Sectoral level and how it has been organised, collated and summarised.

The review focus is on England including its constituent regions and the areas covered by the local Learning and Skills Councils.

1.3 The geographical focus is on the regions of England and within these the areas covered by the local areas of the Learning and Skills Council. Chapter 5 sets out details of the geographies covered and the ways in which the material reviewed has been organised collated and summarised.

1.4 The Sectoral review draws upon a range of material, including the Skills Foresight Reports and Workforce Development plans produced by National Training Organisations, as well as similar research produced by the new Sector Skills Councils. This includes surveys of employers, skills surveys, workforce surveys and opinion surveys.

1.5 In order to set the Sectoral evidence into context, Chapter 3 presents a series of profiles on each of the 22 broad sectors. These summarise the key economic and labour market characteristics of the sectors including scale and structure of employment.

1.6 The detailed evidence on skill related research carried out by, or on behalf of the various Sectoral bodies, is presented in Chapter 4. This is organised thematically. A number of key issues emerge from the detailed sectoral review:

1) Shifts in occupational employment are likely to continue to boost demand for managerial and professional workers in the medium term in most sectors. An increasing range and depth of skills will be needed by those exercising managerial powers.

2) Shifts in sectoral employment structure have reduced the numbers of jobs requiring few or no skills, and there is some evidence that the minimum skill needs in most occupations have been rising.

3) Multi-skilling is a key requirement, as across many occupations, employers are demanding more flexibility and the ability to carry out tasks beyond the narrow occupational boundaries that may have been traditional.

4) There are a number of skills which appear to be in short supply across the board. These skills are required in order to carry out a wide range of jobs. Four particular types of skill can be distinguished: basic skills; intermediate skills; information & communication technology skills; and management skills.

5) Manufacturing employment is declining overall, but even here the demand for specialist skills is often increasing.

6) Recruitment difficulties are resulting in an ageing workforce in some sectors, and this is exacerbating the problem of meeting replacement demands for those retiring. In many sectors this reflects an 'image' problem, which is often associated with poor pay and working conditions, although a lack of suitably skilled applicants does also play a part.

7) Employers in many sectors, particularly in 'traditional manufacturing', perceive a mismatch between education provision and industry needs, but industry is beginning to sponsor schools to meet the perceived gaps. Nevertheless, most sectoral studies suggest that the great majority of employers still believe that it is the responsibility of the State to improve the basic skills of their staff.

8) Detailed sectoral studies confirm that internal skills gaps often hamper business competitiveness, but many employers fail to recognise that they may have a problem themselves.

9) The detailed sectoral studies confirm that there are important spatial imbalances in skill needs and supplies and that regional differences in general economic performance are still apparent, with London and the South-east facing the most severe skill shortages.

10) Across sectors, larger firms appear to be better at both identifying and addressing skills-related problems, while there are difficulties in addressing the problems small firms have in obtaining access to training. Given that much of the growth in employment over the past decade has been in small and medium-sized enterprises, this is an important finding for policy makers concerned with improving the skillsbase of the economy.

Local and regional bodies have also undertaken and commissioned considerable research on skills issues.

1.7 Local evidence on skill issues is the focus of Chapters 5-7. This includes research conducted by or on behalf of the recently formed local arms of the LSC, their predecessors the TECs, the RDAs and various other bodies which also have an interest in skills. This includes employers surveys, assessments of future skill needs, as well as skills audits. This research has provided a growing body of evidence about skill requirements and related issues at local and regional level. The results reflect the particular situations in each locality, especially sectoral specialisation. Chapter 5 outlines how the material has been collated and organised.

1.8 Analogously to Chapter 3, Chapter 6 provides local and regional profiles for each geographical area, which help to enable the results of this research to be set into context. These profiles include a range of demographic and labour market information, including employment levels and structures and the extent of skill deficiencies as measured by the Employer Skill Surveys.

1.9 Chapter 7 presents a summary of the evidence available at a regional or local level.

1.10 A number of important points emerge from the review of regional and local research:

1) The shift in employment from primary and manufacturing sectors to services sectors is often causing polarisation between those with and without skills.

2) Jobs within manufacturing are changing and often require more flexibility and multi-skilled workers.

3) Services, especially retailing, offer many opportunities for first time jobs, but these require an increasing range of skills.

4) Employers remain unwilling to train their workforce for various reasons (due to small profit margins and therefore small training budgets, the highly cyclical nature of their business, etc.) and believe that the responsibility for providing basic literacy, numeracy and IT skills lies with the State.

5) Training tends to be taken up by and be much more accessible to the advantaged, increasing the problem of polarisation in the workforce.

6) Adapting to the knowledge economy is recognised as crucial in most localities, including some of the already "high tech" areas that feel the need to stay ahead.

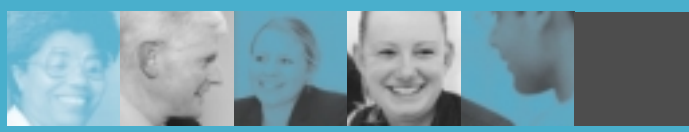
7) Retention of graduates and, in particular, the difficulties faced by peripheral regions is seen as a problem, even though many graduates obtain their education in order to improve their mobility. Many regional bodies fear that they will not be able to retain the benefit of such investments in their own localities.

8) Most employer surveys tend to focus on recruitment difficulties, but employers' ability to retain workers is recognised as a real problem for many industries and is often related to pay and working conditions.

9) In high unemployment areas there is a need to improve the basic skills of the unemployed.

10) Mismatch between skills supply and demand can cause areas to have both high unemployment and a higher than average rate of hard-to-fill and skill-shortage vacancies. The unemployed therefore often require substantial re-training before they can hope to take advantage of the many new job opportunities which are continuing to emerge.

Chapter 2: Sectoral Evidence



Chapter 2

Sectoral Evidence

There is a growing body of research at sectoral level on skill trends.

2.1 There is a growing body of evidence about skill requirements within sectors. This includes the work of various sectoral bodies, including the former National Training Organisations (NTOs). The series of Skills Dialogues organised by DfES, has also provided an important source of information, based on the results of wider analysis and consultations with sector representatives and experts. In preparing the present document, the authors have carried out a comprehensive review of the research carried out by or on behalf of all these organisations currently in the public domain, either in hard copy format or available via the World Wide Web. Despite all this effort, the evidence base remains somewhat patchy, with very good material for some sectors and much less available for others. It is to be hoped that the newly formed Sector Skills Development Agency (SSDA) and the Sector Skills Councils will be able to improve this position.

The economy can be divided up into 22 broad sectors to organise this material.

2.2 The present review covers the whole economy. For convenience, this has been divided up into 22 broad sectors following discussions with the SSDA. The choice of sectors is far from straightforward. Most data are available based on the 1992 Standard Industrial Classification and this is the basis for the choices made in Table 2.1. Nevertheless, many SSCs and NTOs have found the SIC categories less than ideal. Their remit from Government often cuts across a number of SIC categories. The list is dominated by a few "giants". Distribution, business and public services each employ 4-5 million people. In contrast a number are quite tiny (such as mining and quarrying and manufactured fuels).

2.3 The Skills Dialogue programme developed by DfES was designed to cover all major employment sectors. These attempted to group together the 70+ National Training Organisations (NTOs) into manageable groupings (although many participants often emphasised the need for a much finer degree of disaggregation). Reports are now available covering the following sectors:

- Construction and related industries
- Engineering
- Transport
- Land-based industries
- Information and communication technology
- Financial services and accountancy
- Food and drink manufacturing
- Retail and related industries
- Process sectors
- Gas, water and electricity industries
- Media and creative industries.

Various other bodies have been charged with assessing changing skill needs...

2.4 In setting up the NTOs, DfES and its predecessors specified requirements for production of Skills Foresight Reports and Workforce Development Plans (WDPs). These have now been produced for a large number of sectors. The NTO National Council (NTO NC) and more recently the Sector Skills Development Agency (SSDA) were set up to guide this process and to provide a mechanism for communication between individual NTOs and SSCs and the National Government and other agencies.

Table 2.1 Sectors Used to Collate Evidence

No	Sector	SIC 1992	Total employment in England in 2001 ('000)
1	Agriculture and associated industries	01-02, 05	363
2	Mining and quarrying	10-14	46
3	Food, drink and tobacco	15-16	400
4	Textiles and clothing	17-19	228
5	Wood, paper and publishing	20-22	513
6	Manufacured fuels	23	29
7	Chemicals and plastics	24-25	416
8	Non-metallic mineral products	26	127
9	Metals and metal goods	27-28	451
10	Engineering	29-33	707
11	Transport equipment	34-35	350
12	Manufacturing nes & recycling	36-37	218
13	Electricity, gas and water	40-41	89
14	Construction	45	1567
15	Distribution	50-52	4233
16	Hotels & catering	55	1503
17	Transport	60-63	1086
18	Communciations	64	481
19	Banking and insurance	65-66	792
20	Business services	67, 70-74	4201
21	Public services	75, 80, 85	5456
22	Miscellaneous services	90-99	1444

Guidelines have been produced for the preparation of Skills Foresight Reports and WDPs as well as providing a template for the ideal document, including many practical suggestions regarding structure and content (see NTO NC (1999) and (2000)). The SSDA has now produced guidance on undertaking market assessments.

including the development of Skills Foresight Reports…

2.5 The Skills Foresight Guide states that Skills Foresight Reports (Skills Foresight Reports) should aim to:

- help employers to identify important trends in skill requirements and training needs;
- assist individuals in making career choices;
- aid the decision making of education and training providers in making decisions about the scale and pattern of provision; and
- facilitate the NTO's ability to influence Government and other stakeholders.

2.6 The Skills Foresight Guide goes on to describe in some detail how these aims and objectives might be achieved. It emphasises the need for them to be forward looking. It also describes the key elements to be considered in developing such activity, including an assessment of the relative merits of quantitative and qualitative methods, the use of different approaches to collecting, analysing and storing data. These issues are discussed in more detail below, in the context of how other NTOs have gone about this task.

and Work Force Development Plans (SWDPs) for their sectors.

2.7 The NTO NC's Common Framework for Sector Workforce Development Plans, states that a Sector Workforce Development Plan (SWDP) should be: "a strategic document developing a sector's labour market, workforce and skills development needs. Created with and owned by employers and stakeholders, a SWDP proposes the nature and scale of change necessary to achieve greater success for individuals and employers, and enhanced sectoral competitiveness." (NTO NC (2000) p.9).

2.8 The same document sets out in some detail the context, aims, content and processes involved in producing a SWDP. Again these details are considered further below, in the context of how NTOs have actually attempted to meet these aims.

Trailblazer' SSCs and NTOs are all conducting research into skills issues.

2.9 Currently there are 5 'trailblazer' SSCs (and a number of SSCs in development). In addition many of the former NTOs set up to be responsible for representing the training needs of employers in other sectors of the economy are still continuing their work. In a few cases their remit has been nation wide rather than sector specific. These bodies vary in size and scope enormously. Many have developed from other organisations, with a long history of involvement in training and related issues. Others are relatively new. These differences in size, age and scope have clearly had a strong influence on how they have approached their assigned tasks and on the form and content of their Skills Foresight Reports and SWDPs.

2.10 Although DfES and the NTO NC attempted to specify a clear distinction between the Sector Foresight Reports and WDPs, it is clear that in practice there is considerable overlap between what is included in the two types of document. The balance of material varies from one NTO to another. The following discussion sets out the typical content.

Skills Foresight Reports

The nature of Skills Foresight Reports are all focused on future changes in skill needs.

2.11 Skills Foresight Reports (SFRs) are intended to provide assistance to the sector in thinking about possible future change and how this will impact on skills. How far this is taken, in terms of drawing out implications for education and training and other possible intervention, varies considerably from one report to another.

They are complemented by the WDPs.

2.12 The Skills Foresight Reports are regarded as a key input into the Sector Workforce Development Plans (WDPs) which the NTOs were also charged with producing. The typical content of the SFR includes the following elements.

Various approaches have been adopted, including desktop research and various new surveys.

2.13 A variety of methodological approaches have been employed to develop the material. These differ depending upon the characteristics and experience of the NTO. In many cases, external consultants were employed to undertake significant components of this work. The main components usually comprise: **Desktop research**. This is typically aimed at providing an overview of the sector, including a quantitative picture of the sector and the challenges it faces. It is usually based on existing data, often taken from well established national sources such as the Labour Force Survey (LFS).

2.14 **New Surveys**. Most reports include material from new surveys, commissioned specifically to provide information not usually available from the existing national sources. These surveys are generally aimed at employers and seek to establish information on the current situation. In some case they also include questions about the future. The main emphasis tends to be on identifying skill shortages or skill gaps.

These include surveys of employers, skills surveys, workforce surveys and opinion surveys.

2.15 A number of different types of survey have been used:

- **Employer survey:** typically, a fairly straightforward survey aimed at providing basic data on employment levels and patterns as well as the patterns and scale of any skill deficiencies.
- **Skills survey:** here the emphasis is more on the nature of skill deficiencies, including the needs for specific types of key, technical and generic skills.
- **Workforce survey:** in some cases it has also been felt important to address the supply side and to survey the workforce rather than employers.
- **Qualitative/opinion surveys:** in a few cases survey methods have also been used to obtain more qualitative data about trends the current position and future possibilities. More frequently such information has been obtained in other ways.

Foresight panels have also been set up by some NTOs.

2.16 **Foresight Panels.** In a number of cases NTOs established a series of forums or panels for discussing and assessing information on the current situation and possible future problems.

2.17 **Forecasting Models.** In a small number of cases, formal quantitative models have been developed for assessing future prospects. These tend to be in the large NTOs, where there has been a long history of previous research and where there are good data to build such models. This includes the NTOs for the Construction and Engineering industries.

Some have developed or commissioned formal quantitative forecasting models.

2.18 The data collected and analysed can be categorised in various ways, including its source (especially whether from existing national surveys or from customised, sector specific ones). However, the most important taxonomy is by types of indicator, since these highlight the reasons such data are needed.

2.19 The key indicators which most NTOs have attempted to collate are as follows:

- The scale and pattern of employment
- Other labour market indicators such as hours of work, training activity and turnover
- General indicators about the sector and its economic prospects are often also collected

The reports collect a vast range of data on the demand for skills.

2.20 In some (but not all cases) the importance of geography is stressed because of the need to interface with RDAs and LSCs.

Various approaches have been used to assess skill trends.

2.21 A variety of approaches to assessing the demand for and supply of skills have been adopted. In some cases there are explicit attempts to measure these separately and to confront the two. This has certain theoretical advantages. However, most NTOs recognise that, in practice, there are enormous difficulties in doing this and adopt more pragmatic methods. These include trying to measure key supply and demand indicators and also some indicators of the balance between the two (such as skill shortage vacancies or internal skill gaps).

2.22 For many NTOs getting a good handle on labour supply has been extremely difficult, because most potential workers can offer their services to many other sectors as well as that covered by the NTO. Only in a few cases can the supply of certain skills be regarded as specific to a particular sector. Many of the treatments of supply are therefore cursory, focusing on broad national trends rather than attempting to be industry specific.

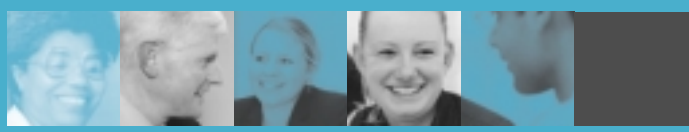
Measuring labour supply has been extremely difficult.

Workforce Development Plans

Sector Workforce Development Plans have been specifically designed to aid RDAs and local LSCs.

2.23 The DfES also required that NTOs produce a Sector Workforce Development Plan (SWDP). This was intended to articulate the key findings from the Skills Foresight process and to establish priorities and action points for the NTO and other key players. In particular, the aim was to supply the new Regional Development Agencies and the Learning and Skills Council (at national and local level) with pertinent information about the sector's skill needs, which they can build into their own plans. In many cases there has been considerable overlap with the Skills Foresight Reports produced, although for each individual NTO the aim was to produce a complementary document.

Chapter 3: Sectoral Profiles



Chapter 3

Sectoral Profiles

Employment is declining in manufacturing and increasing in services.

3.1 Over recent decades, the structure of the UK economy has shifted away from traditional manufacturing and primary industries towards services. This has provided one of the main drivers of evolving skill needs. The vast majority of energy and manufacturing sectors have seen employment decline over the past decade, while the vast majority of services have seen employment grow, particularly business services and personal services. Employment in agriculture has contracted significantly, and employment in utilities (electricity, gas and water) has contracted dramatically. The changing structure of the UK economy is leading to a change in the levels and types of skills demanded, and is reflected in:

- an increase in demand for managers (particularly specialist managers such as IT) and sales staff
- an increase in demand for technical and associate professionals, and professional occupations
- an increase in employment in personal services such as restaurant and bar staff
- a decline in demand for some skilled trades as well as machine operatives within the manufacturing sector
- a decrease in demand for unskilled workers.

Globalisation is a key driver.

3.2 Globalisation and market liberalisation is placing great pressure on companies operating in price-sensitive markets. Companies producing commoditised products face greater pressure to increase productivity and to higher value-added niches. The result is a sharp decline in manufacturing employment, as firms seek to maintain international competitiveness by cutting costs, introducing more efficient methods of statistical process control, entering new markets and boosting productivity. The hardest-hit sectors in terms of employment have been textiles and clothing, which is in long-term decline and has suffered the sharpest fall in employment among manufacturing over the past decade, and in metals and metal goods. On the other hand, globalisation and the associated cross-border mergers, divestments, acquisitions and alliances are a key driver of growth in output and employment in financial & business services.

The use of IT is transforming all economic activities.

3.3 Electronic components, above all the semiconductor chip, are now used in almost all types of machinery from communications satellites to tumble-driers. The principal non-IT markets for electronics are, above all, motor vehicles and aerospace, and process and control equipment throughout industry. Electronics is also increasingly important in medical diagnosis and treatment.

3.4 Online trading and information exchanges are expected to become an increasingly important way in which businesses can cut costs. The internet increases the geographical scope and transparency of a market and is likely to stimulate further, possibly cross-border, consolidation in many industries as firms seek a more global reach.

3.5 Industries in which information can be accessed directly and which can be delivered over the network will see the greatest gains from diffusion of new technologies, such as financial and transport services. Internet banking is enabling radical cost cutting, and is also enabling banks to reduce their branch numbers, and greater price transparency, both of which mean increased product commoditisation and price-based competition.

3.6 E-commerce is likely to have a major impact on Retailing, particularly in the market for books, CDs, DVDs, computers and household appliances. The nature of these products is such that large reductions in margins can be obtained by eliminating shop sites and stock control, and delivering direct from the wholesaler.

3.7 Broadband technology and 3G mobile telephony should stimulate demand for online video-conferencing and downloading of television services, films and videos. The convergence of content, communications and end-user delivery has blurred the distinction between media companies, broadcasters and telecommunications operators, and firms will continue to expand into each other's traditional markets.

1 Agriculture and Associated Industries

Employment has fallen sharply over the past decade…

3.8 Agriculture has faced major difficulties in recent years. There is little sign of an upturn, and in many areas the situation appears to be worsening still. While pig and dairy farmers have suffered the most, it is increasingly clear that all farmers have undergone a dramatic reduction in their incomes. According to figures from Deloitte and Touche, net farm income fell by 90% between 1995 and 2000 (after doubling between 1990 and 1995). Recent diseases such as BSE have had an adverse effect on meat production and exports, and consumption in general, while the outbreaks of swine fever and, more recently, foot-and-mouth have exacerbated the problems already facing the sector. Employment in agriculture fell by 2.6% pa over 1991-2001, and the rate of decline has accelerated over the past couple of years, as many farmers affected by foot-and-mouth have left the industry. While the sector is small relative to many other sectors discussed in this report, and employment is declining, it is still an important component of the UK economy, employing around 480,000 workers, and is closely linked with other growing sectors, notably tourism.

and is expected to continue to decline in the medium term.

3.9 Lantra (2001), even prior to the onset of the 2001 foot and mouth crisis, projected a continuing decline in employment in agriculture over the next few years (around 40,000 between 2001 and 2006), although it is likely that job losses will slow somewhat compared to the recent past. This is not surprising, as globalisation and agricultural reforms are forcing the industry to search for even greater productivity gains, and slow output growth means that

productivity improvements come at the expense of jobs. However an ageing workforce means that replacement demand will be relatively high.

A range of factors are driving changes in demand for skills in agriculture.

3.10 In terms of occupations, over the past few years there has been a decline in demand for semi-skilled and unskilled agricultural workers, but a considerable increase in demand for managers and supervisors (excluding owner-managers, who are declining in number), sales and administration staff and, to a lesser extent, skilled manual workers. This trend is expected to continue. The main drivers of change in skill demand in agriculture are:

- technological developments
- more knowledge-driven methods of working
- increases in productivity
- commercial pressures
- demand for higher quality products
- legislation (environmental and health and safety)
- diversification into non-farming activities.

3.11 The net impact of all of these changes is a significant increase in the average level of qualifications required of agricultural workers, and greater demand for a range of specific craft, practical and technical skills. A high proportion (approximately 40%) of the current workforce is made-up of skilled craft and trade workers, compared to around 10% in the economy as a whole. The use of more sophisticated farming machinery is reducing the proportion of manual skills demanded in these jobs, but at the same time is raising the level of technical skills required to utilise and maintain the equipment, and work within a more complex production environment. Consequently, these workers need a higher level of job-specific skills, combined with specific scientific and environmental skills and knowledge, as agricultural policy is shifting towards more support for stewardship of the environment.

IT is becoming more prominent in the sector.

3.12 IT is becoming prominent in the sector, particularly for managers, supervisors, owner-managers, and secretaries and administrators. IT is increasingly being used by managers for accounting, stock records and for automation of equipment on some larger firms, reflecting the increasing need to build up sophisticated management information systems for the efficient running of businesses. The increasing importance of IT in the sector is reflected in the fact that among the 15% of firms that reported skills gaps, IT was their most pressing need (DfES, 2001a), followed closely by job-specific skills relating to skilled craft and trade workers.

Management and business skills are increasing in importance.

3.13 In addition to technical and IT skills, reports suggest that there is likely to be increased demand within the sector for management and business skills (as a result of increased competition) and a range of generic skills, notably communications, team working and problem solving. Approximately 90% of businesses in agriculture employ between 1 and 5 workers, and some 60% of the workforce are owner-managers (self-employed). The dominance of small

firms requires a multi-skilled, self-reliant, self-managed workforce. Workers must have the ability to work unsupervised and make decisions effectively.

3.14 Over recent years, there has been a trend towards larger farm enterprises, but single person and family farms will continue to dominate the sector in the near future. Owner-managers' business management and marketing skills are becoming increasingly important as more farmers are forced to consider restructuring in the increasingly commercial environment. For example, some farms are attempting to add value to their products by selling directly to the consumer, rather than to supermarkets, thereby increasing the demand for customer service and sales skills.

Diversification is also impacting on the pattern of demand for skills.

3.15 Diversification into non-farming activities by farmers has remained central to the Government's thinking, with the rural economy moving away from mainstream farming to embrace a host of new, mainly service-sector businesses, such as farm-based tourism, retail outlets and other leisure activities. This trend is increasing the need for a range of skills specific to these activities.

Sector 1 Agriculture and Associated Industries

SIC_{92} headings: 01-02, 05 Arable farming, livestock production, horticulture and related services; forestry and provision of recreational facilities and roads by forestry units; and commercial sea and inland fishing.	
Share of GVA (%)	1.4
Employment (thousands)	481
Share of UK (%)	1.7
Male:Female	74:26
Change: 1991-2001 (% pa)	-2.6
Change: 1996-2001 (% pa)	-2.5
Self-Employment (%)	42.0
Employment in England (thousands)	28
Top Three Occupational Groups (% of Total Emp.)	
Skilled Trades Occupations	40.7
Elementary Occupations	24.4
Managers and Senior Officials	12.1
GVA per Worker[1] (£s)	18500
Exports:GVA (%)	11.1
Concentration	very low

Note(s) : Data are 2001 except[1] where data are 2000.

Data relates to UK unless otherwise stated.

Source(s): CE and IER.

2 Mining and Quarrying

3.16 Mining and quarrying includes coal mining, mining of metal ores and oil & gas extraction. The workforce is predominantly male (97%). Employment declined sharply in the early 1990s, but the rate of decline has slowed in recent years. In terms of overall employment and output, the sector is very small, with oil & gas and non-coal (other) mining each accounting for around 40% of total employment, although oil & gas accounts for virtually all of the sector's GVA. Demand for coal has fallen sharply since the electricity industry was privatised in 1990 (over 70% of coal consumption is in electricity generation) as environmental concerns and regulations encourage its substitution by gas or nuclear power. In non-coal (other) mining, production from the sector typically depends on a derived demand from other industries. The construction sector forms the largest customer for aggregates, the agriculture and chemicals sectors have a demand for chemical and fertiliser materials, while metals and minerals are mostly used in steel making and motor vehicles. Much of the available literature on skills needs is in oil & gas.

There is a lack of engineers and technicians.

3.17 OPITO (2000) identified a shortage of engineering and technicians as possibly the greatest skills threat facing the oil & gas industry over the next few years. The industry has lost valuable human capital resources and knowledge through downsizing, it now faces the problems of an ageing workforce and competition for people in an ever-decreasing market place. These problems are compounded by poor public perception of the industry, the gender imbalance and the growing attraction of other sectors such as aerospace, automotive, IT, finance, law and creative media.

It is difficult to align stakeholder interests.

3.18 The range, diversity and sheer numbers of stakeholders involved in the industry creates fragmentation, complexity and vested interests with regard to addressing skills issues across the industry. Initiative fatigue is a further problem. The sheer number of initiatives and associated bureaucracy has created fatigue across the industry with training and development in general, while there are no formal mechanisms or processes for sharing knowledge across the sector.

Recruitment difficulties stem from several factors, including the general image of the industry.

3.19 There are several underlying causes of the industry's recruitment and retention difficulties:

- the unattractiveness of the industry and associated lifestyle among potential new recruits
- a lack of willingness among employers to attract people from outside its traditional labour source
- poorly-defined entry requirements and career paths
- the cyclical structure of the industry: this has also resulted in many experienced skilled professionals leaving the industry, as the cyclical nature of employment failed to offer the necessary opportunities or security. A further casualty of this trend is lack of investment in training and development and low recruitment at times of low oil price.

3.20 One consequence of the drift in human capital away from the industry (and the localities in which it operates) and the lack of new recruits is that many employers in the industry are competing with each other for employees who have already acquired the necessary skills, rather than investing in their own staff (OPITO, 2001). Furthermore, as contracting companies diversify into other domestic markets such as rail, or expand into overseas market, there is a gradual movement of expertise away from oil and gas into these areas, where companies receive a better return for utilisation of their personnel.

Sector 2 Mining and Quarrying

SIC_{92} headings: 10-14	
Deep coal mines and opencast coal working. Over 70% of consumption is by the electricity industry. Exploration for, and extraction of, mineral oil, methane, ethane, propane, butane and condensates; also provision of services incidental to oil and gas extraction (but excluding surveying, classified to Industry 42, Professional Services). Mining of uranium and thorium ores. Mining of metal ores and their preparation; quarrying of stone, sand and clay; production of salt; other mining and quarrying not elsewhere specified.	
Share of GVA (%)	2.2
Employment (thousands)	79
Share of UK (%)	0.3
Male:Female	87:13
Change: 1991-2001 (% pa)	-6.0
Change: 1996-2001 (% pa)	-0.2
Self-Employment (%)	5.1
Employment in England (thousands)	4
Top Three Occupational Groups (% of Total Emp.)	
Skilled Trades Occupations	23.0
Process, Plant and Machine Operatives	19.9
Elementary Occupations	17.7
GVA per Worker[1] (£s)	306400
Exports:GVA (%)	51.4
Concentration	medium

Note(s): Data are 2001 except [1] where data are 2000.
Data relates to UK unless otherwise stated.
Source(s): CE and IER.

3 Food, Drink and Tobacco

The sector is declining in importance.

3.21 Over the past decade the contribution of food, drink and tobacco to overall GVA growth has been steadily declining. The slow demographic growth in the UK and key euro-zone export markets limits the growth in demand, as does the typical low income-elasticity of demand for food products, which account for so much of the sector's output. This does mean, of course, that activity in the food, drink and tobacco sector is much less sensitive to the business cycle than the manufacturing average. In particular, food production remains relatively safe from recession but also is largely unaffected by any recovery period or time of increased consumer spending.

Employment is expected to fall over the next few years.

3.22 As with much of manufacturing, the trend in employment in food, drink and tobacco has been downward over the past thirty years. Nevertheless, between 1996 and 2001, employment in food, drink and tobacco rose by 0.8% pa. However, over the next few years, employment is expected to fall again, with the reduction in demand for workers in all occupational groups. The largest reduction in demand is expected to occur within administrative and secretarial occupations. Within production occupations, demand is expected to fall sharply for unskilled workers, although this should be offset to some degree by an increase in demand for skilled production process operatives (Food and Drink NTO, 2001). As a result, overall demand will continue to be strongest for process and machine operatives, which currently account for around one-quarter of the workforce. It must also be noted that there are some job-specific skills that are likely to remain as much a part of the industry in the near future as they have been in the past. For example, boning meat and filleting fish require knife (craft) skills that are still in strong demand, and technology does not at present offer a more efficient method of undertaking these tasks. The main drivers of change in skill demand in food, drink and tobacco are:

- commercial pressures
- changing patterns of consumer demand
- regulation
- international drivers, such as changes in ownership, strategy or management.

3.23 In those sub-sectors that have a tradition of craft production (bakery, butchery and fish processing), the buying power of supermarkets has squeezed margins, and is resulting in restructuring and consolidation. Investment in new technology to reduce production costs is reducing demand for some of the more traditional manual production and process skills, but is raising the level of machinery operational skills required among production workers (DfES 2001b).

3.24 Although the European market is characterised by vast regional differences in eating habits and tastes, a trend towards a standardisation of consumption patterns is more and more evident. In the EU market as a whole, and particularly in the euro-zone, the trend is very much towards greater concentration, with the largest players tending to dominate. This has been a notable feature of the UK dairy sub-sector, in particular, since deregulation in 1994, and is increasing the level of skills required of managers, and also of production and process operatives, due to the increased investment in large-scale automated production facilities.

3.25 More stringent regulation with regard to health and safety and food quality, requires a greater knowledge of food safety issues among workers in elementary (low-skilled) occupations, who currently make-up around one-fifth of the workforce.

Multi-skilling is a key demand placed on workers.

3.26 Strong demand for multi-skilled workers has been a feature of the sector for many years. For example, skilled production workers have typically been required to possess sales and customer service skills. However, demand for this combination of skills is now less common, as production and retailing are now less vertically integrated, but there is now a strong emphasis that craft workers should develop machinery operation and maintenance skills in addition to their traditional manual skills.

Some key sub-sectors are suffering from skills gaps.

3.27 Internal skills gaps have been identified by many employers within the food, drink and tobacco sector as a constraint on both business expansion and competitiveness. For example, the Dairy Training NTO (2001) identified that skills gaps in the dairy sector are well above the average for manufacturing and for the UK as a whole. Around 37% of employers surveyed identified significant skill gaps compared to a reported 14% among food and drink producers, and 20% for the UK as whole. Skills gaps were recorded as being most acute in management, basic skills (numeracy and literacy), generic skills (e.g. problem-solving), and sales skills. The principal cause of these gaps, according to dairy employers, is a failure among firms to adequately train and develop their workforce.

3.28 The Bakery and Training Council (2001) found that around 30% of bakery employers identified skills gaps in skilled trade occupations and 24% recognised skills gaps among supervisory, management and sales staff. Among the meat sub-sector, skills gaps were greatest in job-specific, butchery-related tasks. Widespread skills gap in IT skills (particularly among management and clerical workers), were identified in the Seafish Training NTO's Workforce Development Plan (2001), while job-specific gaps were recognised among lower-skilled workers.

3.29 The overall picture (DfES, 2001b) is of skills gaps in:

- basic and key skills (eg communication and team working)
- technical and practical skills
- vocational knowledge

- generic management skills
- IT skills among skilled workers
- personal attributes and attitude.

3.30 It is among managerial occupations that skills gaps are giving employers the most cause for concern. While the extent of skills gaps is not perceived to be greater than among other occupational groups, the impact of skills gaps among management is felt to exert the greatest effect on the overall competitiveness of businesses in the sector.

Managerial occupations are the most problematic as far as skills gaps are concerned.

Sector 3 Food, Drink and Tobacco

SIC_{92} headings: 15-16	
Production, processing and preserving of meat, fish, fruit and vegetables; vegetable and animal oils and fats; dairy products; grain milling, cereals and starches; animal feeds; bread, pastry goods, biscuits; sugar, cocoa, confectionery etc; tea, coffee, seasonings and other food products not elsewhere specified.	
Distilling of spirits including ethyl alcohol; manufacture of wine, cider and other fruit wines; manufacture of beer and malt; production of mineral waters and soft drinks.	
Manufacture of tobacco products: cigarettes, cigars, pipe tobacco, snuff.	
Share of GVA (%)	2.4
Employment (thousands)	498
Share of UK (%)	1.7
Male:Female	64:36
Change: 1991-2001 (% pa)	-0.8
Change: 1996-2001 (% pa)	0.8
Self-Employment (%)	2.0
Employment in England (thousands)	67
Top Three Occupational Groups (% of Total Emp.)	
Process, Plant and Machine Operatives	24.8
Elementary Occupations	19.6
Skilled Trades Occupations	15.0
GVA per Worker[1] (£s)	40100
Exports:GVA (%)	22.1
Concentration	medium

Note(s): Data are 2001 except [1] where data are 2000.
Data relates to UK unless otherwise stated.
Source(s): CE and IER.

4 Textiles, Clothing and Leather

The sector is in serious long-term decline…

3.31 Textiles, clothing & leather is in long-term decline in the UK. In spite of this, the sector remains a major source of output and employment in some regions of the UK, particularly the East Midlands, where the industry accounts for around 10% of all manufacturing output and 15% of employment, compared to 4% and 7% for the UK as a whole. Output and employment in the UK have fallen for many decades, and precipitously so over the past two years (by 10.3% in 2001). Although UK sales rose sharply during this time, import penetration has also risen markedly, reflecting the combined effect of trade liberalisation, the weakness of the euro against sterling and a highly price-sensitive domestic market. At the same time export demand has tailed off quite dramatically. Consequently companies are being forced to restructure their businesses, and many are closing.

3.32 Further trade liberalisation is posing a significant threat to this industry. China's accession to membership of the World Trade Organisation in 2001, although anticipated for some time, has further increased cheap imports. The start of 2002 also marked the beginning of the third phase of the WTO Agreement on Textiles and Clothing, in which trade will be further liberalised up to 2005 when all remaining quotas are to be removed. Individual cases of liberalisation make further import surges more likely. For example, the EU announced in October 2001 increased quotas and reduced tariffs for imports of textiles and clothing from Pakistan. This appears to have had an immediate impact. Textile quota exports to the EU in January rose by 42% in value and in 36% in volume. The phasing out of the Multi-Fibre Agreement is also likely to lead to further employment losses as the current trend of outward processing is set to increase with a sizeable share likely to go to countries such as Turkey, Tunisia and Morocco.

and this is leading to a loss of skills.

3.33 The decline of textiles, clothing and leather in the UK has resulted in a loss of technical and managerial skills, and not enough emphasis has been placed on providing younger workers with a well-defined career path to create the next generation of senior technicians and managers (National Textile Training Association, 2001). CAPITB Trust (2001) identified a chronic lack of technical, managerial, operative and supervisory skills across clothing manufacturers. This could hamper some UK firms that are seeking to maintain competitive advantage by re-focusing on low-volume, higher-margin niche products. It is evident that the textiles, clothing and leather sector needs to create a framework that will enable individuals to progress and encompass the wide range of skills and knowledge necessary to lead firms in the sector.

The negative image of the industry is exacerbating recruitment difficulties.

3.34 The reports mentioned above have confirmed that the sector has a significant image problem. Many people still believe that difficult working conditions are typical across the sector. The image of the industry is having a significant effect on the recruitment and selection of people and many young people do not recognise the potential for career development across a range of skills and professions within the sector. Consequently, the demographics of the sector are giving increased cause for concern. The ageing workforce and the lack of recruitment are exacerbating internal skill shortages.

3.35 The decline in employment in the sector is being accompanied by a reduction in training and further education provisions, which used to support technology-based company infrastructure. The need to have further and higher education support for a technological industry is of course clear. A key conclusion to emerge from all the sector body reports was that the industry and the institutions will need to work together to ensure that academic support for the sector is maintained, and to develop the appropriate delivery mechanism that meets the needs of a flexible sector and its workforce.

Training and further education provision in textiles, clothing and leather are declining.

Sector 4 Textiles and Clothing

SIC_{92} headings: 17-19	
Preparation and spinning of textile fibres (cotton, wool, flax, silk, threads etc); weaving and finishing of textiles; manufacture of made-up textile articles (soft furnishings, blankets, table linen etc); manufacture of carpets and rugs; manufacture of other textiles not elsewhere specified; manufacture of knitted and crocheted fabrics including hosiery, pullovers, cardigans and similar articles.	
Clothing including workwear, coats, suits, jackets, trousers, dresses, skirts etc, underwear, hats, swimwear and fur articles.	
Tanning and dressing of leather; manufacture of luggage, handbags and the like; manufacture of footwear for all purposes.	
Share of GVA (%)	0.7
Employment (thousands)	277
Share of UK (%)	1.0
Male:Female	53:47
Change: 1991-2001 (% pa)	-5.4
Change: 1996-2001 (% pa)	-7.9
Self-Employment (%)	9.3
Employment in England (thousands)	47
Top Three Occupational Groups (% of Total Emp.)	
Process, Plant and Machine Operatives	37.2
Skilled Trades Occupations	16.9
Elementary Occupations	13.6
GVA per Worker [1] (£s)	25400
Exports:GVA (%)	78.3
Concentration	low

Note(s): Data are 2001 except [1] where data are 2000.

Data relates to UK unless otherwise stated.

Source(s): CE and IER.

5 Wood, Paper and Publishing

Wood producers are vulnerable to the business cycle.

3.36 The wood and paper sector is in a period of transition and uncertainty, and is also the least concentrated of all the major capital-intensive sectors, which makes firms particularly vulnerable to the business cycle. Exchange rate movements also play a critical role in the competitiveness of the industry as the sector is fairly open to trade. Conditions in timber processing have been difficult for a number of years, as increased competition has led to a fall in prices, and this, combined with increased mechanisation, is resulting in a decline in the workforce (DfES, 2001a).

3.37 Nevertheless, while employment is declining overall, net occupational demand is generating a significant number of job opportunities. Mechanisation and the increased use of IT are stimulating demand for technical and business management skills.

New media and web skills are increasingly important in publishing.

3.38 It is widely believed that the rapid spread of the information revolution will affect publishers especially as the internet and CD-ROMs take the place of hard-copies of publications. To date, however, the internet and CD-ROMs seem to be functioning rather as complements to paper-based copies of books, newspapers, and magazines. There are few signs of the new media replacing the old, especially as the new is being used as a marketing tool to encourage people to subscribe to paper versions of publications.

3.39 New media and web skills are increasingly becoming more important. Nevertheless, approximately 90% of employers are content with their existing staff (Publishing NTO, 2001), believing that current staff have the skills to do their jobs effectively. Nevertheless, skills shortages were identified in several occupations, most notably in editorial, administrative and sales positions. The supply of journalists is increasing, but there is a concern about the quality of new entrants and there are shortages of more experienced people.

