

Skills in England 2007 Volume 1: Key Messages

September 2007

Of interest to everyone involved in improving
skills and learning opportunities across England

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Foreword

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I am pleased to be introducing our fifth *Skills in England*. This is the annual skills assessment, carried out by the Learning and Skills Council on behalf of ourselves and our key partners. It is designed to complement the key government publications in the skills arena, including the Leitch Review of Skills and the Freud Report.

Skills in England 2007 emphasises that, while globalisation provides many economic opportunities, understanding the phenomenon is increasingly crucial in order to appreciate any potential threats to low-skilled jobs and to those people with such jobs. With increasing international competition, not least from the rapidly developing economies in Asia, it is important that, to remain competitive, England produces high value-added goods for the world economy. To achieve this, employers need a highly skilled workforce. Many employers need to raise their game to capture high-value markets – to achieve this, skills need to be placed at the heart of an organisation's business plan. This report highlights that, collectively, we must continue to find ways to increase the demand for skills from employers and ensure that everyone, whether an employer or an individual, is able to access the learning opportunities that are suitable for them.

The benefits of economic growth have not been distributed evenly across society. Like many other countries, England has a large number of people who have effectively been excluded from participation in some parts of modern life. Although not the only factor linked to social exclusion, a lack of skills is a key determinant and, in fact, the gap between the employment rates of the unqualified and those with qualifications has widened during the 21st century. This underlines the importance of addressing the skills needs of the socially excluded. Succeeding in this is key to helping all citizens become active members of society.

The LSC is dedicated to improving the skills of people in England. Through our network of skills brokers, the Train to Gain service has already engaged with over 50,000 employers. Those trained as a result of this programme will contribute towards an increase in the number of people with Level 2 and Level 3 qualifications, lead to higher productivity for employers and lay the foundations to allow England to contribute extensively in a more value-added economy. An aim the LSC shares with all our key partners.



Mark Haysom
Chief Executive, Learning and Skills Council

Ten Key Messages

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Skills in England 2007 provides the latest information on skills supply and demand. There are 10 key messages.

Skills in England 2007 provides a summary of the latest information about the demand for and the supply of skills. It is a four-volume publication:

- i. *Key Messages*: outlining key findings and policy implications;
- ii. *Research Report*: providing in-depth analysis;
- iii. *Sectoral Perspectives*: providing insights across industry;
- iv. *Regional/Local Perspectives*: summarising the geographical situation.

The evidence presented over the four volumes indicates that recent years have seen substantial improvements in the skills base of the economy. There is, however, no room for complacency. As the Leitch Review points out, there is much still to be done to ensure that the skills of the workforce are 'world class' and are capable of reaping the rewards of globalisation. Following on from this, the evidence from *Skills in England 2007* can be distilled into 10 key messages.

Globalisation provides many opportunities...

1 Globalisation continues to pose both threats and opportunities. The threat is the loss of key markets and jobs to emerging economies. But this is just one side of the coin: as domestic markets around the world become more open to competition, immense opportunities present themselves for producers here to increase their market for goods and services.

... but poses some threat to less-skilled jobs over the long term.

2 Where the global economy poses the greatest threat is in relation to low-skilled jobs, often located in the production of low-cost, standard commodity-type goods and services. While some of these are immune to global competition at present, this cannot be guaranteed over the long term. Moreover, some – possibly many – will be displaced by technology in the long run.

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3 Entering new markets, and sustaining a presence there, is dependent upon the efficient production of goods and services, especially those of high value. England will find it increasingly difficult to compete with low-cost producers of commodities from countries such as China and India. The research evidence points squarely to the production of high-value goods and services being dependent upon a highly skilled workforce.

Providing high-value goods for the world economy is dependent upon a highly skilled workforce.

4 If the country is to retain and capture high-value markets around the world, many employers need to raise their game and to increase their demand for skills. They need to raise demand at all levels: from senior management, responsible for the strategic vision of the organisation, to those engaged in more routine day-to-day activities.

Many employers need to raise their game to capture high-value markets.

5 Skills cannot be considered in isolation, nor are they a panacea. They are one element that needs to be in place in the overall strategy of a business. Accordingly, they need to be placed at the heart of an organisation's business plan. Otherwise, skills will not be effectively deployed.

Skills need to be placed at the heart of an organisation's business plan.

6 If employers' demands for skills are to be raised, the supply side needs to be able to respond. The supply of skills has to recognise the need for an economic focus. The learning and competence required to achieve a given qualification should benefit the economy over the medium to long term.

The supply side needs to be responsive to the changing demand for skills.

7 This poses a number of challenges for the qualification system. In particular, the economic value of vocational qualifications needs to be increased. The rate of return for those investing in vocational skills remains, on balance, less than in the case of academic skills. The status of the vocational route through further and higher education needs to be improved.

The economic value of vocational qualifications needs to be increased.

The vocational education and training system needs to provide people with the opportunity to develop their human capital at any age.

Tackling social exclusion is dependent upon skills.

Advice and guidance is required to assist individuals in the labour market.

8 A world economy that is even more open to international trade requires a vocational education and training system that is agile and that provides individuals with the core skills that will allow them to develop their human capital, at any age, so that they are able to sustain their employability. This is important, given the changes that will be brought about in the labour market by increased global competition and by developments in information and communications technology. This places an emphasis on lifelong learning and the acquisition of new skills over the lifecycle.

9 Tackling social exclusion from a skills perspective will require not only tackling individuals' basic skills needs, but also providing people with the skills that will allow them to sustain and even progress in their employment. This is a formidable challenge for the education and training system.

10 Advice and guidance on career development and skills needs will be increasingly important in assisting people to navigate their way through what is likely to prove to be a rapidly changing labour market. This will continue to require robust and timely labour market information, including prospects for the future.

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Introduction

Skills in England 2007 provides an up-to-date assessment of the skills arena. It highlights the key skills issues facing the LSC and its partners, based on a comprehensive review of developments and of the evidence that has emerged over the past year.

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1 *Skills in England 2007, Volume 1: Key Messages* sets out the main findings and broad policy implications stemming from the research undertaken and reviewed for *Skills in England 2007*. It highlights the key issues facing the LSC and its partners, with a view to helping identify the key priorities for skills.

2 *Skills in England 2007* draws upon the latest research and analysis to develop an understanding of the supply of and demand for skills, both now and in the future.

3 Four volumes have been produced:

- i. *Key Messages*: outlining key findings and policy implications;
- ii. *Research Report*: providing in-depth analysis;
- iii. *Sectoral Perspectives*: providing insights across industry;
- iv. *Regional/Local Perspectives*: summarising the geographical situation.

Key Messages provides the latest information on the demand for and supply of skills.

Major Challenges

The two main challenges are: to maintain and improve on recent productivity performance and competitiveness; and to minimise social exclusion. In order to meet these challenges, it is vital to ensure that individuals have the skills they will need in the 21st century to meet employers' requirements in an increasingly competitive environment and to enable them to play an active role in both the economy and society.

On the **demand side**, the main challenge is to ensure that recent improvements in productivity performance are maintained.

On the **supply side**, the main challenge is to produce a further education system that improves the employability of individuals and meets employers' current and future demand for skills.

4 Summary

On the **demand side**, the main challenge is to ensure that recent improvements in productivity performance are maintained. This entails:

- raising employers' demand for skills;
- encouraging employers to think about future as well as current demand;
- ensuring that employers effectively deploy the skills available in their workforce or in the wider labour market;
- ensuring that demand for and deployment of skills at least matches that of producers elsewhere in the world.

5 On the **supply side**, the main challenge is to produce a further education (FE) system that improves the employability of individuals and meets employers' current and future demand for skills. This requires:

- ensuring that vocational qualifications deliver economically valuable skills that yield a rate of return comparable to academic skills and that enjoy equivalent status;
- making the FE system responsive to changes in the national and global economy;

- convincing young people of the benefits of a vocational education, especially at Level 3;
- improving basic skills (numeracy and literacy), which can raise productivity, support progression in learning and bring about greater levels of social cohesion by raising employability;
- increasing participation in education and training, especially among hard-to-reach groups.

6 A dynamic, vibrant demand side may generate skill gaps, simply as a consequence of changes that occur in the level and the content of the skills required as employers raise their game. The emergence of skill gaps is not necessarily a mark of failure; but it is important that the FE system and individuals are sufficiently flexible and able to adapt to these changing needs, in order to meet these new gaps as they emerge.

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7 The major challenges facing the post-compulsory education and training system have been starkly set out in the Leitch Review:

- substantially raising employer demand for skills if England is to have a 'world-class' workforce with even higher levels of productivity;
- making the supply side more responsive to employer demand;
- ensuring the socially excluded have access to the labour market through effective guidance, coaching, training and qualifications.

8 These are being addressed, in part, through:

- the introduction of programmes, such as Train to Gain, that attempt to tackle both the demand and the supply side;
- entitlements to train towards a first Level 3 qualification for young people up to the age of 25;
- funding to assist individuals achieve qualifications (that is, Learner Support Funds);
- the reform of further education to make it more responsive to employer demand and individual needs;
- a commitment to raise the basic skills of those who have failed to get on the skills ladder (the most vulnerable in society).

9 It needs to be borne in mind that, even as England improves its own systems of post-compulsory education and training, other countries are doing likewise.

10 Skills matter because they provide the key to addressing the major socio-economic challenges facing all developed economies:

- maintaining a socially cohesive society in the face of rapid technological and structural change;
- assisting with equality of opportunity by providing people with the skills that will allow them to enter and progress in the labour market;
- intensifying international competition in the provision of goods and services.

Skills are a vital ingredient in the policy mix.

Leitch sets out the major challenges facing the FE system.

These include raising employer demand and making the supply side more responsive.

Skills are the key to addressing the major challenges facing the economy.

But skills are not a panacea.

11 Skills, however, are not a panacea because:

- tackling social exclusion, ensuring equality of opportunity and raising the performance of England's employers do not just depend upon skills;
- a range of other social and economic policies need to be in place. As was outlined in the Budget 2007 Report, an integrated approach is required to tackle these issues, including policies that relate to innovation, enterprise and social welfare.

Globalisation and the general economic context

Globalisation will generate an increased demand for skills.

12 Globalisation presents opportunities as well as threats, because:

- it opens up new markets abroad to producers in this country;
- it also opens up domestic markets to increased competition, thereby forcing employers to become more innovative and efficient.

This is likely to generate increased demand for skills, but some of this demand will probably be latent, since some employers may not recognise a skill demand until it is too late and their markets have been captured by more efficient producers abroad.

The economic rewards from reaping the benefits of globalisation are immense.

13 The rewards from globalisation are likely to be realised over the medium to long term. More immediately, because part of the globalisation process involves the transfer of low-skilled, low-wage jobs to areas with much lower labour costs, it is likely to be the more vulnerable members of the workforce who bear the cost of globalisation.

14 The evidence indicates the importance of people acquiring not only portable skills, but also skills at a higher level. There are, however, many jobs that will continue to be dependent upon domestic demand and so are largely immune to the forces of global trade. In the short to medium term, all the evidence suggests a strong economy and labour market in England. But the extent of change in the world economy is rapid.

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15 The UK economy is in a relatively strong position, with growth of around 2.75 per cent a year. This has been boosted by relatively strong business investment and by recovery in the Euro area, which has stimulated exports.

The country is currently well placed to meet the challenges that face it.

16 The economy has experienced the longest unbroken expansion on record in the UK and the longest ongoing expansion in any Organisation for Economic Co-operation and Development (OECD) economy.

17 This has had an impact on employment:

- Over the last 12 months, employment has continued to grow.
- Total employment in England now stands at 25 million.

18 There is some uncertainty over the level of migration into the labour market; if it is greater than expected, this may push growth even faster than is currently forecast.

19 The world economy is in the middle of the strongest period of growth for more than 30 years:

- Asia continues to lead the way, with 11 per cent a year growth in China and 9 per cent a year in India.
- Growth rates across Latin America and Africa have also been strong.
- Growth in the G7 countries has become more balanced, with the recovery in the Euro area and Japan offsetting the slowdown in the US economy.

Improving productivity and the link to skills

20 The Pre-Budget Report published by the Treasury in 2006 reported that England's relative productivity has been improving since 1995:

Productivity is on an upward trend.

- On an output per worker basis, the UK closed the gap with Germany, halved the gap with France, and is the only G7 country to have kept pace with US performance.
- On an output per hour basis, the UK has narrowed the gap with France by 10 percentage points, narrowed the gap with Germany by 13 percentage points, and kept pace with US performance.

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Recent productivity growth has been impressive.

Skills are an important element in raising productivity levels.

There remain sectors of the economy where productivity is relatively weak.

21 The trend in productivity growth is impressive because it has taken place alongside employment growth. These tend not to go hand in hand, because workers in new jobs tend to be less productive until such time as they are fully proficient. On the basis of the evidence available, the Treasury (in the Budget 2007 Report) is cautiously optimistic about the productivity trend continuing.

22 Skill is, of course, just one element in improving productivity. The Treasury also recognises the importance of:

- improving competition;
- promoting enterprise;
- supporting entrepreneurship;
- supporting science and innovation;
- encouraging investment.

23 The overall productivity picture is positive, but there are areas of concern:

- sectors where productivity levels are relatively low, either in a national or an international context;
- industries employing large numbers but exhibiting relatively low productivity;
- relatively poorly performing industries, which are often highly concentrated regionally and locally.

24 Some areas of England have benefited significantly from the positive externalities of possessing a highly qualified labour force (London and the South East). Others have endured the negative externalities of possessing a relatively poorly skilled labour force. This contributes to social and economic polarisation.

25 Significant improvements in the supply of skills have helped improve productivity, but other factors are also important:

- investment in new plant, equipment and machinery;
- information and communications technology (ICT) take-up, which historically has been poor compared with take-up rates in the USA;

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- effectiveness in the use of ICT. There is evidence that the USA has been more successful at reaping the potential gains, due to a greater propensity to accept organisational change in parallel with implementation of new ICT;
- the extent to which more marginal workers participate in the labour market, typically in low-skilled/low-wage jobs: the proportion is relatively high in England;
- levels of international competition, given that the economy is a relatively open one.

26 The evidence confirms a link between skill demand and product market strategy:

- A high value-added product strategy is associated with higher skill levels in the workforce and is positively related to the extent of foreign competition and sales growth.
- Companies that are dependent upon domestic demand are less likely to have adopted high-end, value-added product market strategies. Competition can therefore be a valuable stimulant, as well as a threat.
- There remain large parts of the economy that will always be primarily dependent upon domestic demand.
- It is difficult for companies to change direction from low- to high-end strategies, because their current direction is largely shaped by past choices.
- Skill deficiencies are an important contributory factor to differences in productivity performance, and they account for as much as one-fifth of the productivity gap between the UK and Germany.

27 In the context of international trends, the Leitch Review emphasises that there is no room for complacency and recommends:

- that the country commit to becoming 'world class' in skills by 2020, benchmarked against the upper quartile of OECD countries;
- a doubling of attainment at most levels.

In maintaining productivity growth, there is no room for complacency. Skill levels need to be raised even higher.

Creating a responsive supply side

28 Labour supply is dependent upon, among other factors, the operation of the education and welfare systems. Compared with countries such as France and Germany, people out of work in England have:

- more incentives to obtain work (for example, there are relatively low income replacement rates in Jobseeker's Allowance);
- more targeted means-tested social security benefits;
- a range of active labour market measures to help connect them to work.

The supply side needs to be more responsive to demand.

These factors have been significant in generating relatively high employment rates and low unemployment rates.

29 While Welfare to Work policies have been successful in stimulating labour supply and raising employment rates, there remain concerns about the quality of labour supply:

- relatively low progression rates into post-compulsory education and training for 17-year-olds;
- a large number of people without qualifications;
- limited access to workplace-based training for those most in need of it (that is, the low skilled);
- large numbers of people with problems related to numeracy and literacy;
- many people lacking the skills employers need.

There are some concerns over the quality of labour supply.

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The Leitch Review recommends more employer engagement to ensure that supply is responsive to demand.

The supply side will also need to be able to respond to new challenges.

30 The challenge is to ensure that the proposed introduction of a demand-led system in FE not only delivers productivity gains in aggregate, but also begins to tackle those segments of the economy where productivity is weak, that is:

- among the low skilled;
- in industries with low value-added;
- in local areas with low skills.

31 In relation to the demand-led system, the Leitch Review recommends that:

- there needs to be much more employer engagement in the approval of vocational qualifications, in order to ensure that supply is responsive to demand. It is proposed that this should be achieved mainly by having the sector skills councils determine the qualifications that are required;
- in return for increased involvement, employers should give a 'skills pledge' to train and develop their workforces;
- the learning and skills sector should better meet the needs of the individual learner and the employer.

Responding to new challenges

32 The test of a responsive supply side is how it meets new challenges. The environment is one such challenge. With the publication of the Stern Report in 2006, environmental issues have assumed a greater importance. In many respects, the environmental agenda is based around sustainable development: the production of goods and services with relatively low energy consumption that generate a minimal amount of waste, either in production or at the end of the product's life.

This generates a demand for:

- new materials;
- configuration of new supply chains;
- new production processes.