3.40 A major challenge for music publishers is the development of online music distribution. Although the volume of music distributed online remains marginal at present, it is widely believed that digital diffusion will become an important part of the global market in the future. As a result, most major music companies are increasingly involved in channels through which music is either distributed or played. The majority of music companies have diversified operations into related markets including film production, book publishing, broadcasting and retailing, which is leading to an increased demand for media associate professionals and sales staff.

IT skills are important in printing, but employers are failing to get this message across to potential new applicants.

3.41 In printing, the main challenge (Print and Graphic Communication NTO, 2001) is that there needs to be a better marketing campaign for the industry, targeted especially at young people at school, those starting on their careers and those who influence their views. This campaign should demonstrate that many printing jobs are part of the 'new economy', demanding high levels of IT skills, and involve close contact with high-profile sectors such as media, e-commerce, advertising and marketing.

3.42 The Paper Manufacturing and Training Council (2001) found that firms were failing to introduce new ways of working, involving multi-skilling, greater application of IT knowledge and skills, including e-commerce. One consequence is a lack of flexibility and innovation. Flatter organisation structures, greater reliance on work teams and greater devolved responsibility require the application of basic and generic skills at all levels of activity. The Training Council believes that it is particularly important that cost effective solutions can be found to provide the key skills of communication, team working, problem solving and IT. Another finding was a severe shortage of technical skills and specialist skills, and that these skills shortages are arising due to the difficulty in attracting graduates for development into roles such as sales, marketing, purchasing and finance. A continued difficulty in recruiting suitable mechanical and electrical skills was identified, and this problem is being exacerbated by recent low levels of craft apprentices, while IT specialists are being lost to other more high-profile sectors.

Paper manufacturers are suffering from severe skills shortages, relating in part to a failure to adapt to the new economy.

Sector 5 Wood, Paper and Publishing

SIC_{92} headings: 20-22	
Sawmilling and planing of wood; manufacture of veneer sheets, plywood, laminboard, fibreboard etc; manufacture of builders' carpentry and joinery; manufacture of wooden containers, and other products of wood. Manufacture of: pulp, paper and paperboard; articles of paper and paperboard, incl. bags, containers, sanitary goods, stationery, wallpaper and other articles of paper nes. Printing and publishing of books, newspapers, periodicals and miscellaneous products; related services such as bookbinding; reproduction of recorded media incl. records, CDs, tapes, videos and computer media.	
Share of GVA (%)	2.5
Employment (thousands)	585
Share of UK (%)	2.0
Male:Female	64:36
Change: 1991-2001 (% pa)	-0.7
Change: 1996-2001 (% pa)	-1.2
Self-Employment (%)	9.1
Employment in England (thousands)	58
Top Three Occupational Groups (% of Total Emp.)	
Skilled Trades Occupations	29.1
Process, Plant and Machine Operatives	17.0
Administrative and Secretarial Occupations	13.4
GVA per Worker[1] (£s)	39100
Exports: GVA (%)	17.0
Concentration	very low

Note(s): Data are 2001 except [1] where data are 2000.

Data relates to UK unless otherwise stated.

Source(s): CE and IER.

6 Manufactured Fuels

Output and employment are concentrated in petroleum products.

3.43 Manufactured fuels is a very small sector of the UK economy, employing just 33,000 workers and accounting for just 0.3% of GVA. Petroleum products account for around 50% of all UK production of primary fuels, and it is therefore no surprise that petroleum is pre-eminent in terms of employment and gross output in manufactured fuels (representing around 90%). The remainder is made-up of manufacture and processing of coke, and the processing, reprocessing and treatment of nuclear fuel. An important characteristic is that the nuclear fuel sub-sector accounts for nearly 40% of the sector's value-added, although it generates only a small turnover. The petroleum sub-sector is dominated by a few large multi-national operators (BP, Shell and Exxon) who also engage in oil & gas extraction and forecourt retailing, while BNFL dominates output in nuclear processing.

3.44 Employment in manufactured fuels fell throughout much of the 1990s, but has risen sharply since the late 1990s as refinery throughput has picked up. Around one-fifth of the workforce is made up of skilled tradesmen, around 17% in process, plant and machine operation, and some 13% in elementary occupations. The sector also relies heavily on skilled contractors (mainly engineering maintenance workers and laboratory technicians).

Environmental legislation is a key driver of skills demand in petroleum.

3.45 In recent years, the high volatility of crude oil prices has re-focused governments' attention on energy policy and governments have sought to addresses the complex choices relating to energy supply, economic growth and environmental quality. The sector is being asked to play an active and constructive role in the regulatory process, while at the same time supplying more environmentally friendly, customer-orientated products and also contributing to the geographical and technological diversification of energy sources.

3.46 PINTO (2000) identified that environmental regulations, combined with more stringent health and safety regulations, has implications for skills demand among unskilled workers, who are being asked to take greater responsibility for ensuring that regulations are met. Investment in new technology and new products in response to regulation is resulting in a increase in skills demand among technical and machine operatives.

Generic skills are important among managers.

3.47 PINTO (2001) found that among managers, the corporate strategies of the major global players exerts the biggest influence on demand for skills. Cross-border mergers and acquisitions (for example, Total and Fina, BP and Amaco) have become commonplace. Managers tend to interact more with managers in other sectors, particularly engineering, than with employees within their own sector, although sector-specific knowledge is regarded as important. Consequently, there is a high demand for managers to have transferable skills that can be applied in other sectors, and more generic management, creative and IT skills. Furthermore, the preference of oil companies for just-in-time inventory management and from the increasing strictness of clean fuel standards are driving demand for project management skills.

3.48 Moreover, increased competition is also leading firms to take measures to boost productivity, and this is resulting in a greater demand for multi-skilling and a general need to increase skills levels and qualifications across the workforce.

The petroleum workforce is ageing.

3.49 PINTO (2000 and 2001) found that the workforce is highly-skilled, and has a very low turnover (typically between 5% and 10% pa). However, a high proportion of the workforce is nearing retirement age, and consequently labour turnover is expected to rise sharply over the next few years. The increased use of technology is also resulting in skills mismatch among some of the older workers.

There is little literature on skills needs in the nuclear sub-sector.

3.50 The Nuclear sub-sector is not currently covered by an NTO, and as a result there is little literature on skills needs in the sector, although representatives from the Electricity Training Association, the British Nuclear Industry Forum, and several renewable energy associations have submitted a proposal to the DfES to form an Energy Sector Skills Council (ESSC). Nevertheless it would seem intuitive that there should be a high demand for skilled management, technical and engineering staff, while strict safety regulations will also have implications for skills demand, both among process and elementary operatives. It is likely that there is a strong demand for generic skills such as communication, motivation and team leadership skills among supervisors will be required to ensure that safety procedures are adhered to.

3.51 The DTI Energy Group (2002) did identify a potential skill shortage in the nuclear sub-sector, due to a lack of applicants in nuclear-related university courses.

Sector 6 Manufactured Fuels

SIC_{92} headings: 23 Manufacture of coke, refined petroleum products and processing of nuclear fuel. Processing of nuclear fuel includes reprocessing of spent nuclear fuel and treatment of nuclear waste.	
Share of GVA (%)	0.3
Employment (thousands)	33
Share of UK (%)	0.1
Male:Female	81:19
Change: 1991-2001 (% pa)	-0.3
Change: 1996-2001 (% pa)	1.3
Self-Employment (%)	3.6
Employment in England (thousands)	18
Top Three Occupational Groups (% of Total Emp.)	
Skilled Trades Occupations	21.2
Process, Plant and Machine Operatives	16.9
Elementary Occupations	12.7
GVA per Worker[1] (£s)	78900
Exports:GVA (%)	42.4
Concentration	high

Note(s): Data are 2001 except [1] where data are 2000.
Data relates to UK unless otherwise stated.
Source(s): CE and IER.

7 Chemicals and Plastics

The sector employs nearly half a million workers.

3.52 The chemical and plastics sector employs around 480,000 people in pharmaceuticals (17%), chemicals (33%) and rubber & plastics (50%). Employment has been declining over the past decade. The top three occupational groups are process, plant and machine operatives (24%), elementary occupations (16%) and skilled trades occupations (14.4%).

Demand for pharmaceuticals products is determined by structural factors.

3.53 The pharmaceuticals sector is far less sensitive to cyclical fluctuations than most industries, for two reasons. Firstly, medical drugs are always seen as necessary goods, regardless of economic conditions. Secondly, as economies become wealthier, the proportion of national income spent on healthcare tends to increase. In many economies the government is the main purchaser of drugs, and acts to sustain demand in times of economic downturn. Technological progress is of great importance in this sector. The high costs associated with the production of a new drug are recouped by a company through the exclusivity and monopoly prices that a patent provides.

Chemicals employment is declining.

3.54 Merger activity has been accelerating rapidly among the dominant firms in chemicals. However, as these firms have grown, so has the sector's reliance on raw materials, which increases its sensitivity to changes in input prices. As the prices of raw materials have risen, firms have chosen to specialise, in order to unlock the values of particular divisions within the industry which are less sensitive to input prices. Specialisation is, therefore, particularly strong in higher-margin products.

Technology is a key driver in rubber & plastics.

3.55 In rubber & plastics, technological progress in the development of new plastics usable in wider applications is important and the sector is likely to be sensitive to the effect of technological change. Some technological advances are important from the environmental point of view, from which the rubber and plastics sector is constantly under fire. In terms of the rubber industry, tyre manufacturers such as Michelin and Pirelli are moving gradually to new production technologies that are going to reduce dramatically the time and cost of producing tyres. Rubber and plastics is likely to be very sensitive to environmental policy. Policies are mostly concerned with the disposal of plastic and rubber products. Technological research is improving the industry's understanding and development of biodegradable products.

Commercial skills are in strong demand among pharmaceuticals firms.

3.56 According to the Association of the British Pharmaceutical Industry (ABPI, 2001), there is no substantive body of evidence which suggests that there is a widespread problem in terms of an inadequate, numerical supply of science skills as sought by pharmaceuticals employers. The most frequently quoted problems relate to the personal qualities of potential recruits and the need for recruits to have better 'personal' skills and competencies in areas such as business awareness and commercial skills, project management, team working and communication. Pharmaceutical firms spend a greater proportion of revenues on marketing than on research and development, and consequently there is an increasing demand for marketing and sales managers.

There are significant skills gaps among the workforce in chemicals.

3.57 The Chemical and Manufacturing Processing NTO (2001) found that the skills needed in the industry are increasing at a faster rate than the skills base of the workforce, and that many firms are becoming disillusioned with the numerous and poorly co-ordinated training initiatives. The report identified significant skills gaps among the workforce, as a result of several factors:

- technology is growing faster than the ability to optimise its use
- the skills levels required are increasing at a faster rate than the skills base of the industry's workforce
- managing the process of upgrading the skills of the workforce is becoming more complex as the skills base moves up
- demographic trends, combined with a reluctance among employers to tap into non-traditional sources of labour supply, mean that there is a shrinking pool of people available
- changing work patterns are raising the level of skills needed

- management of knowledge transfer, both between chemicals employer, and with firms outside the industry to identify 'best practice' is becoming increasingly important.

3.58 The Chemical Manufacturing and Processing NTO also noted that in many cases, companies are failing to utilise their workers assets fully. Most companies fail to provide structured development programmes. This is quite probably related to the widespread use of twelve month contracts, which are often perceived by potential graduate recruits as providing a disincentive to join the industry. Employers also complain that the graduates that do choose to come in to the industry, do not have the appropriate job-specific skills.

The rubber & plastics industry is failing to provide a clear career structure for new recruits.

3.59 The Polymers and Associated industries NTO (2001) identified that a perceived unattractiveness of the rubber & plastics industry by potential recruits is being reflected in low numbers of young people working in the industry, with a resulting negative impact on provision of a clear career structure. The plan also found that there is a lack of a structured, co-ordinated national framework of high quality training provision, and suggested that priority should be given to tackling skills gaps in communications, particularly in technical and management positions.

Sector 7 Chemical and Plastics

SIC_{92} headings: 24-25	
Investigation, perfecting and production of basic pharmaceutical products; manufacture of pharmaceutical preparations and medicaments. Manufacture of basic chemicals incl. industrial gases, dyes and pigments, inorganic and organic basic chemicals, fertilizers, plastics and synthetic rubber in primary forms; pesticides, paints, varnishes and inks; detergents, cleaning and toilet preparations; other chemical products including explosives, glues, photographic chemicals and unrecorded media (tapes, cassettes, discs); manufacture of man-made fibres. Manufacture of rubber products, such as rubber tyres and inner tubes, including products made from reclaimed rubber; retreading and rebuilding of rubber tyres (repair work by garages is excluded); manufacture of other rubber products; production of finished and semi-manufactured plastics goods, including plates, sheets, tubes and profiles, packing goods, builders' ware and other plastic products.	
Share of GVA (%)	3.2
Employment (thousands)	478
Share of UK (%)	1.6
Male:Female	74:26
Change: 1991-2001 (% pa)	-0.5
Change: 1996-2001 (% pa)	-1.3
Self-Employment (%)	3.3
Employment in England (thousands)	80
Top Three Occupational Groups (% of Total Emp.)	
Process, Plant and Machine Operatives	23.7
Elementary Occupations	16.0
Skilled Trades Occupations	14.4
GVA per Worker[1] (£s)	48100
Exports:GVA (%)	72.5
Concentration	medium

Note(s): Data are 2001 except [1] where data are 2000.

Data relates to UK unless otherwise stated.

Source(s): CE and IER.

8 Non-Metallic Mineral Products

Ceramics and glass are the key sub-sectors for NTO's.

3.60 Non-metallic mineral products is one of the smallest sectors in the UK economy, employing just 150,000 workers, the vast majority of which are male, with process, plant and machine operatives, skilled trades operatives and elementary occupations accounting for around three-quarters of total employment. The majority of employees are engaged in manufacture of building materials, such as glass, ceramic products, brick, cement and concrete. The principal NTO's covering the key sub-sectors in the non-metallic mineral products sector are the Glass NTO and the Association for Ceramic Training and Development.

3.61 The non-metallic minerals sector is closely linked to general local economic conditions. There are two reasons for this. First, the low value/weight ratio makes transportation very expensive and thus makes it inefficient for companies to develop markets outside of their local region. As a result the industry is very fragmented, and the preponderance of small and medium-sized enterprises means that the top ten companies in the sector control no more than one-third of the world market. Consequently, firms are reliant on local demand. Secondly, many of this sector's products are inputs into divisions of the building industry, which is itself highly sensitive to general economic conditions.

3.62 Technological progress is probably more important for the flat-glass industry than for many others in this sector, because it is highly capital-intensive. However, technology will become increasingly important across the sector, as companies seek to increase in order to compete in the global market. The growing importance of technology is likely to stimulate mergers, not least to support R&D costs. Although firms in the EU are facing increasing environmental constraints and the consequent increase in costs is a further incentive to mergers, energy use and environmental policy do not rank among the major problems facing the sector.

In the glass sub-sector, there is a need to improve the level of skills of new entrants and to co-ordinate an industry network of training provision.

3.63 According to the Glass NTO (2001), there are many issues that need to be addressed by glass producers. For example, like many 'old industry' activities, glass suffers from an image problem, and is generally considered unattractive to potential recruits. There is also a need to improve the level of skills of new entrants, with a particular emphasis on multi-skilling, and to co-ordinate an industry network of training provision, so as to increase the incentive for firms to invest in training, without the fear that others will free-ride on their investment. Employers also identified an increase in need for labour flexibility, multi-skilling and customer service. Linked to the demand for multi-skilled labour, flatter organisational structures also require employees to take on greater responsibility within the same job.

3.64 The ceramics sub-sector suffers from major skill gaps in basic skills, IT skills, communication skills, problem solving and team working skills (Association for Ceramics Training and Development, 2001). Workforce planning is under-developed, and there is a need to address both industry-specific and general skills shortages. Qualifications and initiatives are often seen as not relevant to firms' needs and/or too bureaucratic to implement. Furthermore, the poor image of the industry is resulting in severe recruitment difficulties.

Some major skills gaps, for example in IT and communications, are apparent in ceramic manufacturing.

Sector 8 Non-Metallic Mineral Products

SIC_{92} headings: 26 Manufacture of various building materials, such as glass; ceramic products; bricks, tiles and clay products; cement, lime and plaster; articles of concrete, plaster and cement; cutting and finishing of stone; abrasive products; and other non-metallic mineral products not elsewhere specified.	
Share of GVA (%)	0.7
Employment (thousands)	150
Share of UK (%)	0.5
Male:Female	79:21
Change: 1991-2001 (% pa)	-2.2
Change: 1996-2001 (% pa)	-1.2
Self-Employment (%)	9.1
Employment in England (thousands)	17
Top Three Occupational Groups (% of Total Emp.)	
Process, Plant and Machine Operatives	24.4
Skilled Trades Occupations	21.5
Elementary Occupations	21.0
GVA per Worker[1] (£s)	31600
Exports:GVA (%)	24.3
Concentration	low

Note(s): Data are 2001 except [1] where data are 2000.

Data relates to UK unless otherwise stated.

Source(s): CE and IER.

9 Metals and Metal Goods

Employment is declining as firms seek to boost efficiency.

3.65 Metals and metal goods employs approximately 530,000 workers in the UK, the vast majority of which are employed in production of metal goods (structural metal products, metal packaging etc), with the remainder involved in the production of basic metals, and steel in particular. More than half of the workforce is made up of skilled trades workers (31%) and process, plant and machine operatives (21%). Employment has been declining significantly over the past decade as firms have restructured to cope with over-capacity in the market and as they have sought to boost productivity to compete with overseas producers. Technological progress in the sector is important because UK producers have high production costs relative to others around the world. In the face of increasing competition from countries with low unit-labour costs, such as South Korea and Taiwan, companies are increasingly being forced to innovate and to expand in higher value-added market niches to survive.

3.66 The demand for metal goods is driven principally by household spending, by industrial investment, including construction, and, in the case of exports, by world economic growth and exchange rates. The industry is relatively labour-intensive, but increased specialisation and concentration on less labour-intensive production methods have brought steady loss of employment in the industry. The often short-term contracts available to employees have also made employment particularly sensitive to economic shocks. However, in order to benefit from improved productivity, firms need to re-focus on quality, as they are facing increasing competition from production in low-wage countries. The successful firms at present are those that are developing an international market for their core activities, with an increased service content.

Restructuring is a key driver of changes in skills demand.

3.67 Changes to adapt to increased competition are forcing many companies in the sector to seek to increase the level of skills among all occupational groups, and this is affecting a change in culture across the sector (Metal Industry Skills and Performance, 2001). Strategic management skills are now crucial to the success of an organisation. Improvements in process production and supply chain management have resulted in substantial increases in productivity over the past 20 years, but to continue to compete internationally, UK firms will require further significant cost reduction and elimination of waste. One impact of this continual drive to boost productivity is that a more flexible, highly-skilled (and multi-skilled) workforce is required: at present 50% of employees are currently 'low skilled' (NVQ level 2 (or equivalent) or below).

Safety regulations are increasing skills needs.

3.68 Safety, health and environmental factors are also affecting the demand for skills, and a strategic approach to develop managers awareness of these issues is required: some 50% of managers lack relevant training (DfES, 2000a). Employers, therefore, must help to identify and develop the right set of managerial skills to deliver their corporate strategy.

The sector is suffering from a shortage of specific technical skills.

3.69 According to Metals Industry Skills and Performance (2001), the sector is suffering from a lack of specific technical skills, in particular there is an acute shortage of metallurgists, graduate engineers, draughtsmen, project managers, skilled operators and other specialists with relevant sector experience. These problems are not being helped by the lack of high quality new entrants (particularly graduates and school leavers): only 1.5% of the workforce is less than 21 years old. Consequently, there is a need to develop transferable skills among the existing workforce. However, many firms are reluctant to invest time and money looking for training suppliers, and want value for money to maximise limited training budgets. The creation of Steel Training, a one-stop shop which aims to provide effective needs analysis and identification of high quality value for money provision, may help alleviate this problem.

3.70 Some firms are seeking to tap the pool of unemployed adults, who may have obtained suitable transferable skills while working in other sectors. The negative image portrayed of the industry in the media (particularly with regard to the contraction of Corus's UK steel operations) also increase recruitment problems. The shortage of new young recruits is resulting in an ageing workforce. Whilst this issue is not regarded as critical as yet, the low level of young people entering the sector and large scale de-manning and early redundancies mean that this is set to become a major problem in the next 5-10 years.

Metals and metal goods is seeing an increase in demand for managerial and customer service skills in particular.

3.71 The various reports identified a number of other skills issues:

- IT and e-business: the use of IT and e-business is generally at a low level in the industry
- basic skills: literacy, numeracy, communication and IT problems are inherent in many sector companies
- management of contractors, part-time or short-term staff: increased managerial skills are required, particularly among constructional steelwork companies working alongside construction contractors
- customer service: customers are placing increasing demands on companies to reduce prices and raise quality and delivery standards. Consequently, demand for sales and customer services skills is increasing
- learning culture/ demand-led learning: there is a move towards encouraging employees to take greater responsibility for their own learning and development. This places a higher demand for awareness of skills issues across all occupational groups.

Sector 9 Metals and Metal Goods

SIC_{92} headings: 27-28	
Manufacture of basic iron and steel and ferro-alloys including pig iron and steel and hot-rolled or cold-rolled products such as sheets, bars, rods and rails; manufacture of tubes and other first processing of iron and steel; manufacture of basic precious and non-ferrous metals, including aluminium, lead, zinc, tin and copper; casting of metals (ferrous and non-ferrous). Manufacture of fabricated metal products, excluding machinery and equipment, but including: structural metal products, doors and windows; tanks, reservoirs, boilers and steam generators; forging, pressing and stamping; general hardware; light metal packaging; other fabricated metal products not elsewhere specified.	
Share of GVA (%)	2.0
Employment (thousands)	528
Share of UK (%)	1.8
Male:Female	83:17
Change: 1991-2001 (% pa)	-2.2
Change: 1996-2001 (% pa)	-3.1
Self-Employment (%)	5.7
Employment in England (thousands)	49
Top Three Occupational Groups (% of Total Emp.)	
Skilled Trades Occupations	30.8
Process, Plant and Machine Operatives	21.1
Elementary Occupations	16.2
GVA per Worker[1] (£s)	33800
Exports:GVA (%)	33.8
Concentration	low

Note(s): Data are 2001 except [1] where data are 2000.

Data relates to UK unless otherwise stated.

Source(s): CE and IER.

10 Engineering

Mechanical engineering is the most important sector for employment, but electronics drives output growth.

3.72 Engineering (mechanical engineering, electronics, electrical engineering and instruments) accounts for 4.6% of UK GVA, and employs approximately 855,000 workers, although employment has been declining for several decades. Mechanical engineering accounts for 42% of total employment in the sector, electronics and electrical engineering around 21% each and instruments 16%, although electronics accounts for around 50% of value-added. Skilled trades occupations (for example tool makers and electrical electronics engineers) make up around 23% of employment, process, plant and machine operative 16% and managers and senior officials 14.7%. Engineering employment has been in decline in the UK for several decades, and fell by 1.3% pa between 1991 and 2001. In spite of this downward trend, demand for engineering skills has continued to increase. The Engineers Skills Dialogue report (2000) estimated that some 2.5m workers in the UK use some engineering skills in their day-to-day work.

3.73 Strong growth in Electronics over the past decade has been driven by the speed of take-up of mobile phones, personal computers, digital television and the internet. However, over the past 18 months, there has been a severe recession in electronics, with a substantial loss of employment. Most of the production in mechanical engineering is used in other manufacturing processes and construction and therefore demand for its products follows the trends of investment in these sectors. The sector, therefore, is particularly subject to the business cycle. That largely explains why the poor performance of the first few years of the last decade was followed by renewed growth in the next five years as the UK and European economies recovered.

Employers across the sector are experiencing recruitment difficulties.

3.74 A key finding from sectoral reports (DfES, 2001c and EMTA, 2001) was that many engineering employers are experiencing difficulties in filling vacancies, mainly because of a shortage of potential new recruits that have the necessary skills and experience. Skills shortages were reported across the different engineering industries, at all skills levels, but especially among skilled technicians and managers with the main gaps being reported among electronics employers. In addition, because for much of the late 1990s and into 2000 companies in the financial sector were offering 'golden hellos' of up to £10,000 to graduates, the electronics industry has been losing talented graduates to the City.

Under-investment has hampered efforts to upgrade the skills base in mechanical engineering.

3.75 According to the Engineering Employers' Federation (2001), over the past few decades, manufacturing has suffered from under-investment in new technology, research and development and modern manufacturing techniques. This has fed through to mechanical engineering. Lower levels of skills are often associated with under-investment in other areas, either because skills deficiencies act as a barrier to investment, or a lack of investment may be reflected in a lack of skills.

There is an urgent need to upgrade the electronics skills base.

3.76 In spite of the gloom currently enveloping electronics and high-tech manufacturing in general, rapid output growth in electronics will return, due to the underlying strengths of the industry (for example the presence of electronics components in almost all kinds of equipment, and the rapidity of technological and scientific advance), but at much lower rates of growth than the double-digit growth rates of the mid-to-late 1990s. As noted by EMTA, electronics (and some sub-sectors of electrical engineering) are undergoing rapid technological change. This requires that workers' skills are continuously upgraded. The rapid rate of innovation and the requirement for specialist and scarce technological skills is being reflected in an acute skills problem. As UK-based electronics manufacturing companies struggle to compete with those based in low-cost nations in other parts of the world, investment in skills is clearly needed to maintain a competitive edge in the higher value sub-sectors of the electronics market. The majority of executives in the electronics industry believe that skills shortages are the most important concern facing the industry, and that the problem is likely to worsen over the next few years. The UK has a much lower proportion of electronics jobs in higher value added segments than Japan, Germany, France and the US. As more cost effective countries gain manufacturing contracts to the detriment of the UK, the country needs to concentrate on forming employees capable of developing intellectual property.

Sector 10 Engineering

SIC_{92} headings: 29-33
Manufacture of machinery and equipment incl: engines for mechanical power; furnaces; general purpose machinery (incl. lifting and handling equipment, cooling and ventilation equipment; tractors and other agric. machinery); machine tools; special purpose machinery (eg for quarrying and construction; food, drink and tobacco processing; textiles and clothing production); weapons and ammunition; domestic appliances.
Manufacture of office machinery (including calculators, franking machines and terminals for dispensing tickets, banknotes etc) and computers (including peripheral units such as printers or optical readers); manufacture of radio, television and communication equipment and apparatus (including valves tubes and other components).
Manufacture of: electric motors, generators and transformers; electricity distribution and control apparatus; insulated wires and cables; batteries, lighting equipment and electric lamps; electrical equipment not elsewhere specified.
Manufacture of electric domestic appliances (fridges, razors, ovens, toasters etc) is classified to Industry 19, Mechanical Engineering.
Manufacture of: medical and surgical equipment and orthopaedic devices; instruments for measuring, checking, testing, navigating and other purposes; industrial process control equipment; optical instruments and photographic equipment; watches and clocks.

Share of GVA (%)	4.6
Employment (thousands)	855
Share of UK (%)	2.9
Male:Female	76:24
Change: 1991-2001 (% pa)	-1.3
Change: 1996-2001 (% pa)	-1.7
Self-Employment (%)	3.0
Employment in England (thousands)	84
Top Three Occupational Groups (% of Total Emp.)	
Skilled Trades Occupations	22.7
Process, Plant and Machine Operatives	16.3
Managers and Senior Officials	14.7
GVA per Worker[1] (£s)	42000
Exports:GVA (%)	96.5
Concentration	medium

Note(s): Data are 2001 except [1] where data are 2000.

Data relates to UK unless otherwise stated.

Source(s): CE and IER.

11 Transport Equipment

3.77 Transport equipment employs approximately 406,000 workers in motor vehicles, aerospace and other transport equipment (such as rail rolling stock and shipbuilding). More than half of the workforce is employed in motor vehicles, and nearly 90% of the workforce is male. Skilled trades occupations account for over 35% of employment, reflecting the increasingly sophisticated products and production processes.

Restructuring in motor vehicles is driving changes in demand for skills.

3.78 In recent years there has been much take-over activity and forging of alliances between motor vehicles manufacturers, often with a view to cost-savings through shared technologies and access to new markets. Far-reaching measures to improve competitiveness have changed the nature of the global motor vehicles industry. For example, leading-edge operational and logistics methods, such as lean manufacturing and just-in-time delivery, have resulted in less vertical integration, and at the same time manufacturers and suppliers often undertake joint development of production platforms and subsystems, with a resulting impact on skills needs. The net effect of these changes, according to EMTA (2001) is an increasing demand for multi-skilled workers, team working, supervisory skills, generic skills and highly-skilled technicians in product development. There is a need for managers to be able to devise global strategies and alliances, while IT is becoming increasingly important in the motor vehicles production process. Almost all monitoring and control systems are now electronics-based, and there is a shortage of IT skills throughout the industry.

In motor vehicles, the biggest skills gaps appear to be among component suppliers...

3.79 Significant training programmes need to be implemented in information technology, customer handling, sales and marketing, financial skills, management and quality control. A lack of skills is holding back business development in certain areas, especially component suppliers that are not closely linked to major motor manufacturers (DfES, 2001c).

and many employers are unhappy with the quality of motor vehicles training in colleges...

3.80 The delivery of training in motor vehicles production is very varied, reflecting under-investment in most colleges and training centres. A lack of industrial knowledge and technical expertise by instructional staff within the training and further education sector is common, and there is a lack of short course provision at a local level. Current training and education provision is geared to the NVQ/SVQ process and not the training needs of the employers (EMTA, 2001).

but employers are failing to take advantage of government training programmes.

3.81 Anecdotal evidence suggests that there is limited understanding and awareness among employers of various government training programmes and initiatives, along with limited knowledge on the funding contributions available to employers and individuals. The constant changing of Government programme titles and content is unsettling for providers and confusing for employers, while training activities overall appear to have declined since industrial training boards were replaced.

Skills needs in aerospace are also undergoing rapid change.

3.82 Although published literature on skills needs in aerospace in England is scarce, research by Future Skills Wales (2001) produced conclusions relating to skills issues that are likely to be equally applicable to the sector in the rest of the UK. The report found that aerospace in Wales has historically been characterised by cyclical swings in demand, which have been reflected in a

stop-go cycle of investment in training. As a result, the sector has failed to consistently upgrade the quality of its existing workforce. The impact of lean manufacturing techniques (adopted from developments in motor vehicles) has had implications for the workforce, and has resulted in workers with lower skills being required to have greater decision making skills. Moreover, flatter hierarchical structures are reflected in a decrease in demand for middle management, and have resulted in a corresponding need for workers with high-level technical skills to develop project management and team leadership skills. In spite of the increase in the overall level of basic IT skills among new trainees, there is a widespread shortage of IT skills in the Welsh aerospace industry (particularly software engineers and technicians), reflecting increased competition from hi-tech firms in other sectors.

Sector 11 Transport Equipment

SIC_{92} headings: 34-35	
Manufacture of: cars, commercial vehicles, buses and coaches; motor vehicles engines and chassis; bodies (coachwork) for motor vehicles, trailers and semi-trailers; parts and accessories for motor vehicles and their engines. Electrical parts (such as sparking plugs, lighting, windscreen wipers and defrosters) are classified to Industry 21, Electrical Engineering. Manufacture of: aeroplanes, helicopters, gliders, dirigibles and balloons, spacecraft, satellites and launch vehicles; major assemblies such as fuselages, wings, doors, landing gear, rotor blades and engines of a kind typically found on aircraft; ground flying trainers. Manufacture of instruments and navigation systems is classified to Industry 22, Instruments. Building and repairing of ships (merchant, warships, fishing vessels and pleasure boats), hovercraft and drilling platforms; manufacture of railway and tramway locomotives and rolling stock, specialised parts (such as brakes, axles, coupling devices), signalling equipment; manufacture of motorcycles and bicycles, invalid carriages and other transport equipment not elsewhere specified.	
Share of GVA (%)	1.9
Employment (thousands)	406
Share of UK (%)	1.4
Male:Female	88:12
Change: 1991-2001 (% pa)	-0.9
Change: 1996-2001 (% pa)	0.3
Self-Employment (%)	4.2
Employment in England (thousands)	59
Top Three Occupational Groups (% of Total Emp.)	
Skilled Trades Occupations	35.5
Process, Plant and Machine Operatives	17.7
Elementary Occupations	13.0
GVA per Worker[1] (£s)	37500
Exports:GVA (%)	74.5
Concentration	medium

Note(s): Data are 2001 except [1] where data are 2000. Data relates to UK unless otherwise stated.
Source(s): CE and IER.

12 Manufacturing NES and Recycling

This diverse sector is highly sensitive to the economic cycle and the housing market.

3.83 Manufacturing nes & recycling covers a wide variety of activities. The sector is dominated by the furniture sub-sector, but it incorporates other sub-sectors such as jewellery, games and toys and sports goods, as well as the recycling of metal and non-metal waste and scrap. Around one-third of employment is in skilled trades occupations (furniture makers, musical instrument manufacturing, goldsmiths and hand-craft occupations).

3.84 In general, activity in the industry is likely to be very cyclical, and very dependent on the general economic situation and the housing market (a derived demand for the furniture sub-sector). There are also other forces acting, with the trend towards smaller household size boosting demand for housing, which will in turn lead to greater furniture demand. Moreover, this sector is extremely dependent on trade conditions, and over the last decade Europe has shifted from being a net exporter to a net importer. In the furniture sub-sector, for example, there has been a significant increase in imports from Indonesia, China and Malaysia, and more trade with eastern European countries. Activity is greatly influenced by such factors as disposable income, economic performance and interest rates.

3.85 Incentives for recycling, such as taxes on landfill, stimulate some growth in this sector. Global trends point to an increase in the demand for home-office furniture, as the diffusion of IT equipment enables people to work at home. Other factors include the shift towards a smaller household size, which leads to demand for more housing and a consequent increase in demand for furniture, and, finally, new technological innovations exert a profound influence on the games and toys sub-sector.

Published literature on skills refers to the furniture sub-sector...

3.86 Because the furniture sub-sector is the most important in terms of output and employment, published literature regarding skills focuses on this sector. If a proposal to create a SSC covering energy, utility and environmental sectors is successful, information on skilled needs in the recycling sub-sector should become available.

and has identified several key skills issues.

3.87 FFINTO (2001) identified some key issues regarding skills in the manufacture of furniture:

- retraining of existing staff: much current training provision is perceived as expensive, limited in its range and often difficult to access, and therefore there is a need to improve the quality, relevance and range of training provision available
- addressing the needs of micro businesses: micro businesses could not see the benefits of IT to their business, and there is a real need for support for planned business activities and investment in skills which is easy to access, straightforward to implement and with easily identifiable benefits
- environmental legislation: over the next few years, the cost of waste disposal and potential legislation will make re-cycling a higher priority, and impact on companies of all sizes

- management development: many managers lack the formalised management training to address issues of IT, import penetration and increased customer expectations
- entry into the workforce: an ageing workforce and the lack of young people joining the sector means there is a need to raise the awareness of the career opportunities available.

Sector 12 Manufacturing NES and Recycling

SIC_{92} headings: 36-37	
Manufacture and upholstery of furniture (incl. chairs and seats, office and shop furniture, fitted kitchens, other furniture and mattresses). Manufacturing nes incl.: jewellery, musical instruments, sports goods, games and toys, and miscellaneous products. Recycling of metal and non-metal waste and scrap; (but excl. new products from secondary raw material, eg paper from pulp).	
Share of GVA (%)	0.7
Employment (thousands)	249
Share of UK (%)	0.9
Male:Female	71:29
Change: 1991-2001 (% pa)	1.4
Change: 1996-2001 (% pa)	2.6
Self-Employment (%)	12.8
Employment in England (thousands)	29
Top Three Occupational Groups (% of Total Emp.)	
Skilled Trades Occupations	32.1
Process, Plant and Machine Operatives	24.3
Elementary Occupations	12.2
GVA per Worker[1] (£s)	25600
Exports:GVA (%)	43.2
Concentration	very low

Note(s): Data are 2001 except [1] where data are 2000.

Data relates to UK unless otherwise stated.

Source(s): CE and IER.

13 Electricity, Gas and Water

Employment has declined sharply since privatisation.

3.88 Over the past decade, the liberalisation of energy and water markets has opened the way for a series of domestic and cross-border take-overs, joint ventures and strategic stake-building. The UK government and regulators have ordered the break-up of former publicly-owned electricity groups to encourage competition, while many continental governments have allowed and encouraged the development of powerful national champions capable of competing in the new, broader EU market. As a result, while the UK is the most liberalised energy market in the EU, UK companies are vulnerable to take-over by larger European companies. In March, Innogy, the UK's largest power supplier, was acquired by RWE, Germany's dominant power supplier. In recent years, there has been a wave of consolidation across the sector. For example, the number of electricity supply companies in the UK has fallen from 14 to 8 since privatisation. As the electricity, gas and water industries have consolidated over the past decade, there has been a sharp fall in employment, of around 7½% pa between 1991 and 2001. By 2001, just 108,000 people were employed in electricity, gas and water, compared to 345,000 in 1971. Employment has been declining across all occupational groups, with the sharpest falls in skilled trades occupations. However, some occupational groups (managers and senior officials, professionals, including engineers, associate professional and technical workers, administrative and secretarial workers and sales and customer service representatives) have been increasing in importance as a proportion of the overall workforce (DfES, 2002a).

The ageing workforce is one of the most important issues facing the sector.

3.89 As demand for electricity, gas and water is expected to grow at a much slower rate than for the economy as a whole over the next few years, the sector does not face a need to recruit new workers to meet expansion. However, the sector urgently needs to recruit new workers to meet high levels of replacement demand for labour. The age profile of the workforce is one of the most important labour issues facing the sector. According to the Labour Force Survey, around 30% of the workforce is aged 45 and over, as new training programmes have not been funded to replenish the stock of skilled labour. DfES (2002a) found that across the sector, employers have paid scant regard to the issue of an ageing workforce. The problem is most acute in administrative occupations and in skilled metal and electrical trades, although there is also strong replacement demand for science and technology professionals, and elementary trade, plant and storage-related occupations. As was recognised by the Electricity Training Association's Employment and Skills Survey report (2001), the sector needs increase recruitment of craft apprenticeships and graduate trainees.

3.90 The overall effect of the changes in the sector since privatisation, is increasing demand for:

- multi-skilling (across utilities and installation and management)
- upskilling (driven by technological advances and ever more stringent environmental and health regulation)
- customer service and business awareness skills (driven by customer expectation and competition)
- new skills (supply chain management and contractor management as utilities change their business models and diversify into other areas such as finance and communication)
- technicians to manage teams of craft workers, (driven by the reduction in managerial employees).

The net effect of the changes since privatisation is an increase in demand for skilled workers.

Sector 13 Electricity, Gas and Water

SIC_{92} headings: 40-41 Electricity generation, transmission, distribution and supply. Transportation, distribution and supply of gaseous fuels through a system of mains; manufacture of gaseous fuels with a specified calorific value; production of gas for the purposes of gas supply from coal, by-products or waste; production, collection and distribution of steam and hot water for heating, power and other purposes. Collection, purification and distribution of water.	
Share of GVA (%)	2.4
Employment (thousands)	108
Share of UK (%)	0.4
Male:Female	72:28
Change: 1991-2001 (% pa)	-7.6
Change: 1996-2001 (% pa)	-7.6
Self-Employment (%)	4.3
Employment in England (thousands)	6
Top Three Occupational Groups (% of Total Emp.)	
Skilled Trades Occupations	25.9
Administrative and Secretarial Occupations	19.3
Professional Occupations	11.6
GVA per Worker[1] (£s)	144800
Exports:GVA (%)	0.3
Concentration	medium

Note(s): Data are 2001 except [1] where data are 2000.