All of this has implications for skill requirements.

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33 Sustainable development provides both opportunities and threats:

- opportunities arising from the scope to capture new markets, both inside and outside the country, with new products and services;
- potential opportunities to look at shorter supply chains (which reduce energy consumption and reduce waste handling);
- threats emerging from the capacity of producers outside the country to capture a large share of the national market;
- pressures on costs associated with rising prices of energy and other aspects of recycling and environmental externalities.

The environment and sustainable development are one such challenge.

34 Sustainability affects all sectors, but the degree to which an impact can be made depends on a number of supply chain factors, including:

- sources of innovation and design;
- opportunity for innovation;
- levels of product/market change going on;
- availability and source of sustainable materials;
- information, awareness;
- levels of supply-side employment and skill sets.

35 There are skills needs attached to the development of sustainable products and services:

- knowledge of new materials;
- development of new products;
- creation of new production processes;
- production skills.

The skills needs arising from sustainable development remain to be fully identified.

For the most part, the specific skill needs that are likely to arise from increased concerns about the environment, either from government or consumers, remain to be precisely identified.

Social cohesion

36 The benefits of economic growth have not been distributed evenly across society. Like many other countries, England has a large number of people who have been effectively excluded from participation in the key domains of modern life.

Social inclusion remains unequal.

There is a strong link between social exclusion and a lack of basic skills.

Skills alone cannot eliminate social exclusion.

The success of initiatives to raise skills in order to combat social exclusion has been mixed.

37 Educational attainment has risen quickly in the recent past, but some people have been left behind. These are those groups of individuals or employers whose skills needs are difficult to address.

38 Social exclusion is a term generally taken to describe situations where people or areas suffer from a combination of linked and mutually reinforcing problems, such as:

- unemployment;
- poor skills;
- low incomes;
- poor housing;
- high crime rates;
- bad health;
- family breakdown.

39 There is a strong link between low levels of skills and qualifications on the one hand, and social exclusion on the other, but:

- the acquisition of skills through education and training is unlikely to be sufficient on its own to combat worklessness or overcome other forms of social exclusion;
- people with low skills often face other barriers to work or job retention, including poor job search skills;
- there is a reluctance by some employers to consider non-employed people for their vacancies.

40 Strategies to improve social inclusion through promoting skills and qualifications need to be complemented by labour market and workplace strategies and policies that will counter other barriers that hamper participation in education, training and employment.

41 The success of initiatives to raise skills in order to combat social exclusion has been mixed:

- Participants are often appreciative of the additional support they receive, but the evidence to show that such initiatives have made a substantial impact remains elusive.
- In part, this may be a reflection of the complex and sometimes contradictory positions of Welfare to Work policy and skills strategies.

- While individual programmes and initiatives can each claim some degree of success, the operation of Welfare to Work and skills strategies have, to date, not been integrated effectively.

The need for such integration is one of the most significant recommendations of the Leitch Review.

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42 While, over the last decade, there has been a huge range of initiatives aimed at raising skill and qualification levels and helping the low skilled out of worklessness, the gap between the employment rates of the unqualified and those with qualifications has actually widened since 2000. This serves to highlight how much remains to be done if that gap is to be closed in the near future.

The gap between the employment rates of the unqualified and those with qualifications has widened since 2000.

43 The Leitch Review recommends a programme designed to integrate employment and skills services to tackle social exclusion:

The Leitch Review recommends a programme designed to integrate employment and skills services to assist the most vulnerable in society.

- a new programme to help benefit claimants with basic skills problems;
- a new universal adult careers service accessible to those currently out of work and to those who are in work but want to progress their careers;
- a new integrated objective for employment and skills services of sustainable employment and progression;
- a network of employer-led employment and skills boards to ensure that local services meet employer needs and that the workless are equipped to access work.

44 The Freud Report has proposed that:

- more targeted and long-term support should be available for people at risk of social exclusion;
- workless people should be helped to acquire the skills they need to enter employment;
- workless people should be supported through a mentoring system during the vulnerable early period of returning from welfare to work.

Key Drivers of the Demand for Skills

Technology and globalisation will continue to be the main drivers of change in the demand for skills. Innovation and investment in new technologies and skills will be crucial to remaining competitive. Technology offers the potential to offset some labour shortages, but it also creates many new skill demands.

Employer demand for skills is dependent upon a variety of factors, such as investment, technology and innovation.

45 Summary

The key drivers of the demand for skills are:

- **economic activity levels;**
- **technology**, especially, but not exclusively, related to information and communications technology (ICT);
- **investment** in new plant, machinery and equipment;
- **competition**, especially increased import competition;
- **innovation**, the development of new products and services;
- **legislation**, which affects how goods or services are produced.

46 The demand by employers for skills is derived from the demand for the output of goods and services they produce. This in turn is determined by a complex mix of drivers, including:

- innovation and changing methods of provision of products and services, including technological advance and sub-contracting;
- rising real incomes and changing tastes;
- competitive forces, including alternative sources of supply outside England.

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ICT usage is driving change in ways of working.

47 Technology, especially ICT, is driving various changes in ways of working (producing and delivering goods and services):

- continual innovation, including the development of new products and services;
- shortening product cycles;
- increasing complexity in many products and services;
- the conversion of many other products and services into 'commodities' that can be provided by many low-cost competitors;
- greater opportunities to develop more complex supply chains, with different aspects of production transferred around the world.

48 The implications for employment are complex and include:

- **automation**, substituting robots and machines for jobs;
- other changes in **patterns of demand** by businesses for the output of goods and services produced by different industries, which are, in turn, the key drivers of the demand for skills (reflected in changing patterns of sectoral employment);
- the **transfer abroad** of many jobs, typically in manufacturing but increasingly in data processing, to locations with much lower labour costs;
- **outsourcing** of many significant functions (for example, design, cleaning, security), resulting in these shifting from within the production sector to the service sector;
- **rising real incomes**, which have resulted in consumers spending more of their income on leisure and entertainment, as well as on healthcare and education.

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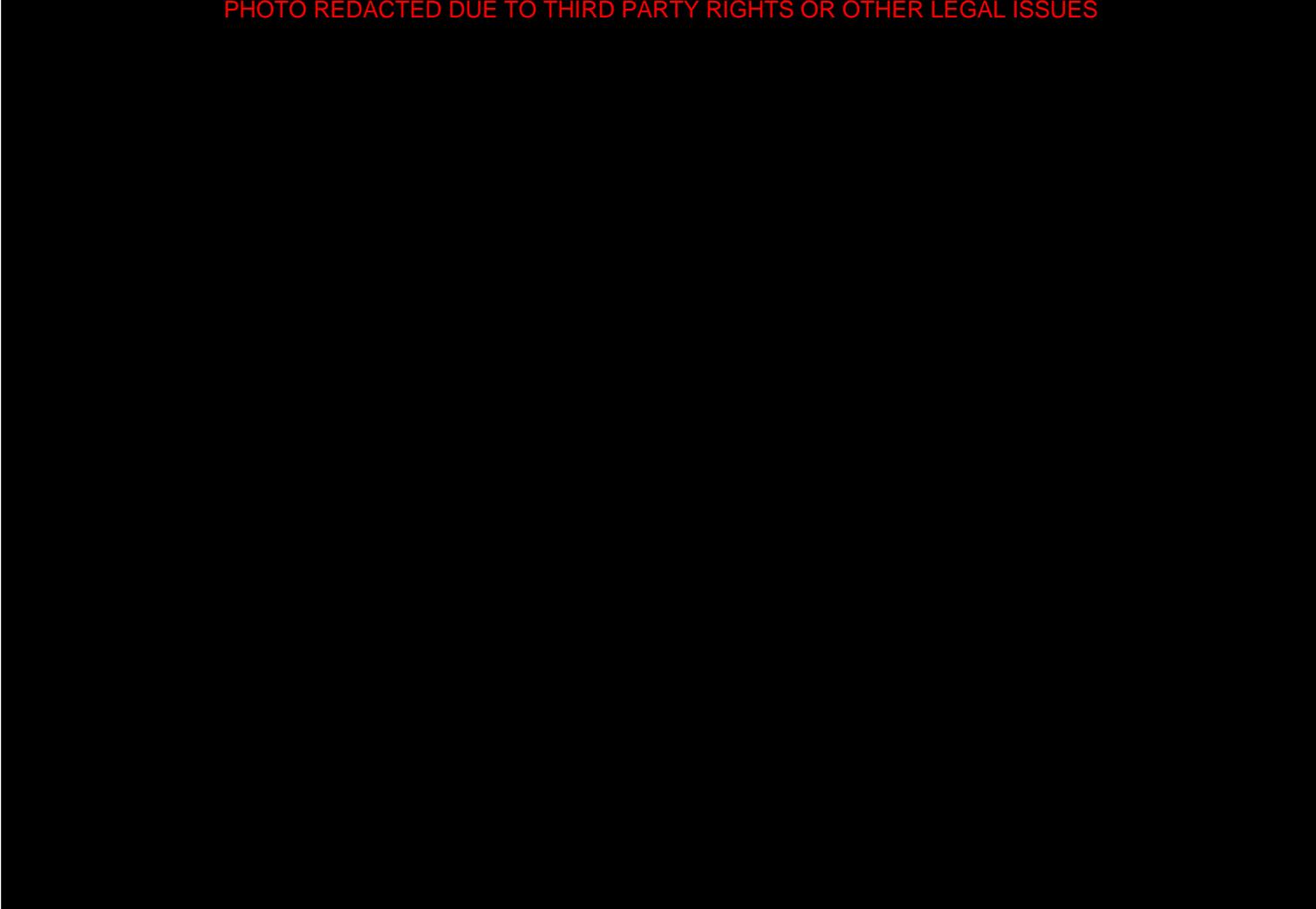
49 Legislation also has an impact on skill need. In some industries, regulatory compliance is a complex process, requiring people to be skilled in managing the process of meeting the appropriate standards, as well as in making the workforce aware of relevant regulations. Where product disposal is an issue (for example, in the end-of-life regulations that affect many products), the design and use of new materials rise up the policy agenda, as producers try to minimise disposal costs. Again, there are skill implications.