Data relates to UK unless otherwise stated.

Source(s): CE and IER.

14 Construction

Employment in construction is currently rising.

3.91 After falling throughout much of the 1990s, employment in this highly labour-intensive industry has risen over the past few years. The potential for rapid technological change to transform the industry through process innovation (improved building techniques) and product innovation (higher quality buildings) is limited, although the use of pre-fabricated units on site has enabled the industry to make some improvements in productivity. The occupational composition of the workforce in construction is distinctive from most other industries, in that a high proportion (approximately 50%) of the workforce is made up of people with well-developed manual skills, such as bricklayers, steel erectors, roofers, carpenters, glaziers etc), compared to around 10% in the economy as a whole. Consequently, employment tends to be proportionately less concentrated in managerial and professional occupations, although the numbers employed in these occupations is still large in absolute terms.

Output is characterised by high peaks and low troughs.

3.92 Construction activity is particularly sensitive to the economic cycle but tends to suffer higher peaks and lower troughs. Output is heavily dependent on confidence in the economy (eg through investment in buildings and works), but political pressures can affect government investment. Furthermore, major road and rail schemes tend to become delayed and to suffer cost overruns. DfES (2001a) found that the large fluctuations in activity typically meant that in times when output is rising, skills shortages have built up quickly. However, the traditional 'boom-bust' cycle has meant that a fall in activity tends to follow shortly afterwards, which has resulted in an equally sharp decline in skills shortages as more labour becomes available. Consequently, skills shortages have not presented the industry with severe difficulties, as their duration has been temporary. Nevertheless, the Construction Industry Training Board (CITB, 2002a) found that the longer-term implications of the instability in construction output have been that firms have been reluctant to invest in training, and that the numbers of new workers, particularly those under 25 years, that perceive the industry as being one which offers sustained, long-term career prospects has been declining in recent years. Furthermore, since the last recession, output in the economy as a whole, and also in construction, has much been more stable, and many employers are now finding that skills shortages are becoming increasingly problematic.

The industry is fragmented, but consolidation is becoming more commonplace.

3.93 Consolidation is not widespread in construction. Currently, the industry remains very fragmented with many small players. However, the trend towards Public Finance Initiative schemes and greater private sector participation in large infrastructure projects, combined with the opening up of government work to overseas competition as European Union markets become more liberalised, should stimulate consolidation. Furthermore, in the housebuilding sub-sector, the trend towards brownfield redevelopment is stimulating a trend of mergers and acquisition. The emphasis on high-density flats complexes in city-centre sites, rather than on detached homes built on open fields, offers greater opportunities for economies of scale.

3.94 Construction of major projects, such as new houses, business parks, roads and airport terminals frequently have major environmental impacts. Decisions over land use inevitably require the reconciliation of conflicting or competing interests, in many cases between protecting the environment and accommodating economic growth. However, the existing planning system in the UK is widely regarded as being complex, slow and unpredictable, and is criticised for placing too great a constraint on business expansion.

Environmental legislation is constraining output.

3.95 Construction activity is currently characterised by a shift from private to public work. Although government investment rose sharply last year, it remains well below the level the Government had intended, and therefore projected spending on infrastructure projects (particularly in schools, health and road transport) has been revised sharply upwards. The large increases in government investment should mitigate the impact of the likely drop in commercial work in the short term, as weak profitability in the corporate sector is expected to constrain private investment. However, there are clearly implications for the workloads of contractors specialised in different types of work.

Government investment is the main driver of growth in the industry at present.

3.96 The boost to government spending is also expected to lead to a further increase in employment in the short-to-medium term. However, severe skills shortages are reported across most construction sub-sectors. The industry is currently operating close to full capacity in a tight labour market, and consequently, the large planned increase in public spending could lead to severe bottlenecks in the industry. Furthermore, unit labour costs have risen sharply since 1998, offsetting gains from productivity improvements, and as a result construction output prices are rising. Both these factors threaten both the scale and timetable of the Government's objectives to improve public services, and some private sector investment may be crowded out.

3.97 CITB (2002b) predict that the strongest proportionate growth in employment will be in managerial, clerical, technical and professional occupations, with demand for trade/craft occupation growing much more slowly (although in many occupations, such as carpenters, joiners and bricklayers this equates to large absolute increases in demand). As a result, in terms of recruitment needs, the six key occupations are: carpenters and joiners; managers; electricians; clerical workers; bricklayers; and plumbers. CITB (2002a and 2002b) concludes that if demand for these occupations is to be sufficiently met, it is essential that the decline in participation in higher education construction-related courses is reversed, that companies boost the provision of training for the existing workforce and that the industry takes steps to address its widespread image problems.

The occupational shift is likely to result in strong growth in the number of managerial workers in the medium term.

Sector 14 Construction

SIC_{92} headings: 45 General construction work incl.: site preparation and demolition; building of complete constructions or parts thereof and civil engineering (including all types of buildings, bridges, tunnels, pipelines, roads, airfields, sports facilities, water projects etc); installation and completion (including wiring, insulation, plumbing, plastering, painting and glazing).	
Share of GVA (%)	5.0
Employment (thousands)	1872
Share of UK (%)	6.4
Male:Female	89:11
Change: 1991-2001 (% pa)	-1.1
Change: 1996-2001 (% pa)	1.4
Self-Employment (%)	36.1
Employment in England (thousands)	200
Top Three Occupational Groups (% of Total Emp.)	
Skilled Trades Occupations	47.1
Elementary Occupations	11.9
Managers and Senior Officials	11.6
GVA per Worker[1] (£s)	23100
Exports:GVA (%)	0.2
Concentration	very low

Note(s): Data are 2001 except [1] where data are 2000.

Data relates to UK unless otherwise stated.

Source(s): CE and IER.

15 Distribution

Distribution is one of the UK's largest sectors.

3.98 The distribution sector (encompassing retailing and wholesale distribution) employs approximately 4.9m workers in the UK and accounts for around 12% of GVA. Around 3m workers are employed in retailing, with the remainder in wholesale distribution (distribution nes) (sale and repair of motor vehicles, sale of automotive fuel, and wholesale and commission trade of goods). The sector has a roughly fifty-fifty split of male and female workers and employment has grown by 0.7% pa over the past decade. Strong output growth in retailing over the past few years has been driven by high consumer confidence, sustained employment growth, growth in real earnings and low interest rates. Around 45% of the workforce is made up of sales assistants and retail cashiers (including telephone salespersons), and in wholesale distribution, by far the largest group of employees is those involved in the sale and repair of motor vehicles, including skilled vehicle trades.

3.99 Improvements in IT are expected to have further influence on the sector as they will allow retailers to gather and analyse more data about their customers, and will allow consumers more easily to find information about suppliers, products and prices. Innovations in IT have already helped retailers in targeted marketing, thereby bringing about increases in output. E-commerce and the internet are expected to help the sector further in exploiting new opportunities and providing access to consumers in new as well as existing markets.

The diffusion of new technologies are providing retailers with access to consumers in new as well as existing markets.

3.100 Retailing is an important source of output and employment in each region of the UK, although employment in a particular region tends to be determined by the size of the population and GDP per head (retailing employment is highest in London and the South East). Possibly because retailing employment is not concentrated in a particular region or locality, it is seldom acknowledged as being a key employer. For example, Tesco is the UK's second-largest employer after the National Health Service (NHS). As such, retailing potentially has a vital role to play in promoting social inclusion and equal opportunities. Retailing also offers a way for older workers (particularly those who may have left the labour market) to get back into the workplace (DfES, 2002b).

Retailing is a significant employer in each UK region.

3.101 The biggest cause of skills gaps in retailing (DfES, 2002b) is the failure to train and develop staff, which is cited as a major reason why the sector suffers such a high rate of staff turnover. Traditionally, employers in retailing and wholesale distribution have tended to regard a high level of staff turnover as a natural characteristic of the sector. However, as the quality of customer service is becoming increasingly important, and firms compete less on product pricing, issues regarding recruitment and retention are increasing in importance. It is essential that it takes steps to reduce the high levels of staff turnover (the proportion of employees who have left the firm in the last twelve months), which is highest among sales assistant and retail cashiers. This is particularly worrying, given that employers have recognised that this group of employees is increasingly important to a firm's success. The image of the sector as one that does not provide a good career structure (possibly because a high proportion of the work is part-time) is also putting off potential employees (Distributive NTO, 2001). Retailing is in competition for workers with these skills from employers in hotels & catering (and other tourism-related sectors), financial services and health.

The sector experiences difficulties in recruiting and retaining staff.

3.102 The retail motor industry has a poor image and is failing to attract the numbers of young people that it did in the past and that it now needs (MITC, 2001). Furthermore, the academic ability of young people joining the industry is declining as so many young people are actively encouraged towards university. The traditional profile and value of apprenticeships appear to have been lost and there is insufficient contact with schools by employers including provision of work experience and pre-apprenticeship training.

The retail motor industry is being forced to employ low-skilled new recruits.

3.103 In retail of petrol, PINTO (2001) found that forecourt training needs are now far more complex than previously, and need to address such diverse questions as the implications of automated payment and unattended sites. In particular, retailers need to balance the importance of health and safety issues against the need for excellence in retailing skills including merchandising and food hygiene.

3.104 The use of more sophisticated IT systems that integrate stock control systems require better developed IT skills amongst petrol station forecourt staff. Customers' ability to place orders via the internet will further enhance this requirement.

Sector 15 Distribution

SIC_{92} headings: 50-52	
Retail of new and used goods to the general public for personal or household consumption or utilisation, by shops, department stores, stalls, mail-order houses, consumer co-operatives etc; retail sale by commission agents; repair and installation of personal or household goods. Retailing of motor vehicles and automotive fuel is classified to Industry 32, Distribution nes. Sale, maintenance and repair of motor vehicles and motorcycles (but excluding renting, classified to Industry 44, Other Business Services); retail sale of automotive fuel. Wholesale and commission trade of new and used goods to retailers, industrial, commercial, institutional or professional users; acting as agents; usual manipulations such as assembling, sorting and grading of goods.	
Share of GVA (%)	12.2
Employment (thousands)	4916
Share of UK (%)	16.9
Male:Female	51:49
Change: 1991-2001 (% pa)	0.7
Change: 1996-2001 (% pa)	1.3
Self-Employment (%)	10.0
Employment in England (thousands)	560
Top Three Occupational Groups (% of Total Emp.)	
Sales and Customer Service Occupations	29.0
Managers and Senior Officials	16.6
Skilled Trades Occupations	13.1
GVA per Worker[1] (£s)	21300
Exports:GVA (%)	0.7
Concentration	low

Note(s): Data are 2001 except [1] where data are 2000.

Data relates to UK unless otherwise stated.

Source(s): CE and IER.

16 Hotels & Catering

The sector is a major employer.

3.105 Hotels & Catering employs approximately 1.8m people, working in sub-sectors as diverse as hotels, restaurants, bars and catering establishments. Between 1991 and 2001 employment grew by between 1-1.5% pa. The low-skilled make-up of the workforce is illustrated by the fact that nearly 39% of employees work in elementary occupations such as hotel porters, waiters/waitresses and bar staff. On the other hand, managers and senior officials account for around one-quarter of the workforce. In spite of the presence of major international chains in the sector, the sector is dominated by small operators, many of which compete for staff whose skills are easily transferable.

3.106 Increasing globalisation has affected the pattern of demand for holidays, which may in turn reflect changing working patterns across the wider economy. Over recent years there has been a sharp increase in demand for short-break holidays (mainly in cities) and a reduction in longer stay holidays. Furthermore, growth in demand for conference facilities has led to a recognition that operators need to be able to cater to business customers. Business tourism tends to be less seasonal than leisure tourism, and this has implications for labour demand. Growth in the sector is expected to continue into the longer term.

The hospitality sector suffers from chronic skills shortages, which is largely due to its inability to market itself competitively.

3.107 There are a number of factors (Hospitality Training Board, 2001) that could hinder the continued expansion of the sector. The principal problem is chronic recruitment difficulties, which is largely due to inability of the industry to market itself competitively. The report also found that there was a lack of promotion of careers in the industry. The apparent lack of a well-defined career structure, particularly into management positions, is one reason why there is such a high level of labour turnover in the sector, and a further reason why the sector struggles to find new recruits. The relatively low skills base of the workforce (identified above) means that many employees and new entrants need support in job-specific skills, language skills and basic and key skills. DfES (2000) highlighted specific shortages for chefs, other kitchen staff and housekeeping staff. There is a deficiency in management, sales and entrepreneurial skills, and a need to increase the level of customer service skills among new entrants.

Sector 16 Hotels & Catering

SIC_{92} headings: 55	
Hotels: licensed/unlicensed hotels, motels and guest houses, other tourist or short-stay accommodation (incl. camping and caravan sites, holiday camps and conference centres). Catering: licensed and unlicensed eating places, including take-aways; public houses and bars; night clubs, including residential clubs; canteens; contract catering for airlines, corporate hospitality, weddings etc.	
Share of GVA (%)	2.4
Employment (thousands)	1803
Share of UK (%)	6.2
Male:Female	42:58
Change: 1991-2001 (% pa)	1.0
Change: 1996-2001 (% pa)	1.5
Self-Employment (%)	7.1
Employment in England (thousands)	192
Top Three Occupational Groups (% of Total Emp.)	
Elementary Occupations	38.9
Managers and Senior Officials	24.8
Skilled Trades Occupations	15.7
GVA per Worker[1] (£s)	14400
Exports:GVA (%)	18.7
Concentration	medium

Note(s): Data are 2001 except [1] where data are 2000.
Data relates to UK unless otherwise stated.
Source(s): CE and IER.

17 Transport

Employment in the sector is increasing.

3.108 The transport sector (road, rail, sea, air and other transport services) employs around 1.25m people in the UK. Employment grew strongly in the second half of the last decade, by 2.6%. Around 50% of the workforce is employed in non-rail land transport, 33% in supporting and auxiliary transport activities (such as cargo handling, operation of terminal facilities, airports, piers etc) and the activities of travel agencies. Water transport is the smallest industry within the sector, employing just 19,000 workers. The top three occupational groups are process, plant and machine operatives (18%), administrative and secretarial occupations (17.4%) and elementary occupations (17.4%).

Environmental concerns influence choice of transport mode.

3.109 Throughout the 1990s, environmental considerations have increasingly influenced choice of transport modes as successive governments have used the tax and excise systems to encourage people to use other forms of transport than cars, and to choose less polluting types of fuel or cars with smaller engines. However, policies aimed at abating greenhouse gas emissions and at encouraging less use of cars have not been particularly effective, as yet, in the UK. Although rises or falls in the oil price are related in very clear ways to distances travelled by car, the major influences on choice between modes of land transport are likely to be the technological innovations discovered or adopted by vehicle manufacturers in pursuance of their voluntary commitments to reduce emissions. On the other hand, the ending in 2002 of the block exemption from competition policy rules enjoyed by vehicle manufacturers is bound to lead, whatever system succeeds it, to lower car prices and, perhaps, to greater use of cars.

The most pressing issues are a shortage of drivers in road transport and associate professionals across the sector.

3.110 DfES (2001e) identified that the tightening of the labour market over the past few years resulted in over half the vacancies in the transport sector being 'hard-to-fill' vacancies, with one-fifth being skills shortage vacancies. The greatest difficulties were reported in drivers in road transport (the most pressing business issue in the industry) and associate professionals across the sector.

In rail transport, increasingly stringent safety regulation is driving changes in demand for skills.

3.111 Increasingly strict safety regulation is affecting skills demand in rail transport, while the industry is also attempting to develop or recruit greater numbers of engineers and other high level technicians into the industry (Rail Industry Training Council, 2000). Management development is also particularly important, as is improving key skills in entrants to the industry, and the existing workforce. There is an increase in demand for highly-skilled operational, technical and professional employees (including such job roles as drivers, signallers, controllers, etc).

In other (non-rail) passenger land transport, there is both an increasing demand for drivers and rising expectations of the levels and breadth of skills that drivers possess.

3.112 Transfed (2001) identified a series of needs to address current and future skill gaps in the (non-rail) passenger land transport workforce. Most important, was the increased demand for the number of drivers and rising expectations of the levels and breadth of skills of drivers, as they are increasingly expected to deal with new technology and be more responsive to customer requirements. Raising the skill levels of all employees to meet future sector needs (these include a need to improve interpersonal skills, IT and new technology basic skills, team working skills, customer service skills and customer awareness, skills to manage information) is crucial. Firms also need to tackle high staff turnover, particularly in areas of low unemployment where higher paid alternative employment may be available. The poor image of passenger transport, coupled with higher proportions of young people staying on in full-time education, is reducing the flow of young people into the sector. Companies are also increasingly being required to provide training to meet regulatory requirements such as health and safety, whilst still finding the resources to develop workplace skills in order to improve efficiency. This is raising the skills needed of managers and supervisors in the sector.

Road haulage suffers from an acute shortage of LGV drivers.

3.113 In road haulage, there is an acute, UK-wide shortage of LGV drivers (Road Haulage and Distribution Council 2001). The industry has some 10% fewer drivers than it needs. Urgent action is needed to increase the inflow of new vocationally competent drivers, while addressing retention issues in the existing workforce. Other skills issues are increased demand for customer service and IT skills across all occupational groups.

Developments in cargo handling technology have reduced the need for manual skills among ports workers.

3.114 The British Ports Industry Training Board (2001) argued that the industry needs to be able to respond and adapt to the changes in the political environment and economic markets, both globally and nationally. Age and diversity issues must be addressed to improve recruitment and retention of young people. For example, developments in cargo handling technology have reduced the need for manual skills (for example mechanised procedures to load and unload freight). This offers the potential for greater participation in the workforce by women, but the report concluded that many firms have continued to try and recruit from its traditional pool of labour. Ways to improve career paths must be considered though the creation of suitable vacancies and qualification opportunities. With continued pressure to reduce costs, through stiff competition and the heavy burden of statutory training demand plus the recent code of practice for non-permanent employees, smaller ports and other SMEs in the industry need assistance in resource training.

Sector 17 Transport

SIC_{92} headings: 60-63	
Passenger and freight transport by inter-city and interurban railways. Operation of tramways and underground or elevated railways is classified to Industry 35, Other Land Transport. Activity in the different markets within the industry is shown by the industry specific indicators: tonne-kilometres of freight moved and the number of passenger-kilometres travelled (includes urban rail systems). The source for both series is Transport Statistics Great Britain. Scheduled passenger land transport, including inter-city coach services, urban and suburban transport by bus, tramway, underground or elevated railways etc; taxis and other non-scheduled passenger transport such as charters and excursions. Freight transport by road; transport via pipelines (excluding natural gas, water or steam). The industry physical indicator tonne-kilometres of goods moved is reported together with the associated series for passenger-kilometres, which is dominated by private use of cars and vans. The source of the two data series is Transport Statistics Great Britain. Sea and coastal water transport of passengers and freight; inland water transport of passengers and freight. Cargo handling, harbour operation and other auxiliary activities are classified to Industry 38, Other Transport Services. Transport of passengers or freight by air or via space, including scheduled and non-scheduled (for example charter) services. The operation of terminal facilities, cargo handling etc is classified to Industry 38, Other Transport Services. Activity in the markets within the industry is shown by the industry specific indicators: cargo and mail tonne-kilometres flown and total passenger kilometres flown. The source for these series is Transport Statistics Great Britain. Supporting and auxiliary transport activities, incl.: cargo handling: storage and warehousing; operation of terminal facilities such as railway stations, bus stations, parking lots or garages, harbours and piers, navigation, pilotage and berthing, airports and air traffic control. Activities of travel agencies and tour operators, and other transport agencies such as freight forwarding, customs agents.	
Share of GVA (%)	5.2
Employment (thousands)	1249
Share of UK (%)	4.3
Male:Female	75:25
Change: 1991-2001 (% pa)	0.8
Change: 1996-2001 (% pa)	2.6
Self-Employment (%)	17.9
Employment in England (thousands)	144
Top Three Occupational Groups (% of Total Emp.)	
Process, Plant and Machine Operatives	18.9
Administrative and Secretarial Occupations	17.4
Elementary Occupations	17.4
GVA per Worker[1] (£s)	33000
Exports:GVA (%)	13.3
Concentration	medium

Note(s): Data are 2001 except [1] where data are 2000. Data relates to UK unless otherwise stated.
Source(s): CE and IER.

18 Communications

The sector employs over half a million workers.

3.115 Communications employs around 540,000 workers in postal (including courier) and telecommunications activities. Around 221,000 workers are employed in the telecommunications sub-sector (DfEs, 2001f), with the remainder in postal and courier activities. Administrative and secretarial occupations and skilled trades occupations are the two most important occupational groups, each accounting for around 22% of the workforce. Process, plant and machines operatives (mainly in the postal sub-sector) account for around 20% of the workforce.

Skills needs in telecommunications will be driven by the roll-out of new technologies.

3.116 As communications is a high-value added consumer industry closely tied to the new economy, further technological and regulatory developments will be the key drivers of output growth: liberalisation of local telecommunications networks; the roll-out of high-speed broadband technology; the roll-out of 3G mobile telephony; and the take-up of digital television. However, the drive to accelerate the expansion of the broadband network may well be hampered by a lack of engineers and technical experts needed to upgrade the infrastructure (e-skills, 2002). Employers are in great need of high-skilled IT and broadband-related skills, who also possess wider business skills, and there is a strong demand for IT professionals with expertise in specialised telecommunications technologies (especially wireless networks and radio frequency engineers). Project management, systems integration and network management are now considered essential skills. This may involve a significant amount of re-skilling of the workforce. For example, Secker (2000) found that it takes at least six weeks to retrain engineers in third-generation wireless technologies. The net effect of these changes is that telecommunications professionals need to possess a wide range of skills including customer service skills.

Sector 18 Communications

SIC_{92} headings: 64	
National post and courier activities, including collection, distribution and delivery of national and international mail and parcels. Telecommunications, including the transmission of sound, images, data or other information via cables, broadcasting, relay or satellite; this includes maintenance of the network and transmission of radio and television programmes.	
Share of GVA (%)	4.9
Employment (thousands)	542
Share of UK (%)	1.9
Male:Female	74:26
Change: 1991-2001 (% pa)	1.0
Change: 1996-2001 (% pa)	2.9
Self-Employment (%)	1.9
Employment in England (thousands)	49
Top Three Occupational Groups (% of Total Emp.)	
Administrative and Secretarial Occupations	21.7
Skilled Trades Occupations	21.7
Process, Plant and Machine Operatives	19.7
GVA per Worker[1] (£s)	49700
Exports:GVA (%)	2.8
Concentration	very high

Note(s): Data are 2001 except [1] where data are 2000.

Data relates to UK unless otherwise stated.

Source(s): CE and IER.

19 Banking and Insurance

The sector has a high proportion of administrative and clerical workers.

3.117 Banking and Insurance (encompassing banks, building societies and insurance, financial intermediation) is one of the UK's most important sectors in terms of its global position. Employment in banking and finance has remained broadly static overall between 1991 and 2001 (declining in the mid-1990s and rising in the late 1990s. The sector employs 924,000 people (banking & finance accounting for the vast majority (70%) of employment), around 3% of the total workforce, but accounts for 6.7% of GVA. Employment in banking and insurance is concentrated in non-manual jobs that are either intermediate or high-status jobs (SOC Major Groups 1-3), or administrative and clerical workers, who make up over 50 per cent of employees in banking and finance. Around 45% of the workforce is concentrated in London reflecting the capital's importance as a financial centre, the number of head offices of global financial institutions and its large pool of skilled workers.

In banking and insurance, the skills and attributes required to cope with changes due to globalisation and the diffusion of IT will be at a premium.

3.118 While the financial services sector has been a major growth area, and has experienced relatively few skill problems due to its ability to pay relatively high salaries, a number of key changes are likely to affect the number and type of skills demanded by employers in banking and insurance (DfES, 2001g). These include:

- The use of IT (and particularly the growth in internet banking) within the sector will mean a continuing growth in demand for people with high level IT skills, and higher IT user skills more generally. This means IT specialists are needed, notably in the design and operation of websites, and online services.
- Personal and generic skills such as communication, team working and the creativity required in order to develop and/or adapt services, will be in great demand by financial service employers. More generally, the sector will continue to be highly competitive and subject to rapid change, due to the effects of globalisation and the integration of EU financial markets, and the skills and attributes required to cope with these changes will be at a premium.
- Increasing regulatory pressure has tightened the need for technically correct and competent selling and delivery of financial services in some sub-sectors, such as insurance and amongst IFAs. This has influenced companies' training needs.
- Finally, as with most other sectors, an increased focus on customer service and the development of customer focused product, will lead to an increased demand for skills in this area.

Sector 19 Banking and Insurance

SIC_{92} headings: 65-66	
Financial intermediation, other than for insurance and pension funding, including: central banking, banks, building societies, financial leasing, factoring, mortgage finance, investment and unit trusts, venture capital and financial intermediation not elsewhere specified. Insurance, including friendly societies, benevolent funds and Lloyd's underwriters, covering life insurance, pensions and non-life insurance. Insurance brokers are classified to Industry 42, Professional Services; compulsory social security is classified to Industry 45, Public Administration & Defence.	
Share of GVA (%)	6.7
Employment (thousands)	924
Share of UK (%)	3.2
Male:Female	45:55
Change: 1991-2001 (% pa)	-0.6
Change: 1996-2001 (% pa)	0.6
Self-Employment (%)	9.9
Employment in England (thousands)	89
Top Three Occupational Groups (% of Total Emp.)	
Administrative and Secretarial Occupations	50.5
Managers and Senior Officials	12.9
Associate Professional and Technical Occupations	12.5
GVA per Worker[1] (£s)	46100
Exports:GVA (%)	9.9
Concentration	very low

Note(s): Data are 2001 except [1] where data are 2000.

Data relates to UK unless otherwise stated.

Source(s): CE and IER.

20 Business Services

3.119 Business services (encompassing professional services, computing services and other business services) is one of the most important sectors in the UK, employing some 4.7m workers (16% of the UK total) and accounting for a similar proportion of GVA. The sector contains a wide range of high value-added professional services, such as law, advertising, accountancy and consultancy, some high value computing services, such as the development and production of software and data facilities management, and other high value-added business services, such as real estate management and recruitment, along with a varied collection of mainly lower value-added services, including industrial cleaning, equipment hire and security services. Employment growth has been strong over the past decade, averaging 3.6 pa between 1991 and 1996, and 4.6% pa during 1996-2001. Management consultancy has benefited in recent years from a number of factors: increasing globalisation; privatisation and deregulation; the development of IT and telecommunications. Corporate strategy, organisational development and IT-related work were the main fields of activity for management consultants in the second half of the last decade. The most important clients were in banking & finance insurance, transport & communications and manufacturing. Computing services experienced double-digit rates of annual output growth in the late 1990s. Growth was due partly to increased demand for software among small businesses and households as personal computer penetration rose sharply, while, in the broader business environment, demand for computing systems is stimulated by the shift from mainframes to personal computer-based networks.

Computing services are suffering from an acute skills shortage, particularly where people have to marry IT skills with knowledge and experience in the business activities that IT is meant to serve.

3.120 Over the past year, large companies have adopted a more critical stance when assessing the financial benefits of sophisticated software applications. As the dot.com bubble burst and most types of technology stocks fell throughout 2000, it became clear that investors and companies were giving their attention not to ingenious and imaginative web-based services but to the many ways in which the internet, or e-business in particular, could add value to and improve traditional activities. Nevertheless, a key problem is that the computing services industry is suffering from severe skills shortages, which are expected to last for several years (e-skills 2001a). As internet applications and business software have become ever more interwoven with all business activities, a clearer picture has emerged of the kinds of IT skills that are needed in e-business applications, networks and software development. One aspect of the skills problem is that people have to marry IT skills with knowledge and experience in the business activities that IT is meant to serve. This poses acute problems in interactive television, for example, where IT experts (eg broadcast engineers, web designers or games programmers) also need a mixture of design, marketing and broadcasting skills, not necessarily to be primarily marketers or whatever, but so as to be able to give informed judgements on what is technically possible.

3.121 According to e-skills (2001b), there is a shortage of critical skills among computing services firms, as current recruitment pools do not meet demand: access to higher volumes of new recruits is needed from more varied sources, along with increased recruitment from under-utilised groups (e.g. women, who constitute only 20% of the workforce).

3.122 Among professional services, much of the literature on skills has focused on accountancy. The key issues (Accountancy NTO, 2001) are:

- an increasing demand for IT skills, which are in short supply within the workforce
- interpersonal, advisory and team working skills are increasing in importance
- the role of senior accountants is becoming much more strategic and requires the development of much wider skills and a more detailed knowledge of the other business processes
- technician level work is becoming mechanised through the use of technology and computer packages are being developed to further integrate the accounting processes.

3.123 There is also evidence that employers prefer to 'buy in' trained financial specialists rather than train existing staff. A further problem concerns recruitment. The image of accountancy is still a problem, even though the sector is undergoing rapid change due to new technology.

The image of accountancy is still a problem even though the sector is undergoing rapid changes due to new technology.

Sector 20 Business Services

SIC_{92} headings: 67, 70-74	
Activities auxiliary to financial intermediation, including administration of financial markets, broking of securities, insurance agents and brokers. R&D on natural sciences, engineering, social sciences etc. Other professional services incl.: legal, accountancy, tax, market research, other consultancy; architects, engineering services, weather forecasting, surveying; technical testing; advertising. Hardware consultancy; software consultancy and supply including development, production, supply and documentation of customised and non-customised software; data processing including facilities management; database activities including on-line data retrieval; maintenance and repair of computer equipment; and other computer-related activities. Real estate activity, including development, buying and selling, letting and management of real estate. Renting of machinery, equipment, personal and household goods, incl. motor vehicles and other transport equipment. Other business services incl.: recruitment agencies; security services; industrial cleaning; photographic, packaging and secretarial services; and other business services nes.	
Share of GVA (%)	15.3
Employment (thousands)	4726
Share of UK (%)	16.2
Male:Female	56:44
Change: 1991-2001 (% pa)	3.6
Change: 1996-2001 (% pa)	4.5
Self-Employment (%)	12.4
Employment in England (thousands)	420
Top Three Occupational Groups (% of Total Emp.)	
Administrative and Secretarial Occupations	25.5
Associate Professional and Technical Occupations	18.0
Professional Occupations	17.3
GVA per Worker[1] (£s)	27700
Exports:GVA (%)	9.1
Concentration	low

Note(s): Data are 2001 except [1] where data are 2000.

Data relates to UK unless otherwise stated.

Source(s): CE and IER.

21 Public Services

Education and health are high in the social priority of the Government.

3.124 In today's knowledge based economy, education has become increasingly important, while developing health and social care has become increasingly important due to the ageing population. The pressure of an ageing population is demanding technological innovations to cut the time involved in the treatment of patients and is therefore a priority for an operational health care system. Recent budgets and Spending Reviews have provided substantial increases in funding for health and education. For example, the 2002 Budget provided for NHS spending to rise by around 7% pa in real terms over 2002-07.

There is a particular shortage of public sector workers in southern England.

3.125 Regional imbalances in output and employment are bound to occur across sectors as underlying economic trends are likely to fluctuate (for example, strong demand for retailing and leisure services is likely in regions where incomes are rising rapidly). However, the problem appears to be most acute in the public sector in southern England, and this reflects the rapid rise in house prices in London and the South East over the past few years (house price/income ratios in these regions are now well above their historical averages), and many public sector workers are finding that there is a shortage of suitable affordable housing (DfES, 2000). A further problem is the rigidity of national pay scales, which are used to determine the salaries of public sector workers (although London-based workers do receive an additional allowance). The public sector does not have the same flexibility as employers in much of the private sector to vary wage rates according to the local cost of living. Consequently, vacancy rates in teaching and in London are more than two-and-a-half times the national average. Many of these are hard-to-fill vacancies, and commuting times are increasing as those workers that do choose to work in the capital are forced to live further outside. Given current and predicted patterns of migration, the pressures on public services in the congested South East and London are likely to intensify over the next decade. Given that health, education and social work are labour intensive in nature, the prospect for productivity gains by the introduction of new technology is more limited than in many industries.

3.126 In response to shortages in public sector recruitment, in education, for example, the strategy that has been pursued is that of providing a range of incentives to increase the number of people applying to train as teachers, including increases in basic pay of new teachers, bonuses for teachers in subjects where there is an acute shortage, and training bursaries. These are encouraging people into the profession. However, if recruitment problems in London specifically are to be alleviated, the public sector must be able to offer greater regional variation in pay rates.

The drive to make all government services available reveals gaps in IT and managerial expertise in public administration.

3.127 The Government is committed to providing almost all of its services online by 2005, and the drive towards being at the forefront of the new e-conomy is having wide-ranging human resource implications for staff in central government (Central Government NTO, 2001). In the past, several high-profile IT projects have failed, including new systems for the Passport Office and Benefits Agency. A report by the National Audit Office in April concluded that around three-quarters of the projects it reviewed suffered from deficiencies in competencies on the government side, especially in IT and contract management. Specific deficiencies in procedures included not consulting with end users to ensure needs would be met, a lack of quantified criteria by which to judge the success or failure of the project and an absence of contingency plans to run services if the project were delayed or fails. Management skills have come also come under focus partly due to the scrutiny of the Investors in People process and also due to 'fast-tracking' of some of the workforce into managerial positions faster than before. Furthermore, departments with high concentrations of specialists (lawyers, economists, statisticians, accountants etc.) also report skills gaps, associated with the fact that specialists enter at high grades and may have 'bypassed' some generic skills acquisition, having also had little management or policy work experience.

IT skills are becoming more important in education.

3.128 The pressures of rapid technological change have raised the priority given to education in the long-term economic strategy of the Government, including education beyond secondary school age. By its nature, much of the education sector is not amenable to rapid increases in (measured) productivity: the quality of provision is often judged by the level of inputs (for example, teacher: student ratios). There is, however, some scope for innovative use of IT to facilitate independent and/or distance learning, and to improve the monitoring and evaluation of learning, but this is unlikely to have a measurable impact on the sector's overall productivity in the coming five years. If anything, the need to upgrade IT skills requires greater investment in staff training time. Hence, productivity growth is expected to be slow.

3.129 Further Education NTO (2001) concluded that 80% of the lecturing workforce need to develop skills to support remote learners online and other IT based learning. Hence there is a massive and continuing training need.

The strong increase in health spending is being driven by demographic trends and developments in medical technology...

3.130 The rising expectations of the population with regard to health-care provision and, particularly, the impact of technological change are driving health spending. Technological advances in particular have mixed implications for (measured) value-added in the health sector. Some advances can reduce the requirement for inputs by the health sector, for example the use of new drug treatments and less intrusive surgery to cut down the time spent in hospital. Given the continually mounting costs of health care, there is a strong incentive for health-care providers to adopt such means of curbing expenditure growth. But some technological advances have the effect of introducing treatments that were not previously available, which increases the demand for health care. For example, some developments in biotechnology are making it possible to develop therapies to address previously intractable genetic conditions. Some developments are making a major impact on the quality of life of the very old.

and is placing great demands on the workforce.

3.131 The rapid increase in spending on health are stimulating a large increase in demand for labour, as health-care is, by its nature, a highly labour-intensive industry. There is a need to recruit, train and retain more staff, while developments in technology are resulting in the need to devise new ways of working in the face of changes in the pattern of health care delivery. Skills shortages are most acute among professional staff, academic and teaching staff, and skills gaps are most evident in IT, communication and management (Healthwork UK, 2001). The NTO concluded that the industry needs a more flexible qualification framework. The three main barriers to achieving NVQs/SVQs are considered to be the time burden of assessment, lack of funding for release from other work for assessment and lack of incentives for candidates to complete.

The childcare workforce is ageing, as the availability of less demanding jobs at better rates of pay creates alternative choices for potential early years practitioners.

3.132 The Government's National Childcare Strategy has created a large increase in demand for childcare and therefore childcare workers. However, there is a mismatch between the perception of the sector as a low skilled area of work and the reality of the educational demands placed on workers who need a range of skills and knowledge (Early Years NTO, 2001). The workforce is regarded as poorly paid with an incoherent pay/career structure, and having low status and esteem. Career progression is poorly defined in the sector and it can be as difficult to move across and up through the sector as it is to move into related professions such as teaching. The availability of less demanding jobs at better rates of pay creates alternative choices for potential early years practitioners. As a result, the NTO found that the workforce is ageing and, although this brings the necessary experience and knowledge to the sector, it does not necessarily make it easy for young people to enter at an age when they are forming career decisions. A range of recruitment strategies, both local and national, are in place to address a possible recruitment crisis. Nevertheless, there is a concern that men will remain unattracted to the sector.

Sector 21 Public Services

SIC_{92} headings: 75, 80, 85	
General public service activities, including administration of central, regional and local bodies; business and government regulation agencies; foreign affairs, defence activities and judicial activities; police and fire services; and compulsory social security. Public and private education at any level or for any profession, oral or written as well as by radio or television, including: primary, secondary, technical, vocational and higher education; adult education including driving schools, other private training providers, TECs and LECs. Human health activities incl.: hospitals, medical and dental practices; nurses, midwives, speech therapists etc working other than in hospitals; medical laboratories, blood banks and ambulance transport. Veterinary activities. Social work activities incl.: hostels/homes for children, the aged, the handicapped, homeless etc; day care activities; and social, counselling, refugee, and similar activities.	
Share of GVA (%)	16.7
Employment (thousands)	6650
Share of UK (%)	22.8
Male:Female	29:71
Change: 1991-2001 (% pa)	1.0
Change: 1996-2001 (% pa)	1.3
Self-Employment (%)	5.5
Employment in England (thousands)	776
Top Three Occupational Groups (% of Total Emp.)	
Professional Occupations	26.3
Administrative and Secretarial Occupations	18.9
Associate Professional and Technical Occupations	18.7
GVA per Worker[1] (£s)	21700
Exports:GVA (%)	1.1
Concentration	low

Note(s): Data are 2001 except [1] where data are 2000.

Data relates to UK unless otherwise stated.

Source(s): CE and IER.

22 Miscellaneous Services

This diverse sector encompasses a wide range of occupations and skills.

3.133 Miscellaneous services encompasses a wide range of activities including sewage and refuse disposal, sanitation, activities of membership organisations (whether business professional religious or political), recreational, cultural and sporting activities (related, for example, to film, music, radio, television, theatres, museums, arts facilities and sports). The fragmentation of the industry means that different sub-sectors have contrasting skills needs. Around 1.7m people are employed in the sector, and over the past decade employment has been increasing by around 2-2.5% pa, well above the rate of employment growth in the overall economy. This probably reflects an increase in demand for labour-intensive personal services, cultural and sporting activities, and developments in digital television. In waste treatment, employment rose for much of the 1990s, but as this sub-sector has consolidated and more efficient techniques have been introduced, employment has declined sharply over the past several years.

3.134 As culture, media and sports are among the most important employers in the sector, the largest occupational group in miscellaneous services is associate professional and technical (21.6% of the total workforce), which includes artistic and literary, media associate, and sports and fitness occupations. Elementary occupations (predominantly in cleaning) are the second largest occupational group (19%).

In waste treatment, environmental legislation is resulting in a need for increased managerial skills, as well as greater knowledge of health and safety legislation.

3.135 Improvements in technology to dispose of waste with less damage to the environment are becoming increasingly important as public and political demand for environmentally sustainable waste treatment methods spurs the industry to research, develop and refine existing techniques. Recent legislation has focused on household waste, the most expensive and least attractive form of packaging waste. According to WINATAB (2001), this has had far-reaching implications for skills needs. Historically, workers in the waste treatment industry have required no formal qualification, and have obtained practical skills "on the job". However, there is now a greater demand for increased skill levels and qualifications, including those related to health and safety. The introduction of new technology and methods to dispose of and recycle waste is affecting project management and technical skills related to waste collection, landfill and treatment, while consolidation is promoting increased managerial skills. The demand for waste treatment services is expected to grow further as even tougher environmental guidelines are introduced. This is likely to stimulate further consolidation in the industry, with a further fall in employment, resulting in a smaller, more skilled workforce.

3.136 The arts and entertainment sector is large and complex, covering the performing arts, the visual arts, crafts, the literary arts, arts management and administration, arts development and teaching, and technical production and support. The sector has large numbers of micro-businesses, self-employed freelance workers, short-contract workers and volunteers. Because of this, skills vary considerably, and it is not easy to pick out general themes. Nevertheless, Metier (2000) found that there are two apparently contradictory trends in skills demand: increasing specialisation (especially among freelance workers), and a need for generalists (people with high level skills and wide-ranging experience). The latter could be interpreted as a need to increase the level of multi-skilling. Skills gaps (both immediate and predicted) were identified in the following areas:

Two possible conflicting trends in skills demand are apparent in the arts sub-sector: increased demand for specialist workers and a greater need for generalists.

- IT and new technology
- project management
- people management
- generic, transferable skills
- difficulty for freelance workers to access learning.

3.137 Technology convergence has blurred the distinction between media and entertainment companies, while competition between different platforms (terrestrial, satellite and cable) has driven rapid take-up in digital TV services, and this has fuelled demand for interactive (iTV) services, such as commerce and gambling. Content production for digital media is the fastest-growing sector of the audio-visual sector. Among start-ups, a high level of creative and technical skills is essential, and as firms grow in size, more generic management skills are needed. However, the interactive TV market is currently fragmented and the lack of agreed technical standards between platforms is holding up development of content-based services. This has led to an increase in the cost, lead-time and complexity of developing content accessible to all viewers, and has also led to a severe skills shortage. Project management and marketing skills are also lacking, as is to be expected in such a rapidly developing industry (Skillset, 2001).

In digital television, technology convergence is stimulating a sharp increase in demand for IT skills.

3.138 The Hairdressing and Beauty Industry Authority (HABIA, 2002) found evidence of a severe shortage of skilled staff, and significant skills gaps in hairdressing and in beauty salons. There is a high drop-out rate among trainees, and a high proportion of newly qualified workers leave the industry, citing low pay and poor management as key reasons. HABIA (2001) identified skills gaps as being most severe in generic, technical, sales and customer service.

Widespread skills gaps have been reported in some personal services.

Sector 22 Miscellaneous Services

SIC_{92} headings: 90-99	
Sewage and refuse disposal, sanitation etc, incl. collection of solid wastes, transportation and treatment by incineration or other means, sewage removal and disposal, and maintenance of sewers and drains. Recycling of waste with an industrial process is classified to Industry 26, Manufacturing nes & Recycling; collection and purification of water is classified to Industry 29, Water Supply. Business, professional, religious and political organisations; trade unions; recreational, cultural and sporting activities incl. film, radio and television, theatre, arts facilities, museums, sports arenas and organisations, betting; other service activities incl. dry cleaning, hairdressing, funerals. Private households with employed persons; extra-territorial organisations and bodies.	
Share of GVA (%)	4.4
Employment (thousands)	1715
Share of UK (%)	5.9
Male:Female	50:50
Change: 1991-2001 (% pa)	2.1
Change: 1996-2001 (% pa)	2.5
Self-Employment (%)	24.6
Employment in England (thousands)	177
Top Three Occupational Groups (% of Total Emp.)	
Associate Professional and Technical Occupations	21.6
Elementary Occupations	18.7
Administrative and Secretarial Occupations	15.8
GVA per Worker[1] (£s)	24800
Exports:GVA (%)	5.2
Concentration	medium

Note(s): Data are 2001 except [1] where data are 2000.

Data relates to UK unless otherwise stated.

Source(s): CE and IER.

Table 3.1 Summary Sectoral Indicators: Employment Change

	Level ('000s)	Change (%)		Change ('000s)		Rank	
	Emp 2001	Emp 91-01	Emp 96-01	Emp 91-01	Emp 96-01	Emp 91-01	Emp 96-01
Agriculture etc	481	-2.6	-2.5	-143	-64	19	19
Mining and Quarrying	79	-6	-0.2	-67	-1	21	14
Food, Drink and Tobacco	498	-0.8	0.8	-43	20	13	11
Textiles and Clothing	277	-5.4	-7.9	-208	-142	20	22
Wood, Paper and Publishing	585	-0.7	-1.2	-42	-36	12	16
Manufactured Fuels	33	-0.3	1.3	-1	2	9	10
Chemicals and Plastics	478	-0.5	-1.3	-23	-33	10	17
Non-Metallic Mineral Products	150	-2.2	-1.2	-38	-9	17	15
Metals and Metal Goods	528	-2.2	-3.1	-131	-91	18	20
Engineering	855	-1.3	-1.7	-121	-77	16	18
Transport Equipment	406	-0.9	0.3	-40	6	14	13
Manufacturing nes & Recycling	249	1.4	2.6	33	30	3	4
Electricity, Gas and Water	108	-7.6	-7.6	-131	-53	22	21
Construction	1872	-1.1	1.4	-217	130	15	7
Distribution	4916	0.7	1.3	322	306	8	8
Hotels & Catering	1803	1	1.5	175	127	4	6
Transport	1249	0.8	2.6	99	150	7	3
Communications	542	1	2.9	52	72	6	2
Banking and Insurance	924	-0.6	0.6	-54	29	11	12
Business Services	4726	3.6	4.5	1412	935	1	1
Public Services	6650	1	1.3	620	412	5	9
Miscallaneous Services	1715	2.1	2.5	328	196	2	5

Note(s) : Ranking of employment change by sector: 1 equals the sector with the strongest employment growth.

Source(s): CE.

Table 3.2 Summary Sectoral Indicators: Occupational Employment Levels

	Levels of occupations ('000s)								
	Managers	Prof	Assoc Prof	Clerical	Craft	Personal	Sales	Operative	Other
Agriculture etc	63	8	12	21	213	19	5	55	128
Mining and Quarrying	25	19	17	23	53	3	2	46	41
Food, Drink and Tobacco	154	66	142	167	226	28	56	375	297
Textiles and Clothing	80	17	42	40	105	14	9	231	85
Wood, Paper and Publishing	145	39	130	162	352	23	26	206	130
Manufactured Fuels	4	4	3	3	6	0	1	5	4
Chemicals and Plastics	184	140	162	146	214	26	24	352	238
Non-Metallic Mineral Products	17	6	11	12	33	2	2	37	32
Metals and Metal Goods	117	58	72	83	343	15	10	235	181
Engineering	525	422	427	360	811	44	48	583	348
Transport Equipment	100	107	92	96	435	9	9	217	160
Manufacturing nes & Recycling	29	8	15	21	80	2	3	61	30
Electricity, Gas and Water	32	40	28	67	90	6	12	37	34
Construction	213	99	80	143	862	7	14	195	218
Distribution	1603	256	753	997	1269	323	2803	689	986
Hotels & Catering	448	20	86	112	284	56	64	34	705
Transport	611	357	696	1065	800	257	107	1153	1060
Communications	32	22	25	112	112	13	16	102	82
Banking and Insurance	239	103	231	934	59	29	129	28	96
Business Services	2189	2368	2459	3478	680	597	347	501	1036
Public Services	1511	5159	3666	3719	454	2045	198	496	2396
Miscallaneous Services	401	377	749	548	146	340	61	201	648

Source(s): CE and IER.

Table 3.3 Summary Sectoral Indicators: Occupational Employment Shares

	Proportion of occupations ('000s)								
	Managers	Prof	Assoc Prof	Clerical	Craft	Personal	Sales	Operative	Other
Agriculture etc	12.1	1.4	2.2	4.0	40.7	3.7	0.9	10.5	24.4
Mining and Quarrying	11.0	8.5	7.4	10.2	23.0	1.5	0.9	19.9	17.7
Food, Drink and Tobacco	10.2	4.4	9.4	11.1	15.0	1.9	3.7	24.8	19.6
Textiles and Clothing	12.8	2.8	6.7	6.4	16.9	2.2	1.4	37.2	13.6
Wood, Paper and Publishing	11.9	3.2	10.7	13.4	29.1	1.9	2.2	17.0	10.7
Manufactured Fuels	12.6	12.0	10.9	10.4	21.2	1.5	1.8	16.9	12.7
Chemicals and Plastics	12.4	9.4	10.9	9.8	14.4	1.8	1.6	23.7	16.0
Non-Metallic Mineral Products	11.2	4.1	7.2	8.1	21.5	1.5	1.2	24.4	21.0
Metals and Metal Goods	10.5	5.2	6.5	7.4	30.8	1.4	0.9	21.1	16.2
Engineering	14.7	11.8	12.0	10.1	22.7	1.2	1.4	16.3	9.8
Transport Equipment	8.2	8.7	7.6	7.8	35.5	0.7	0.7	17.7	13.0
Manufacturing nes & Recycling	11.7	3.0	6.1	8.5	32.1	0.8	1.4	24.3	12.2
Electricity, Gas and Water	9.4	11.6	8.1	19.3	25.9	1.7	3.6	10.8	9.7
Construction	11.6	5.4	4.4	7.8	47.1	0.4	0.7	10.6	11.9
Distribution	16.6	2.6	7.8	10.3	13.1	3.3	29.0	7.1	10.2
Hotels & Catering	24.8	1.1	4.8	6.2	15.7	3.1	3.5	1.9	38.9
Transport	10.0	5.8	11.4	17.4	13.1	4.2	1.7	18.9	17.4
Communications	6.3	4.3	4.8	21.7	21.7	2.5	3.0	19.7	16.0
Banking and Insurance	12.9	5.6	12.5	50.5	3.2	1.6	7.0	1.5	5.2
Business Services	16.0	17.3	18.0	25.5	5.0	4.4	2.5	3.7	7.6
Public Services	7.7	26.3	18.7	18.9	2.3	10.4	1.0	2.5	12.2
Miscallaneous Services	11.6	10.9	21.6	15.8	4.2	9.8	1.8	5.8	18.7

Source(s): CE and IER.

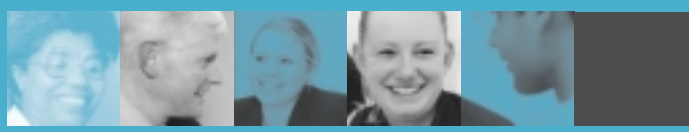
Table 3.4 Summary Sectoral Indicators: Occupational Structure

	Rank								
	Managers	Prof	Assoc Prof	Clerical	Craft	Personal	Sales	Operative	Other
Agriculture etc	9	21	22	22	2	5	19	16	2
Mining and Quarrying	15	9	14	12	8	17	20	7	6
Food, Drink and Tobacco	17	14	10	9	15	11	3	2	4
Textiles and Clothing	6	19	16	20	13	9	13	1	11
Wood, Paper and Publishing	10	17	9	8	6	10	8	11	17
Manufactured Fuels	7	3	7	10	12	15	9	12	13
Chemicals and Plastics	8	7	8	14	16	12	12	5	9
Non-Metallic Mineral Products	14	16	15	16	11	16	16	3	3
Metals and Metal Goods	16	13	17	19	5	18	18	6	8
Engineering	4	4	5	13	9	19	15	13	19
Transport Equipment	20	8	13	17	3	21	22	10	12
Manufacturing nes & Recycling	11	18	18	15	4	20	14	4	15
Electricity, Gas and Water	19	5	11	4	7	13	4	14	20
Construction	12	12	21	18	1	22	21	15	16
Distribution	2	20	12	11	17	6	1	17	18
Hotels & Catering	1	22	20	21	14	7	5	21	1
Transport	18	10	6	6	18	4	11	9	7
Communications	22	15	19	3	10	8	6	8	10
Banking and Insurance	5	11	4	1	21	14	2	22	22
Business Services	3	2	3	2	19	3	7	19	21
Public Services	21	1	2	5	22	1	17	20	14
Miscallaneous Services	13	6	1	7	20	2	10	18	5

Note(s) : Ranking of employment by occupational group: 1 equals the sector with highest proportion of workers in a particular occupational group.

Source(s): CE and IER.

Chapter 4: Key Sectorial Issues



Chapter 4

Key Sectorial Issues

Shifts in occupational employment are likely to continue to boost demand for managerial and professional workers in the medium term in most sectors.

4.1 The detailed sectoral analyses all confirm the general skills trends already identified. Over the past decade, most sectors have seen a continued shift in demand towards management, professional and associate professional and sales skills. In contrast, the demand for skilled craft workers and other less skilled manual workers has been declining across many sectors, or at best has grown only very modestly. For example, CITB (2002a) projects that over 2002-06 the strongest proportionate growth in employment will be in managerial, clerical, technical and professional occupations. Demand for trade/craft occupations is expected to grow much more slowly (although in many occupations, such as carpenters, joiners and bricklayers this may still equate to large absolute increases in employment).

Multi-skilling is also a key requirement.

4.2 Across many occupations, employers are demanding more flexibility and the ability to carry out tasks beyond the narrow occupational boundaries that may have been traditional. Many sectoral studies have also identified an increased need among employers for multi-skilled staff. Employees need to be competent to undertake a broad range of tasks (typically in smaller firms) or they need to be able to carry out a role that may have been covered by more than one person previously. Multi-skilling is becoming a common way by which firms try to address skills shortages. This applies particularly among those operating in low-margin sectors that may be reluctant to take on new staff (CAPITB Trust, 2001). Many of the companies in these areas are instead seeking to increase the proportion of their workforce that are multi-skilled. One way of interpreting this trend is to see it as part of a wider drive to boost productivity and enhance competitiveness.

Manufacturing employment is declining overall, but even here the demand for specialist skills is often increasing.

4.3 In most manufacturing industries, employment has been declining for several decades. According to most sectoral reports, this is expected to continue over the medium term. Nevertheless, demand for some workers within these sectors with particular skills is increasing. For example, DfES (2001c) projected that engineering employment (including metals production) will decline by 13% between 1998-2004, but that within this overall decline there will be strong increases in demand for managerial, technical and skilled mechanical engineering and electrical engineering craftsmen.

Recruitment difficulties are resulting in an ageing workforce in some sectors...

4.4 Many sectors, particularly heavy manufacturing and other sectors with a strong demand for manual labourers, have traditionally relied on young men aged under 25 years (and especially those between 16-19 years) to meet their employment needs. However, these sectors are now facing difficulties in recruiting from this segment of the labour market.

and this is exacerbating the problem of meeting replacement demands for those retiring.

4.5 CITB (2002b) provides a good example. This found that the numbers of those under 25 years who perceive the industry as being one which offers sustained, long-term career prospects has been declining in recent years. This, it is argued, results from the long term implications of the cyclical nature of the construction sector, with frequent sustained downturns. Consequently, the workforce in the sector is ageing. This exacerbates the problems of meeting replacement demands which arise as people leave employment because of retirement (as well as various other factors).

In many sectors there is an 'image' problem, which is often associated with poor pay and working conditions…

4.6 This problem occurs in a number of other sectors. According to Lantra (2001), the result of a drop in young workers wanting to enter the industry is that around 20% of workers in the land-based sector are over the age of 55. This figure rises to 33% in agriculture. The inability of these sectors to attract new recruits stems, to a large degree, from widespread image problems regarding the nature and conditions of employment. DfES (2001b) found that many potential entrants were put off working in food and drink manufacturing because of its image of low wages and unattractive working conditions. The various reports argue that these image problems must be overcome.

however, a lack of suitably skilled applicants does also play a part.

4.7 In some sectors, such as Transport, there are sufficient people with the right skills to enter the transport industry, but they choose to work in other sectors (typically in IT or financial & business services, offering better pay and conditions (DfES, 2001e)). Greater emphasis must be placed on attracting young female workers and other groups that have not traditionally been well represented in such sectors' workforces. Otherwise skill deficiencies are likely to be exacerbated as older workers retire and skills are not replaced.

Employers perceive a mismatch between education provision and industry needs…

4.8 In many sectors, particularly in 'traditional manufacturing', employers believe that current government policy aimed at encouraging more pupils to continue into sixth form education and at increasing participation in non-industry-related higher education is hampering their ability to attract young trainees (see for example the Engineering Employers' Federation, 2001, Metal Industry Skills and Performance (2000) and CAPITB Trust (2001). Furthermore, participation in some industry-related higher education courses is declining (CITB, 2002a) while employers in other sectors (EMTA, 2001) are finding that the content of the courses is not equipping graduates with skills that sufficiently match those demanded by firms.

but industry is beginning to sponsor schools to meet the perceived gaps…

4.9 As part of its plans to improve the provision of industry-related education, the Government wishes to increase the number of specialist schools. These schools teach the full curriculum and use additional resources available to them to focus on their identified specialisms. The Government is aiming to have 1,500 secondary schools (approximately 40% of the total) so designated by 2005. The range of specialisms has been expanded from the original areas of technology, languages, arts and sports to include computing, mathematics and business science & engineering. In response to this move, a consortium from the engineering industry is planning to sponsor a number of specialist schools in areas where the industry is facing severe skills shortages. The three schools identified so far are in Plymouth, Sheffield and the Wirral.

4.10 However, most sectoral studies suggest that the great majority of employers do not believe that it is their responsibility to improve the basic skills of their staff, and that the State should shoulder the burden of training.

although most believe that basic skills training is not their responsibility.

4.11 There are often also problems within the existing workforce. Internal skills gaps have been identified by many employers as a constraint on both business expansion and competitiveness. For example, the Dairy Training and Development Council (2001) identified that skills gaps in the dairy sector are well above the average for manufacturing and for the UK as a whole. Around 37% of employers surveyed identified significant skill gaps compared to a reported 14% in the wider food and drink sector, and 20% for the UK as a whole. Skills gaps were recorded as being most acute in management, basic skills (numeracy and literacy), generic skills (e.g. problem-solving), and sales skills. The principal cause of these gaps, according to dairy employers, is a failure among firms to adequately train and develop their workforce. A key conclusion identified in virtually all employer surveys across different sectors was that skills gaps result in difficulties in meeting customer service objectives, delays in developing new products, increased operating costs and loss of competitiveness.

Detailed sectoral studies confirm that internal skills gaps often hamper business competitiveness…

4.12 A further problem in some sectors, illustrated by the Road Haulage & Distribution Training Council (2001), is that while approximately one-half of employers surveyed recognised that there were basic skills problems across the sector among drivers and manual and warehouse staff, only one-quarter of those recognise the problem within their own company. A key finding from the Skills in England 2002 report was that many firms are unaware of the impact on overall competitiveness of basic skills deficiencies.

but many employers fail to recognise that they may have a problem themselves.

4.13 Many of the sectoral studies highlight spatial problems. Some of these are supply side driven as certain industries tend to be concentrated in particular regions. For example, electronics assembly is concentrated in Scotland and Wales and steel production in Yorkshire & the Humber and Wales. This can give rise to very specific problems in these localities. Other industries are represented in virtually every region. However, even these industries can experience significant regional variations in skills shortages and recruitment problems. For example, DfES (2001) found that construction training tends to be determined more by where new entrants live, rather than where workers are required. As a result, the industry tends to be characterised by large skills deficiencies in some regions and a surplus of labour in others.

Sectoral studies confirm that there are important spatial imbalances in skill needs and supplies.

4.14 Regional imbalances can also arise as a consequence of more general underlying spatial economic trends. For example, strong demand for retailing and leisure services can arise in regions where incomes are rising rapidly. As a result, such regions, which may already be benefiting from strong inward investment in other industries, can experience a virtuous circle of reinforcement. However, this can also become a problem as, for example, is often perceived to be the case in London and some parts of the South East. Here, there are many signs of overheating, and related skill shortages. Such problems appear to be most acute in the public sector in southern England. Such local labour markets 'hot spots' are often associated with particularly rapid rises in house prices.

Regional differences in general economic performance are still apparent, with London and the South-east facing the most severe skill shortages.

Many public sector employers are finding it difficult to meet their skill needs (especially in London and some parts of the South East of England).

4.15 For example, in London and many parts of the South East over the past few years, house price/income ratios have moved to well above their historical averages. As a consequence, many public sector workers are finding that there is a shortage of suitable affordable housing. This problem is highlighted by Healthwork (2001). A further problem for the public sector is the rigidity of national pay scales, which are used to determine the salaries of public sector workers. Although London-based workers often do receive an additional allowance, there are some doubts about whether these are adequate for the purpose (GLA, 2002). The public sector does not have the same flexibility as employers in much of the private sector to vary wage rates according to the local cost of living. Consequently, vacancy rates in teaching in London are more than two-and-a-half times the national average, many of which are hard-to-fill vacancies. As a consequence, such workers are often forced to live well outside the city resulting in increases in commuting times and volumes for many of those choosing to work in the capital. Given current and predicted patterns of migration, the pressures on public services in the congested South East and London is likely to intensify over the next decade. Given that health, education and social work are labour intensive in nature, and cannot be so easily geographically relocated, the prospect for productivity gains by the introduction of new technology is more limited than in many industries.

4.16 In response to shortages in public sector recruitment, in education for example, the strategy that has been pursued is of providing a range of incentives to increase the number of people applying to train as teachers. These include increases in basic pay of new teachers, bonuses for teachers in subjects where there is an acute shortage, and training bursaries, in order to encourage people into the profession. However, if recruitment problems in London specifically are to be alleviated, the public sector must be able to offer greater regional variation in pay rates.

There are difficulties in addressing the problems small firms have in obtaining access to training and concerns about the 'free-rider' problem (poaching).

4.17 The sectoral reports suggest that, across sectors, larger firms appear to be better at both identifying and addressing skills-related problems. Given that much of the growth in employment over the past decade has been in small and medium-sized enterprises, this is an important finding. The better performance of larger firms may be closely linked to the prospect of career progression (larger firms tend to offer better prospects for career progression), and consequently have fewer fears over the 'free-rider' or poaching problem which concerns many smaller firms. The latter have a problem in how to retain the benefits of any training they may undertake when it is embodied in potentially mobile human capital. Although this is not explicitly mentioned in the sectoral body reports, it is implicitly acknowledged among employers who believe that the Government should provide funding for training. There is some evidence, however, that the fear of poaching is often worse than poaching itself (PIU 2001).

4.18 Metal Industry Skills and Performance (2001) reported that small steel producers found it very difficult to obtain access to training provision, particularly those located away from the sector's main geographical clusters. The difficulties facing small firms in obtaining access to training is not

confined to manufacturing sectors. The Financial Services NTO (2002) found that large and medium employers in the sector are willing to invest in training their staff to improve graduate retention, through a combination of professional qualifications and courses. Some larger employers have forged close ties with universities, which has helped in graduate recruitment. Smaller employers, on the other hand, are forced to rely on professional institutes, as they generally do not have the resources to buy in training from private providers.

Certain types of skills are in short supply.

4.19 The sectoral reports highlight various common problems. There are a number of skills which appear to be in short supply across the board. These are required in order to carry out a wide range of jobs. Four particular 'types' of skill can be distinguished:

- Basic skills
- Intermediate skills
- Information & communication technology skills
- Management skills.

Shifts in employment structure have reduced the numbers of jobs requiring few or no skills…

4.20 The changes in the occupational and sectoral structure of employment identified earlier have undoubtedly reduced the proportion of jobs that can be undertaken by those with low levels of basic skills. This has led to an increase in the relative demand for people with at least a minimum level of basic skills. Consequently, the outlook for unskilled workers is bleak. The CBI (2002) confirmed that skills remains a critical issue for business, with employers rating these issues as the key human resources drivers for improved business performance. Employers also warned that qualifications are increasingly being seen as a crucial pre-requisite to employment, and people without qualifications are in danger of being unable to enter the labour market. Some 29% of firms reported that their demand for employees with no qualifications would decline over the next three years, but demand for well-qualified people will continue to increase, with 47% of firms expecting to take on more graduates. According to the ONS, the UK has six million adults with no formal qualifications, of which just 2.6m are in employment. The implications of the CBI survey is that low basic skills will hamper an individual's life opportunities, and policies to promote social inclusion will need to take this into account. DfES (2001f) identifies a further barrier to employment among the unskilled, by asserting that workers without, at the very least a basic grasp of IT user skills, will find it increasingly difficult to find work.

while there is some evidence that the minimum skill needs in most occupations have been rising.

4.21 Evidence on whether the demand for basic skills has increased within the whole range of occupations, is less clear-cut. Brooks et al (2000) provide a summary based upon a limited number of specific surveys. From this and various sectoral reviews, it does seem clear that basic skills have become more important to employers. The most recent survey of workplace basic skills conducted by DfEE (1997) found that 45% of employers suggested that literacy and/or numeracy has increased in importance.

4.22 On the other hand, other more detailed research suggests that basic skills gaps are often less significant to employers than problems relating to generic and IT skills (Robinson (1997) and Coleman and Keep (2001)). While it is clear that there will continue to be decreasing demand for occupations that require little or no basic skills, it seems likely that, at least in some occupations and/or regions, people whose basic skill levels are relatively low may be able to undertake some jobs.

The demands placed on IT skills arising from the diffusion of information technology are still increasing.

4.23 The use of IT is transforming almost all economic activities, and is stimulating rapid changes in working practices. The demand for such skills is contributing towards a general increase in the skill levels of the workforce. The take-up of IT has required a different spread of skills by a broader range of people at all levels. For example, greater diffusion of higher-performance personal computers can be expected directly to enhance workers' skills (and productivity). This takes effect through both the increased use of PCs and by the improvement in PC performance. Furthermore, greater diffusion of PCs in homes and schools is also increasing the general level of computer literacy, leading to a general increase of such skill levels in the workforce.

IT innovations are also having a direct impact on skill requirements in many other areas...

4.24 Off-the-shelf and tailored software products are helping to codify procedures in a form which, when implemented on a hardware platform, either replaces the need for human intervention altogether or allows substitution of lower skilled or high-skilled labour. While some industries are more IT-intensive than others (banking, for example, compared with clothing manufacture), the application of IT has been pervasive throughout the economy. According to e-skills (2002b), around 92% of UK businesses (and around one-third of workers) now use IT, through PCs, workstations or terminals. A measure of the importance of IT across the UK economy is that more than half (55%) of all IT professionals working in the UK are employed in non-IT sectors (e-skills NTO (2002b)).

but there are still concerns that many do not possess the relevant IT skills, which are consequently highly valued.

4.25 However, the DfEE in 'Skills For All - A National Agenda' (2000) found that 28% of firms across the UK believed that their staff did not possess basic IT skills necessary to help achieve business objectives. One consequence of this is that the growth in wages of IT literate staff (and particularly IT specialists) is far outstripping that of the economy as a whole, as firms compete for the scarce supply of labour by offering more lucrative salary packages.

IT skills will remain a crucial element in successful performance across many sectors.

4.26 The next five years are likely to see further increased demand for more workers with IT skills across all sectors. E-skills (2002b) estimates that between 150,000-200,000 more IT professionals are needed each year to meet the demand for IT skills, and that the IT skills of its workforce will become one of the most important factors affecting business competitiveness.

The National Skills Task Force set great emphasis on intermediate skills...

4.27 In its assessment of Britain's skill needs the National Skills Task Force laid great stress on intermediate skills (NSTF, 2001). Others have also emphasised the skills gap in the UK generally at intermediate level compared to other countries (HM Treasury, 2002).

although there is some debate about what this term means.

4.28 Nevertheless, there remains some uncertainty about exactly what this term means. Lloyd and Steedman (1999, p.7) in their review defined them as 'those above routine skills, but below professional ones'. This includes a broad range of occupations such as traditional skilled trades, nurses, estate agents, laboratory technicians and sales representatives. Cambell et al (2001) suggested that a key factor that brings these skills together under one label is the typical qualification level of NVQ3. However, this is problematic as a means of defining the group, since so many young people are now obtaining qualifications at higher levels.

Demand for intermediate skills has grown but employers are finding it difficult to meet their needs through traditional recruitment channels.

4.29 Evidence from employer surveys suggests an overall increase in the demand for intermediate level skills in recent years. However, this has been very uneven, with falling demand for many skilled trades, but strong growth in associate professional and technical occupations, as well as some service occupations. Employers are finding it increasingly difficult to recruit such people using traditional recruitment channels. The Government's push during the 1980s and 1990s to raise participation in higher education has persuaded many young people to continue with their studies to degree level rather than enter employment with lower level qualifications. The evidence on trends in educational participation rates is discussed in greater detail in Chapter 4 of Volume 1 of this Skills in England 2002 report.

4.30 Mason (2001) has reviewed the extent to which graduates are being recruited into occupations that have previously been filled by people with lower level qualifications. He finds that graduates are often preferred by employers because of their more developed generic skills, such as information handling and problem solving. However, other survey evidence of employer difficulties in recruiting graduates indicates a perception of quality shortcomings amongst job applicants. Employers are still keen to find evidence of practical work experience and commercial understanding, which were perhaps more easily acquired through traditional employment-based intermediate skills training such as apprenticeships or other methods of on-the-job training.

4.31 Banking and financial services has traditionally employed large numbers at intermediate level. However, in this sector, as in many others, there has been a major shift from recruiting substantial numbers of qualified school leavers to recruiting graduates. As in other industries, there has also been a movement away from professional exams.

4.32 In the Health service there have been similar changes, with the gradual shift towards graduate entry for nurses. On the other hand, despite the potential for expanding numbers of intermediate occupations within the health service, funding pressure is leading to the greater use of lower-skilled assistants (Coyle, 1995).

Managerial skills are becoming increasingly important.

4.33 A number of the sectoral studies focus on the increasingly important role of management skills. This is not just about those people whose main role is as a 'manager', but also for many others who deploy management skills in other occupations. This issue has been heavily researched in recent years Centre for Excellence in Management and Leadership (CEML). There have been a number of good reviews of this area by Johnson and Winterton (1999), Bosworth (1999) and Winterton et al (2000). These highlight a number of key issues relating to changing skill needs:

- Political changes, including regulation in many new areas;
- Economic influences, including, globalisation, and restructuring;
- Social trends, such as increased female participation;
- Changes in technology, especially the pervasive influence of ICT; and
- Organisational restructuring, including de-layering, downsizing, outsourcing, etc.

An increasing range and depth of skills will be needed by those exercising managerial powers.

4.34 Winterton et al (2000) argue that these changes will increase the range of skills that are required of many managers, including:

- Leadership skills, international awareness, innovation, management of change and flexibility;
- Strategic management, entrepreneurship and the control of smaller organisations or units;
- Facilitation skills, cultural awareness, self-reliance and adaptability to changing environments;
- Ability to deal with a range of stakeholders, influencing skills and environmental awareness; and
- Ability to deal with uncertainty, instinct, judgement and the capacity to learn more quickly than the competition.

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Chapter 5: Regional and Local Evidence

Chapter 5

Regional and Local Evidence

Local and regional bodies have also undertaken and commissioned considerable research on skills issues.

5.1 The recently formed local arms of the LSC, their predecessors the TECs, the RDAs and various other bodies also have an interest in skills. As a consequence they have undertaken or commissioned a great deal of research on trends in skills issues. This includes employers surveys, assessments of future skill needs, as well as skills audits. The authors have undertaken a comprehensive review of the research carried out by or on behalf of all these organisations currently in the public domain, either in hard copy format or available via the World Wide Web.

The review is divided into nine Government Office Regions and 47 local Learning Skills Council areas.

5.2 The review covers the whole of the English economy, which has been divided into nine Government Office Regions and 47 local Learning and Skills Council areas. The reports in this review are organised into these geographical areas, starting with London and its local LSCs and ending with local LSCs in the North East.

The reports have been organised under six different types.

5.3 Six different types of reports have been produced by local LSCs. These include household skills audits, employer surveys, skills needs assessments, social exclusion reports, economic assessments and forward looking assessments. The different types of reports usually comprise:

- household skills audit: a survey based on interviews with individuals to provide basic data on individuals' work history, experiences of the unemployed, qualifications and skills, and participation in learning activities
- employer survey: a survey based on interviews with employers to provide basic data on businesses and business performance, employment and recruitment activity, recruitment difficulties and skill shortages, and employers' training and development activities
- skills needs assessment: a development of employer and household surveys into focused audits of skills needs for key age ranges or populations within the local economy
- social exclusion reports: a survey aimed at highlighting disadvantaged populations in the local/regional economy and their particular problems
- economic assessment: an assessment of the local economy
- forward looking surveys: an action plan to fulfil the needs identified in other surveys.

5.4 The material has been collected and presented in different ways. Not all local LSCs have adopted a common methodology and the research is uneven - more in some areas than others. In terms of presentation some local LSCs have included these reports in a single publication, whereas others have published the material as individual reports.

Chapter 6 presents a set of regional and local profiles.

5.5 Chapter 6 presents a set of regional and local profiles. These summarise the economic and labour market context for each locality. A summary table is presented for each RDA and local LSCs area showing comparable demographic, and labour market indicators. The former include population size and composition. The latter include employment changes and structure, average unemployment and pay rates, as well as the % of establishments reporting recruitment problems.

5.6 In order to illustrate sectoral and occupational structure, the tables use measures of occupational employment shares and the % of total employment in the ten best and ten worst performing industries in the UK as a whole. These are summarised in Table 5.1-5.3.

Chapter 7 highlights key regional and local issues.

5.7 The discussion in Chapter 7 highlights key regional and local issues. These are drawn from the reports produced by the local LSCs. This research has provided a growing body of evidence about skill requirements and related issues at local and regional level. The results reflect the particular situations in each locality, especially sectoral specialisation.

Headline messages from research include the polarisation of skills demand.

5.8 The headline messages from the research by local LSCs revolve around challenges brought about by changes in skills demands. The shift in employment from primary and manufacturing sectors to services sectors is often causing polarisation between those with and without skills. Jobs within manufacturing are changing and often require more flexibility and multi-skilled workers, while services, especially retailing, offer many opportunities for first time jobs, but these require an increasing range of skills.

The long-term unemployed face difficulty in obtaining access to training.

5.9 Employers however remain unwilling to train their workforce for various reasons (due to small profit margins and therefore small training budgets, the highly cyclical nature of their business, etc.) and believe that the responsibility for providing basic literacy, numeracy and IT skills lies in the public sector. Training tends to be taken up by and be much more accessible to the advantaged, increasing the problem of polarisation in the workforce, when the ones in need of training are the long-term unemployed who are unable to re-enter the labour market with their current levels of skills.

5.10 Adapting to the knowledge economy is recognised as crucial in most localities, including some of the already 'high tech' areas that feel the need to stay ahead. Retention of graduates and, in particular, the difficulties faced by peripheral regions is seen as a problem, even though many graduates obtain their education in order to improve their mobility. Many regional bodies fear that they will not be able to retain the benefit of such investments in their own localities.

Table 5.1 Major Occupational Groups (SOC 2000)	
1	Managers and Senior Officials
2	Professional Occupations
3	Associate Professional and Technical Occupations
4	Administrative and Secretarial Occupations
5	Skilled Trades Occupations
6	Personal Service Occupations
7	Sales and Customer Service Occupations
8	Process, Plant and Machine Operatives
9	Elementary Occupations

Table 5.2 Ten Worst Performing UK Industries	
1	Coal
2	Tobacco
3	Clothing and Leather
4	Textiles
5	Wood and Wood Products
6	Mechanical Engineering
7	Other Transport Equipment
8	Water Supply
9	Agriculture
10	Basic Metals

Note(s): 10 worst performing UK industries of 49 by ouput growth 1991-2001.
Source(s): CE.

Table 5.3 Ten Best Performing UK Industries	
1	Other Business Services
2	Pharmaceuticals
3	Gas Supply
4	Oil and Gas etc
5	Professional Services
6	Waste Treatment
7	Air Transport
8	Communications
9	Computing Services
10	Electronics

Note(s): 10 best performing UK industries of 49 by ouput growth 1991-2001.
Source(s): CE.

Chapter 6: Regional and Local Profiles

Chapter 6

Regional and Local Profiles

Regional Overview

6.1 In order to set the evidence on skills issues at a regional and local level into context, it is important to appreciate the particular economic and labour market characteristics of each geographical area. This chapter presents a series of regional and local profiles which meet that objective. In each case, information is presented on:

It is important to appreciate the economic and labour market characteristics of each area.

- Demographic characteristics
- Economic indicators (including house prices to income ratios and earnings)
- Sectoral structure (including the importance of manufacturing and services and rapidly growing and declining industries)
- Indicators of skill deficiencies
- Unemployment rate

6.2 Table 6.1 provides a broad overview, showing how the various regions of England compare on this set of indicators.

6.3 Manufacturing accounts for less than 14.5% of total employment in all regions, this proportion is considerably lower in high-cost locations (7.2% in London). Manufacturing employment is falling in all regions, for a variety of reasons; high cost regions typically experience a shift towards higher productivity (and higher skill) activities, while low-cost regions experience competition from low-wage economies elsewhere.

Manufacturing employment is considerably lower in high-cost locations.

6.4 The change in the structure of the economy is reflected in the number of hard-to-fill and skill shortage vacancies. This is because the skills base changes at a slower rate than the demands of employers. Hard-to-fill and skill shortage vacancies are therefore expected to be most common in the more dynamic regions of England (London and the South East). The South West also has a higher than average number of hard-to-fill and skill shortage vacancies in the successful eastern parts of the region. The West Midlands also has a higher number of hard-to-fill vacancies than the national average, but the number of skill shortages is below the national average.

The skills base changes at a slower rate than the demands of employers.

6.5 In terms of unemployment, the picture is less straightforward. Despite a large number of hard-to-fill and skill shortage vacancies, London also has a higher than average rate of unemployment. This indicates the existence of skills gaps and structural imbalances in London. Unemployment is also higher than the UK average in areas such as the West Midlands, where the region's economy is experiencing structural changes. Further north the higher rate of unemployment is more likely to reflect weak demand for labour.

In some regions high unemployment indicates the existence of skills gaps and structural imbalances and in some the weak demand for labour.

Table 6.1 Regional Overview

	Population density (below average)[1]	House price to income ratio (3.5 or above)[1]	Average earnings (below average)[1]	Importance of manufacturing (above average)[1]	Importance of financial and business services (above average)[1]	Skill-shortage vacancies (above average)[2]	Hard-to-fill vacancies (above average)[2]	Unemployment rate (above average)[1]
1 London		X			X	X	X	X
2 South East		X			X	X	X	
3 East of England					X	X	X	
4 South West	X	X	X			X	X	
5 The West Midlands			X	X			X	X
6 The East Midlands			X	X				
7 Yorkshire and The Humber			X	X				X
8 The North West			X	X				X
9 The North East			X	X				X

Note(s): 1 Data refers to the UK.
2 Data refers to England.

Source(s): Cambridge Econometrics (2002), 'UK Regional Report, July 2002'.
Green, A. E. and D. Owen (2002), 'Skills, Local Areas and Unemployment: ESS 2001'.

6.6 All of the English regions except the South West have a higher population density than the UK average. England also has the more expensive houses. The average ratio of house prices to income is more than 3.5 in London, the South East and the South West. In the East of England and the Midlands the ratio is around 3.5, while in the north of England (Yorkshire and The Humber, the North West and the North East) the ratio is much lower at 3 or less.

6.7 House prices vary more than these ratios would suggest however because earnings also vary in the same way. In London, the South East and the East of England earnings are much greater than the UK average. Elsewhere earnings are below average, emphasising the gap between these three regions and the rest. In some parts of the South West the region's attractiveness as a location for retirement has pushed up house prices relative to the incomes of people working there; they also reflect the more buoyant economy in the eastern part of the region.