Legislation, especially regulatory compliance, is also affecting the demand for skills.

50 England, along with the UK and Europe as a whole, cannot compete purely on price. The low-skill, low value-added trajectory is not sustainable in the long term. Accordingly, the country needs to use competition, innovation, regulatory compliance and technological change to its comparative advantage. These things should be seen not just as threats, but as opportunities, to be exploited through a highly skilled, adaptable workforce.

ICT innovation and regulatory compliance need to be used by employers to obtain competitive advantage in world markets.

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Why Skills Matter

Skills are crucial for individuals, employers and the state. For individuals, they are the key both to higher earnings and to an increased probability of secure employment. For employers, a more highly skilled workforce is more productive and adaptable. For the state, there are benefits from the higher taxes that arise from individuals' higher earnings and from more productive employers, as well as the advantages associated with greater social engagement by a better-skilled population.

Skills matter because they benefit individuals, employers and the state.

51 Summary

Skills matter:

- **for the individual:** the possession of higher-level skills, typically measured by formal qualifications or duration of education, increases the probability of being in employment and contributes to higher earnings in employment (as well as conferring various other non-economic benefits);
- **for the employer:** other things being equal, highly skilled workforces are more productive. Skills also contribute, critically, to an organisational culture that is adaptable and responsive to change. Skills are also positively related to workplace survival;
- **for the state:** higher-level earnings and improved profitability of companies generate higher tax revenue and lower expenditure on benefits when unemployment and economic inactivity are reduced. Skills can also be an engine for economic development and growth, as well as being a source of continuing improvement in the quality of life for citizens, and a key contributor to social cohesion.

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How skills benefit the individual

52 The evidence relating to the benefits of acquiring qualifications is compelling. Higher levels of educational attainment are positively related to:

- participation in the labour market;
- being in employment (that is, improves employability);
- increases in income levels over the lifecycle;
- positive rates of return;
- a whole host of other non-economic benefits, including better health.

Individuals benefit through improved employability and higher rates of pay.

53 The evidence suggests that, on average, earnings are increased by between 10 per cent and 15 per cent for each additional year of schooling. A number of stylised facts can be highlighted:

- The returns on graduation are high: based on a cross-section of companies, a man with a degree can, in the course of his working life, expect to earn 67 per cent more than someone without qualifications.
- People who have engaged in third-level education (that is, university and equivalent) earn around 60 per cent more than those who achieved only lower secondary level (that is, completed their compulsory education).
- The higher the level of qualification, the higher the return. Academic Level 4 and vocational Level 5 qualifications have the highest rates of return, and many of these are funded by the individual.
- Returns on vocational qualifications (except at Level 5) are lower than the returns on academic qualifications, but are still generally positive.
- Newer vocational qualifications have low returns, but such qualifications increase the probability of employment.
- The returns on accredited training are higher than when the training is non-accredited.
- The better qualified are more likely to go on to take part in further education and training.

Academic rather than vocational qualifications have the highest rate of return for the individual.

Skills benefit employers through...

...improved performance and workplace survival.

The business case for employers

54 The commitment of employers to training and skills development is often based on the belief – or what they consider to be self-evident logic – that, without skills, they could not produce the product or deliver the service, and so they need to invest in skills. This, rather than empirical evidence that there is a positive rate of return, is the crucial factor in convincing employers to make further investments.

55 The benefits to employers from engaging in training and skills development include:

- evidence of a positive relationship between training and a firm's performance, which suggests that skills can account for around 8 per cent of the productivity difference between well performing and poorly performing organisations;
- skills being recognised as an essential ingredient in what makes a business a high-performance work organisation;
- spill-over effects from investment in training in the workplace, arising through knowledge being transferred to other people in the organisation, not just the trainee;
- positive relationships between higher turnover and employment growth and investment in skill;
- workplace survival rates improving where investment in skills takes place. Research by the Sector Skills Development Agency indicates that workplaces that provide training reduce the probability of their closure by nine percentage points, other things being equal.

56 A degree of caution is required when assessing statistical analyses of the effect of training or workforce development on the performance or survival of a firm. Training and workforce development are often part of a wider range of measures that improve organisational performance. Training and workforce development are an important part of that package, but, without the other elements in place, the returns on investment in training are unlikely to be obtained.

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The benefits to the state

57 Skills, education and training boost levels of employment, income levels, workplace survival and social cohesion. In narrow financial terms, the benefits and costs to the state relate to levels of government income and expenditure:

- **Income:**
 - higher tax revenues.
- **Expenditure:**
 - increased levels of expenditure on training, education and active labour market policy;
 - lower expenditure on redundancy payments (from workplace closure);
 - decreased expenditure on social security payments/passive labour market policy;
 - less expenditure on controlling delinquent behaviour.

On balance, the evidence suggests that, financially, the benefits outweigh the costs.

58 Education and training also have many non-pecuniary benefits, such as increasing an individual's job satisfaction, aspirations, intellectual inquisitiveness, and so on.

Where education and training take place alongside other human resource practices associated with high-performance work organisations, this can have a significant impact on the quality of an individual's life at work, and on their life in general.

There is also emerging evidence that the social environment of the country is improved through lower crime rates resulting from a more highly educated population. There may be other benefits in terms of health-related behaviour and greater civic engagement.

The state benefits through higher tax revenues and lower social security payments.

The state also benefits through people being more responsible citizens.

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The Changing Demand for Skills

Structural change in the world economy is dramatically altering the pattern of demand for skills and labour across the planet. This presents both threats and opportunities at a more local level, with job losses and falling demand for skills in some areas, but considerable potential for new job openings – often with increasing skill requirements – in many others.

Structural changes in the domestic and world economy are affecting the demand for skills

59 Summary

The factors behind the changing demand for skills include the following:

- Economic growth has generated higher levels of employment and increased demand for skills.
- Structural changes in the economy have resulted in a strong demand for labour in finance and business services, distribution, hotels and catering, education and health.
- In contrast, there has been a decrease in employment in primary and manufacturing industries. Nevertheless, many jobs will remain in these industries for the foreseeable future.
- There is a strong demand for managers, professionals and associate professionals, as well as for personal service and sales staff.
- Employment has fallen in the skilled trades, among operatives and in elementary occupations, but there are still significant replacement needs in these occupations.
- Technological change is also increasing skill requirements in many occupations.

- There has been a sharp rise in the percentage of the workforce with formal qualifications, and this is expected to continue in the future.
- Efforts are continuing to drive up employer demand for skills. This is a major emphasis in government policy.
- Creating a high-performance workplace is dependent upon the supply of skills, but an adequate supply of skills is not the only condition. Employers also need to have in place policies that facilitate innovation, as well as human resource practices that allow their employees to develop as individuals.
- The demand for skills is spread unevenly across the country. London and the South East have experienced the strongest growth in demand for higher-level skills, whereas the Midlands and Northern regions have fared less well, mainly due to the job losses in primary and manufacturing employment.
- The skill intensity of many jobs is increasing. Employees tend to report that greater levels of skill are required in their jobs.

The last 10 years have seen a steady shift in employment from manufacturing to services.

Replacement demand remains high, even in sectors of the economy in long-term employment decline.

Trends in demand: industrial sectors

60 Over the past 10 years, there has been a steady shift in employment towards the service sector and of job losses in the manufacturing industries and in the primary sector and utilities.

61 Growth in employment has been seen most markedly in:

- computing and related services;
- other business services;
- professional services;
- health and education services;
- miscellaneous services;
- construction.

In contrast, the following have experienced a decline in employment:

- manufacturing;
- primary sectors.

Business and miscellaneous services accounted for more than half of net employment growth in England between 1996 and 2006.

62 Despite this, the predicted demise of manufacturing has been greatly exaggerated. This sector, together with construction and various other parts of the production sector, will continue to employ large numbers. While employment levels may be falling, **replacement demand** remains significant. This term refers to the number of job openings that occur as people leave their current jobs because of retirement and so on. Even occupations and industries that have experienced a sharp decline in employment rates can have substantial replacement demand requirements, especially if they have an older workforce. For example, there have been many skilled job openings in the manufacturing sector, despite the decline in overall employment levels. The scale of replacement demand can substantially outstrip other changes.

63 The most detailed and comprehensive set of employment projections ever produced, 'Working Futures', was reported extensively in *Skills in England 2005*. Although there have been some changes in the UK and world economic situation since these projections, the broad trends are unlikely to have changed dramatically.

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Trends in demand: occupations

64 The fastest-growing occupations in the recent past have been:

- managers;
- professionals;
- associate professionals;
- sales and customer service.

These increases have been offset by the decline of many lower-level manual and non-manual occupations.

65 These developments are the result of:

- changing sectoral employment patterns, which have tended to favour service-oriented managerial and professional jobs at the expense of more traditional blue-collar industries and administrative/secretarial jobs;
- shifts of occupational structure within industries, which have also favoured the same groups.

Changes within industries have been the main factor, driven by technological and organisational change.

66 Changes in occupational structure over the past decade have been substantial:

- The employment share of managerial, professional and associate professional occupations has increased substantially – from 37 per cent to 43 per cent over the last decade; an increase of nearly 2.4 million jobs.
- In contrast, the share of skilled trades and process, plant and machine operative jobs has fallen from 22 per cent to 19 per cent – a loss of around 312,000 jobs.

67 Job numbers have declined dramatically in many manual occupations (both skilled and unskilled), although some job losses have also occurred among less-skilled white-collar workers in administrative, secretarial and related occupations:

- In 1996, the skilled trades, process, plant and machine operators, drivers, and elementary occupations accounted for 35 per cent of all jobs.
- By 2006, these occupations accounted for just 29 per cent of all jobs.

There is a strong demand for people to work in higher-level occupations.

The number of higher-level jobs has increased substantially.

There has been a dramatic decline in the number of manual jobs.

Future change will favour high-level jobs.

Many of these jobs will require high-level qualifications.

But there will also be a growth in jobs that are not so demanding in terms of formal qualifications.

Even where employment is projected to decline, replacement demands are usually sufficient to offset this.

Overall, the skill intensity of jobs will increase.

68 Changes in occupational employment are projected to continue to favour managerial, professional, associate professional and technical, and personal service occupations, all of which are expected to experience significant job growth.

69 Often these jobs will require high-level formal qualifications (for example, business and public service professionals and associate professionals, teaching, research, science and technology professionals and associate professionals, and corporate managers).

70 Some of the most rapid growth is expected in caring and personal services and customer service occupations, which are not so demanding in terms of the levels of formal qualifications required. Other areas of rapid projected growth include culture, media and sports occupations.

71 Job losses are expected among administrative, clerical and secretarial occupations, skilled metal and electrical trades, process, plant and machine operatives and elementary occupations, especially those related to clerical and service activities.

72 For all occupational groups, the expected patterns of 'expansion' or structural demand and total requirements (the sum of replacement demand and expansion demand) across all sectors are positive. The patterns vary considerably across occupations (as well as sectors), but even where substantial structural job losses are projected, replacement demands are usually more than sufficient to offset this. It is essential, therefore, for employers, education and training providers and public agencies to recognise the different characteristics and requirements of these two different components of future skill needs.

73 The overall changes in the occupational structure of employment suggest that the skill intensity of much work is increasing. This is true across the occupational hierarchy. The shape of the occupational structure of employment, however, is changing. There is a tendency for the strongest growth to be in jobs that require either very high or rather low skill requirements, which some people regard as evidence of polarisation in the jobs market.

74 Overall, the picture of occupational change that emerges – in England and across the Western world generally – is of a growth in jobs requiring relatively high-level skills (that is, managers, professionals and associate professionals) and those requiring relatively low-level skills (that is, personal service workers and sales occupations). The reasons for this change are complex and reflect the process of structural change, which is being driven by technology and competitive pressures. Of concern is the vulnerability of relatively low-skilled jobs to displacement by technology or transfer abroad to countries with lower labour costs. It is apparent that there has been a decline in some relatively low-skilled jobs (that is, among operatives and in elementary occupations). Even so, past trends and future projections of occupational employment show strong growth in relatively high- and low-skilled jobs, with more modest growth in jobs requiring intermediate-level skills.

75 There is a strong regional element to the demand for skills. It is clear that some regions have suffered more because of their specialisation in both the primary and manufacturing sectors. The Midlands and the Northern regions together have accounted for almost two-thirds of job losses in manufacturing. In contrast, the South and the North West have benefited from the development of the service sector, especially business services.

Trends in demand: qualifications

76 Generally, the prospect is for further increases in **skill levels** within most occupations and a changing structure of jobs in favour of those that are highly skilled. By 2014, the latest 'Working Futures' results suggest that over 60 per cent of the employed workforce will be qualified to National Qualifications Framework (NQF) Level 3 and above.

The qualifications level of those in employment is increasing.

77 The proportion and numbers of those in the employed workforce with formal qualifications have risen sharply in recent years. Increasing numbers of young people in particular have been acquiring qualifications at NQF Levels 4 and 5, and these have tended to increase their chances of finding employment.

This is notable with respect to the number of graduates.

78 One factor helping to drive up the number of jobs for graduates has been the shift in occupational employment structure in favour of such occupations as managers, professionals and associate professionals. These occupations employ large proportions of graduates and other qualified people. Between 1996 and 2006, total employment in these higher-level occupational categories grew by around 2.4 million.

79 The numbers qualified at intermediate and lower levels have also risen:

- In 1996, over 82 per cent of the employed workforce had formal qualifications of some kind.
- By 2006, this had risen to more than 90 per cent.

But improvements at an intermediate level are also evident.

Almost 30 per cent of those in employment are still qualified below NQF Level 2. A declining (but still substantial) number of people in employment have no formal qualifications – 10 per cent in 2006.

80 The overall proportion of the employed workforce with NQF Level 2 as their highest-level qualification actually fell slightly between 1996 and 2006, while the corresponding figure for those with NQF Level 3 as their highest qualification rose only modestly. Of course, the overall numbers of people holding qualifications at NQF Levels 2 and 3 have risen substantially; it is just that many of these go on to acquire even higher qualifications.

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81 There has also been a significant improvement in the number of vocational qualifications held by those in employment. Many new qualifications have been introduced, and the flow of those obtaining A levels and other NQF Level 3 qualifications has increased steadily. The introduction of Diplomas in 2008 may well further stimulate this trend. But it remains the case that the highest level of qualification possessed by an individual is likely to be an academic rather than a vocational one: the highest qualification held by around 70 per cent of those in employment in 2006 was an academic one.

Trends in demand: agency and temporary work and self-employment

82 There has been a relatively recent movement away from permanent job contracts towards less rigid work patterns. While the overall scale of temporary working seems to have levelled off in the last few years, there has been a continued rise in some particular types of this kind of employment. Temporary contracts and other flexible types of work are considered crucial in ensuring that the labour market is competitive and responsive to market changes. Temporary and agency work once tended to be concentrated on middle- and lower-skilled occupations, but recently such types of work have been associated with high-level skills, including ICT and other high-level professional and managerial occupations.

83 Following a period of quite rapid growth, since the mid-1990s there has been no clear trend in self-employment. Skills may be considered a route to increased self-employment; this, in turn, increases the number of jobs, as the self-employed create work for other people. Improving skills across the country means that self-employed individuals must themselves secure the appropriate education and training for their own needs and for any staff they may employ.

Employer demand for generic skills

84 While technical skills are important, employers also recognise the importance of generic skills. In recent years, evidence from

the National Employers Skills Surveys, the *Skills at Work, 1986 to 2006* survey and other sources suggests that employers have placed increasing emphasis on the importance of:

- leadership and management skills;
- influencing skills (including communication);
- customer-handling skills, including authority to act (especially among sales occupations);
- numerical skills (especially among clerical and secretarial occupations);
- problem solving;
- team working.