London

6.8 The London region has a population of almost 7.4 million, making it the largest city in Europe. Of the almost 7.4 million residents 4.5 million are employed, making London a very large market in its own right. London is also highly cosmopolitan with 1.8 million residents from ethnic minorities, almost half the total for the UK, who own 20% of the capital's businesses.

6.9 London is one of the major international business and trading centres and the leading choice for international investment in Europe. The London Stock Exchange has more foreign company listings than any other in the world and, as a result, it is the base for around 550 foreign banks, as well as the headquarters of many international companies. Excellent air links with the rest of the world, through nearby airports at Heathrow, Gatwick, Stansted and Luton, and fast Eurostar rail links to mainland Europe contribute to London's global position.

London is one of the major international business and trading centres and the leading choice for international investment in Europe.

6.10 London's GVA (gross value added, the contribution individual sectors and industries to gross domestic product) is the largest per head of all the regions. Almost 40% of this is generated by finance and business services, which employs over 1.4 million people. The figure may be more however, since many of the companies listed as involved in manufacturing and production have activities such as marketing and sales and other business support in their London branches. Manufacturing accounts for 10% of GVA compared to the UK average of 20% and is a sector which has lost jobs in London twice as fast as elsewhere in the UK, making it partly responsible for inner London's unemployment rate being twice the national average.

London's GVA is the largest per head of all the regions.

6.11 London is also a major centre for higher and further education, with 27 universities, 12 HE colleges and 57 FE colleges. London's universities generate about 25% of the UK's research revenues, the largest of any region. Over 20% of the higher education student population of England is in London.

London is also a major centre for higher and further education.

LONDON

Local LSCs: London North; London West; London Central; London East; London South.	
Population (thousands)	7375
Population of Working Age (thousands)	4759
Ethnic Minorities (%)	
White	75.2
Black	9.0
Indian	5.8
Bangladeshi/Pakistani	3.3
Other/Mixed	6.6
Population Change: 1990-2000 (% pa)	0.7
Population Density (persons per square km)	4668
Employment (thousands)	4497
Change: 1990-2000 (% pa)	0.6
Change: 1995-2000 (% pa)	2.9
Employment in Ten Worst Performing UK Industries (%)	1.3
Employment in Ten Best Performing UK Industries (%)	30.3
Top Three Occupational Groups (% of Total Emp.)	
Managers and Senior Officials	20.1
Administrative and Secretarial Occupations	15.7
Associate Professional and Technical Occupations	14.8
Average Gross Weekly Pay[1] (£s)	508
Unemployment Rate (ILO)	3.8
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	8.1
Establishments Reporting Skill-Shortage Vacancies[1] (%)	4.2

Note(s): Data are 2000 except[1] where data are 2001.
Source(s):CE, ESS2001 and NOMIS.

LONDON NORTH

Population (thousands)	1059
Population of Working Age (thousands)	684
Ethnic Minorities (%)	
White	75.3
Black	10.3
Indian	5.1
Bangladeshi/Pakistani	2.8
Other/Mixed	6.6
Population Change: 1990-2000 (% pa)	0.8
Population Density (persons per square km)	4412
Employment (thousands)	372
Change: 1990-2000 (% pa)	0.4
Change: 1995-2000 (% pa)	2.6
Employment in Ten Worst Performing UK Industries (%)	2.7
Employment in Ten Best Performing UK Industries (%)	20.3
Top Three Occupational Groups (% of Total Emp.)	
Managers and Senior Officials	20.0
Administrative and Secretarial Occupations	15.2
Associate Professional and Technical Occupations	14.8
Average Gross Weekly Pay[1] (£s)	383
Unemployment Rate (ILO)	6.2
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	4.9
Establishments Reporting Skill-Shortage Vacancies[1] (%)	1.3

Note(s): Data are 2000 except[1] where data are 2001.
Source(s):CE, ESS2001 and NOMIS.

LONDON WEST

Population (thousands)	1416
Population of Working Age (thousands)	932
Ethnic Minorities (%)	
White	66.2
Black	7.8
Indian	14.4
Bangladeshi/Pakistani	3.2
Other/Mixed	8.4
Population Change: 1990-2000 (% pa)	0.6
Population Density (persons per square km)	4240
Employment (thousands)	777
Change: 1990-2000 (% pa)	0.6
Change: 1995-2000 (% pa)	3.6
Employment in Ten Worst Performing UK Industries (%)	1.3
Employment in Ten Best Performing UK Industries (%)	30.3
Top Three Occupational Groups (% of Total Emp.)	
Managers and Senior Officials	19.5
Administrative and Secretarial Occupations	16.4
Associate Professional and Technical Occupations	14.1
Average Gross Weekly Pay[1] (£s)	463
Unemployment Rate (ILO)	3.3
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	6.9
Establishments Reporting Skill-Shortage Vacancies[1] (%)	2.0

Note(s): Data are 2000 except[1] where data are 2001.
Source(s):CE, ESS2001 and NOMIS.

LONDON CENTRAL

Population (thousands)	1602
Population of Working Age (thousands)	1067
Ethnic Minorities (%)	
White	74.2
Black	12.0
Indian	2.4
Bangladeshi/Pakistani	2.5
Other/Mixed	8.8
Population Change: 1990-2000 (% pa)	1.2
Population Density (persons per square km)	9886
Employment (thousands)	1646
Change: 1990-2000 (% pa)	0.7
Change: 1995-2000 (% pa)	2.9
Employment in Ten Worst Performing UK Industries (%)	0.9
Employment in Ten Best Performing UK Industries (%)	33..3
Top Three Occupational Groups (% of Total Emp.)	
Managers and Senior Officials	23.0
Administrative and Secretarial Occupations	19.7
Associate Professional and Technical Occupations	17.0
Average Gross Weekly Pay[1] (£s)	583
Unemployment Rate (ILO)	3.0
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	9.7
Establishments Reporting Skill-Shortage Vacancies[1] (%)	5.6

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

LONDON EAST

Population (thousands)	1941
Population of Working Age (thousands)	1207
Ethnic Minorities (%)	
White	74.2
Black	10.5
Indian	4.9
Bangladeshi/Pakistani	5.8
Other/Mixed	4.5
Population Change: 1990-2000 (% pa)	0.4
Population Density (persons per square km)	4502
Employment (thousands)	1128
Change: 1990-2000 (% pa)	0.7
Change: 1995-2000 (% pa)	3.3
Employment in Ten Worst Performing UK Industries (%)	1.4
Employment in Ten Best Performing UK Industries (%)	31.7
Top Three Occupational Groups (% of Total Emp.)	
Managers and Senior Officials	16.2
Administrative and Secretarial Occupations	17.7
Associate Professional and Technical Occupations	12.5
Average Gross Weekly Pay[1] (£s)	574
Unemployment Rate (ILO)	4.8
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	10.0
Establishments Reporting Skill-Shortage Vacancies[1] (%)	6.5

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

LONDON SOUTH

Population (thousands)	1358
Population of Working Age (thousands)	869
Ethnic Minorities (%)	
White	86.7
Black	3.7
Indian	3.0
Bangladeshi/Pakistani	1.2
Other/Mixed	5.2
Population Change: 1990-2000 (% pa)	0.8
Population Density (persons per square km)	3288
Employment (thousands)	575
Change: 1990-2000 (% pa)	0.1
Change: 1995-2000 (% pa)	1.7
Employment in Ten Worst Performing UK Industries (%)	1.5
Employment in Ten Best Performing UK Industries (%)	25..3
Top Three Occupational Groups (% of Total Emp.)	
Managers and Senior Officials	22.0
Administrative and Secretarial Occupations	16.5
Professional Occupations	14.5
Average Gross Weekly Pay[1] (£s)	338
Unemployment Rate (ILO)	2.8
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	5.7
Establishments Reporting Skill-Shortage Vacancies[1] (%)	1.9

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

Among London's problems are inner city poverty and the high cost of living

There are wide disparities in terms of prosperity between different parts of the city.

6.12 London's problems include inner city poverty, increasing congestion, pollution and the high cost of living, particularly where housing is concerned, and high industrial and commercial rents and other costs.

6.13 London encompasses a wide range of communities and there are wide disparities in terms of prosperity between different parts of the city. Despite recent strong growth in London's economy, and the associated improvements in the well-being of its inhabitants, these differences remain and the capital has some of the country's most prosperous districts and also some of its most deprived.

London's Local LSC Areas

In general, the London local LSCs rank high in the level of qualifications held by employees.

6.14 In general, the London local LSCs rank high in the level of qualifications held by employees. Three of the five London local LSC areas rank in the top ten local LSCs for qualifications at level NVQ4 or above. London North comes 11th but the main exception is London East, which ranks much lower in this category at 20th. The main difference between London East and the other London local LSCs however is the number of employees with no qualifications. It ranks 7th in the category of employees with no qualifications, whereas the others rank between 27th and 45th in this category. In the other qualifications category (other vocational or professional or foreign qualifications) London local LSCs have the first four places with London South as 7th.

London East and London Central have the highest levels of hard-to-fill and skill-shortage vacancies in London.

6.15 London East and London Central have the highest levels of hard-to-fill and skill-shortage vacancies in London. The main reasons for this are the low levels of appropriate qualifications in these regions and the difficulty in hiring faced by the public sector. Many vacancies demanding a high level of qualification are filled by commuters, especially vacancies in Central London and the City of London.

London has in general been successful in generating employment and has had some of the highest levels of employment growth.

6.16 London has in general been successful in generating employment and has had some of the highest levels of employment growth over the five years before 2000. All local LSC areas of London rank in the top ten for employment growth with the exception of London South, which ranks 15th. However, over the period 1990-2000, only London Central is in the top ten. London's success in generating employment is partly due to the greater representation of growth industries. All local LSC areas of London rank in the top ten for employment in the ten best performing industries in the UK with the exception of London North, which ranks 11th. In terms of employment in the ten worst-performing industries in the UK, the London local LSC areas occupy the four lowest ranks with London North as 41st. In terms of the unemployment rate, London is not however doing as well as this employment growth rate might suggest. By far the worst are London North, which has the 8th worst unemployment rate in England at 6.2%, and London East which is 11th worst in England at 4.8%. Other local LSC areas of London do not have a much better unemployment rate than the UK average either. One reason for this is the large number of commuters that are often better qualified than the local workforce for the available jobs in London. Another reason however

is London's relatively fast shift away from manufacturing towards service industries, which has caused skills gaps especially in the northern parts of London. Also London's strong population growth due to international in-migration means that employment growth is not necessarily going to help those currently unemployed.

South East

6.17 The South East region is the third largest geographically in England, forming an arc around London, from Kent in the south east, to Hampshire in the south and Buckinghamshire in the north. It encompasses 19 counties and unitary authorities, with 7 cities with populations of over 100,000 and a total population of over 8.1 million. Despite the number of roads and increasing congestion problems, the region represents an attractive environment, with about 40% of the land subject to some form of protective legislation.

The South East is strong economically, with London critical to its success.

6.18 Economically the region is strong, providing 4.1 million jobs and accounting for 16% of the UK's GVA. There are over 240,000 VAT registered companies in an economy which is, in the main, advanced, high cost, high income, broadly based and service orientated. The region's relationship with London is critical to its success, as London is a key market, a key provider of employment (20% of London's workforce live in the South East), and a key provider of business services.

The South East has attracted many global companies as the 'gateway' region.

6.19 Proximity to mainland Europe is very important and as the 'gateway' region the South East has attracted many global companies. Half the UK's 100 most strategically important international companies are based in the region. There are good national and international communications, with the region containing 24% of the national motorway system, the UK's second busiest airport, Gatwick, and access to mainland Europe via the Channel Tunnel and ferry ports. Heathrow Airport, although in the London region, is immediately adjacent to the south-east region and exerts a strong influence on it in terms of jobs and communications facilities.

The workforce is generally well educated, but there are pockets of relative disadvantage.

6.20 The workforce is generally well educated and the South East is the most prosperous region in the UK in terms of real household disposable income. However there are pockets of relative disadvantage particularly in the east (Kent), in the towns along the south coast, and the Isle of Wight. There are also problems with pressure of population and industry on the available land.

SOUTH EAST

Local LSCs: Berkshire; Milton Keynes, Oxfordshire and Buckinghamshire; Sussex; Hampshire and the Isle of Wight; Kent and Medway; Surrey.	
Population (thousands)	8115
Population of Working Age (thousands)	4946
Ethnic Minorities (%)	
White	96.7
Black	...
Indian	0.8
Bangladeshi/Pakistani	...
Other/Mixed	1.2
Population Change: 1990-2000 (% pa)	0.6
Population Density (persons per square km)	425
Employment (thousands)	4174
Change: 1990-2000 (% pa)	0.6
Change: 1995-2000 (% pa)	2.6
Employment in Ten Worst Performing UK Industries (%)	4.1
Employment in Ten Best Performing UK Industries (%)	23.1
Top Three Occupational Groups (% of Total Emp.)	
Managers and Senior Officials	18.7
Administrative and Secretarial Occupations	14.9
Professional Occupations	11.8
Average Gross Weekly Pay[1] (£s)	394
Unemployment Rate (ILO)	1.9
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	8.8
Establishments Reporting Skill-Shortage Vacancies[1] (%)	3.7

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

South East Local LSC Areas

Those employed in the local LSC areas of the South East have some of the highest levels of qualifications in England.

6.21 Those employed in the local LSC areas of the South East have some of the highest levels of qualifications in England. Surrey, Milton Keynes, Oxfordshire and Buckinghamshire, and Berkshire local LSC areas are in the top five local LSCs for qualifications at level NVQ4 or above. From the other three only the Kent and Medway local LSC area has fewer than 20% of employees with qualifications at level NVQ4 or above. Kent and Medway however ranks the highest with qualifications at level NVQ1 in England. In general, the South East has some of the lowest ranks in England for the proportion of employees with no qualifications.

6.22 Surrey, Milton Keynes, Oxfordshire and Buckinghamshire, Sussex and Berkshire local LSC areas have a higher number of hard-to-fill and skill-shortage vacancies than the rest of the region, reflecting the changing demands on the workforce in these areas. In terms of hard-to-fill vacancies, these local LSC areas rank within the top eight, while Hampshire and the Isle of Wight and Kent and Medway do not rank very high in this category. Only Sussex ranks in the top ten for skill-shortage vacancies, at 5th.

The South East has some of the best performing local LSC areas in terms of creating employment.

6.23 The South East has some of the best performing local LSC areas in terms of creating employment. Surrey, Milton Keynes, Oxfordshire and Buckinghamshire, Berkshire, and Hampshire and the Isle of Wight are all in the top seven for employment growth 1995-2000. Kent and Medway, on the other hand, is one of the worst performers on this measure ranking very near the bottom. The success of most local LSC areas in creating employment is partly due to their relative specialisation in the best-performing industries in the UK. Much of the area has near full employment. Surrey, Milton Keynes, Oxfordshire and Buckinghamshire, and Berkshire rank in the top seven for employment in the best-performing industries in the UK. Surrey, Milton Keynes, Oxfordshire and Buckinghamshire, and Berkshire also have the three lowest unemployment rates in England, with Hampshire and the Isle of Wight very close (although this average obscures the higher rate of the Isle of Wight). In terms of unemployment, Kent and Medway is the worst-performing local LSC area in the South East.

BERKSHIRE

Population (thousands)	803
Population of Working Age (thousands)	517
Ethnic Minorities (%)	
White	91.1
Black	1.4
Indian	3.0
Bangladeshi/Pakistani	2.4
Other/Mixed	1.9
Population Change: 1990-2000 (% pa)	0.7
Population Density (persons per square km)	639
Employment (thousands)	504
Change: 1990-2000 (% pa)	0.9
Change: 1995-2000 (% pa)	3.4
Employment in Ten Worst Performing UK Industries (%)	3.3
Employment in Ten Best Performing UK Industries (%)	32.3
Top Three Occupational Groups (% of Total Emp.)	
Managers and Senior Officials	21.6
Administrative and Secretarial Occupations	15.8
Professional Occupations	13.3
Average Gross Weekly Pay[1] (£s)	477
Unemployment Rate (ILO)	1.3
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	17.4
Establishments Reporting Skill-Shortage Vacancies[1] (%)	5.4

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

MILTON KEYNES, OXFORDSHIRE AND BUCKINGHAMSHIRE

Population (thousands)	1325
Population of Working Age (thousands)	838
Ethnic Minorities (%)	
White	94.6
Black	1.5
Indian	0.7
Bangladeshi/Pakistani	1.2
Other/Mixed	2.0
Population Change: 1990-2000 (% pa)	0.9
Population Density (persons per square km)	296
Employment (thousands)	754
Change: 1990-2000 (% pa)	1.2
Change: 1995-2000 (% pa)	2.7
Employment in Ten Worst Performing UK Industries (%)	3.9
Employment in Ten Best Performing UK Industries (%)	25.8
Top Three Occupational Groups (% of Total Emp.)	
Managers and Senior Officials	21.8
Administrative and Secretarial Occupations	14.7
Professional Occupations	13.7
Average Gross Weekly Pay[1] (£s)	399
Unemployment Rate (ILO)	1.2
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	14.3
Establishments Reporting Skill-Shortage Vacancies[1] (%)	4.7

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

SUSSEX

Population (thousands)	1522
Population of Working Age (thousands)	881
Ethnic Minorities (%)	
White	97.8
Black	0.6
Indian	0.5
Bangladeshi/Pakistani	...
Other/Mixed	0.8
Population Change: 1990-2000 (% pa)	0.7
Population Density (persons per square km)	401
Employment (thousands)	698
Change: 1990-2000 (% pa)	0.4
Change: 1995-2000 (% pa)	1.4
Employment in Ten Worst Performing UK Industries (%)	4.1
Employment in Ten Best Performing UK Industries (%)	17.6
Top Three Occupational Groups (% of Total Emp.)	
Managers and Senior Officials	16.7
Administrative and Secretarial Occupations	14.6
Skilled Trades Occupations	12.3
Average Gross Weekly Pay[1] (£s)	347
Unemployment Rate (ILO)	2.4
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	11.3
Establishments Reporting Skill-Shortage Vacancies[1] (%)	7.5

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

HAMPSHIRE AND THE ISLE OF WIGHT

Population (thousands)	1786
Population of Working Age (thousands)	1094
Ethnic Minorities (%)	
White	98.3
Black	...
Indian	0.4
Bangladeshi/Pakistani	...
Other/Mixed	0.8
Population Change: 1990-2000 (% pa)	0.5
Population Density (persons per square km)	429
Employment (thousands)	919
Change: 1990-2000 (% pa)	0.4
Change: 1995-2000 (% pa)	3.7
Employment in Ten Worst Performing UK Industries (%)	5.0
Employment in Ten Best Performing UK Industries (%)	19.2
Top Three Occupational Groups (% of Total Emp.)	
Managers and Senior Officials	16.7
Administrative and Secretarial Occupations	15.1
Personal Service Occupations	12.4
Average Gross Weekly Pay[1] (£s)	375
Unemployment Rate (ILO)	2.0
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	16.9
Establishments Reporting Skill-Shortage Vacancies[1] (%)	2.7

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

KENT AND MEDWAY

Population (thousands)	1598
Population of Working Age (thousands)	954
Ethnic Minorities (%)	
White	98.2
Black	...
Indian	0.6
Bangladeshi/Pakistani	...
Other/Mixed	0.9
Population Change: 1990-2000 (% pa)	0.4
Population Density (persons per square km)	428
Employment (thousands)	659
Change: 1990-2000 (% pa)	-0.9
Change: 1995-2000 (% pa)	-0.2
Employment in Ten Worst Performing UK Industries (%)	5.1
Employment in Ten Best Performing UK Industries (%)	15.5
Top Three Occupational Groups (% of Total Emp.)	
Managers and Senior Officials	16.3
Administrative and Secretarial Occupations	15.1
Skilled Trades Occupations	13.3
Average Gross Weekly Pay[1] (£s)	345
Unemployment Rate (ILO)	3.0
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	4.3
Establishments Reporting Skill-Shortage Vacancies[1] (%)	1.4

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

SURREY

Population (thousands)	1081
Population of Working Age (thousands)	662
Ethnic Minorities (%)	
White	96.7
Black	...
Indian	0.9
Bangladeshi/Pakistani	...
Other/Mixed	1.5
Population Change: 1990-2000 (% pa)	0.5
Population Density (persons per square km)	644
Employment (thousands)	640
Change: 1990-2000 (% pa)	2.2
Change: 1995-2000 (% pa)	4.8
Employment in Ten Worst Performing UK Industries (%)	2.7
Employment in Ten Best Performing UK Industries (%)	32.0
Top Three Occupational Groups (% of Total Emp.)	
Managers and Senior Officials	21.4
Professional Occupations	15.3
Administrative and Secretarial Occupations	14.2
Average Gross Weekly Pay[1] (£s)	459
Unemployment Rate (ILO)	0.8
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	14.1
Establishments Reporting Skill-Shortage Vacancies[1] (%)	5.6

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

East of England

There is significant diversity across the counties of the East of England.

6.24 The East of England region contains nine counties and unitary authorities. There is significant diversity across the counties, with Cambridgeshire one of the fastest-growing of the counties in England, contrasting with the more remote coastal and rural areas to the north and the east. The region enjoys the highest GVA outside London and the South East, and contributes 11% of the UK's GVA. It has a population of over 5.4 million spread across a large number of relatively small towns and cities, which are coming under increasing pressure due to strong population growth in the region.

6.25 The region has been one of the best-performing over the last few years and this favourable economic performance is set to continue. Of the region's population just over 2.5 million are employed.

Higher education and research and development facilities are important employers and contributors to the regional economy.

6.26 Higher education and research and development facilities are important employers and contributors to the regional economy. The region has a strong research and development base with telematics networks, innovation and the development of knowledge based activities. Cambridge University is a key institution in this activity.

There is a marked split between achievement levels of central and south Cambridgeshire and the rest of the region.

6.27 The strong educational performance at the higher level is matched by a much more patchy performance at lower levels. There is a marked split between the above regional and national achievement levels of central and south Cambridgeshire and the rest of the region, where there is a tailing off of qualification levels after a strong school performance.

The strongest sectoral growth is expected in transport and communications and finance and business services.

6.28 The strongest sectoral growth is expected in transport and communications and finance and business services, with manufacturing also expected to see faster growth than the national average. Hertfordshire and Cambridgeshire are the strongest growth points, with Essex, Bedfordshire and part of the Norfolk coast performing relatively poorly. There are good road and rail links with regions north and south but east-west routes are still problematic. The ports of Harwich and Felixstowe, the UK's largest container port, have grown in significance as gateways to Europe. Luton and Stansted airports also show strong growth, helped by their role as centres for low-cost airlines.

East of England Local LSC Areas

There is great variation in the number of qualifications at level NVQ4 or above.

6.29 There is great variation in the number of qualifications at level NVQ4 or above. Whereas Hertfordshire and Cambridgeshire local LSC areas are in the top ten for the number of employees with qualifications at level NVQ4 or above, Essex, Norfolk and Suffolk are in the bottom ten in England. At lower levels, however, these areas do not rank so low. Essex ranks in the top six for the highest qualification at level NVQ1, NVQ2 and NVQ3 categories and Norfolk ranks 2nd and 3rd in the NVQ1 and NVQ2 categories, whereas Suffolk ranks 9th in the NVQ1 category and 5th in Trade Apprenticeships. There is therefore a sharp tailing off of qualifications achieved by employees in these local LSC areas.

EAST OF ENGLAND

Local LSCs: Bedfordshire and Luton; Essex; Hertfordshire; Cambridgeshire; Norfolk; Suffolk.	
Population (thousands)	5460
Population of Working Age (thousands)	3316
Ethnic Minorities (%)	
White	96.6
Black	...
Indian	...
Bangladeshi/Pakistani	...
Other/Mixed	...
Population Change: 1990-2000 (% pa)	0.7
Population Density (persons per square km)	286
Employment (thousands)	2570
Change: 1990-2000 (% pa)	0.2
Change: 1995-2000 (% pa)	1.2
Employment in Ten Worst Performing UK Industries (%)	5.1
Employment in Ten Best Performing UK Industries (%)	20.0
Top Three Occupational Groups (% of Total Emp.)	
Managers and Senior Officials	17.3
Administrative and Secretarial Occupations	15.2
Skilled Trades Occupations	11.7
Average Gross Weekly Pay[1] (£s)	363
Unemployment Rate (ILO)	2.5
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	7.7
Establishments Reporting Skill-Shortage Vacancies[1] (%)	4.6

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

6.30 In terms of hard-to-fill and skill-shortage vacancies, only Hertfordshire ranks in the top ten for skill-shortage vacancies at 5th. From the others only Hertfordshire and Cambridgeshire ranked in the top twenty for hard-to-fill vacancies. In addition to Hertfordshire only Bedfordshire and Luton rank in the top twenty for skill-shortage vacancies.

Over the period 1990-2000 Cambridgeshire and Herefordshire were in the top ten performers in England.

6.31 Although in terms of employment growth in the period 1995-2000 none of the local LSC areas in the East of England were in the top ten performers, over the longer period 1990-2000 Cambridgeshire and Herefordshire were in the top ten performers in England. This is partly due to the fact that these areas also rank in the top ten for employment in the best-performing industries in the UK. Bedfordshire and Luton, and Essex, although not in the top ten, rank 12th and 13th respectively. Only Norfolk ranks in the top ten for employment in the worst-performing industries due to its exposure to agriculture and manufacturing, especially food, drink & tobacco.

BEDFORDSHIRE AND LUTON

Population (thousands)	566
Population of Working Age (thousands)	354
Ethnic Minorities (%)	
White	88.1
Black	2.3
Indian	3.9
Bangladeshi/Pakistani	3.9
Other/Mixed	1.6
Population Change: 1990-2000 (% pa)	0.7
Population Density (persons per square km)	458
Employment (thousands)	251
Change: 1990-2000 (% pa)	-1.1
Change: 1995-2000 (% pa)	-0.5
Employment in Ten Worst Performing UK Industries (%)	4.8
Employment in Ten Best Performing UK Industries (%)	19.7
Top Three Occupational Groups (% of Total Emp.)	
Managers and Senior Officials	19.1
Administrative and Secretarial Occupations	15.6
Skilled Trades Occupations	12.5
Average Gross Weekly Pay[1] (£s)	357
Unemployment Rate (ILO)	2.8
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	8.0
Establishments Reporting Skill-Shortage Vacancies[1] (%)	5.0

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

ESSEX

Population (thousands)	1629
Population of Working Age (thousands)	987
Ethnic Minorities (%)	
White	98.1
Black	0.5
Indian	0.5
Bangladeshi/Pakistani	...
Other/Mixed	0.8
Population Change: 1990-2000 (% pa)	0.5
Population Density (persons per square km)	443
Employment (thousands)	693
Change: 1990-2000 (% pa)	0.5
Change: 1995-2000 (% pa)	1.8
Employment in Ten Worst Performing UK Industries (%)	3.9
Employment in Ten Best Performing UK Industries (%)	19.7
Top Three Occupational Groups (% of Total Emp.)	
Managers and Senior Officials	18.4
Administrative and Secretarial Occupations	16.6
Associate Professional and Technical Occupations	11.2
Average Gross Weekly Pay[1] (£s)	360
Unemployment Rate (ILO)	2.8
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	5.1
Establishments Reporting Skill-Shortage Vacancies[1] (%)	2.0

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

HERTFORDSHIRE

Population (thousands)	1051
Population of Working Age (thousands)	645
Ethnic Minorities (%)	
White	95.0
Black	0.7
Indian	2.0
Bangladeshi/Pakistani	0.9
Other/Mixed	1.7
Population Change: 1990-2000 (% pa)	0.7
Population Density (persons per square km)	641
Employment (thousands)	578
Change: 1990-2000 (% pa)	1.1
Change: 1995-2000 (% pa)	2.0
Employment in Ten Worst Performing UK Industries (%)	3.0
Employment in Ten Best Performing UK Industries (%)	26.8
Top Three Occupational Groups (% of Total Emp.)	
Managers and Senior Officials	19.9
Administrative and Secretarial Occupations	16.5
Professional Occupations	13.0
Average Gross Weekly Pay[1] (£s)	413
Unemployment Rate (ILO)	1.4
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	9.8
Establishments Reporting Skill-Shortage Vacancies[1] (%)	7.7

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

CAMBRIDGESHIRE

Population (thousands)	730
Population of Working Age (thousands)	462
Ethnic Minorities (%)	
White	96.5
Black	...
Indian	...
Bangladeshi/Pakistani	...
Other/Mixed	1.0
Population Change: 1990-2000 (% pa)	1.0
Population Density (persons per square km)	215
Employment (thousands)	388
Change: 1990-2000 (% pa)	1.1
Change: 1995-2000 (% pa)	1.7
Employment in Ten Worst Performing UK Industries (%)	7.2
Employment in Ten Best Performing UK Industries (%)	21.1
Top Three Occupational Groups (% of Total Emp.)	
Managers and Senior Officials	17.8
Administrative and Secretarial Occupations	13.1
Associate Professional and Technical Occupations	12.6
Average Gross Weekly Pay[1] (£s)	374
Unemployment Rate (ILO)	2.0
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	8.5
Establishments Reporting Skill-Shortage Vacancies[1] (%)	3.2

Note(s): Data are 2000 except[1] where data are 2001.
Source(s):CE, ESS2001 and NOMIS.

NORFOLK

Population (thousands)	804
Population of Working Age (thousands)	469
Ethnic Minorities (%)	
White	99.4
Black	...
Indian	...
Bangladeshi/Pakistani	...
Other/Mixed	...
Population Change: 1990-2000 (% pa)	0.7
Population Density (persons per square km)	150
Employment (thousands)	331
Change: 1990-2000 (% pa)	-1.1
Change: 1995-2000 (% pa)	-0.4
Employment in Ten Worst Performing UK Industries (%)	8.1
Employment in Ten Best Performing UK Industries (%)	13.8
Top Three Occupational Groups (% of Total Emp.)	
Skilled Trades Occupations	13.6
Administrative and Secretarial Occupations	13.3
Managers and Senior Officials	12.8
Average Gross Weekly Pay[1] (£s)	325
Unemployment Rate (ILO)	3.5
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	7.2
Establishments Reporting Skill-Shortage Vacancies[1] (%)	2.6

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

SUFFOLK

Population (thousands)	680
Population of Working Age (thousands)	399
Ethnic Minorities (%)	
White	99.1
Black	...
Indian	...
Bangladeshi/Pakistani	...
Other/Mixed	...
Population Change: 1990-2000 (% pa)	0.5
Population Density (persons per square km)	179
Employment (thousands)	329
Change: 1990-2000 (% pa)	-0.0
Change: 1995-2000 (% pa)	1.2
Employment in Ten Worst Performing UK Industries (%)	5.7
Employment in Ten Best Performing UK Industries (%)	13.8
Top Three Occupational Groups (% of Total Emp.)	
Skilled Trades Occupations	14.5
Administrative and Secretarial Occupations	14.2
Managers and Senior Officials	13.2
Average Gross Weekly Pay[1] (£s)	322
Unemployment Rate (ILO)	2.8
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	6.1
Establishments Reporting Skill-Shortage Vacancies[1] (%)	2.2

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

South West

6.32 Geographically the South West is the largest of the English regions, spreading from Bristol in the north and Bournemouth in the south and through to Cornwall and the Isles of Scilly in the south west, with a population of over 4.9 million. It is one of the most rural regions of England, although agricultural employment continues to decline, employing only 3.2% of the workforce. The environmental assets, which include attractive coast and moorland (and cultural centres including the city of Bath), are being harnessed for tourism; the region attracts more tourist spending than any other region apart from London.

The South West is one of the most rural regions of England.

6.33 A number of dynamic urban centres contribute to the region's economic performance, principally Bristol, Plymouth, Swindon, Bath, Bournemouth, Poole, Torbay, Exeter, Gloucester and Cheltenham. Economic performance is uneven, however, with the eastern part contributing most to regional economic performance and regions to the west contributing less; Devon and Cornwall are mainly lagging behind. Despite the unevenness of growth the region as a whole has experienced rapid GVA growth of 2.7% pa over 1995-2000. The region's GVA now accounts for 7.6% of the national total. High-tech manufacturing, knowledge industries, food and drink, health, welfare and education, tourism are all important sectors.

A number of dynamic urban centres contribute to the region's economic performance.

6.34 The population has been added to by those seeking retirement locations but also by those of workforce age seeking to take up the region's employment opportunities. Over a third of the workforce works in the highest skill level occupations, due mainly to the high growth, high-tech, high value added sectors in the north and east of the region.

Over a third of the workforce works in the highest skill level occupations in the north and east of the region.

6.35 Important problem issues for the region include the large number of low-value-added industries, lower overall levels of business investment than the national average, and skills shortages in technical and IT areas. Some sub-regions lag behind in educational and training attainment. Skill shortages and recruitment problems are having an effect on workforce expansion, domestic and export orders, productivity, turnover and profitability.

Skill shortages and recruitment problems are having an effect on the region's performance.

South West Local LSC Areas

6.36 Of the South West local LSCs only West of England and Gloucestershire rank in the top ten for qualifications NVQ4 or above, although Wiltshire and Swindon ranks 12th. Other South West local LSCs score around the average on this measure, ranking in the top twenty and the region has some of the lowest levels of unqualified people in England. Overall, therefore, employees in the South West are well qualified. However, the more remote local LSCs in the South West tend to see qualification levels tailing off sooner and have a higher number of employees with qualification levels NVQ1 and NVQ2.

Overall employees in the South West are well qualified.

6.37 Employers in the eastern parts of the South West report a high number of hard-to-fill and skill-shortage vacancies compared to the rest of England. All but Somerset and Devon and Cornwall rank in the top ten for hard-to-fill vacancies, although Devon and Cornwall ranks in the top twenty. In terms of

Employers in the eastern parts of the South West report a high number of hard-to-fill and skill-shortage vacancies.

SOUTH WEST

Local LSCs: West of England; Devon and Cornwall; Bournemouth, Dorset and Poole; Gloucesterhire; Somerset; Wiltshire and Swindon.	
Population (thousands)	4975
Population of Working Age (thousands)	2934
Ethnic Minorities (%)	
White	98.5
Black	...
Indian	...
Bangladeshi/Pakistani	...
Other/Mixed	...
Population Change: 1990-2000 (% pa)	0.6
Population Density (persons per square km)	209
Employment (thousands)	2419
Change: 1990-2000 (% pa)	0.3
Change: 1995-2000 (% pa)	1.0
Employment in Ten Worst Performing UK Industries (%)	6.3
Employment in Ten Best Performing UK Industries (%)	15.7
Top Three Occupational Groups (% of Total Emp.)	
Managers and Senior Officials	16.2
Administrative and Secretarial Occupations	14.4
Skilled Trades Occupations	12.8
Average Gross Weekly Pay[1] (£s)	332
Unemployment Rate (ILO)	2.5
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	8.0
Establishments Reporting Skill-Shortage Vacancies[1] (%)	4.4

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

skill-shortage vacancies, Wiltshire and Swindon ranks 1st in England, Gloucestershire ranks 3rd and Bournemouth, Dorset and Poole ranks 6th. In the West of England local LSC area however under 2% of employers reported skill-shortage vacancies despite over 10% reporting hard-to-fill vacancies. Somerset on the other hand has the lowest number of employers reporting hard-to-fill vacancies in England and the 3rd lowest number of employers reporting skill-shortage vacancies.

6.38 In terms of employment growth only Wiltshire and Swindon has experienced employment growth in the top ten over 1990-2000, for which the local LSC area ranks 3rd. In terms of employment growth in the period 1995-2000 all the local LSC areas of the South West rank in the top twenty with the exception of Gloucestershire and Devon and Cornwall. Only West of England and Wiltshire and Swindon rank in the top twenty for employment in the ten best-performing industries in the UK. Gloucestershire on the other hand ranks in the top ten for employment in the worst-performing industries and also in the top twenty for employment in manufacturing. However, in terms of unemployment, only Devon and Cornwall is in the worst twenty local LSC areas in England.

Only Wiltshire and Swindon has experienced employment growth in the top ten over 1990-2000.

WEST OF ENGLAND

Population (thousands)	1015
Population of Working Age (thousands)	626
Ethnic Minorities (%)	
White	96.4
Black	1.1
Indian	...
Bangladeshi/Pakistani	...
Other/Mixed	1.5
Population Change: 1990-2000 (% pa)	0.6
Population Density (persons per square km)	763
Employment (thousands)	570
Change: 1990-2000 (% pa)	0.2
Change: 1995-2000 (% pa)	1.5
Employment in Ten Worst Performing UK Industries (%)	3.9
Employment in Ten Best Performing UK Industries (%)	19.6
Top Three Occupational Groups (% of Total Emp.)	
Administrative and Secretarial Occupations	15.7
Managers and Senior Officials	16.5
Professional Occupations	12.2
Average Gross Weekly Pay[1] (£s)	365
Unemployment Rate (ILO)	2.2
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	10.4
Establishments Reporting Skill-Shortage Vacancies[1] (%)	1.9

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

DEVON AND CORNWALL

Population (thousands)	1587
Population of Working Age (thousands)	912
Ethnic Minorities (%)	
White	99.4
Black	...
Indian	...
Bangladeshi/Pakistani	...
Other/Mixed	...
Population Change: 1990-2000 (% pa)	0.5
Population Density (persons per square km)	155
Employment (thousands)	672
Change: 1990-2000 (% pa)	-0.0
Change: 1995-2000 (% pa)	0.4
Employment in Ten Worst Performing UK Industries (%)	7.1
Employment in Ten Best Performing UK Industries (%)	11.5
Top Three Occupational Groups (% of Total Emp.)	
Managers and Senior Officials	15.7
Skilled Trades Occupations	13.8
Administrative and Secretarial Occupations	12.8
Average Gross Weekly Pay[1] (£s)	285
Unemployment Rate (ILO)	3.5
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	9.2
Establishments Reporting Skill-Shortage Vacancies[1] (%)	4.2

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

BOURNEMOUTH, DORSET AND POOLE

Population (thousands)	698
Population of Working Age (thousands)	397
Ethnic Minorities (%)	
White	99.3
Black	...
Indian	...
Bangladeshi/Pakistani	...
Other/Mixed	...
Population Change: 1990-2000 (% pa)	0.6
Population Density (persons per square km)	263
Employment (thousands)	317
Change: 1990-2000 (% pa)	0.5
Change: 1995-2000 (% pa)	1.1
Employment in Ten Worst Performing UK Industries (%)	5.4
Employment in Ten Best Performing UK Industries (%)	14.3
Top Three Occupational Groups (% of Total Emp.)	
Managers and Senior Officials	15.5
Administrative and Secretarial Occupations	14.6
Skilled Trades Occupations	14.6
Average Gross Weekly Pay[1] (£s)	319
Unemployment Rate (ILO)	2.1
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	11.9
Establishments Reporting Skill-Shortage Vacancies[1] (%)	7.1

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

GLOUCESTERSHIRE

Population (thousands)	565
Population of Working Age (thousands)	338
Ethnic Minorities (%)	
White	98.4
Black	...
Indian	...
Bangladeshi/Pakistani	...
Other/Mixed	...
Population Change: 1990-2000 (% pa)	0.5
Population Density (persons per square km)	213
Employment (thousands)	290
Change: 1990-2000 (% pa)	0.0
Change: 1995-2000 (% pa)	0.9
Employment in Ten Worst Performing UK Industries (%)	9.3
Employment in Ten Best Performing UK Industries (%)	17.0
Top Three Occupational Groups (% of Total Emp.)	
Managers and Senior Officials	18.4
Administrative and Secretarial Occupations	13.9
Skilled Trades Occupations	11.1
Average Gross Weekly Pay[1] (£s)	363
Unemployment Rate (ILO)	2.4
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	12.0
Establishments Reporting Skill-Shortage Vacancies[1] (%)	7.8

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

SOMERSET

Population (thousands)	496
Population of Working Age (thousands)	286
Ethnic Minorities (%)	
White	99.7
Black	...
Indian	...
Bangladeshi/Pakistani	...
Other/Mixed	...
Population Change: 1990-2000 (% pa)	0.6
Population Density (persons per square km)	144
Employment (thousands)	233
Change: 1990-2000 (% pa)	0.6
Change: 1995-2000 (% pa)	1.2
Employment in Ten Worst Performing UK Industries (%)	7.5
Employment in Ten Best Performing UK Industries (%)	13.2
Top Three Occupational Groups (% of Total Emp.)	
Skilled Trades Occupations	16.0
Managers and Senior Officials	14.3
Administrative and Secretarial Occupations	13.4
Average Gross Weekly Pay[1] (£s)	310
Unemployment Rate (ILO)	2.3
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	2.4
Establishments Reporting Skill-Shortage Vacancies[1] (%)	1.0

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

WILTSHIRE AND SWINDON

Population (thousands)	613
Population of Working Age (thousands)	375
Ethnic Minorities (%)	
White	97.9
Black	...
Indian	...
Bangladeshi/Pakistani	...
Other/Mixed	...
Population Change: 1990-2000 (% pa)	0.8
Population Density (persons per square km)	176
Employment (thousands)	338
Change: 1990-2000 (% pa)	1.1
Change: 1995-2000 (% pa)	1.0
Employment in Ten Worst Performing UK Industries (%)	5.9
Employment in Ten Best Performing UK Industries (%)	19.5
Top Three Occupational Groups (% of Total Emp.)	
Managers and Senior Officials	18.6
Administrative and Secretarial Occupations	15.1
Associate Professional and Technical Occupations	11.0
Average Gross Weekly Pay[1] (£s)	372
Unemployment Rate (ILO)	1.6
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	17.7
Establishments Reporting Skill-Shortage Vacancies[1] (%)	12.3

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

West Midlands

The West Midlands is a diverse region, with large tracts of agricultural land as well as large urban industrial conurbations.