The evidence from the *Skills at Work, 1986 to 2006* survey also indicates that the skill intensity of jobs is increasing.

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Generic skills are valued by employers.

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Raising the demand for skills

85 The evidence concerning the relationship between skills levels and either individual or organisational performance is compelling:

- Individuals benefit from increased levels of income over their lifecycle.
- Organisational performance is better than it might otherwise be and allows employers to pursue higher value-added business strategies.

A lot of the decisions and choices being made by many individuals and employers suggest that this message often gets lost. The Skills for Business Network's survey of employers reported that 16 per cent of employers said their human resource strategy was not linked to their business strategy. For some employers, the quality of the workforce appears to matter little to the business.

The message that investment in skills pays off is lost on some employers and individuals.

86 While it is the cadre of senior managers and professionals that establishes the vision for the business strategy, there also needs to be a competent, skilled workforce to deliver that strategy. It is not simply a case of investing in one set of skills rather than another. Management skills are important, and the UK compares relatively poorly on this measure; but other skill deficiencies across the workforce need to be addressed at the same time.

Skills need to be raised across all levels of the workforce.

87 The quality of management, and therefore of management skills, is a key factor in explaining organisational performance. There are a number of stylised facts about management in the UK:

Management skills are critical to organisational performance.

- A number of studies show that UK managers tend to be less well qualified and receive less training than managers in other European countries and elsewhere.
- Compared to a number of other countries, firms in the UK place the least importance on vocational qualifications as a characteristic of a good manager.
- UK employers view management education as a filter when recruiting, but place more weight on job experience.

A strategic shift into higher value-added markets is dependent upon the skills being available to achieve this.

Train to Gain is an important programme, designed to raise the skills of those in employment.

Employers unwilling to raise their game are potentially at risk from globalisation.

A flexible labour market is critical to the overall success of the economy.

88 If organisations are to turn themselves into high-performance work organisations, they will need the skills to survive in segments of the market returning higher value-added. But this is not just a skills issue. There is a range of other human resource practices – as well as investment in fixed capital and the introduction of other business/organisational models – that will need to be introduced. Skill is likely to be an essential ingredient in the mix.

89 Policies to raise the performance of organisations need to be multifaceted to promote the take-up of:

- innovation;
- R&D;
- export activity;
- entrepreneurship.

These need to develop simultaneously with skill development.

90 Given the above, it is important that Train to Gain should take a holistic view of employers' training needs: it should look at how workforce training and development can meet an organisation's business needs. But apart from demonstrating the business benefits of investing in skills, there are relatively few ways of persuading employers to move up the value-added ladder through increased investment in skills.

91 If some employers are unwilling to raise their game, and run the risk of technology or producers in lower-cost countries taking away their business, there needs to be a safety net for employees. Given the pace of globalisation and technological development, it is likely that an increased share of jobs that were once thought to be immune to the process of globalisation might prove to be not so immune. For individuals, the emphasis has to be on portable skills, and on being able to develop those skills throughout their lives.

92 There is the issue of how to manage this process. Other countries have done so by creating a flexible labour market, where individuals feel secure in making shifts between sectors and occupations through a system of 'flexicurity'. The LSC's flexicurity seminar explored this issue in detail. The main elements of the flexicurity model are:

- a system where employers can readily 'hire and fire' staff;
- relatively generous levels of benefit entitlement if people lose their jobs;
- a series of activation measures, so that, if people do not re-enter employment, they are provided with the skills that will allow them to do so.

In Denmark, this system has worked well, in that it has allowed substantial change to occur in the economy without the emergence of high levels of unemployment or economic instability.

93 It is clear that there are a number of areas where the UK and England in particular have established comparative advantage (pharmaceuticals, financial services, the media and creative industries, etc.). While these areas need a continual supply of high-level skills, picking winners is notoriously difficult. Rather, the key aim of the learning and skills sector should be to provide the infrastructure and capacity necessary to develop the skills that will be needed in the future. This should be an adaptable and responsive system, capable of identifying and meeting needs in a flexible fashion. It must also allow individuals to progress through the qualifications system via a varied set of routes – in part because of changes in the nature of skills demands, but also to reflect individuals' changing career preferences – ensuring that these routes do not lead to dead ends.

94 There are a number of other government policies that affect the goal of pushing employers towards becoming high-productivity, high-skill organisations. The Welfare to Work strategy, including in-work tax credits, has successfully tackled a number of social problems through a work-first approach. But it tends to subsidise low-skilled, low-wage work. It is notable that other countries – some with higher levels of productivity – have social security systems that place much less emphasis on a work-first approach. Hence their less-productive workers are more likely to be out of the labour market.

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Not all policies support the creation of a high-value, high-skill economy.

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The Supply of Skills

The supply of skills is improving as a result of rising educational participation and attainment; but demographic developments, including an ageing workforce, mean that new sources of supply will need to be found by many employers. Immigration is likely to remain an important source of supply in many areas. Policy initiatives such as Train to Gain will help to boost the supply of skills.

The supply of skills is improving, but much of this is a cohort effect.

95 Summary

There are several aspects to the changing supply of skills:

- There has been a significant improvement in skills supply, with a growing share of the labour force in possession of formal qualifications.
- Much of the growth in the number of people with qualifications is due to a cohort effect, resulting from young entrants to the labour market being more qualified than their counterparts in the past.
- Over the typical lifecycle, the participation of people in post-compulsory education and training compares favourably with the Organisation for Economic Co-operation and Development (OECD) average, though the percentage of 16–17-year-olds continuing in education compares less well.
- By other measures, especially focusing on lower-level and intermediate-level skills, the international comparisons are less favourable.

- Migration has become an increasingly important source of labour supply. The recent accession to the European Union (EU) of a number of Eastern European countries, many of which have strong vocational education and training systems, will provide a further source of skills.
- In addition, there have been a number of major policy developments that aim to boost supply.

Labour supply

96 Skills supply is dependent upon a number of interrelated factors. It is useful to distinguish between overall labour supply and the supply of skills:

- the **labour supply** is dependent upon:
 - demographic change;
 - the operation of the social security system and the extent to which it stimulates labour supply;
 - inward migration.
- the **supply of skills** is dependent upon:
 - the labour supply;
 - outputs from the compulsory education system;
 - the operation of the vocational education and training system;
 - individuals' and employers' investments in skills.

97 The key facts about the labour supply are:

- The labour force in England is currently around 25 million, roughly half the total population.
- The total number of jobs actually exceeds this, as some people have more than one job.
- Unemployment remains low by historical standards, measuring around one million using International Labour Organization definitions (a rate of 5 per cent). At this level, the unemployed no longer form a reserve army of labour.
- To meet the future demand for labour, there is increasing recognition of the need to find new sources of labour supply.

98 Over recent years, population growth has increased:

- The Office for National Statistics (ONS) estimates that the UK population grew by almost 2.2 million between 1995 and 2005.
- According to ONS estimates, the UK population will increase by 7.2 million over the period 2004 to 2031.

- The growth is due to natural increase (more births than deaths). It is also assumed that there will be more immigrants than emigrants.

The UK also has an ageing population. The proportion of people aged over 65 is projected to increase from 16 per cent in 2004 to 23 per cent by 2031. So the working-age population, other things being equal, is becoming a proportionately smaller share of the total population.

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99 Given the demographic trends and the relatively high employment rates, it is imperative that new sources of labour supply be found. There is a range of policies that might assist with this, including Welfare to Work and policies related to age discrimination in the workplace. Immigrants are another potential source.

Given demographic trends, there are concerns over future labour supply.

100 The evidence on immigration indicates that:

- Foreign labour migration to the UK in 2005 was just over 400,000, compared with 183,000 in 1999 and 245,000 in 2002. Many migrants are relatively young;
- Nearly half of all migrants (195,000) entered under the Worker Registration Scheme, which covers employees from the A8 countries (Poland, Lithuania, Slovakia, Latvia, the Czech Republic, Hungary, Estonia and Slovenia);
- Just over one-fifth of labour migrants (86,000) entered under the work permit route (for non-European Economic Area citizens);
- EU and European Free Trade Area citizens with free rights of entry to the UK were the next largest group, accounting for 9 per cent of migrants (35,000);
- The Working Holidaymaker Scheme, the Highly Skilled Migrant Programme and the Seasonal Agricultural Workers Scheme were the next largest routes, accounting for 15–20,000 migrants each.

It is not known for how long migrants will stay in the UK, and thus whether they represent a permanent or a temporary addition to the labour force. Moreover, little is known about the extent to which they export their earnings to their point of origin. Evidence in the Pre-Budget Report 2006 suggests that immigration has contributed to economic growth, and a recent review by the Trades Union Congress indicates that, on balance, migrants make a positive contribution to the economy.

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101 At this stage, given the pace of immigration since the accession of Eastern European countries to the EU, the following remain unknown:

- if there is a mismatch between the skills possessed by immigrants and the jobs they obtain (for example, are many over-qualified for the jobs they fill?);
- if there is a substitution or displacement effect, whereby immigrants replace the low-skilled indigenous population (with implications for the Welfare to Work policy); or if there is a displacement of training, because employers no longer need to engage in this, given the improved labour supply.

In general, improvement in the skills supply brought about by migration will benefit the labour market but it will have implications for existing labour market policy.

Supply of skills

102 Many new developments in skills supply are reported this year. Policies designed to stimulate skills supply continue apace, such as the introduction of Train to Gain, and the funding available to young people to obtain a first Level 2 or Level 3 qualification.

103 The highest level of educational attainment, measured by qualifications obtained, provides one means of measuring changes in skills supply over time. Labour Force Survey (LFS) data reveal improvements over time, with a substantial increase in the number of the economically active population qualified at National Qualifications Framework Levels 3, 4 and 5.

104 Available information points to the LSC meeting government targets to increase the skills of the population:

- **Target to increase the proportion of 19-year-olds who achieve at least a Level 2 by three percentage points between 2004 and 2006, and a further two percentage points between 2006 and 2008; and improve attainment at Level 3:** the LSC is on track to exceed the 2006 milestone. The figures for 2004/05 showed that 69.8 per cent of young people had achieved Level 2 by age 19, an increase of three percentage points over the 2003/04 baseline of 66.8 per cent.

- **Target to reduce by at least 40 per cent the number of adults in the workforce who lack an NVQ Level 2 or equivalent qualification by 2010. Working towards this, one million adults in the workforce to achieve Level 2 by 2006:** by the end of 2004/05, the LSC had delivered an increase of 841,000 adults towards the one million target. Over the duration of the target period, the LSC expects to fund 1.4 million adults to achieve their first full Level 2. So far, between 2001/02 and 2005/06, the LSC has delivered approximately 400,000 first full Level 2 achievements.
- **Target to improve the basic skills of 2.25 million adults between 2001 and 2010, with a milestone of 1.5 million by 2007:** the latest figures (June 2006) show that the 2007 milestone is likely to be exceeded. The figures for 2004/05 show that, by the end of that year, 1,286,000 achievements had been confirmed as counting towards the target. Of these, 1,136,000 had been funded by the LSC.
- **By 2007/08, increase the numbers completing Apprenticeships by three-quarters compared with 2002/03:** the latest data from providers (for 2005/06) show 91,600 Apprenticeship completions, surpassing the 2007/08 target of 75,500 two years early.

Qualification levels in the workforce are improving.

The LSC is meeting its Public Service Agreement targets to improve the skills supply.

105 Success rates in further education (FE) improved by around 2 per cent between 2004/05 and 2005/06.

Completion rates are improving.

106 The final area of interest is that relating to participation in higher education (HE). Recent years have seen a massive growth in the numbers entering HE: in 1990/91 there were 749,000 students in full-time HE in the UK, compared with 1.5 million in 2004/05.

107 The Higher Education Initial Participation Rate is used to measure progress towards the target of 50 per cent of young people entering HE; the latest provisional total is 42 per cent.

International comparisons of post-compulsory education

108 Despite the improvements cited above, international comparisons reveal a more mixed picture:

International comparisons reveal a mixed picture of educational attainment. People spend a relatively long time in education in the UK...

- On average, people spend a relatively high number of years in education, compared with the OECD average (for new entrants to the UK education system, it is estimated that they will spend around 20.7 years in education over a lifetime).
- The post-16 participation rate for those immediately continuing their secondary education is lower in the UK (at 16 years of age, 66 per cent are continuing in education, compared to an average of 78 per cent in the OECD).
- The UK is also relatively weak in relation to the proportion of individuals in the population who have successfully completed upper secondary education.
- While upper secondary attainment rates have increased in the UK, the increase has been greater in many other countries.
- Although a relatively low proportion of 17–19-year-olds continue in post-compulsory education, the evidence suggests that the FE system is relatively successful in enrolling them at a later age. For example, the rate of enrolment in the age group 20–29 years is, at 27.8 per cent, above the OECD average of 24.7 per cent.
- Participation in HE has grown over recent years, but has now levelled off, whereas it continues to grow elsewhere.

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...but the UK is relatively weak on a number of other measures, such as the intensity of workplace-based learning.

Workplace-based training is increasing.

61 per cent of the workforce had received training in a 12-month period.

- In relation to ongoing training and development, a mixed picture emerges for the UK. Around 27 per cent of those in employment take part in non-formal job-related education and training each year, compared with the OECD average of 18 per cent.
- But the intensity of participation in non-formal job-related education and training is comparatively low: between the ages of 25 and 64 years, the total anticipated number of hours spent in non-formal job-related training per worker is 315, below the OECD average of 389 hours.
- The provision of job-related education is lowest among those who need it most, insofar as those with relatively low educational attainment receive a lower number of hours of training.

Workplace-based training

109 The LFS reveals that:

- just over 30 per cent had participated in workplace-based training over the previous 13 weeks;
- there had been a modest increase over the past 10 years;
- the duration of training is often less than a week (32 per cent of all those receiving training);
- training tends to be of longer duration for people aged 16–19 years (for this group only 10 per cent had received training of less than a week).

110 Evidence drawn from the 2005 National Employers Skills Survey reveals that:

- 61 per cent of the employed workforce had received some form of training over the previous 12 months (13.1 million employees);
- 65 per cent of workplaces engage in some form of training;
- 46 per cent of workplaces engage in off-the-job training;
- 45 per cent of workplaces have a training plan;
- 33 per cent of workplaces have a training budget.

111 Comparisons with previous surveys suggest that there has been a steady improvement over recent years in the provision of such training, but that it remains focused on induction and health and safety, rather than on future skill needs.

112 As noted above, the incidence of non-formal, job-related education and training is relatively high compared with the OECD average, but the intensity is much lower.

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Skill Priorities

Skill priorities can be identified in a number of different areas, including encouraging employers in sectors and localities that are currently not benefiting from the potential offered by a highly skilled workforce to raise their sights, and also helping individuals adapt to a rapidly changing environment by encouraging lifelong learning.

There are a number of priorities that the skills agenda needs to address...

...too many people employed in low-productivity, low-skilled industries...

113 Summary

Skills in England 2005 identified the priorities facing education and training providers using four main sets of indicators:

- international comparisons;
- expected future changes;
- market signals;
- employers' perceptions.

These all remain valid, but it is also possible to look at the priorities in a different way.

114 The priorities for skills can be presented in relation to:

- industrial sectors;
- regions/localities;
- size of organisations;
- qualification pathways/portable skills;
- international comparisons;
- under-utilisation of skills.

115 In relation to **size, sector** and **region**, it is possible to identify a number of stylised facts:

- There are industries in which productivity is relatively low (the evidence suggests that England has too many people employed in too many such industries).

- These industries are often spatially concentrated (where regional and productivity levels are relatively low, it often stems from an over-representation of industries generating low value-added).
- Areas with relatively high concentrations of low-value, low-skilled industries fail to benefit from the spill-over effects of having a relatively highly skilled, high-waged workforce.
- Small workplaces, especially micro-sized ones, are much less likely to have in place the range of human resource practices associated with high-performance work organisations. They will need assistance to achieve a step up to a higher value-added path.

...encouraging employers to raise their game and their level of skills demand...

116 Relatively weak economic performance appears to have interrelated dimensions relating to sector, size and locality. Encouragement is required for employers in the relatively low-productivity sectors to raise their game. This will necessitate employees possessing portable skills – either to facilitate improvements within the organisation/industry, or to obtain jobs in higher value-added sectors of employment, where, other things being equal, employment might be more secure. This suggests that employer engagement in developing skills supply, as outlined in the Leitch Review, needs to be counter-balanced by a commitment from employers to raise the level of their skills demand. Moreover, the focus needs to be on future, as well as current, demand.

...improving the vocational qualification pathway...

117 The **pathways to qualification** are another priority. For the individual, the emphasis is on possessing portable skills that allow moves across sectors/ organisations/occupations as required, in the face of structural shifts in the economy. The emphasis in policy also needs to be on raising skill levels. The Government's target is for 50 per cent participation in higher education, but the typical pathway to National Qualifications Framework Levels 4 or 5 is via the academic route, leading to a degree. There have been a number of innovations – such as the introduction of Foundation Degrees or the new Diplomas to be launched in 2008 – that place much more emphasis on a vocational pathway to qualification.