6.39 The West Midlands comprises the counties of Herefordshire, Worcestershire, Shropshire, Staffordshire and Warwickshire, the unitary authorities of the city of Stoke on Trent and Telford and Wrekin, as well as the seven metropolitan boroughs of Birmingham, Coventry, Dudley, Sandwell, Solihull, Walsall and Wolverhampton. This makes for a diverse region, with large tracts of agricultural land as well as large urban industrial conurbations. The region's central location makes it well positioned for transport connections with the rest of the UK. The ports of Dover, Felixstowe and Hull are less than 4.5 hours away and 75% of the UK population is within half a day's drive.

The workforce of is employed across a huge range of activities.

6.40 The workforce of 2.6 million is employed across a huge range of activities, the main sectors being automotive, plastics and rubber, software, food and drink, electronics and telecommunications and business services. Motor vehicles and other transport equipment represents 19% of the region's industry in terms of value, although this will decline with the run down of Rover. Land Rover, Jaguar and Peugeot remain in the region with Toyota and Honda nearby. Universities, particularly Aston and Warwick, provide strong support for industry, along with specialist research centres offering industrial support on a Europe-wide scale.

The region is the largest financial and business services centre outside London.

6.41 The region is the largest financial and business services centre outside London, with GVA growing by 5.7% pa over 1995-2000. Tourism is a growing sector, trading largely on the region's industrial heritage, its Shakespeare industry at Stratford and its attractive countryside with many towns and villages of historical interest.

The economic and social profile of the region is generally positive, but GVA per head is below the national average.

6.42 While the economic and social profile of the region is generally positive, the GVA per head is below the national average and manufacturing productivity is the second-lowest of the English regions. There are also problems with overall school performance, which threatens the region's tradition of a skilled workforce, and unemployment rates are above the national average. Transport links need to improve to reduce congestion, to improve north-south access through the West Coast line and to improve access to Europe.

WEST MIDLANDS

Local LSCs: Herefordshire and Worcestershire; Shropshire; Staffordshire; Coventry and Warwickshire; The Black Country; Birmingham and Solihull.	
Population (thousands)	5335
Population of Working Age (thousands)	3242
Ethnic Minorities (%)	
White	91.5
Black	...
Indian	...
Bangladeshi/Pakistani	...
Other/Mixed	...
Population Change: 1990-2000 (% pa)	0.2
Population Density (persons per square km)	413
Employment (thousands)	2556
Change: 1990-2000 (% pa)	0.0
Change: 1995-2000 (% pa)	1.0
Employment in Ten Worst Performing UK Industries (%)	7.0
Employment in Ten Best Performing UK Industries (%)	15.6
Top Three Occupational Groups (% of Total Emp.)	
Administrative and Secretarial Occupations	14.7
Managers and Senior Officials	14.4
Skilled Trades Occupations	13.9
Average Gross Weekly Pay[1] (£s)	351
Unemployment Rate (ILO)	4.1
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	9.4
Establishments Reporting Skill-Shortage Vacancies[1] (%)	3.4

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

West Midlands Local LSC Areas

The Black Country and Birmingham and Solihull rank 1st and 2nd nationally in the number of employees with no qualifications.

6.43 The Black Country and Birmingham and Solihull rank 1st and 2nd nationally in the number of employees with no qualifications. Staffordshire also reaches the top ten on this measure. However, the Black Country and Birmingham and Solihull rank better on the 'other qualifications' measure in which they are both in the top ten. The best qualified populations in the region are in the local LSC areas of Herefordshire and Worcestershire and Coventry and Warwickshire, which rank the highest in the region for the number of employees with a qualification level NVQ4 or above. Also, Shropshire should be counted into the local LSCs with higher levels of qualifications in the region. Birmingham and Solihull also exceeds 20% on this measure, but there is a large gap between the highly qualified and the less qualified in the area.

Employers in Birmingham and Solihull report a high number of hard-to-fill and skill-shortage vacancies.

6.44 Employers in Birmingham and Solihull report a high number of hard-to-fill and skill-shortage vacancies compared to the rest of England. Birmingham and Solihull ranks 1st in England for hard-to-fill vacancies, probably because of the poor level of qualifications in the area, and 10th in terms of skill-shortage vacancies. Of the other local LSC areas in the region only Staffordshire employers report a high number of skill-shortage vacancies, earning it a place in the top ten local LSCs in England.

Employment growth in the region's local LSC areas has generally been poor, but the local LSC areas have performed quite differently.

6.45 Employment growth in the region's local LSC areas has generally been poor, but the local LSC areas have performed quite differently. Employment growth in Herefordshire and Worcestershire and Shropshire reached the top ten in 1990-2000. Employment growth in Staffordshire and Coventry and Warwickshire on the other hand improved from the top thirty over 1990-2000 to the top twenty in 1995-2000, whereas growth in the Black Country and Birmingham and Solihull has been among the worst in England.

The generally poor performance of the local LSC areas reflects the fact that most of them rank in the top ten for manufacturing employment.

6.46 The generally poor performance of the local LSC areas reflects the fact that most of them rank in the top ten for manufacturing employment, with the Black Country ranking 1st on this measure. Also the West Midlands local LSCs are generally specialised in the ten worst-performing industries in the UK. Birmingham and Solihull, however, stands out for its weak employment growth, despite the fact that it is in the top ten areas for proportion of employment in the ten best-performing industries in the UK and it has the lowest dependence on manufacturing in the West Midlands. The Black Country and Birmingham and Solihull also have the worst unemployment in the region, whereas the other local LSC areas are around the UK average.

HEREFORDSHIRE AND WORCESTERSHIRE

Population (thousands)	711
Population of Working Age (thousands)	429
Ethnic Minorities (%)	
White	99.1
Black	...
Indian	...
Bangladeshi/Pakistani	...
Other/Mixed	...
Population Change: 1990-2000 (% pa)	0.4
Population Density (persons per square km)	181
Employment (thousands)	334
Change: 1990-2000 (% pa)	0.9
Change: 1995-2000 (% pa)	1.6
Employment in Ten Worst Performing UK Industries (%)	10.5
Employment in Ten Best Performing UK Industries (%)	13.9
Top Three Occupational Groups (% of Total Emp.)	
Managers and Senior Officials	15.3
Skilled Trades Occupations	13.6
Administrative and Secretarial Occupations	12.7
Average Gross Weekly Pay[1] (£s)	314
Unemployment Rate (ILO)	2.4
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	9.6
Establishments Reporting Skill-Shortage Vacancies[1] (%)	2.1

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

SHROPSHIRE

Population (thousands)	436
Population of Working Age (thousands)	263
Ethnic Minorities (%)	
White	98.5
Black	...
Indian	...
Bangladeshi/Pakistani	...
Other/Mixed	...
Population Change: 1990-2000 (% pa)	0.6
Population Density (persons per square km)	125
Employment (thousands)	206
Change: 1990-2000 (% pa)	1.1
Change: 1995-2000 (% pa)	2.1
Employment in Ten Worst Performing UK Industries (%)	7.9
Employment in Ten Best Performing UK Industries (%)	13.3
Top Three Occupational Groups (% of Total Emp.)	
Managers and Senior Officials	16.3
Process Plant and Machine Operatives	12.4
Skilled Trades Occupations	11.5
Average Gross Weekly Pay[1] (£s)	306
Unemployment Rate (ILO)	2.5
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	6.4
Establishments Reporting Skill-Shortage Vacancies[1] (%)	1.9

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

STAFFORDSHIRE

Population (thousands)	1060
Population of Working Age (thousands)	657
Ethnic Minorities (%)	
White	98.2
Black	...
Indian	...
Bangladeshi/Pakistani	0.7
Other/Mixed	...
Population Change: 1990-2000 (% pa)	0.1
Population Density (persons per square km)	390
Employment (thousands)	478
Change: 1990-2000 (% pa)	0.3
Change: 1995-2000 (% pa)	2.0
Employment in Ten Worst Performing UK Industries (%)	7.3
Employment in Ten Best Performing UK Industries (%)	12.1
Top Three Occupational Groups (% of Total Emp.)	
Skilled Trades Occupations	15.6
Managers and Senior Officials	13.8
Administrative and Secretarial Occupations	12.2
Average Gross Weekly Pay[1] (£s)	324
Unemployment Rate (ILO)	3.3
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	8.4
Establishments Reporting Skill-Shortage Vacancies[1] (%)	6.5

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

COVENTRY AND WARWICKSHIRE

Population (thousands)	812
Population of Working Age (thousands)	499
Ethnic Minorities (%)	
White	94.3
Black	...
Indian	4.0
Bangladeshi/Pakistani	...
Other/Mixed	...
Population Change: 1990-2000 (% pa)	0.2
Population Density (persons per square km)	410
Employment (thousands)	399
Change: 1990-2000 (% pa)	0.1
Change: 1995-2000 (% pa)	1.5
Employment in Ten Worst Performing UK Industries (%)	6.9
Employment in Ten Best Performing UK Industries (%)	18.0
Top Three Occupational Groups (% of Total Emp.)	
Administrative and Secretarial Occupations	17.1
Managers and Senior Officials	14.8
Professional Occupations	12.5
Average Gross Weekly Pay[1] (£s)	398
Unemployment Rate (ILO)	2.8
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	5.8
Establishments Reporting Skill-Shortage Vacancies[1] (%)	2.5

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

THE BLACK COUNTRY

Population (thousands)	1102
Population of Working Age (thousands)	660
Ethnic Minorities (%)	
White	87.9
Black	2.3
Indian	6.9
Bangladeshi/Pakistani	2.0
Other/Mixed	0.7
Population Change: 1990-2000 (% pa)	-0.1
Population Density (persons per square km)	3069
Employment (thousands)	516
Change: 1990-2000 (% pa)	-0.6
Change: 1995-2000 (% pa)	0.6
Employment in Ten Worst Performing UK Industries (%)	8.1
Employment in Ten Best Performing UK Industries (%)	12.8
Top Three Occupational Groups (% of Total Emp.)	
Skilled Trades Occupations	16.4
Administrative and Secretarial Occupations	16.0
Process, Plant and Machine Operatives	13.9
Average Gross Weekly Pay[1] (£s)	321
Unemployment Rate (ILO)	5.4
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	8.5
Establishments Reporting Skill-Shortage Vacancies[1] (%)	2.4

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

BIRMINGHAM AND SOLIHULL

Population (thousands)	1215
Population of Working Age (thousands)	734
Ethnic Minorities (%)	
White	79.9
Black	4.1
Indian	4.6
Bangladeshi/Pakistani	9.5
Other/Mixed	1.7
Population Change: 1990-2000 (% pa)	0.1
Population Density (persons per square km)	2737
Employment (thousands)	624
Change: 1990-2000 (% pa)	-0.6
Change: 1995-2000 (% pa)	-0.2
Employment in Ten Worst Performing UK Industries (%)	3.8
Employment in Ten Best Performing UK Industries (%)	20.6
Top Three Occupational Groups (% of Total Emp.)	
Administrative and Secretarial Occupations	16.8
Managers and Senior Officials	15.2
Skilled Trades Occupations	13.1
Average Gross Weekly Pay[1] (£s)	392
Unemployment Rate (ILO)	5.9
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	18.0
Establishments Reporting Skill-Shortage Vacancies[1] (%)	5.9

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

East Midlands

6.47 The region comprises the five counties of Derbyshire, Leicestershire, Lincolnshire, Northamptonshire and Nottinghamshire and the unitary authorities of the cities of Derby, Leicester and Nottingham. It has a population of 4.2 million in what is geographically the 3rd largest region in England. The geographical size of the region, and the diverse urban/industrial and rural spread make great demands on systems and services.

The diverse urban/industrial and rural spread make great demands on systems and services.

6.48 North Nottinghamshire and North East Derbyshire have had to come to terms with huge job losses in coal mining which have been largely in the rural areas. The cities of Nottingham, Leicester and Derby are still relatively dependent on manufacturing, particularly engineering, and have ongoing problems of urban deprivation. Northamptonshire, with its close links to the south east, is the most prosperous county in the region.

6.49 Transport communications vary, with good north-south access provided by the M1 and the A1, while east-west access is relatively poor. Boston is a significant port and there is easy access to nearby Humber ports. Poor transport networks in Lincolnshire inhibit economic development. East Midlands Airport is conveniently situated in the centre of the Nottingham, Leicester, Derby triangle, and there are excellent rail links, particularly with London.

6.50 There are over 100,000 VAT registered businesses in the region, although 98% of these employ fewer than 200. GVA per head is the 6th highest of the UK's regions. Just over 28% of the region's GVA comes from manufacturing covering a wide spread of industries, including food processing/packaging, engineering, textiles, clothing and footwear, pharmaceuticals, chemicals, and electronics.

The region's GVA comes from a wide spread of industries.

6.51 The region has high participation in further education at 62%. The region suffers, however, from a relatively low skill base and the lowest incidence of job-related training in England. Productivity levels are also behind other regions in England except for the West Midlands.

The region suffers from a relatively low skill base.

EAST MIDLANDS

Local LSCs: Derbyshire; Leicestershire; Lincolnshire and Rutland; Northamptonshire; Nottinghamshire.	
Population (thousands)	4208
Population of Working Age (thousands)	2578
Ethnic Minorities (%)	
White	95.4
Black	...
Indian	...
Bangladeshi/Pakistani	...
Other/Mixed	...
Population Change: 1990-2000 (% pa)	0.5
Population Density (persons per square km)	269
Employment (thousands)	1951
Change: 1990-2000 (% pa)	0.2
Change: 1995-2000 (% pa)	0.7
Employment in Ten Worst Performing UK Industries (%)	8.9
Employment in Ten Best Performing UK Industries (%)	14.7
Top Three Occupational Groups (% of Total Emp.)	
Managers and Senior Officials	14.8
Administrative and Secretarial Occupations	14.0
Skilled Trades Occupations	13.8
Average Gross Weekly Pay[1] (£s)	329
Unemployment Rate (ILO)	3.5
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	5.0
Establishments Reporting Skill-Shortage Vacancies[1] (%)	2.2

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

East Midlands Local LSC Areas

The region's local LSCs are all in the top 25 of employees with no qualification.

6.52 The local LSCs of the East Midlands do not rank well in employees with qualification level NVQ4 or above ranking between 30th and 39th. The region's local LSCs are all in the top 25 of employees with no qualification although only Nottinghamshire is in the top ten. Employees' qualifications tend to be at NVQ1 or NVQ2 level, especially in Northamptonshire which ranks in the top ten for both.

Employers in the East Midlands do not generally report many hard-to-fill or skill-shortage vacancies.

6.53 Employers in the East Midlands do not report many hard-to-fill or skill-shortage vacancies. However the local LSC areas closer to the South East region, namely Northamptonshire and Leicestershire, rank higher on hard-to-fill vacancies. In terms of skill-shortage vacancies these two are joined by Nottinghamshire.

6.54 Employment growth in the East Midlands has generally been poor. Only Northamptonshire is ranked in the top ten for employment growth over 1990-2000 and 1995-2000. Other local LSC areas of the East Midlands are in the bottom ten for employment growth, especially for 1995-2000. This is hardly surprising since Leicestershire and Lincolnshire and Rutland Regional and Local Profiles rank 1st and 2nd for employment in the worst-performing industries in the UK, whereas the other areas rank between 13th and 19th. In terms of employment in manufacturing Leicestershire and Derbyshire rank 2nd and 3rd in England. The other areas rank between 11th and 18th.

DERBYSHIRE

Population (thousands)	978
Population of Working Age (thousands)	599
Ethnic Minorities (%)	
White	96.8
Black	0.9
Indian	1.4
Bangladeshi/Pakistani	...
Other/Mixed	...
Population Change: 1990-2000 (% pa)	0.4
Population Density (persons per square km)	372
Employment (thousands)	412
Change: 1990-2000 (% pa)	-0.2
Change: 1995-2000 (% pa)	0.8
Employment in Ten Worst Performing UK Industries (%)	7.4
Employment in Ten Best Performing UK Industries (%)	11.6
Top Three Occupational Groups (% of Total Emp.)	
Skilled Trades Occupations	14.8
Managers and Senior Officials	14.4
Process, Plant and Machine Operatives	12.0
Average Gross Weekly Pay[1] (£s)	331
Unemployment Rate (ILO)	3.9
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	3.2
Establishments Reporting Skill-Shortage Vacancies[1](%)	1.3

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

LEICESTERSHIRE

Population (thousands)	901
Population of Working Age (thousands)	560
Ethnic Minorities (%)	
White	87.6
Black	0.8
Indian	9.6
Bangladeshi/Pakistani	0.8
Other/Mixed	1.1
Population Change: 1990-2000 (% pa)	0.5
Population Density (persons per square km)	353
Employment (thousands)	446
Change: 1990-2000 (% pa)	0.2
Change: 1995-2000 (% pa)	-0.3
Employment in Ten Worst Performing UK Industries (%)	12.0
Employment in Ten Best Performing UK Industries (%)	15.1
Top Three Occupational Groups (% of Total Emp.)	
Administrative and Secretarial Occupations	15.1
Skilled Trades Occupations	14.9
Managers and Senior Officials	14.9
Average Gross Weekly Pay[1] (£s)	327
Unemployment Rate (ILO)	3.3
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	7.3
Establishments Reporting Skill-Shortage Vacancies[1] (%)	4.3

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

LINCOLNSHIRE AND RUTLAND

Population (thousands)	672
Population of Working Age (thousands)	396
Ethnic Minorities (%)	
White	99.8
Black	...
Indian	...
Bangladeshi/Pakistani	...
Other/Mixed	...
Population Change: 1990-2000 (% pa)	0.8
Population Density (persons per square km)	114
Employment (thousands)	281
Change: 1990-2000 (% pa)	0.6
Change: 1995-2000 (% pa)	0.7
Employment in Ten Worst Performing UK Industries (%)	11.4
Employment in Ten Best Performing UK Industries (%)	10.4
Top Three Occupational Groups (% of Total Emp.)	
Managers and Senior Officials	13.7
Process, Plant and Machine Operatives	13.0
Skilled Trades Occupations	13.0
Average Gross Weekly Pay[1] (£s)	306
Unemployment Rate (ILO)	3.0
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	5.6
Establishments Reporting Skill-Shortage Vacancies[1] (%)	0.6

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

NORTHAMPTONSHIRE

Population (thousands)	626
Population of Working Age (thousands)	388
Ethnic Minorities (%)	
White	97.3
Black	1.7
Indian	...
Bangladeshi/Pakistani	...
Other/Mixed	...
Population Change: 1990-2000 (% pa)	0.7
Population Density (persons per square km)	264
Employment (thousands)	331
Change: 1990-2000 (% pa)	1.1
Change: 1995-2000 (% pa)	2.4
Employment in Ten Worst Performing UK Industries (%)	6.6
Employment in Ten Best Performing UK Industries (%)	19.0
Top Three Occupational Groups (% of Total Emp.)	
Administrative and Secretarial Occupations	17.8
Managers and Senior Officials	15.4
Skilled Trades Occupations	14.2
Average Gross Weekly Pay[1] (£s)	354
Unemployment Rate (ILO)	2.2
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	6.7
Establishments Reporting Skill-Shortage Vacancies[1] (%)	2.7

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

NOTTINGHAMSHIRE

Population (thousands)	1031
Population of Working Age (thousands)	635
Ethnic Minorities (%)	
White	96.7
Black	1.3
Indian	...
Bangladeshi/Pakistani	0.7
Other/Mixed	...
Population Change: 1990-2000 (% pa)	0.2
Population Density (persons per square km)	477
Employment (thousands)	482
Change: 1990-2000 (% pa)	-0.3
Change: 1995-2000 (% pa)	0.7
Employment in Ten Worst Performing UK Industries (%)	7.3
Employment in Ten Best Performing UK Industries (%)	16.4
Top Three Occupational Groups (% of Total Emp.)	
Managers and Senior Officials	15.4
Administrative and Secretarial Occupations	14.3
Skilled Trades Occupations	12.2
Average Gross Weekly Pay[1] (£s)	330
Unemployment Rate (ILO)	4.6
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	5.4
Establishments Reporting Skill-Shortage Vacancies[1] (%)	3.7

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

Yorkshire and The Humber

6.55 Yorkshire and The Humber has four clearly defined sub-regions (West Yorkshire, North Yorkshire, Humberside and South Yorkshire) with a combined population of nearly 5 million. Four-fifths of the region is rural in nature, including the east coast, the uplands of North Yorkshire, the Pennines and the former coal field areas. Alongside this are the large conurbations in West and South Yorkshire. Among the region's strengths are its environmental assets, including three National Parks and its well-developed communications infrastructure. There is also a strong educational infrastructure.

Among the region's strengths are its environmental assets and its well-developed communications infrastructure.

6.56 The region has experienced significant economic upheaval in the last 20 years. This has seen the running down of the coal industry, decline in heavy engineering, textiles and fishing, and the restructuring of the steel industry, with South Yorkshire hit the hardest. Although the other three sub-regions are performing at a level around the UK average in terms of employment growth, they need to tackle disadvantage resulting from the 'two-speed' economies in many cities, Regional and Local Profiles towns and rural areas, including former coal field areas. There are significant intra-, and inter-regional differences.

The region has experienced significant economic upheaval in the last 20 years.

6.57 The two key problems for the region's economy identified by the RDA are under-production and under-employment. Over one-fifth of employment and output is generated by the public sector. The top ten industries in terms of employment and output do not contain any industrial sectors that contribute high added value to the economy.

Over one-fifth of employment and output is generated by the public sector.

Yorkshire and The Humber Local LSC Areas

6.58 There is a split in the qualifications levels in the Yorkshire and The Humber region. Humberside and South Yorkshire rank very low in the number of employees with a qualification level NVQ4 or above at 43rd and 42nd respectively. South Yorkshire also ranks 3rd in the number of employees with no qualifications, whereas Humberside ranks 3rd in the number of employees with qualification level NVQ1. In both of these areas therefore a majority of the workforce has qualification level NVQ1 or less. North Yorkshire has much higher qualifications levels, coming 14th in England for the number of employees with a qualification NVQ4 or above. It also ranks 8th for the number of employees with a qualification level NVQ3. West Yorkshire is not far behind on these measures, but the number of employees with NVQ1 or less is on a par with Humberside.

There is a split in the qualifications levels in the Yorkshire and The Humber region.

6.59 The local LSC areas in Yorkshire and The Humber have relatively low numbers of employers reporting hard-to-fill and skill-shortage vacancies. Only North Yorkshire ranks in the top twenty for skill-shortage vacancies. This is consistent with a rather weak demand for labour.

YORKSHIRE AND HUMBERSIDE

Local LSCs: Humberside; North Yorkshire; West Yorkshire; South Yorkshire.	
Population (thousands)	5058
Population of Working Age (thousands)	3078
Ethnic Minorities (%)	
White	95.1
Black	...
Indian	...
Bangladeshi/Pakistani	...
Other/Mixed	...
Population Change: 1990-2000 (% pa)	0.2
Population Density (persons per square km)	328
Employment (thousands)	2314
Change: 1990-2000 (% pa)	-0.1
Change: 1995-2000 (% pa)	0.2
Employment in Ten Worst Performing UK Industries (%)	6.9
Employment in Ten Best Performing UK Industries (%)	14.6
Top Three Occupational Groups (% of Total Emp.)	
Administrative and Secretarial Occupations	14.6
Managers and Senior Officials	14.1
Skilled Trades Occupations	12.5
Average Gross Weekly Pay[1] (£s)	326
Unemployment Rate (ILO)	4.5
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	4.4
Establishments Reporting Skill-Shortage Vacancies[1] (%)	2.2

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

Humberside stands out with its particularly poor performance in terms of employment growth.

6.60 Humberside stands out with its particularly poor performance in terms of employment growth. It has had the worst employment growth performance in England for both 1990-2000 and 1995-2000. It ranks in the top ten for the number of employees in manufacturing and employment in the ten worst performing industries. It also has one of the highest unemployment rates in England. West Yorkshire and South Yorkshire have also performed particularly badly. By contrast North Yorkshire, despite its remoteness, has managed to create some employment in recent years and has a relatively low unemployment rate.

HUMBERSIDE

Population (thousands)	881
Population of Working Age (thousands)	528
Ethnic Minorities (%)	
White	99.1
Black	...
Indian	...
Bangladeshi/Pakistani	...
Other/Mixed	...
Population Change: 1990-2000 (% pa)	0.1
Population Density (persons per square km)	251
Employment (thousands)	375
Change: 1990-2000 (% pa)	-1.2
Change: 1995-2000 (% pa)	-1.2
Employment in Ten Worst Performing UK Industries (%)	7.9
Employment in Ten Best Performing UK Industries (%)	10.8
Top Three Occupational Groups (% of Total Emp.)	
Skilled Trades Occupations	13.9
Managers and Senior Officials	13.4
Administrative and Secretarial Occupations	12.9
Average Gross Weekly Pay [1] (£s)	316
Unemployment Rate (ILO)	5.8
Establishments Reporting Hard-to-Fill Vacancies [1] (%)	3.3
Establishments Reporting Skill-Shortage Vacancies [1] (%)	2.4

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

NORTH YORKSHIRE

Population (thousands)	754
Population of Working Age (thousands)	448
Ethnic Minorities (%)	
White	99.3
Black	...
Indian	...
Bangladeshi/Pakistani	...
Other/Mixed	...
Population Change: 1990-2000 (% pa)	0.5
Population Density (persons per square km)	91
Employment (thousands)	358
Change: 1990-2000 (% pa)	0.6
Change: 1995-2000 (% pa)	1.3
Employment in Ten Worst Performing UK Industries (%)	7.6
Employment in Ten Best Performing UK Industries (%)	12.7
Top Three Occupational Groups (% of Total Emp.)	
Managers and Senior Officials	18.7
Personal Service Occupations	13.5
Administrative and Secretarial Occupations	12.9
Average Gross Weekly Pay[1] (£s)	321
Unemployment Rate (ILO)	2.3
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	4.9
Establishments Reporting Skill-Shortage Vacancies[1] (%)	3.2

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

WEST YORKSHIRE

Population (thousands)	2121
Population of Working Age (thousands)	1304
Ethnic Minorities (%)	
White	91.1
Black	1.3
Indian	1.3
Bangladeshi/Pakistani	4.9
Other/Mixed	1.3
Population Change: 1990-2000 (% pa)	0.2
Population Density (persons per square km)	1043
Employment (thousands)	1037
Change: 1990-2000 (% pa)	0.1
Change: 1995-2000 (% pa)	0.0
Employment in Ten Worst Performing UK Industries (%)	6.4
Employment in Ten Best Performing UK Industries (%)	16.7
Top Three Occupational Groups (% of Total Emp.)	
Administrative and Secretarial Occupations	16.1
Managers and Senior Officials	13.4
Skilled Trades Occupations	12.4
Average Gross Weekly Pay[1] (£s)	339
Unemployment Rate (ILO)	4.1
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	4.9
Establishments Reporting Skill-Shortage Vacancies[1] (%)	1.7

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

SOUTH YORKSHIRE

Population (thousands)	1302
Population of Working Age (thousands)	798
Ethnic Minorities (%)	
White	96.4
Black	0.8
Indian	...
Bangladeshi/Pakistani	1.5
Other/Mixed	1.1
Population Change: 1990-2000 (% pa)	0.0
Population Density (persons per square km)	835
Employment (thousands)	544
Change: 1990-2000 (% pa)	-0.1
Change: 1995-2000 (% pa)	1.0
Employment in Ten Worst Performing UK Industries (%)	6.5
Employment in Ten Best Performing UK Industries (%)	14.3
Top Three Occupational Groups (% of Total Emp.)	
Administrative and Secretarial Occupations	14.0
Managers and Senior Officials	12.9
Skilled Trades Occupations	12.8
Average Gross Weekly Pay[1] (£s)	310
Unemployment Rate (ILO)	5.8
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	5.0
Establishments Reporting Skill-Shortage Vacancies[1] (%)	1.7

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

The North West

The North West is the largest region outside the South East and London in terms of population.

6.61 The North West is the largest region outside the South East and London in terms of population, and it contains a wide variety of geographical areas including Cumbria, Lancashire, Greater Manchester, Merseyside and Cheshire. There is huge diversity within the region from rural countryside to areas of urban deprivation and some of the most prosperous suburbs in the UK. Within the region, Merseyside represents a special area of relative economic under-development (the 'Merseyside gap').

Traditional industries still play an important role in the region.

6.62 The population of almost 6.9 million is unevenly spread, with the largest concentrations being in Liverpool and the Greater Manchester sub-region. Transport within the region includes good north-south road and rail links and the increasingly important Manchester airport. Traditional industries still play an important role in the region. Some 25% of all UK motor vehicles industry employees are based in the North West and 21% of the UK's chemicals workforce. A quarter of the national aerospace output comes from the region, accounting for 1 in 4 high-tech jobs in the region.

6.63 Changes are occurring with Ford now building Jaguars at its plant in Merseyside and new growth of pharmaceuticals in West Lancashire. Manchester is experiencing growth in its biotechnology sector. Telecommunications and computer games are other growth points, along with leisure and tourism.

The region has a serious skills deficit compared with the best performing areas nationally.

6.64 The North West has a stronger representation of universities than most other regions and these play a vital role in supporting a high-tech centre of excellence to encourage SMEs, particularly in the software industry. Although not far removed from the UK average, the region has a serious skills deficit compared with the best performing areas nationally. There is a particular problem with the large proportion of over-50s in the male workforce, who have a low level of key skills on which to base skills development. Some of the more traditional industries in the region such as chemicals and the broad sector of engineering suffer the problems of an ageing workforce as a result of low recruitment in the past.

NORTH WEST

Local LSCs: Cheshire and Warrington; Greater Manchester; Lancashire; Greater Merseyside; Cumbria.	
Population (thousands)	6894
Population of Working Age (thousands)	4180
Ethnic Minorities (%)	
White	96.0
Black	...
Indian	...
Bangladeshi/Pakistani	...
Other/Mixed	...
Population Change: 1990-2000 (% pa)	0.0
Population Density (persons per square km)	487
Employment (thousands)	3162
Change: 1990-2000 (% pa)	-0.1
Change: 1995-2000 (% pa)	1.1
Employment in Ten Worst Performing UK Industries (%)	4.8
Employment in Ten Best Performing UK Industries (%)	15.8
Top Three Occupational Groups (% of Total Emp.)	
Managers and Senior Officials	15.5
Administrative and Secretarial Occupations	14.9
Skilled Trades Occupations	12.4
Average Gross Weekly Pay[1] (£s)	341
Unemployment Rate (ILO)	4.2
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	6.7
Establishments Reporting Skill-Shortage Vacancies[1] (%)	3.5

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

North West Local LSC Areas

6.65 Greater Merseyside and Cumbria stand apart in this region with the lowest number of employees with qualifications NVQ4 or above. In Greater Manchester and Lancashire just over 20% of employees have a qualification NVQ4 or above while Cheshire and Warrington has the highest qualified workforce with over 25% of employees with a qualification NVQ4 or above. Greater Merseyside however stands out with the highest proportion of employees with no qualifications, ranking 4th in England with 21.7%.

Greater Merseyside stands out with the highest proportion of employees with no qualifications.

6.66 In terms of hard-to-fill and skill-shortage vacancies, Lancashire and Cumbria stand out. Both rank relatively high in both types of vacancies compared to the rest of the region in the top twenty for hard-to-fill and the top ten for skill-shortage vacancies. Greater Merseyside also ranks in the top twenty for skill-shortage vacancies.

Greater Merseyside also ranks in the top twenty for skill-shortage vacancies.

6.67 In terms of employment growth the region's local LSC areas have not performed badly if compared to regions such as the South West or West Midlands. However, all the local LSC areas have performed badly compared to the UK average. Greater Merseyside has had the best employment growth rate in the region in 1995-2000, but it also has the 2nd highest unemployment rate in England and by far the highest in the region, which indicates deep skill gaps in the region. In terms of the ten best and the ten worst-performing industries in the UK, the local LSC areas of the North West do not rank particularly high. However, in terms of employment in manufacturing, Lancashire and Cumbria rank in the top ten local LSC areas in England.

In terms of employment growth the region's local LSC areas have not performed badly if compared to regions such as the South West or West Midlands.

CHESHIRE AND WARRINGTON

Population (thousands)	864
Population of Working Age (thousands)	529
Ethnic Minorities (%)	
White	99.3
Black	...
Indian	...
Bangladeshi/Pakistani	...
Other/Mixed	...
Population Change: 1990-2000 (% pa)	0.3
Population Density (persons per square km)	370
Employment (thousands)	444
Change: 1990-2000 (% pa)	0.4
Change: 1995-2000 (% pa)	1.1
Employment in Ten Worst Performing UK Industries (%)	5.0
Employment in Ten Best Performing UK Industries (%)	19.1
Top Three Occupational Groups (% of Total Emp.)	
Managers and Senior Officials	18.7
Administrative and Secretarial Occupations	14.1
Professional Occupations	12.0
Average Gross Weekly Pay[1] (£s)	374
Unemployment Rate (ILO)	2.2
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	5.7
Establishments Reporting Skill-Shortage Vacancies[1] (%)	0.4

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

GREATER MANCHESTER

Population (thousands)	2586
Population of Working Age (thousands)	1586
Ethnic Minorities (%)	
White	93.3
Black	1.1
Indian	1.2
Bangladeshi/Pakistani	3.3
Other/Mixed	1.1
Population Change: 1990-2000 (% pa)	0.1
Population Density (persons per square km)	2011
Employment (thousands)	1247
Change: 1990-2000 (% pa)	-0.1
Change: 1995-2000 (% pa)	1.2
Employment in Ten Worst Performing UK Industries (%)	5.0
Employment in Ten Best Performing UK Industries (%)	17.8
Top Three Occupational Groups (% of Total Emp.)	
Administrative and Secretarial Occupations	16.1
Managers and Senior Officials	15.5
Skilled Trades Occupations	12.3
Average Gross Weekly Pay[1] (£s)	347
Unemployment Rate (ILO)	3.8
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	5.6
Establishments Reporting Skill-Shortage Vacancies[1] (%)	3.1

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

LANCASHIRE

Population (thousands)	1429
Population of Working Age (thousands)	855
Ethnic Minorities (%)	
White	95.1
Black	...
Indian	2.3
Bangladeshi/Pakistani	1.8
Other/Mixed	0.5
Population Change: 1990-2000 (% pa)	0.2
Population Density (persons per square km)	466
Employment (thousands)	640
Change: 1990-2000 (% pa)	0.1
Change: 1995-2000 (% pa)	1.1
Employment in Ten Worst Performing UK Industries (%)	6.4
Employment in Ten Best Performing UK Industries (%)	12.6
Top Three Occupational Groups (% of Total Emp.)	
Managers and Senior Officials	15.3
Skilled Trades Occupations	13.9
Administrative and Secretarial Occupations	13.4
Average Gross Weekly Pay[1] (£s)	323
Unemployment Rate (ILO)	3.5
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	9.3
Establishments Reporting Skill-Shortage Vacancies[1] (%)	6.0

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

CUMBRIA

Population (thousands)	491
Population of Working Age (thousands)	294
Ethnic Minorities (%)	
White	99.5
Black	...
Indian	...
Bangladeshi/Pakistani	...
Other/Mixed	...
Population Change: 1990-2000 (% pa)	0.0
Population Density (persons per square km)	72
Employment (thousands)	216
Change: 1990-2000 (% pa)	-1.1
Change: 1995-2000 (% pa)	0.6
Employment in Ten Worst Performing UK Industries (%)	4.9
Employment in Ten Best Performing UK Industries (%)	12.0
Top Three Occupational Groups (% of Total Emp.)	
Skilled Trades Occupations	15.5
Managers and Senior Officials	15.1
Administrative and Secretarial Occupations	12.3
Average Gross Weekly Pay[1] (£s)	315
Unemployment Rate (ILO)	3.7
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	9.3
Establishments Reporting Skill-Shortage Vacancies [1] (%)	8.0

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

GREATER MERSEYSIDE

Population (thousands)	1524
Population of Working Age (thousands)	916
Ethnic Minorities (%)	
White	98.5
Black	0.5
Indian	...
Bangladeshi/Pakistan	...
Other/Mixed	0.8
Population Change: 1990-2000 (% pa)	-0.3
Population Density (persons per square km)	2327
Employment (thousands)	616
Change: 1990-2000 (% pa)	-0.4
Change: 1995-2000 (% pa)	1.4
Employment in Ten Worst Performing UK Industries (%)	2.7
Employment in Ten Best Performing UK Industries (%)	14.2
Top Three Occupational Groups (% of Total Emp.)	
Administrative and Secretarial Occupations	15.7
Managers and Senior Officials	13.8
Personal Service Occupations	12.7
Average Gross Weekly Pay[1] (£s)	335
Unemployment Rate (ILO)	7.4
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	6.0
Establishments Reporting Skill-Shortage Vacancies[1] (%)	4.1

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

North East

6.68 The region covers the area from Berwick upon Tweed in the north to the Tees Valley in the south and spreads inland to the Pennines. It includes the population concentrations of Tyneside, Wearside and Teesside. Much of the region has an exceptionally attractive environment and several outstanding cultural attributes. There are also some areas of extreme industrial dereliction and social deprivation, particularly in Teesside and Tyne and Wear. The region has a population of 2.6 million, with 70% living in the cities and towns along the rivers Tyne, Wear and Tees, where traditionally they supported mining, steel, shipbuilding and heavy manufacturing. This concentration of the population contrasts with Northumberland which is the most sparsely populated rural area in England, with attendant problems of relative isolation. Problems include some difficulty in accessing jobs, education, and social services.

Much of the region has an exceptionally attractive environment, but there are also some areas of extreme industrial dereliction and social deprivation.

NORTH EAST

Local LSCs: Tees Valley; County Durham; Northumberland; Tyne and Wear.	
Population (thousands)	2577
Population of Working Age (thousands)	1571
Ethnic Minorities (%)	
White	98.4
Black	...
Indian	...
Bangladeshi/Pakistani	...
Other/Mixed	...
Population Change: 1990-2000 (% pa)	-0.1
Population Density (persons per square km)	300
Employment (thousands)	1060
Change: 1990-2000 (% pa)	-0.5
Change: 1995-2000 (% pa)	0.3
Employment in Ten Worst Performing UK Industries (%)	5.8
Employment in Ten Best Performing UK Industries (%)	13.8
Top Three Occupational Groups (% of Total Emp.)	
Administrative and Secretarial Occupations	14.8
Managers and Senior Officials	12.7
Personal Service Occupations	12.1
Average Gross Weekly Pay[1] (£s)	316
Unemployment Rate (ILO)	6.4
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	6.0
Establishments Reporting Skill-Shortage Vacancies[1] (%	2.9

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

6.69 In the last 25 years the region has been transformed, with huge job losses in primary, heavy and manufacturing industry. Coal mining in Northumberland and Durham and the steel industry in Consett were major casualties of the transformation. Chemicals and metal manufacture have remained important, however, and inward investment has added 65,000 new jobs in sectors such as car manufacture (Nissan), electronics (Samsung), the oil industry support industries and pharmaceuticals. Over 100,000 jobs have also been added in the service sector. Public administration, health and education provide many of these jobs and now occupy 34% of the region's workforce, partly in the region's five universities and 25 colleges. Wholesale and retail, hotels and restaurants and newer activities such as call centres account for many more jobs. Tourism and cultural and media organisations are large employers. However, GVA per head and the employment rate are lower than in any other region in England.

In the last 25 years the region has been transformed, with huge job losses in primary, heavy and manufacturing industry.

6.70 Educational attainment of young people is well below the national average. The workforce is less well qualified than in all other regions and the population suffers more health problems.

Educational attainment of young people is well below the national average.

North East Local LSC Areas

6.71 The North East is characterised by a large number of trade apprenticeships relative to other local LSC areas in England, but also by a large number of employees with no qualifications. Only in Northumberland do fewer than 20% of employees have no qualifications at all, and this is also the only area in the region to have more than 20% of employees with a qualification NVQ4 or above. Generally the region is therefore characterised by the lowest levels of formal qualifications in England.

The North East is characterised by a large number of trade apprenticeships.

TEES VALLEY

Population (thousands)	657
Population of Working Age (thousands)	396
Ethnic Minorities (%)	
White	97.8
Black	...
Indian	...
Bangladeshi/Pakistani	...
Other/Mixed	...
Population Change: 1990-2000 (% pa)	-0.0
Population Density (persons per square km)	1101
Employment (thousands)	273
Change: 1990-2000 (% pa)	-0.7
Change: 1995-2000 (% pa)	-0.2
Employment in Ten Worst Performing UK Industries (%)	5.1
Employment in Ten Best Performing UK Industries (%)	14.5
Top Three Occupational Groups (% of Total Emp.)	
Skilled Trades Occupations	14.2
Administrative and Secretarial Occupations	13.4
Managers and Senior Officials	12.7
Average Gross Weekly Pay[1] (£s)	311
Unemployment Rate (ILO)	7.4
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	4.4
Establishments Reporting Skill-Shortage Vacancies[1] (%)	1.8

Note(s): Data are 2000 except[1] where data are 2001.
Source(s):CE, ESS2001 and NOMIS.

COUNTY DURHAM

Population (thousands)	506
Population of Working Age (thousands)	311
Ethnic Minorities (%)	
White	99.5
Black	...
Indian	...
Bangladeshi/Pakistani	...
Other/Mixed	...
Population Change: 1990-2000 (% pa)	0.1
Population Density (persons per square km)	208
Employment (thousands)	177
Change: 1990-2000 (% pa)	-0.7
Change: 1995-2000 (% pa)	0.8
Employment in Ten Worst Performing UK Industries (%)	10.0
Employment in Ten Best Performing UK Industries (%)	11.2
Top Three Occupational Groups (% of Total Emp.)	
Administrative and Secretarial Occupations	15.4
Managers and Senior Officials	12.8
Process, Plant and Machine Operatives	12.3
Average Gross Weekly Pay[1] (£s)	322
Unemployment Rate (ILO)	5.9
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	7.5
Establishments Reporting Skill-Shortage Vacancies[1] (%)	3.4

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

NORTHUMBERLAND

Population (thousands)	310
Population of Working Age (thousands)	188
Ethnic Minorities (%)	
White	99.2
Black	...
Indian	...
Bangladeshi/Pakistani	...
Other/Mixed	...
Population Change: 1990-2000 (% pa)	0.1
Population Density (persons per square km)	62
Employment (thousands)	107
Change: 1990-2000 (% pa)	-0.6
Change: 1995-2000 (% pa)	-0.9
Employment in Ten Worst Performing UK Industries (%)	9.7
Employment in Ten Best Performing UK Industries (%)	9.4
Top Three Occupational Groups (% of Total Emp.)	
Personal Service Occupations	15.3
Managers and Senior Officials	13.2
Process, Plant and Machine Operatives	12.5
Average Gross Weekly Pay[1] (£s)	270
Unemployment Rate (ILO)	5.1
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	3.7
Establishments Reporting Skill-Shortage Vacancies[1] (%)	1.6

Note(s): Data are 2000 except[1] where data are 2001.
Source(s): CE, ESS2001 and NOMIS.

TYNE AND WEAR

Population (thousands)	1104
Population of Working Age (thousands)	676
Ethnic Minorities (%)	
White	98.1
Black	...
Indian	...
Bangladeshi/Pakistani	0.8
Other/Mixed	...
Population Change: 1990-2000 (% pa)	-0.2
Population Density (persons per square km)	2044
Employment (thousands)	503
Change: 1990-2000 (% pa)	-0.2
Change: 1995-2000 (% pa)	0.7
Employment in Ten Worst Performing UK Industries (%)	3.8
Employment in Ten Best Performing UK Industries (%)	15.4
Top Three Occupational Groups (% of Total Emp.)	
Administrative and Secretarial Occupations	16.2
Managers and Senior Officials	12.4
Associate Professional and Technical Occupations	11.8
Average Gross Weekly Pay[1] (£s)	325
Unemployment Rate (ILO)	6.3
Establishments Reporting Hard-to-Fill Vacancies[1] (%)	6.8
Establishments Reporting Skill-Shortage Vacancies[1] (%)	3.6

Note(s): Data are 2000 except[1] where data are 2001.
Source(s):CE, ESS2001 and NOMIS.

There is a relatively low number of employers reporting hard-to-fill and skill-shortage vacancies.

The North East region has the worst employment growth performance in England.

6.72 Another characteristic of the local LSC areas in the North East region is the relatively low numbers of employers reporting hard-to-fill and skill-shortage vacancies. Tees Valley and Northumberland especially have a particularly low number of vacancies, indicating weak employer demand.

6.73 The North East region has the worst employment growth performance in England. All local LSC areas in the region rank in the bottom ten in terms of employment growth. Specialisation in slow growth industries is a problem particularly in County Durham and Northumberland which rank high for employment in the ten worst-performing industries in the UK, and also score the worst for employment in the top ten performing industries. Manufacturing is still an important employer in the North East and County Durham and Tees Valley in particular. A common factor for the local LSC areas in the North East is therefore unemployment. All local LSC areas in the region are in the ten worst unemployment areas in England, with Tees Valley having the highest unemployment rate of any local LSC area in England.

Table 6.2 Qualification Structure of those in Employment by Local LSC

	Proportion of employees with qualification level (%)						
	None	NVQ1	NVQ2	Trade	NVQ3	NVQ4+	Other
London North	14.8	11.3	12.3	4.8	13.7	26.8	16.4
London West	13.9	10.2	11.2	4.9	12.0	28.3	19.4
London Central	12.4	6.8	8.8	3.6	10.4	38.9	19.1
London East	20.6	13.8	13.1	5.6	11.4	21.9	13.7
London South	10.7	12.7	14.3	4.9	13.7	32.8	10.9
Berkshire	11.6	13.8	15.5	5.8	13.8	29.5	10.1
MKOB	11.0	14.9	14.8	7.9	13.8	30.0	7.6
Sussex	11.6	15.2	15.1	8.9	16.3	25.3	7.6
Hampshire and IoW	12.7	17.7	16.3	8.4	14.4	22.9	7.6
Kent and Medway	14.1	19.9	15.9	6.9	13.6	19.3	10.2
Surrey	8.2	12.2	15.9	6.6	14.7	34.0	8.5
Bedfordshire and Luton	15.3	17.8	13.3	8.2	13.3	24.1	7.9
Essex	17.7	18.3	17.9	6.1	15.2	17.4	7.4
Hertfordshire	9.9	16.1	15.5	7.3	14.7	28.2	8.2
Cambridgeshire	14.3	14.3	14.9	6.1	13.2	27.5	9.7
Norfolk	14.8	19.1	17.0	8.8	12.4	18.9	9.0
Suffolk	19.6	18.1	14.3	10.1	11.3	17.3	9.3
West of England	11.2	16.8	14.9	7.0	14.2	28.9	7.0
Devon and Cornwall	13.8	18.1	16.6	9.2	13.4	20.5	8.4
B'mouth, Dorset and Poole	14.3	18.3	17.3	8.8	14.1	21.1	6.0
Gloucestershire	11.2	15.9	16.8	7.9	13.8	27.4	7.1
Somerset	11.3	18.3	16.9	8.5	15.5	21.8	7.7
Wiltshire and Swindon	12.6	17.4	15.2	7.0	13.9	26.7	7.2
Herefordshire and Worcestershire	14.3	16.4	15.9	8.4	11.7	24.5	8.9
Shropshire	17.1	17.5	16.0	8.0	11.4	21.3	8.7
Staffordshire	20.2	16.3	14.7	9.7	13.1	17.8	8.2
Coventry and Warwickshire	17.1	14.5	13.3	7.6	12.2	25.3	10.0
The Black Country	23.8	17.1	14.8	6.4	11.1	15.8	11.1
B'ham and Solihull	22.4	13.8	13.9	4.6	13.8	20.5	10.9
Derbyshire	19.4	18.4	13.4	9.2	12.4	19.7	7.5
Leicestershire	19.1	17.3	14.1	7.5	13.9	19.3	8.8
Lincolnshire and Rutland	15.9	16.7	14.6	9.1	14.1	19.9	9.6
Northamptonshire	14.9	18.0	16.2	8.0	12.9	18.8	11.3
Nottinghamshire	20.6	16.7	14.9	8.0	12.1	20.1	7.5
Humberside	17.8	18.8	13.8	9.8	12.3	17.4	10.0
North Yorkshire	13.0	14.3	15.9	8.7	14.3	26.2	7.6
West Yorkshire	17.8	16.1	13.2	9.0	13.7	21.6	8.7
South Yorkshire	21.8	17.7	13.7	9.2	12.0	17.6	8.0
Cheshire and Warrington	15.5	13.4	16.1	9.1	12.5	26.3	7.0
Greater Manchester	19.9	14.9	14.1	9.0	13.1	21.1	7.9
Lancashire	17.1	15.2	15.2	9.0	15.3	21.4	6.7
Greater Merseyside	21.7	15.3	16.0	7.7	13.6	18.9	6.9
Cumbria	13.9	17.0	14.3	14.3	13.6	19.7	7.1
Tees Valley	21.2	16.4	14.6	10.6	11.9	16.9	8.3
County Durham	21.5	17.7	15.4	8.7	11.6	18.0	7.1
Northumberland	19.0	15.3	15.9	10.1	11.6	21.7	6.3
Tyne and Wear	20.3	15.4	15.6	10.8	12.1	18.8	7.0

Source(s): NOMIS.

Table 6.3 Ranking of Qualification Structures of those in Employment by Local LSC

	Proportion of employees with qualification level (%)						
	None	NVQ1	NVQ2	Rank Trade	NVQ3	NVQ4+	Other
London North	27	45	45	45	18	11	3
London West	32	46	46	44	38	7	1
London Central	38	47	47	47	47	1	2
London East	7	41	44	42	43	20	4
London South	45	43	34	43	19	3	7
Berkshire	39	40	19	41	17	5	10
MKOB	44	34	28	29	14	4	30
Sussex	40	33	23	16	1	15	32
Hampshire and IoW	36	12	7	23	7	19	33
Kent and Medway	31	1	12	36	21	34	9
Surrey	47	44	16	37	6	2	21
Bedfordshire and Luton	24	11	41	24	25	18	27
Essex	18	6	1	39	4	44	36
Hertfordshire	46	26	18	33	5	8	24
Cambridgeshire	29	38	25	40	26	9	13
Norfolk	26	2	3	17	31	37	16
Suffolk	12	9	32	5	45	45	15
West of England	42	20	26	34	9	6	41
Devon and Cornwall	34	8	6	8	24	28	22
B'mouth, Dorset and Poole	28	5	2	18	11	27	47
Gloucestershire	43	28	5	28	15	10	40
Somerset	41	7	4	21	2	21	29
Wiltshire and Swindon	37	16	21	35	13	12	37
Herefordshire and Worcestershire	30	24	13	22	40	17	17
Shropshire	19	15	10	26	44	25	19
Staffordshire	10	25	29	7	28	41	25
Coventry and Warwickshire	21	36	42	31	34	16	11
The Black Country	1	18	27	38	46	47	6
B'ham and Solihull	2	39	37	46	16	29	8
Derbyshire	13	4	40	9	32	32	35
Leicestershire	14	17	36	32	12	35	18
Lincolnshire and Rutland	22	21	31	11	10	31	14
Northamptonshire	25	10	8	27	29	39	5
Nottinghamshire	8	22	24	25	36	30	34
Humberside	17	3	38	6	33	4	12
North Yorkshire	35	37	14	19	8	14	31
West Yorkshire	16	27	43	15	20	23	20
South Yorkshire	3	13	39	10	37	42	26
Cheshire and Warrington	23	42	9	12	30	13	42
Greater Manchester	11	35	35	14	27	26	28
Lancashire	20	32	22	13	3	24	45
Greater Merseyside	4	31	11	30	23	36	44
Cumbria	33	19	33	1	22	33	38
Tees Valley	6	23	30	3	39	46	23
County Durham	5	14	20	20	42	40	39
Northumberland	15	30	15	4	41	22	46
Tyne and Wear	9	29	17	2	35	38	43

Note(s): Rank 1 is highest concentration of qualification and 47 lowest. Source(s) : NOMIS.

Table 6.4 Skill Deficiencies Indicators

	Hard-to-fill vacancies			Skill-shortage vacancies		
	Rank	%	Level	Rank	%	Level
London North	41	4.9	6590	43	1.3	2381
London West	25	6.9	9080	34	2.0	3194
London Central	12	9.7	36949	11	5.6	15880
London East	10	10.0	15164	8	6.5	9647
London South	33	5.7	8695	36	1.9	2582
Berkshire	3	17.4	10686	13	5.4	3011
MKOB	4	14.3	14505	15	4.7	3434
Sussex	8	11.3	12465	5	7.5	7253
Hampshire and IoW	24	6.9	21125	26	2.7	10042
Kent and Medway	43	4.3	7863	42	1.4	2506
Surrey	5	14.1	16713	12	5.6	5668
Bedford and Luton	20	8.0	4369	14	5.0	2109
Essex	37	5.1	8330	33	2.0	3711
Hertfordshire	11	9.8	15503	4	7.7	11259
Cambridgeshire	17	8.5	8388	22	3.2	3086
Norfolk	23	7.2	4927	27	2.6	1994
Suffolk	29	6.1	2945	31	2.2	703
West of England	9	10.4	3736	35	1.9	688
Devon and Cornwall	16	9.2	6988	17	4.2	2042
B'mouth, Dorset and Poole	7	11.9	7196	6	7.1	4095
Gloucestershire	6	12.0	12979	3	7.8	9669
Somerset	47	2.4	4327	45	1.0	1298
Wiltshire and Swindon	2	17.7	7807	1	12.3	4324
Hereford and Worcester	13	9.6	5993	32	2.1	1771
Shropshire	28	6.4	3145	37	1.9	1155
Staffordshire	19	8.4	5500	7	6.5	4370
Coventry and Warwick	31	5.8	4907	28	2.5	1886
The Black Country	18	8.5	4463	29	2.4	1777
B'ham and Solihull	1	18.0	8044	10	5.9	3016
Derbyshire	46	3.2	3173	44	1.3	1444
Leicestershire	22	7.3	2918	16	4.3	1493
Lincoln and Rutland	35	5.6	4181	46	0.6	510
Northamptonshire	27	6.7	3149	25	2.7	894
Nottinghamshire	36	5.4	4061	19	3.7	2550
Humberside	45	3.3	3059	30	2.4	1995
North Yorkshire	40	4.9	3166	23	3.2	1484
West Yorkshire	39	4.9	7565	40	1.7	2710
South Yorkshire	38	5.0	4924	39	1.7	1098
Cheshire and Warrington	32	5.7	8291	47	0.4	1015
Greater Manchester	34	5.6	9165	24	3.1	4982
Lancashire	15	9.3	6990	9	6.0	4794
Greater Merseyside	30	6.0	4529	18	4.1	1932
Cumbria	14	9.3	5259	2	8.0	3858
Tees Valley	42	4.4	1967	38	1.8	958
County Durham	21	7.5	1472	21	3.4	499
Northumberland	44	3.7	848	41	1.6	350
Tyne and Wear	26	6.8	3583	20	3.6	1963

Note(s): Rank 1 is highest concentration of hard-to-fill and skill-shortage vacancies and 47 lowest.
Source(s): ESS2001.

Table 6.5 Labour Market Indicators

	Growth (% pa)		Proportion %		%	
	Emp 90-00	Emp 95-00	Emp Bot 10	Emp Top 10	Emp Manuf	ILO Unemp
London North	0.4	2.6	2.7	20.3	9.7	6.2
London West	0.6	3.6	1.3	30.3	8.7	3.3
London Central	0.7	2.9	0.9	33.3	5.1	3.0
London East	0.7	3.3	1.4	31.7	8.1	4.8
London South	0.1	1.7	1.5	25.3	8.1	2.8
Berkshire	0.9	3.4	3.3	32.3	9.8	1.3
MKOB	1.2	2.7	3.9	25.8	13.5	1.2
Sussex	0.4	1.4	4.1	17.6	11.1	2.4
Hampshire and IoW	0.4	3.7	5.0	19.2	12.8	2.0
Kent and Medway	-0.9	-0.2	5.1	15.5	13.4	3.0
Surrey	2.2	4.8	2.7	32.0	6.9	0.8
Bedford and Luton	-1.1	-0.5	4.8	19.7	16.7	2.8
Essex	0.5	1.8	3.9	19.7	13.7	2.8
Hertfordshire	1.1	2.0	3.0	26.8	10.7	1.4
Cambridgeshire	1.1	1.7	7.2	21.1	15.2	2.0
Norfolk	-1.1	-0.4	8.1	13.8	16.9	3.5
Suffolk	-0.0	1.2	5.7	13.8	14.9	2.8
West of England	0.2	1.5	3.9	19.6	11.8	2.2
Devon and Cornwall	-0.0	0.4	7.1	11.5	12.3	3.5
B'mouth, Dorset and Poole	0.5	1.1	5.4	14.3	12.9	2.1
Gloucestershire	0.0	0.9	9.3	17.0	18.5	2.4
Somerset	0.6	1.2	7.5	13.2	16.0	2.3
Wiltshire and Swindon	1.1	1.0	5.9	19.5	15.4	1.6
Hereford and Worcester	0.9	1.6	10.5	13.9	19.9	2.4
Shropshire	1.1	2.1	7.9	13.3	19.2	2.5
Staffordshire	0.3	2.0	7.3	12.1	23.6	3.3
Coventry and Warwick	0.1	1.5	6.9	18.0	19.2	2.8
The Black Country	-0.6	0.6	8.1	12.8	26.3	5.4
B'ham and Solihull	-0.6	-0.2	3.8	20.6	16.7	5.9
Derbyshire	-0.2	0.8	7.4	11.6	24.5	3.9
Leicestershire	0.2	-0.3	12.0	15.1	25.1	3.3
Lincoln and Rutland	0.6	0.7	11.4	10.4	17.9	3.0
Northamptonshire	1.1	2.4	6.6	19.0	19.2	2.2
Nottinghamshire	-0.3	0.7	7.3	16.4	17.0	4.6
Humberside	-1.2	-1.2	7.9	10.8	23.4	5.8
North Yorkshire	0.6	1.3	7.6	12.7	12.0	2.3
West Yorkshire	0.1	0.0	6.4	16.7	17.4	4.1
South Yorkshire	-0.1	1.0	6.5	14.3	18.0	5.8
Cheshire and Warrington	0.4	1.1	5.0	19.1	15.5	2.2
Greater Manchester	-0.1	1.2	5.0	17.8	16.2	3.8
Lancashire	0.1	1.1	6.4	12.6	20.7	3.5
Greater Merseyside	-0.4	1.4	2.7	14.2	13.5	7.4
Cumbria	-1.1	0.6	4.9	12.0	19.3	3.7
Tees Valley	-0.7	-0.2	5.1	14.5	17.6	7.4
County Durham	-0.7	0.8	10.0	11.2	22.6	5.9
Northumberland	-0.6	-0.9	9.7	9.4	14.8	5.1
Tyne and Wear	-0.2	0.7	3.8	15.4	15.8	6.3

Note(s): Rank 1 is highest concentration of hard-to-fill and skill-shortage vacancies and 47 lowest.
Source(s): ESS2001.

Table 6.6 Labour Market Indicators

	Rank					
	Emp 90-00	Emp 95-00	Emp Bot 10	Emp Top 10	Emp Manuf	ILO Unemp
London North	21	8	41	11	42	4
London West	14	3	46	5	43	20
London Central	10	6	47	1	47	24
London East	11	5	45	4	44	11
London South	28	15	44	8	45	30
Berkshire	9	4	39	2	41	45
MKOB	2	7	36	7	32	46
Sussex	20	19	33	21	39	34
Hampshire and IoW	19	2	29	16	35	41
Kent and Medway	43	41	27	25	33	23
Surrey	1	1	43	3	46	47
Bedford and Luton	46	45	32	12	20	27
Essex	17	13	34	13	30	26
Hertfordshire	7	11	40	6	40	44
Cambridgeshire	5	14	16	9	27	42
Norfolk	45	44	7	33	19	18
Suffolk	30	22	24	34	28	28
West of England	24	17	35	14	38	38
Devon and Cornwall	31	38	17	43	36	19
B'mouth, Dorset and Poole	16	25	25	30	34	40
Gloucestershire	29	30	6	22	13	32
Somerset	12	23	12	36	23	35
Wiltshire and Swindon	3	28	23	15	26	43
Hereford and Worcester	8	16	3	32	8	33
Shropshire	4	10	9	35	10	31
Staffordshire	22	12	14	40	4	22
Coventry and Warwick	27	18	18	19	12	29
The Black Country	38	37	8	37	1	9
B'ham and Solihull	39	42	38	10	21	6
Derbyshire	35	32	13	42	3	14
Leicestershire	23	43	1	27	2	21
Lincoln and Rutland	15	35	2	46	15	25
Northamptonshire	6	9	19	18	11	39
Nottinghamshire	36	33	15	24	18	12
Humberside	47	47	10	45	5	8
North Yorkshire	13	21	11	38	37	36
West Yorkshire	26	39	21	23	17	13
South Yorkshire	33	29	20	29	14	7
Cheshire and Warrington	18	27	30	17	25	37
Greater Manchester	32	24	28	20	22	15
Lancashire	25	26	22	39	7	17
Greater Merseyside	37	20	42	31	31	2
Cumbria	44	36	31	41	9	16
Tees Valley	42	40	26	28	16	1
County Durham	41	31	4	44	6	5
Northumberland	40	46	5	47	29	10
Tyne and Wear	34	34	37	26	24	3

Note(s): Rank 1 is highest growth rate or proportion and 47 lowest except for unemployment rate where rank 1 is lowest and 47 highest. Source(s): CE and NOMIS.

Table 6.7 Occupational Structure of those in Employment

	Proportion of occupations (%)								
	Managers	Prof	Assoc Prof	Clerical	Craft	Personal	Sales	Operative	Other
London North	20.0	14.8	13.6	15.2	9.3	9.3	7.0	5.8	5.1
London West	19.5	14.1	13.9	16.4	7.0	9.9	6.8	6.5	5.9
London Central	23.0	17.0	19.7	12.4	4.3	9.9	5.4	2.7	5.6
London East	16.2	11.1	12.5	17.7	9.9	11.9	7.9	7.2	5.8
London South	22.0	14.5	14.1	16.5	7.8	8.3	8.1	3.8	4.8
Berkshire	21.6	13.3	11.7	15.8	9.2	8.7	8.3	5.5	6.0
MKOB	21.8	13.7	10.3	14.7	9.8	9.6	8.4	5.9	5.9
Sussex	16.7	11.3	12.1	14.6	12.3	11.0	8.5	5.5	8.0
Hampshire and IoW	16.7	9.7	11.3	15.1	11.8	12.4	8.0	7.4	7.7
Kent and Medway	16.3	9.8	8.6	15.1	13.3	11.8	8.6	8.1	8.6
Surrey	21.4	15.3	13.3	14.2	8.1	10.7	8.6	3.7	4.7
Bedford and Luton	19.1	9.7	9.7	15.6	12.5	10.1	7.3	9.4	6.6
Essex	18.4	9.2	11.2	16.6	11.1	10.3	7.9	8.7	6.5
Hertfordshire	19.9	13.0	11.5	16.5	10.1	10.2	6.9	6.0	5.9
Cambridgeshire	17.8	12.6	12.6	13.1	10.5	9.4	6.8	9.2	8.1
Norfolk	12.8	10.4	8.3	13.3	13.6	12.8	8.0	9.9	10.9
Suffolk	13.2	9.5	9.2	14.2	14.5	11.4	8.9	9.8	9.2
West of England	15.7	12.2	11.3	16.5	11.1	9.9	9.1	7.2	7.0
Devon and Cornwall	15.7	8.3	10.0	12.8	13.8	12.7	8.8	8.8	9.1
B'mouth, Dorset and Poole	15.5	9.6	10.8	14.6	14.6	11.5	9.9	6.2	7.4
Gloucestershire	18.4	10.4	10.4	13.9	11.1	10.1	9.7	8.7	7.3
Somerset	14.3	9.7	8.4	13.4	16.0	10.9	9.2	8.4	9.7
Wiltshire and Swindon	18.6	10.1	11.0	15.1	10.4	10.4	9.8	8.8	5.7
Hereford and Worcester	15.3	10.7	10.2	12.7	13.6	10.5	9.3	10.5	7.3
Shropshire	16.3	10.5	10.0	11.5	11.5	10.5	7.7	12.4	9.6
Staffordshire	13.8	8.9	7.3	12.2	15.6	12.2	10.0	11.8	8.3
Coventry and Warwick	14.8	12.5	9.4	17.1	11.2	10.7	7.4	9.9	6.9
The Black Country	12.3	8.9	7.3	16.0	16.4	8.7	8.9	13.9	7.5
B'ham and Solihull	15.2	12.9	9.1	16.8	13.1	9.3	8.1	9.7	5.9
Derbyshire	14.4	10.8	9.7	11.8	14.8	9.7	8.4	12.0	8.4
Leicestershire	14.9	10.1	8.7	15.1	14.9	10.1	7.8	11.5	6.9
Lincoln and Rutland	13.7	8.3	9.8	11.1	13.0	13.0	8.3	13.0	9.8
Northamptonshire	15.4	8.9	8.3	17.8	14.2	9.2	7.4	12.3	6.5
Nottinghamshire	15.4	11.1	9.8	14.3	12.2	10.3	8.1	9.6	9.2
Humberside	13.4	7.8	8.9	12.9	13.9	12.7	8.1	12.4	9.9
North Yorkshire	18.7	9.9	9.6	12.9	10.7	13.5	8.0	6.3	10.2
West Yorkshire	13.4	9.0	10.8	16.1	12.4	11.7	8.5	10.7	7.3
South Yorkshire	12.9	9.6	8.7	14.0	12.8	12.2	9.4	11.5	8.7
Cheshire and Warrington	18.7	12.0	10.1	14.1	11.0	10.8	8.4	7.9	7.0
Greater Manchester	15.5	10.3	9.8	16.1	12.3	10.5	8.4	10.3	6.9
Lancashire	15.3	11.3	10.0	13.4	13.9	10.6	8.6	9.4	7.5
Greater Merseyside	13.8	11.4	10.5	15.7	11.0	12.7	8.4	9.1	7.4
Cumbria	15.1	9.6	8.2	12.3	15.5	11.0	8.7	10.5	9.1
Tees Valley	12.7	7.8	9.3	13.4	14.2	12.3	9.0	11.2	10.1
County Durham	12.8	8.4	9.7	15.4	11.5	11.9	8.8	12.3	9.3
Northumberland	13.2	9.0	9.0	11.8	11.1	15.3	9.0	12.5	9.0
Tyne and Wear	12.4	9.2	11.8	16.2	11.4	11.1	10.5	9.8	7.6

Source(s): NOMIS.

Table 6.8 Ranking of Occupational Structures of those in Employment

	Rank								
	Managers	Prof	Prof Assoc	Clerical	Craft	Personal	Sales	Operative	Other
London North	6	3	4	18	42	43	43	42	45
London West	8	5	3	9	46	36	46	37	38
London Central	1	1	1	41	47	37	47	47	44
London East	20	17	7	2	40	13	37	36	42
London South	2	4	2	7	45	47	30	45	46
Berkshire	4	7	10	14	43	46	27	44	37
MKOB	3	6	20	23	41	40	25	41	39
Sussex	17	15	8	24	23	19	20	43	19
Hampshire and IoW	16	30	13	22	25	8	33	34	20
Kent and Medway	19	28	41	21	16	14	19	32	15
Surrey	5	2	5	27	44	24	17	46	47
Bedford and Luton	9	29	29	16	20	34	42	24	34
Essex	14	36	14	5	32	30	36	29	35
Hertfordshire	7	8	11	8	39	32	44	40	41
Cambridgeshire	15	10	6	36	37	41	45	25	18
Norfolk	43	23	44	35	14	4	34	18	1
Suffolk	40	35	35	28	8	17	13	19	9
West of England	21	12	12	6	33	38	9	35	29
Devon and Cornwall	22	44	25	39	13	6	14	28	12
B'mouth, Dorset and Poole	24	33	16	25	7	16	3	39	24
Gloucestershire	13	22	19	31	31	35	5	30	28
Somerset	34	31	42	32	2	21	8	31	6
Wiltshire and Swindon	12	25	15	19	38	29	4	27	43
Hereford and Worcester	28	20	21	40	15	28	7	15	26
Shropshire	18	21	23	46	26	27	39	4	7
Staffordshire	36	42	46	43	3	11	2	9	17
Coventry and Warwick	32	11	33	3	29	23	40	17	31
The Black Country	47	40	47	13	1	45	12	1	23
B'ham and Solihull	29	9	36	4	17	42	32	21	40
Derbyshire	33	19	31	44	6	39	24	8	16
Leicestershire	31	26	40	20	5	33	38	11	32
Lincoln and Rutland	37	45	26	47	18	3	28	2	5
Northamptonshire	26	41	43	1	10	44	41	7	36
Nottinghamshire	25	18	28	26	24	31	29	22	10
Humberside	38	46	38	38	11	7	31	5	4
North Yorkshire	10	27	32	37	36	2	35	38	2
West Yorkshire	39	39	17	11	21	15	21	13	27
South Yorkshire	42	32	39	30	19	10	6	10	14
Cheshire and Warrington	11	13	22	29	35	22	23	33	30
Greater Manchester	23	24	27	12	22	26	26	16	33
Lancashire	27	16	24	33	12	25	18	23	22
Greater Merseyside	35	14	18	15	34	5	22	26	25
Cumbria	30	34	45	42	4	20	16	14	11
Tees Valley	45	47	34	34	9	9	11	12	3
County Durham	44	43	30	17	27	12	15	6	8
Northumberland	41	38	37	45	30	1	10	3	13
Tyne and Wear	46	37	9	10	28	18	1	20	21

Note(s): Rank 1 is highest concentration of occupations and 47 lowest. Source(s) : NOMIS.

Table 6.9 Other Indicators

	Pop 90-00	Rank Pop Density	Pop Work Age	HH Income	Per cent pa Pop 90-00	Per sq km PopDensity	Thousands Pop Work Age	£s HH Income
London North	5	3	17	10	0.8	4412	684	383
London West	17	4	8	4	0.6	4240	932	463
London Central	1	1	5	1	1.2	9886	1067	583
London East	30	2	3	2	0.4	4502	1207	574
London South	4	5	12	24	0.8	3288	869	338
Berkshire	10	17	29	3	0.7	639	517	477
MKOB	3	30	14	7	0.9	296	838	399
Sussex	9	25	11	21	0.7	401	881	347
Hampshire and IoW	19	22	4	11	0.5	429	1094	375
Kent and Medway	29	23	7	22	0.4	428	954	345
Surrey	22	15	19	5	0.5	644	662	459
Bedford and Luton	13	20	41	18	0.7	458	354	357
Essex	23	21	6	17	0.5	443	987	360
Hertfordshire	11	16	22	6	0.7	641	645	413
Cambridgeshire	2	34	32	13	1	215	462	374
Norfolk	8	41	31	29	0.7	150	469	325
Suffolk	20	38	35	34	0.5	179	399	322
West of England	14	14	24	15	0.6	763	626	363
Devon and Cornwall	21	40	10	46	0.5	155	912	285
B'mouth, Dorset and Poole	16	32	36	37	0.6	263	397	319
Gloucestershire	26	35	42	16	0.5	213	338	363
Somerset	18	42	45	43	0.6	144	286	310
Wiltshire and Swindon	6	39	40	14	0.8	176	375	372
Hereford and Worcester	28	37	34	40	0.4	181	429	314
Shropshire	15	43	46	45	0.6	125	263	306
Staffordshire	36	26	21	31	0.1	390	657	324
Coventry and Warwick	34	24	30	8	0.2	410	499	398
The Black Country	45	6	20	36	-0.1	3069	660	320
B'ham and Solihull	41	7	16	9	0.1	2737	734	392
Derbyshire	27	27	25	26	0.4	372	599	331
Leicestershire	25	29	26	28	0.5	353	560	327
Lincoln and Rutland	7	44	37	44	0.8	114	396	306
Northamptonshire	12	31	39	19	0.7	264	388	354
Nottinghamshire	32	18	23	27	0.2	477	635	330
Humberside	37	33	28	38	0.1	251	528	316
North Yorkshire	24	45	33	35	0.5	91	448	321
West Yorkshire	35	12	2	23	0.2	1043	1304	339
South Yorkshire	42	13	15	42	0	835	798	310
Cheshire and Warrington	31	28	27	12	0.3	370	529	374
Greater Manchester	40	10	1	20	0.1	2011	1586	347
Lancashire	33	19	13	32	0.2	466	855	323
Greater Merseyside	47	8	9	25	-0.3	2327	916	335
Cumbria	43	46	44	39	0	72	294	315
Tees Valley	44	11	38	41	0	1101	396	311
County Durham	39	36	43	33	0.1	208	311	322
Northumberland	38	47	47	47	0.1	62	188	270
Tyne and Wear	46	9	18	30	-0.2	2044	676	325

Note(s): Rank 1 is highest growth rate, proportion or level and 47 lowest. Source(s): CE and NOMIS.

Table 6.10 Average Gross Weekly Pay

		£s
1	London Central	583
2	London East	574
3	Berkshire	477
4	London West	463
5	Surrey	459
6	Hertfordshire	413
7	Milton Keynes, Oxfordshire and Buckinghamshire	399
8	Coventry and Warwickshire	398
9	Birmingham and Solihull	392
10	London North	383
11	Hampshire and the Isle of Wight	375
12	Cheshire and Warrington	374
13	Cambridgeshire	374
14	Wiltshire and Swindon	372
15	West of England	363
16	Gloucestershire	363
17	Essex	360
18	Bedfordshire and Luton	357
19	Northamptonshire	354
20	Greater Manchester	347
21	Sussex	347
22	Kent and Medway	345
23	West Yorkshire	339
24	London South	338
25	Greater Merseyside	335
26	Derbyshire	331
27	Nottinghamshire	330
28	Leicestershire	327
29	Norfolk	325
30	Tyne and Wear	325
31	Staffordshire	324
32	Lancashire	323
33	County Durham	322
34	Suffolk	322
35	North Yorkshire	321
36	The Black Country	320
37	Bournemouth, Dorset and Poole	319
38	Humberside	316
39	Cumbria	315
40	Herefordshire and Worcestershire	314
41	Tees Valley	311
42	South Yorkshire	310
43	Somerset	310
44	Lincolnshire and Rutland	306
45	Shropshire	306
46	Devon and Cornwall	285
47	Northumberland	270

Source(s): NOMIS.

Table 6.11 Employment in Ten Best Performing UK Industries

		%
1	London Central	33.3
2	Berkshire	32.3
3	Surrey	32.0
4	London East	31.7
5	London West	30.3
6	Hertfordshire	26.8
7	Milton Keynes, Oxfordshire and Buckinghamshire	25.8
8	London South	25.3
9	Cambridgeshire	21.1
10	Birmingham and Solihull	20.6
11	London North	20.3
12	Bedfordshire and Luton	19.7
13	Essex	19.7
14	West of England	19.6
15	Wiltshire and Swindon	19.5
16	Hampshire and the Isle of Wight	19.2
17	Cheshire and Warrington	19.1
18	Northamptonshire	19.0
19	Coventry and Warwickshire	18.0
20	Greater Manchester	17.8
21	Sussex	17.6
22	Gloucestershire	17.0
23	West Yorkshire	16.7
24	Nottinghamshire	16.4
25	Kent and Medway	15.5
26	Tyne and Wear	15.4
27	Leicestershire	15.1
28	Tees Valley	14.5
29	South Yorkshire	14.3
30	Bournemouth, Dorset and Poole	14.3
31	Greater Merseyside	14.2
32	Herefordshire and Worcestershire	13.9
33	Norfolk	13.8
34	Suffolk	13.8
35	Shropshire	13.3
36	Somerset	13.2
37	The Black Country	12.8
38	North Yorkshire	12.7
39	Lancashire	12.6
40	Staffordshire	12.1
41	Cumbria	12.0
42	Derbyshire	11.6
43	Devon and Cornwall	11.5
44	County Durham	11.2
45	Humberside	10.8
46	Lincolnshire and Rutland	10.4
47	Northumberland	9.4

Source(s): CE.