118 It is not just the vocational side that needs to be stimulated. Rather, the aim must be to ensure a variety of pathways through the post-compulsory education system, so that there are no dead ends for learners of any age. The pace of change brought about by technological and structural alterations in the world economy is such that the emphasis will increasingly be upon people moving across sectors and occupations, as new opportunities arise. This creates a demand for both technical skills (as new technologies emerge and old skills become obsolete) and generic ones.

119 Much can be learned from **international comparisons**. Data drawn from the Organisation for Economic Co-operation and Development (OECD) and the European Centre for the Development of Vocational Training (Cedefop) provide quantitative information about the activities of competitor countries, as well as about the structure of their post-compulsory education and training systems. Much less is known about the quality of provision. Attention has been drawn to the relatively short duration of workplace-based training in England.

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120 Over-qualification or under-utilisation? Evidence from the *Skills at Work, 1986 to 2006* survey report suggests:

- an excess supply of qualified people at all levels in 2006 'compared to minimum entry requirements' (much greater than the level of excess supply in 1986);
- an excess demand for people with no qualifications, resulting from the decline in the percentage of people without qualifications.

According to the estimates presented in the report, the excess supply of people educated at Level 4 and above stood at just over one million in 2006.

121 At face value, these findings suggest over-supply or over-qualification on a substantial scale. However, the findings are at odds with evidence from other studies, such as those by the OECD, which reveal a substantial wage premium associated with higher levels of educational attainment. The authors of the *Skills at Work, 1986 to 2006* survey report recognise that many people who possess qualifications above the minimum entry requirement for the job they are doing may be making use of the skills and knowledge that they have acquired. The evidence should not be interpreted too simplistically.

122 Rather than being a supply-side problem, it may also reflect a demand-side issue, resulting from the under-utilisation of skills that are available to employers. As the supply side transforms, employers need to adapt their human resource strategies accordingly; but this may take time, so there will always be a lag between the supply of skills and their full deployment.

123 On balance, the evidence that rates of return have remained high and relatively stable over time suggests that supply is keeping pace with demand, and that, at most levels, there is no significant problem of over-qualification.

124 But on the question of the rates of return from Level 2 qualifications, there is prima facie evidence (supported by the *Skills at Work, 1986 to 2006* survey) that there may be a degree of mismatch between the content of vocational qualifications and the needs of employers. As the Leitch Review pointed out, there is scope for making the structure of vocational qualifications simpler and better attuned to the needs of employers.

...ensuring available skills are effectively deployed.

The evidence suggests skill supply is keeping pace with skill demand.

There may be a mismatch between the content of vocational qualifications and the skills employers need.

Implications for Individuals, Employers and the State

Individuals need to continue to acquire the generic and technical skills they will need to succeed in an increasingly competitive environment, adopting a lifelong approach to learning. Employers need to ensure that skills are effectively deployed in the workplace, and to recognise the need to invest in new skills in order to remain competitive. The state needs to provide a flexible and adaptable system for skill development that recognises the need to anticipate continuing change.

For individuals

125 Implications for individuals:

- Demographic trends, which show a relatively low birth rate, an ageing population and continued growth in employment, suggest a labour supply shortfall over the medium term, and indicate that it will be a seller's market.
- Other trends suggest that the shortfall might be less than expected, due to pressures on people to work until they are older (the pension problem) and increased levels of immigration.
- Technological changes, allied to structural changes in the world economy, suggest that competition between countries will continue to intensify. This has implications for all jobs, but especially for those that can be performed by technology or moved to lower-cost countries.
- The implication of this for individuals is simple: they must acquire the technical and generic skills that will sustain them in the labour market over the course of their working lives.

Individuals must acquire the generic and technical skills to sustain them in the labour market. Engagement in lifelong learning is of critical importance.

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Employers must ensure that skills are effectively deployed in the workplace.

- This indicates a need for continued involvement in education and training. In this context, lifelong learning assumes critical importance.
- If lifelong learning is to be effective, individuals will need to receive guidance and information at various stages of their working lives, not just at the beginning.

For employers

126 Implications for employers:

- They will need to be responsive and adaptable, given the pace of change in technology, globalisation and the changing patterns of demand for skills.
- The adaptation and responsiveness is not just about acquiring skill, but about ensuring that it is effectively deployed in the workplace.
- Employers will need to avoid damaging skills shortages that can have a direct impact on their business performance. To some extent, these can be anticipated; but too many employers currently leave it to the external market to solve their skills needs.
- In a tighter labour market, more attention will have to be paid to recruitment and retention policies; that is, to the package of terms and conditions that will attract and retain skilled individuals.
- Many employers are already effective at anticipating and responding to change in the economy and labour market; but, as was mentioned earlier, there are also many that are not. These need to be helped to achieve best practice.
- Attention will increasingly need to be focused on identifying new stocks of labour (for example, older workers) and re-configuring working practices to accommodate these workers as necessary (such as those related to the work–life balance).
- At senior levels in the organisation, the process of production is likely to increase in complexity, especially the management and configuration of supply chains.
- This, in turn, will have implications for the type of skills organisations in England require.

- Increasingly, there will be fewer segments of the labour market that are immune to the competitive pressures of globalisation.
- Globalisation is a potential opportunity for employers and the country, provided it does not drive down wages, working conditions and profitability. This can be avoided by making the necessary investment in the workforce, so that employers can operate at the higher value-added end of the market.

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For the state

127 For the state, the implications are about:

- providing an infrastructure capable of supplying the skills required in a rapidly changing world economy driven by the fast pace of technological change. In part, this will be about managing skills obsolescence and ensuring a supply of new skills, both generic and technical, wherever needed;
- developing a system with a strong emphasis on guidance for both individuals and employers;
- identifying the processes that will allow future skills needs to be acknowledged and met, and putting in place measures that encourage workers and employers to engage in ongoing training and development, finding both the 'carrots' and the 'sticks' to bring this about;
- balancing the tension between (a) meeting current employer demand for skills and (b) investing in the future skills needs of the country. What employers demand now is not necessarily what they will need in the future. But the lead times to develop new skills are sometimes long;
- establishing a more creditable vocational route that offers the same rewards and opportunity to progress as the academic one (or even breaking down the vocational/academic distinction);
- identifying the means to finance what will be a substantial increase in the level of post-compulsory education and training, especially in the light of the Leitch Review recommendations to more or less double attainment rates;
- how to manage the stock of people who, for whatever reason, fail to acquire the new skills required in a changing economy, so as to avoid their possible exclusion from the labour market.

The state should provide an adaptable vocational education and training system that can anticipate and meet future demand.

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Providers need to satisfy the needs of the economy, employers and individuals.

For education and training providers

128 For providers of education and training, the implications relate to:

- creating a demand-led system that is capable of meeting both the current and the future skill needs of the economy;
- being able to anticipate change in the demand for skills;
- tailoring courses and training to allow individuals to achieve their aspirations, as well as meeting employer demand;
- providing effective guidance and advice to both young people and adults.

This is likely to pose a challenge to some providers, though many institutions, such as those colleges with Centres of Vocational Excellence, do have a strong base on which to build.

129 It is necessary continually to keep abreast of technological, environmental, regulatory and structural changes that affect the national and world economy, and to identify the implications of these changes for the current and future demand for skills. As mentioned elsewhere in *Skills in England*, this will necessitate ongoing adaptation and change on the supply side.

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Concluding Remarks

Skills in England 2007 highlights the threats and opportunities facing the economy over the medium term, and the role of skills in meeting these challenges. Its main conclusion is that, while they are not a panacea, skills are key elements in addressing the two main challenges facing the economy: maintaining global competitiveness and reducing social exclusion.

The benefits of investing in skills are substantial, but this message has still to reach some individuals and employers.

130 The challenges posed by technological change and structural changes in the world economy are, if anything, intensifying and will have significant implications for employment and skills needs in England. Employers, the state, education and training providers, and individuals making career choices will all need to be ready to respond to the challenges they will face.

continue investing in their skills base; but many will need guidance and advice to make the right investment decisions. The challenge is to be in a position to reach out to such individuals without diverting resources away from those who are more readily targeted by existing skills policies.

131 To date, the role of the state has been to increase substantially the supply of accredited skills. The evidence is clear: this has benefited employers, individuals and the state. For a variety of reasons, it has not benefited everyone equally. Nor has it always matched the needs of employers and the economy.

132 Education and training providers will need to be able to meet the needs of both individuals and employers, and be able to keep abreast of, if not to anticipate, changes in the demand for skills.

133 Some employers simply do not regard skill as an important aspect of their business plan. These are typically low-value producers, offering relatively poor conditions of employment. Their workforces potentially miss out on the benefits of additional education and training.

134 Because of social exclusion, some individuals also find it difficult to participate in education and training. For such individuals, there will be a need to

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