Table 6.12 Employment in Ten Worst Performing UK Industries

		%
1	Leicestershire	12.0
2	Lincolnshire and Rutland	11.4
3	Herefordshire and Worcestershire	10.5
4	County Durham	10.0
5	Northumberland	9.7
6	Gloucestershire	9.3
7	Norfolk	8.1
8	The Black Country	8.1
9	Shropshire	7.9
10	Humberside	7.9
11	North Yorkshire	7.6
12	Somerset	7.5
13	Derbyshire	7.4
14	Staffordshire	7.3
15	Nottinghamshire	7.3
16	Cambridgeshire	7.2
17	Devon and Cornwall	7.1
18	Coventry and Warwickshire	6.9
19	Northamptonshire	6.6
20	South Yorkshire	6.5
21	West Yorkshire	6.4
22	Lancashire	6.4
23	Wiltshire and Swindon	5.9
24	Suffolk	5.7
25	Bournemouth, Dorset and Poole	5.4
26	Tees Valley	5.1
27	Kent and Medway	5.1
28	Greater Manchester	5.0
29	Hampshire and the Isle of Wight	5.0
30	Cheshire and Warrington	5.0
31	Cumbria	4.9
32	Bedfordshire and Luton	4.8
33	Sussex	4.1
34	Essex	3.9
35	West of England	3.9
36	Milton Keynes, Oxfordshire and Buckinghamshire	3.9
37	Tyne and Wear	3.8
38	Birmingham and Solihull	3.8
39	Berkshire	3.3
40	Hertfordshire	3.0
41	London North	2.7
42	Greater Merseyside	2.7
43	Surrey	2.7
44	London South	1.5
45	London East	1.4
46	London West	1.3
47	London Central	0.9

Source(s): CE.

Table 6.13 Employment Change (1990-2000)

		%
1	Surrey	2.2
2	Milton Keynes, Oxfordshire and Buckinghamshire	1.2
3	Wiltshire and Swindon	1.1
4	Shropshire	1.1
5	Cambridgeshire	1.1
6	Northamptonshire	1.1
7	Hertfordshire	1.1
8	Herefordshire and Worcestershire	0.9
9	Berkshire	0.9
10	London Central	0.7
11	London East	0.7
12	Somerset	0.6
13	North Yorkshire	0.6
14	London West	0.6
15	Lincolnshire and Rutland	0.6
16	Bournemouth, Dorset and Poole	0.5
17	Essex	0.5
18	Cheshire and Warrington	0.4
19	Hampshire and the Isle of Wight	0.4
20	Sussex	0.4
21	London North	0.4
22	Staffordshire	0.3
23	Leicestershire	0.2
24	West of England	0.2
25	Lancashire	0.1
26	West Yorkshire	0.1
27	Coventry and Warwickshire	0.1
28	London South	0.1
29	Gloucestershire	0.0
30	Suffolk	0.0
31	Devon and Cornwall	0.0
32	Greater Manchester	-0.1
33	South Yorkshire	-0.1
34	Tyne and Wear	-0.2
35	Derbyshire	-0.2
36	Nottinghamshire	-0.3
37	Greater Merseyside	-0.4
38	The Black Country	-0.6
39	Birmingham and Solihull	-0.6
40	Northumberland	-0.6
41	County Durham	-0.7
42	Tees Valley	-0.7
43	Kent and Medway	-0.9
44	Cumbria	-1.1
45	Norfolk	-1.1
46	Bedfordshire and Luton	-1.1
47	Humberside	-1.2

Source(s): CE.

Table 6.14 Employment Change (1995-2000)

		%
1	Surrey	4.8
2	Hampshire and the Isle of Wight	3.7
3	London West	3.6
4	Berkshire	3.4
5	London East	3.3
6	London Central	2.9
7	Milton Keynes, Oxfordshire and Buckinghamshire	2.7
8	London North	2.6
9	Northamptonshire	2.4
10	Shropshire	2.1
11	Hertfordshire	2.0
12	Staffordshire	2.0
13	Essex	1.8
14	Cambridgeshire	1.7
15	London South	1.7
16	Herefordshire and Worcestershire	1.6
17	West of England	1.5
18	Coventry and Warwickshire	1.5
19	Sussex	1.4
20	Greater Merseyside	1.4
21	North Yorkshire	1.3
22	Suffolk	1.2
23	Somerset	1.2
24	Greater Manchester	1.2
25	Bournemouth, Dorset and Poole	1.1
26	Lancashire	1.1
27	Cheshire and Warrington	1.1
28	Wiltshire and Swindon	1.0
29	South Yorkshire	1.0
30	Gloucestershire	0.9
31	County Durham	0.8
32	Derbyshire	0.8
33	Nottinghamshire	0.7
34	Tyne and Wear	0.7
35	Lincolnshire and Rutland	0.7
36	Cumbria	0.6
37	The Black Country	0.6
38	Devon and Cornwall	0.4
39	West Yorkshire	0.0
40	Tees Valley	-0.2
41	Kent and Medway	-0.2
42	Birmingham and Solihull	-0.2
43	Leicestershire	-0.3
44	Norfolk	-0.4
45	Bedfordshire and Luton	-0.5
46	Northumberland	-0.9
47	Humberside	-1.2

Source(s): CE.

Table 6.15 Establishments Reporting Hard-to-Fill Vacancies

		%
1	Birmingham and Solihull	18.0
2	Wiltshire and Swindon	17.7
3	Berkshire	17.4
4	Milton Keynes, Oxfordshire and Buckinghamshire	14.3
5	Surrey	14.1
6	Gloucestershire	12.0
7	Bournemouth, Dorset and Poole	11.9
8	Sussex	11.3
9	West of England	10.4
10	London East	10.0
11	Hertfordshire	9.8
12	London Central	9.7
13	Herefordshire and Worcestershire	9.6
14	Cumbria	9.3
15	Lancashire	9.3
16	Devon and Cornwall	9.2
17	Cambridgeshire	8.5
18	The Black Country	8.5
19	Staffordshire	8.4
20	Bedfordshire and Luton	8.0
21	County Durham	7.5
22	Leicestershire	7.3
23	Norfolk	7.2
24	Hampshire and the Isle of Wight	6.9
25	London West	6.9
26	Tyne and Wear	6.8
27	Northamptonshire	6.7
28	Shropshire	6.4
29	Suffolk	6.1
30	Greater Merseyside	6.0
31	Coventry and Warwickshire	5.8
32	Cheshire and Warrington	5.7
33	London South	5.7
34	Greater Manchester	5.6
35	Lincolnshire and Rutland	5.6
36	Nottinghamshire	5.4
37	Essex	5.1
38	South Yorkshire	5.0
39	West Yorkshire	4.9
40	North Yorkshire	4.9
41	London North	4.9
42	Tees Valley	4.4
43	Kent and Medway	4.3
44	Northumberland	3.7
45	Humberside	3.3
46	Derbyshire	3.2
47	Somerset	2.4

Source(s): Green and Owen (2002).

Table 6.16 Establishments Reporting Skill-Shortage Vacancies

		%
1	Wiltshire and Swindon	12.3
2	Cumbria	8.0
3	Gloucestershire	7.8
4	Hertfordshire	7.7
5	Sussex	7.5
6	Bournemouth, Dorset and Poole	7.1
7	Staffordshire	6.5
8	London East	6.5
9	Lancashire	6.0
10	Birmingham and Solihull	5.9
11	London Central	5.6
12	Surrey	5.6
13	Berkshire	5.4
14	Bedfordshire and Luton	5.0
15	Milton Keynes, Oxfordshire and Buckinghamshire	4.7
16	Leicestershire	4.3
17	Devon and Cornwall	4.2
18	Greater Merseyside	4.1
19	Nottinghamshire	3.7
20	Tyne and Wear	3.6
21	County Durham	3.4
22	Cambridgeshire	3.2
23	North Yorkshire	3.2
24	Greater Manchester	3.1
25	Northamptonshire	2.7
26	Hampshire and the Isle of Wight	2.7
27	Norfolk	2.6
28	Coventry and Warwickshire	2.5
29	The Black Country	2.4
30	Humberside	2.4
31	Suffolk	2.2
32	Herefordshire and Worcestershire	2.1
33	Essex	2.0
34	London West	2.0
35	West of England	1.9
36	London South	1.9
37	Shropshire	1.9
38	Tees Valley	1.8
39	South Yorkshire	1.7
40	West Yorkshire	1.7
41	Northumberland	1.6
42	Kent and Medway	1.4
43	London North	1.3
44	Derbyshire	1.3
45	Somerset	1.0
46	Lincolnshire and Rutland	0.6
47	Cheshire and Warrington	0.4

Source(s): Green and Owen (2002).

Table 6.17 Population of Working Age with no Qualifications

		%
1	The Black Country	23.8
2	Birmingham and Solihull	22.4
3	South Yorkshire	21.8
4	Greater Merseyside	21.7
5	County Durham	21.5
6	Tees Valley	21.2
7	London East	20.6
8	Nottinghamshire	20.6
9	Tyne and Wear	20.3
10	Staffordshire	20.2
11	Greater Manchester	19.9
12	Suffolk	19.6
13	Derbyshire	19.4
14	Leicestershire	19.1
15	Northumberland	19.0
16	West Yorkshire	17.8
17	Humberside	17.8
18	Essex	17.7
19	Shropshire	17.1
20	Lancashire	17.1
21	Coventry and Warwickshire	17.1
22	Lincolnshire and Rutland	15.9
23	Cheshire and Warrington	15.5
24	Bedfordshire and Luton	15.3
25	Northamptonshire	14.9
26	Norfolk	14.8
27	London North	14.8
28	Bournemouth, Dorset and Poole	14.3
29	Cambridgeshire	14.3
30	Herefordshire and Worcestershire	14.3
31	Kent and Medway	14.1
32	London West	13.9
33	Cumbria	13.9
34	Devon and Cornwall	13.8
35	North Yorkshire	13.0
36	Hampshire and the Isle of Wight	12.7
37	Wiltshire and Swindon	12.6
38	London Central	12.4
39	Berkshire	11.6
40	Sussex	11.6
41	Somerset	11.3
42	West of England	11.2
43	Gloucestershire	11.2
44	Milton Keynes, Oxfordshire and Buckinghamshire	11.0
45	London South	10.7
46	Hertfordshire	9.9
47	Surrey	8.2

Source(s): NOMIS.

Table 6.18 Population Change (1990-2000)

		%
1	London Central	1.2
2	Cambridgeshire	1.0
3	Milton Keynes, Oxfordshire and Buckinghamshire	0.9
4	Wiltshire and Swindon	0.8
5	Lincolnshire and Rutland	0.8
6	London South	0.8
7	London North	0.8
8	Northamptonshire	0.7
9	Sussex	0.7
10	Bedfordshire and Luton	0.7
11	Norfolk	0.7
12	Hertfordshire	0.7
13	Berkshire	0.7
14	Somerset	0.6
15	Shropshire	0.6
16	Bournemouth, Dorset and Poole	0.6
17	London West	0.6
18	West of England	0.6
19	Essex	0.5
20	North Yorkshire	0.5
21	Suffolk	0.5
22	Gloucestershire	0.5
23	Surrey	0.5
24	Leicestershire	0.5
25	Devon and Cornwall	0.5
26	Hampshire and the Isle of Wight	0.5
27	London East	0.4
28	Kent and Medway	0.4
29	Herefordshire and Worcestershire	0.4
30	Derbyshire	0.4
31	Cheshire and Warrington	0.3
32	West Yorkshire	0.2
33	Coventry and Warwickshire	0.2
34	Lancashire	0.2
35	Nottinghamshire	0.2
36	Northumberland	0.1
37	Staffordshire	0.1
38	Greater Manchester	0.1
39	Humberside	0.1
40	Birmingham and Solihull	0.1
41	County Durham	0.1
42	Cumbria	0.0
43	South Yorkshire	0.0
44	Tees Valley	-0.0
45	The Black Country	-0.1
46	Tyne and Wear	-0.2
47	Greater Merseyside	-0.3

Source(s): CE.

Table 6.19 Population Density

		Persons per Square Km
1	London Central	9886
2	London East	4502
3	London North	4412
4	London West	4240
5	London South	3288
6	The Black Country	3069
7	Birmingham and Solihull	2737
8	Greater Merseyside	2327
9	Tyne and Wear	2044
10	Greater Manchester	2011
11	Tees Valley	1101
12	West Yorkshire	1043
13	South Yorkshire	835
14	West of England	763
15	Surrey	644
16	Hertfordshire	641
17	Berkshire	639
18	Nottinghamshire	477
19	Lancashire	466
20	Bedfordshire and Luton	458
21	Essex	443
22	Hampshire and the Isle of Wight	429
23	Kent and Medway	428
24	Coventry and Warwickshire	410
25	Sussex	401
26	Staffordshire	390
27	Derbyshire	372
28	Cheshire and Warrington	370
29	Leicestershire	353
30	Milton Keynes, Oxfordshire and Buckinghamshire	296
31	Northamptonshire	264
32	Bournemouth, Dorset and Poole	263
33	Humberside	251
34	Cambridgeshire	215
35	Gloucestershire	213
36	County Durham	208
37	Herefordshire and Worcestershire	181
38	Suffolk	179
39	Wiltshire and Swindon	176
40	Devon and Cornwall	155
41	Norfolk	150
42	Somerset	144
43	Shropshire	125
44	Lincolnshire and Rutland	114
45	North Yorkshire	91
46	Cumbria	72
47	Northumberland	62

Source(s): CE.

Table 6.20 Population or Working Age (16-64)

		Thousands
1	Greater Manchester	1586
2	West Yorkshire	1304
3	London East	1207
4	Hampshire and the Isle of Wight	1094
5	London Central	1067
6	Essex	987
7	Kent and Medway	954
8	London West	932
9	Greater Merseyside	916
10	Devon and Cornwall	912
11	Sussex	881
12	London South	869
13	Lancashire	855
14	Milton Keynes, Oxfordshire and Buckinghamshire	838
15	South Yorkshire	798
16	Birmingham and Solihull	734
17	London North	684
18	Tyne and Wear	676
19	Surrey	662
20	The Black Country	660
21	Staffordshire	657
22	Hertfordshire	645
23	Nottinghamshire	635
24	West of England	626
25	Derbyshire	599
26	Leicestershire	560
27	Cheshire and Warrington	529
28	Humberside	528
29	Berkshire	517
30	Coventry and Warwickshire	499
31	Norfolk	469
32	Cambridgeshire	462
33	North Yorkshire	448
34	Herefordshire and Worcestershire	429
35	Suffolk	399
36	Bournemouth, Dorset and Poole	397
37	Lincolnshire and Rutland	396
38	Tees Valley	396
39	Northamptonshire	388
40	Wiltshire and Swindon	375
41	Bedfordshire and Luton	354
42	Gloucestershire	338
43	County Durham	311
44	Cumbria	294
45	Somerset	286
46	Shropshire	263
47	Northumberland	188

Source(s): CE.

Table 6.21 Unemployment Rate

		%
1	Tees Valley	7.4
2	Greater Merseyside	7.4
3	Tyne and Wear	6.3
4	London North	6.2
5	County Durham	5.9
6	Birmingham and Solihull	5.9
7	South Yorkshire	5.8
8	Humberside	5.8
9	The Black Country	5.4
10	Northumberland	5.1
11	London East	4.8
12	Nottinghamshire	4.6
13	West Yorkshire	4.1
14	Derbyshire	3.9
15	Greater Manchester	3.8
16	Cumbria	3.7
17	Lancashire	3.5
18	Norfolk	3.5
19	Devon and Cornwall	3.5
20	London West	3.3
21	Leicestershire	3.3
22	Staffordshire	3.3
23	Kent and Medway	3.0
24	London Central	3.0
25	Lincolnshire and Rutland	3.0
26	Essex	2.8
27	Bedfordshire and Luton	2.8
28	Suffolk	2.8
29	Coventry and Warwickshire	2.8
30	London South	2.8
31	Shropshire	2.5
32	Gloucestershire	2.4
33	Herefordshire and Worcestershire	2.4
34	Sussex	2.4
35	Somerset	2.3
36	North Yorkshire	2.3
37	Cheshire and Warrington	2.2
38	West of England	2.2
39	Northamptonshire	2.2
40	Bournemouth, Dorset and Poole	2.1
41	Hampshire and the Isle of Wight	2.0
42	Cambridgeshire	2.0
43	Wiltshire and Swindon	1.6
44	Hertfordshire	1.4
45	Berkshire	1.3
46	Milton Keynes, Oxfordshire and Buckinghamshire	1.2
47	Surrey	0.8

Source(s): NOMIS.

Chapter 7: Key Regional and Local Issues

Chapter 7

Key Regional and Local Issues

Coping with restructuring in manufacturing is a common problem...

7.1 Primary and manufacturing employment has fallen steadily over the past twenty years in most parts of the country, while employment in services has been rising. In many areas manufacturing has shrunk to the extent where it is now a relatively small employer. For example, in London only 12% of employees are engaged in production activities (London Skills Forecasting Unit, 2002). Although the nature of the shift away from manufacturing has been most extreme in London, with its high property and labour costs, a similar if less marked trend is evident in other regions, notably the East of England, the South East and the South West. In other parts of the country, the decline in other industries, especially coal mining, has also had dramatic effects on employment and the demand for skills.

often causing a polarisation between those with and without skills.

7.2 According to the London Skills Forecasting Unit (2002), projections for the industrial and occupational structure for the regions of Great Britain outside London show they will be following London's lead over the next decade. A higher proportion of employment is expected in the services sector and a higher proportion of more highly-skilled occupations. This will mean that the phenomenon, which has so far been mainly apparent in larger metropolitan centres, namely a polarisation between those with wealth and opportunity and those without, is likely to become a more widespread problem.

In the Midlands and North of England the shake out from manufacturing is still a real problem.

7.3 In much of the Midlands and the North of England the nature of the challenge posed by restructuring is rather different. This reflects the fact that manufacturing remains a bigger employer in these areas. Continued restructuring means that this sector is still making people redundant in much greater numbers than in the South. The speed of restructuring is producing a pool of labour that has inappropriate skills to re-enter the labour market.

In the Black Country there are many hard-to-fill and skill shortage vacancies in manufacturing and services.

7.4 For example, the Black Country is characterised by a contracting, but still important, manufacturing sector, which still accounts for 30% of employment. As a result, the Black Country's workforce differs in character even from that of other parts of the West Midlands, with an over-representation of lower/semi-skilled occupations. At the same time, it also has a growing service sector in distribution, leisure, business services and public services, but many employers in these sectors find these vacancies difficult to fill. As a result the area has high unemployment, but also a high incidence of hard-to-fill and skill-shortage vacancies (LSC Black Country, 2002).

This problem is also apparent in other areas such as parts of the East Midlands and the North West.

7.5 Other examples of areas that face similar challenges are Nottinghamshire in the East Midlands and Greater Merseyside in the North West. In Nottinghamshire manufacturing is still an important, if declining, part of the economy, and the sector is characterised by redundancies with a consequent flow of people into the labour market looking for new jobs. Nottinghamshire also has a growing service sector, but employers in the manufacturing sector are experiencing problems finding people with appropriate skills (LSC Nottinghamshire, 2002). The situation is the same in Greater Merseyside, where high unemployment is also accompanied by a higher than expected

incidence of hard-to-fill and skill-shortage vacancies (LSC Greater Merseyside, 2002).

The difficulties are especially pronounced in urban areas.

7.6 The evidence seems generally to conform to the expectation that these restructuring problems are greater in cities which have a history of dependence on traditional manufacturing sectors. These sectors are shedding employment everywhere, but at a particularly fast rate in the relatively high-cost urban locations, although these are also areas where service sector employment is growing more rapidly. The latter poses problems for manufacturing employers, in that there is stiff competition for new entrants as well as those displaced.

Jobs within manufacturing are changing and often require more flexibility and multi-skilled workers.

7.7 Within what remains of the manufacturing sector, the demand for skills is also changing rapidly. There is a growing requirement within manufacturing for manual workers to be flexible and multi-skilled and to be able to solve problems, interpret information and to understand how systems work and fit together (LSC Birmingham and Solihull, 2002). This implies a need for workers with a range of basic generic skills, and for a culture of continued learning and development.

In most localities the trends in occupational demand reflects national patterns...

7.8 Job growth in most local LSC areas reflects the national trend of a substantial shift in the occupational balance of the workforce. There is a marked reduction in opportunities for those with minimal levels of skills, (LSC Birmingham and Solihull, 2002). Even jobs at lower levels now demand a whole range of generic skills, notably relating to communication and customer handling.

but there is an across- the- board growth in the skill intensity of vacancies and many employers are struggling to find the skills they need.

7.9 The assessments confirm that certain skills are in greater demand. There are large increases in the number of managerial, professional and technical staff with a need for skills relating to business planning, people management, creativity and design and the ability to translate ideas into saleable products. At a lower skill level the need is for workers in customer-facing sales and personal services occupations with the ability to use IT to a basic level, solve problems, and understand how systems work and fit together. Some surveys suggest that a significant number of employers are struggling to access these new skills. However, according to the assessment by LSC Black Country (2002), only one-in-ten employers in the locality feel that there is a significant gap between the skills of current employees and those needed to meet their current business objectives. There is a concern that this may reflect complacency rather than reality.

In high unemployment areas there is a need to improve the basic skills of the unemployed.

7.10 In areas with relatively high unemployment, analysts emphasise the need to respond to these trends by increasing the skill levels of the unemployed. Birmingham and Solihull LSC (2002) observes that job opportunities for those with minimal levels of skill are disappearing. Although there are still opportunities at lower levels, especially in jobs with fast labour turnover, these now demand a whole range of generic skills, notably relating to communication and customer handling.

Retailing offers many opportunities for first time jobs but these require an increasing range of skills.

7.11 Retailing provides an example of how changing demands on employees is transforming skills requirements. As a study by the London Skills Forecasting Unit (2000) shows, retail is often a vital source of entry-level jobs for young

people and for those currently excluded from employment. However, the demands on the retail sector are changing with the number of independent retailers falling, major household names radically changing their services, and new 'niche' retailers emerging. E-commerce is introducing new businesses and new ways of selling to the consumer and shopping is in turn seen increasingly as a 'leisure activity'. It is important to challenge the current perception in the retailing sector that inter-personal skills are down to personality and cannot be developed through training.

In rapidly growing localities, the problem is more one of meeting the demand for intermediate skills.

7.12 In booming areas with already high levels of skills, such as Berkshire, the challenge is perceived rather differently. Here the issue is less one of providing basic skills for the unskilled (although for the most disadvantaged this remains important) and more one of supplying the strong demand for high - or intermediate - skills. In managerial and administrative jobs there is a growing need for people able to drive and organise in an economy in which more smaller units and departments replace fewer larger ones and in which the pressure on speed and efficiency is constant. Professional engineers, technical and craft skills are required in the continuing pressure in manufacturing for high-quality skills to install, run and operate increasingly sophisticated technologies. Sales jobs increasingly require ability to keep up with buoyant consumer demand (see for example LSC Berkshire, 2002).

Employers remain unwilling to train their workforce in basic skills…

7.13 The impression from the employer surveys undertaken by many local bodies is that there is a strong belief among employers that most training of their employees should have taken place before they hire them. For example, employers in London overwhelmingly believe that the responsibility for providing basic literacy, numeracy and IT skills lies firmly within the public sector (LSC London North, 2001).

but local LSCs think that they need to play a more active role.

7.14 Generally businesses are not investing adequately in training. As Birmingham and Solihull LSC (2002) points out while it is clear that investment in training and development of the existing workforce is crucial, there is often a concern that only a limited proportion of businesses are making this investment. Training activity is particularly limited in the manufacturing and construction sectors and among smaller firms and generally there is a lack of focus on critical basic and core skills as well as specialist technical and management skills. Most local LSCs seem to believe that employers need to play more of a role in training their workforce to meet current and future business needs. The South West LSCs also report that businesses (and individuals) fail to take sufficient responsibility for training.

Sectoral characteristics may discourage training.

7.15 Sometimes the lack of training reflects the characteristics of the sector. For example, in construction, the relatively slow pace of technological change and the highly cyclical nature of the market contribute to unwillingness to invest in training, and employers are therefore less likely to train compared to (for example) those in business and finance. In retailing, the problem is perceived as being one of tight profit margins and hence low training budgets. According to the London Skills Forecasting Unit (2000), increasing skills requirements by retailers, and reduced profit margins to spend on training, threaten to create a vicious circle in which retailers have increasing difficulty in finding suitably trained candidates.

Training tends to be taken up by and be much more accessible to the advantaged. Polarisation is an increasing problem...

7.16 The consensus from local reviews is that the gap between the advantaged and disadvantaged looks set to continue to grow, unless the disadvantaged are encouraged to stay in education for longer. The types of IT skills needed for developing the 'knowledge economy' are, at present, being obtained by those who are already relatively privileged. In many metropolitan areas, such as London, there are a large number of high-skill jobs in financial and business sectors, but the locally resident population does not have these skills.

but this is not limited to London, with problems of rapid growth in some sectors and decline in others in many other localities.

7.17 Such findings are not restricted to London. The occupational and industry sector findings in the west of England reveal a quite markedly 'polarised' workforce. There are 'advanced' jobs and industries (e.g. business & finance etc), in which reside the bulk of the area's well qualified workers, and there are lower-skill sectors (e.g. transport, hotels etc), in which fewer workers are well qualified (WESTEC, 2001).

Polarisation suggests the need for policies targeted at the less skilled.

7.18 WESTEC (2001) go on to argue that if it is true that polarisation suggests the existence of separate labour sub-markets, with a broad qualification gulf between high-level and low-level occupations and sectors, then, it implies the need for policies aimed at helping lower-skilled individuals. In particular, and subject to their ability, this should be aimed at re-equipping them with appropriate qualifications, skills and experience, to move upwards more freely into other labour sub-markets. This would have the additional benefit of helping to reduce the skill shortages and recruitment difficulties which many employers face. The Herefordshire and Worcestershire LSC (2001) also make a connection between social exclusion and learning. They note that the data from their household survey indicate the extent to which learning is a social exclusion issue by emphasising the extent to which learning is concentrated amongst those who are already employed and trained.

There is a link between existing qualifications and attitudes to learning with those who are already employed, qualified and trained being the most likely to be in receipt of further training...

7.19 Attitudes towards learning and training are often conditioned by previous experience. For example, a household survey by the Staffordshire LSC found links between the qualification or occupation level of respondents and desirable attitudes towards learning. They found that those who had taken part in learning within the last 12 months rated their level of skills higher than survey respondents who had not participated in training. Also, those with a higher qualification level tended to also have a higher occupation level, but they were also more likely to get employer funding for their learning, despite the fact that their skills were usually higher to start with. Another finding was that those with a higher qualification or occupation level were more likely to own a personal computer, which would indicate their ability with IT. Finally, a higher occupational level also meant a higher likelihood of retaining employment (LSC Staffordshire, 2001). The same point is made in the London Skills Forecasting Unit Survey, 2002. They find that those who are learners are more likely to be younger, in work, employed full-time and in a higher-level occupation, with a high level of previous qualifications and skill levels.

7.20 However, most of those in need of training have no previous qualifications. There is, therefore, a need for changing attitudes towards training. The Somerset LSC (2002) notes that in order to meet the challenge of developing a 'learning culture', the attitudes of employers, employees, the self-employed and other individuals all need to be changed.

but those most in need of training have no previous qualifications and attitudes need to be changed.

7.21 The growth of the knowledge economy is cited as offering the best prospect for future growth in many local assessments. Areas located further away from the economic hotspots saw this as a way to mitigate the disadvantages of physical distance. The problem, however, is that workers in many of these regions are not equipped to work with the technologies that make the knowledge economy possible, nor do they have the quality of skills or qualifications to provide high value added activities.

Adapting to the knowledge economy is recognised as crucial in most localities…

7.22 Even in areas with higher than average skills levels, there may be gaps in the required skills. Berkshire LSC, one of the highest qualified areas, reports that despite high levels of skills, there is a gap between 'old economy' areas (Slough) and 'new economy' areas (West Berkshire) (LSC Berkshire, 2002).

including some of the already 'high tech' areas.

7.23 A key question is how the required skills will be delivered. Milton Keynes, Oxfordshire and Buckinghamshire LSC (2002) believes that training for the knowledge economy will have to take place in the workforce. It notes that since most of those who will make up the workforce by 2010 are already in employment, many of the challenges to the skills and knowledge of the labour force will have to be met by those currently in work. The quality of the labour force as measured by qualifications is, therefore, an important measure of the competitiveness of local labour supply.

Most of the training will need to take place amongst the existing workforce.

7.24 Most employer surveys carried out by local bodies tend, however, to concentrate on recruitment difficulties for hard-to-fill and skill-shortage vacancies, rather than on the employers' ability to retain workers. Given that the employers' ability to retain workers is partly to do with finding the appropriate staff in the first place, a focus on recruitment difficulties for hard-to-fill and skill-shortage vacancies may be appropriate.

Most employer surveys tend to focus on recruitment difficulties…

7.25 However, given that the majority of recruitment is from other employers (i.e. the part of the workforce already in employment), it is inevitable that some industries find it difficult to retain workers. According to the Staffordshire LSC, one in twenty employers reported that they were experiencing difficulties in retaining certain elements of their workforce. The main reasons given for this relate to the difficulty employers have in finding the right staff in the first place and the nature (low pay/long hours etc.) of the employment that they offer. They note that where respondents had experienced difficulties in retaining certain elements of their workforce, this was mainly in lower level occupations (LSC Staffordshire, 2000).

but employers' ability to retain workers is recognised as a real problem for many industries and is often related to pay and working conditions.

Retention of graduates and, in particular, the difficulties faced by peripheral regions is a common problem.

7.26 The ability to retain graduates locally is an issue for many of the more remote areas where there are limited opportunities for graduates. The reason it is a concern is in the long-term need of regions to match national and international demands for increased knowledge intensity. The areas more likely to struggle to retain their graduates are in the more peripheral regions of England, such as the far northern parts and the far South West. Most graduate jobs continue to be located in metropolitan centres.

7.27 For example, the Cumbria Economic Intelligence Partnership was concerned that the lack of suitable jobs for people with graduate level education was causing a 'brain drain' of the younger working population in the area. This, it is feared, would undermine their ability to attract and support new knowledge-based industries (Cumbria Economic Intelligence Partnership, 2002).

Regional bodies fear that they will not be able to retain the benefit of such investments in their own localities.

7.28 It is, of course, a matter of debate as to whether this symptom is best addressed by policies designed to retain graduates from the region's universities, or whether graduates (wherever trained) would be attracted if the jobs were available. However, the fact remains that those responsible for regional policy fear that the beneficiaries of local policies to invest in training may simply be better equipped to migrate from the region.

Another key issue is the problem of areas with high housing costs...

which can cause recruitment problems for many employers, especially in the public services.

7.29 Areas where house prices are high relative to incomes, especially in southern England, face severe recruitment problems. These problems are most severe in low-wage and public sector occupations.

7.30 A number of studies emphasise that the state of the housing market has various social and economic impacts on skill issues. In relation to the economy, it can result in a major constraint upon economic activity and cause wage inflationary pressures. Relatively high house prices can also cause recruitment difficulties for certain occupations and lead to longer travel/commuting distances (LSC London North, 2001). High housing costs are regarded as a problem in London and south-eastern England in general. There is evidence that house price increases make jobs for some people - particularly lower and intermediate grade staff in public services - increasingly unattractive. Attempts to reduce this pressure by house building can lead to urban sprawl and problems with transport links (South East LSCs, 2002). In North London, more than a quarter of residents are in the bottom fifth of earners in London when housing costs are taken into account (LSC London North, 2001).

Those in relatively low paid jobs are especially affected but the problem is widespread.

7.31 The various studies confirm that these kinds of recruitment difficulties are concentrated in certain areas, such as the public sector and amongst large employers. They are particularly likely to involve elementary occupations, sales and customer service occupations and administrative and secretarial jobs. Vacancies, which are hard-to-fill, were predominantly in public service occupations such as teaching professionals and health professionals. Skills gaps are mainly in administrative and secretarial and sales and customer service positions. The most difficult positions to fill are: professionals; science/technology and health/social welfare associate professionals; secretarial and related; skilled trades; personal services and sales positions (see, for example, LSC London Central, 2002).

7.32 The reports are less clear on the appropriate response for skills policy, since skills shortages are not the cause of this problem. However, skills upgrading plays a particularly important role in these areas in combating social exclusion, by equipping the disadvantaged to compete for higher-wage jobs. There are also other impacts on skills. For example, the substitution of (a smaller number of) higher-skilled (and hence higher-paid) workers, and of capital, for low-skilled workers, is likely to be observed as an outcome.

There do not appear to be any easy solutions but skills upgrading for the disadvantaged can play a role.

7.33 One would expect a negative relationship between unemployment rates and vacancy rates in a local area (Green and Owen, 2002). In practice, there are a number of local areas where both high levels of unemployment and vacancies co-exist. Conversely, in other local areas, both unemployment and vacancies are low. This has led to discussions about structural problems and skills mismatch. This can be explored by classifying areas accordingly to the extent of their unemployment and vacancy rates.

High levels of unemployment and hard-to-fill and skill-shortage vacancies can co-exist.

7.34 Local areas with a higher than average rate of unemployment coexisting with a higher than average incidence of hard-to-fill and skill-shortage vacancies are mainly found in the cores of metropolitan areas (Green and Owen, 2002). An example of this is North London (and London as a whole). London has one of the highest long-term unemployment rates in the UK and the highest claimant count. Although the London labour market is vibrant, most jobs require skills which many of the unemployed do not have. However, around 80% of vacancies are not related to skill-shortage factors.

A higher than average rate of unemployment and a higher than average incidence of hard-to-fill and skill-shortage vacancies are often found in core metropolitan areas.

7.35 The problem is greater among ethnic minorities, with a black African seven times more likely to be unemployed than their white counterpart (LSC London North, 2001). There are similar findings in the Central London area, which is characterised by extremes of deprivation and wealth (LSC London Central, 2002) and also in the Bristol area where the labour market is tight in terms of some vacancies, but there are also areas of very high unemployment (WESTEC, 2001).

The problems are often greatest for ethnic minority groups.

7.36 Regions with a lower than average rate of unemployment coexisting with a higher than average incidence of hard-to-fill and skill-shortage vacancies are mainly found in the southern parts of England. This is in some sense the 'normal situation', high labour demand being associated with high vacancy rates and low unemployment rates. This situation is most apparent outside London in the South East of England. Whilst the UK generally suffers from a range of skills problems, the South East, despite its higher qualifications and skill levels, has more skills problems not fewer. According to the South East LSCs (2002), the reasons include:

Areas with lower than average rate of unemployment and a higher than average incidence of hard-to-fill and skill-shortage vacancies are concentrated in the south east of England.

- the region's exceptionally fast growth in output;
- a more advanced and more dynamic economy;
- high house prices inhibiting the flow of skills into the region; and
- the fact that the region not only services its own skill demands, but through net out-commuting, services those of other regions particularly at managerial and professional level.

Regions with lower than average rate of unemployment and a lower than average incidence of hard-to-fill and skill-shortage vacancies are mainly found in the Midlands.

A few areas with higher than average rates of unemployment and a lower than average incidence of hard-to-fill and skill-shortage vacancies are facing a lack of aggregate demand.

7.37 Regions with a lower than average rate of unemployment coexisting with a lower than average incidence of hard-to-fill and skill-shortage vacancies are mainly found in the Midlands. The employer survey in LSC Herefordshire and Worcestershire reported that few employers experienced difficulties in filling vacancies when they had them. Of the small number of employers in Herefordshire and Worcestershire that had vacancies, only five per cent had vacancies that were hard-to-fill (LSC Herefordshire and Worcestershire, 2001).

7.38 Regions with a higher than average rate of unemployment coexisting with a lower than average incidence of hard-to-fill and skill-shortage vacancies represent the classic case of inadequate demand, resulting in relatively high unemployment and low vacancies. These cases are mainly found in the traditionally 'depressed' northern parts of England. For example, Cumbria is characterised by the existence of a higher than average unemployment rate and lower than average incidence of hard-to-fill and skill-shortage vacancies. The area is also marked by low economic activity rates, especially in the form of long-term sickness, early retirement, looking after the home and/or children. This area is also characterised by a higher rate of exits from the labour market, representing extensive 'hidden unemployment' in the county's traditional industrial districts. These facts suggest low economic dynamism and limit the pool of labour to attract new inward investors or to support indigenous growth (Cumbria Economic Intelligence Partnership, 2002).

7.39 It is important to bear in mind that the economy generally was at close to full employment in 2001, and most areas covered by the local arms of the Learning and Skills Council had only relatively small pockets of unemployment. It is also worth emphasising that most unfilled vacancies reported were not skill related but simply represented the normal workings of the labour market as staff turnover.

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Glossary

ABI	Annual Business Inquiry
AES	Annual Employment Survey
BT	British Telecom
CAPITB Trust	Clothing and Associated Products Industry Training Board
CBI	Confederation of British Industry
CE	Cambridge Econometrics Ltd
DfES	Department for Education and Skills
EC	European Commission
Employee based measures	weight establishment data by the total number of employees at the establishment
EMTA	Engineering Manufacturing Training Association
EPIC	Extractive and Mineral Processing Industries NTO
Establishment based measures	provide an estimate of the total number of establishments reporting a given skill deficiency
ESS	Employers Skill Survey
EU	European Union
FE	further education
GVA	gross value added. The market value of all goods and services produced in a year in the UK. GVA by sector measures the contribution of individual sectors to total GVA
GNVQ	General National Vocational Qualification
Hard-to-fill-vacancies	(HtFVs) are those vacancies classified by the respondent as hard-to-fill
HE	higher education
HESA	Higher Education Statistics Agency
IALS	International Adult Literacy Survey
IER	Warwick Institute for Employment Research
IES	Institute for Employment Studies (University of Sussex)
ILO	International Labour Organisation
IoD	Institute of Directors

ISCED	International Standard Classification of Education
IT	information technology
Knowledge economy	- activities in which knowledge has a central role in wealth generation and economic growth. It is often associated with the emergence of an 'information society', in which wealth and growth is based on the ability to process, store, retrieve and communicate information in whatever form
Lantra	Land-based sectors NTO
LFS	Labour Force Survey
Local LSC- Local Learning and Skills Councils	refers to the areas covered by the 47 local arms of the national Learning and Skills Council
LSC	Learning and Skills Council
Metier	arts and entertainment sector NTO
New economy	sectors of an economy that produce or intensively use innovative or new technologies, in particular those sectors in which firms and workers depend more and more on computers, telecommunications and the internet to produce, sell and distribute goods and services
NOMIS	National online labour market information service
NSTF	National Skills Task Force
NTO	National Training Organisation
NVQ	National Vocational Qualification
OECD	Organisation for Economic Co-operation and Development
ONS	Office of National Statistics
OPITO	Oil and gas production industry NTO
PINTO	Petroleum Industry NTO
PIU	Government performance and innovation unit
Rates of return	a measure of the economic benefit of investing in skills
RDA	Regional Development Agency
Recruitment problems	or difficulties refer to either hard-to-fill or skill-shortage vacancies
Skill deficiencies	refer to the sum of skill gaps and skill shortage vacancies

Skill gaps	or internal skill gaps, is the extent to which employers perceive their employees' current skills as insufficient to meet current business objectives. Respondents in the ESS surveys were asked to comment on an occupation-by-occupation basis about the extent to which employees were 'fully proficient at their current job'. In order to gauge the extent of skill gaps survey respondents were asked: "What proportion of your existing staff at this establishment in [a particular occupation] would you regard as being fully proficient at their current job: all, nearly all, over half, some but under half, very few?"
Skillset	broadcasting, film, video and interactive media sectors NTO
Skill shortage vacancies	(SSVs) were defined as hard-to-fill vacancies which were skill related where at least one of the following causes was cited by the respondent: low number of applicants with the required skills, lack of work experience the company demands, or lack of qualifications the company demands
SOC	Standard Occupational Classification
SSC	Sector Skills Councils
SSDA	Sector Skills Development Agency
SVQ	Scottish Vocational Qualifications
TEC	Training and Enterprise Council
TIMSS	Third International Maths and Science Study
Unweighted base	refers to the raw survey data
Weighting	is undertaken to adjust for sample design and non-response to ensure that the survey results are representative of the population of employers. Weighted data are also grossed up to population estimates in the weighted base provided by each table
Weighted base	refers to the base for percentages according to whether it has been weighted according to the employee or employer based measure

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