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Leading learning and skills

Skills in England 2005 Volume 1: Key Messages

July 2006

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

Skills in England 2005 is presented in three volumes. Volume 1 presents the key messages and an overview of the research findings contained in the other two volumes. Volume 2 is the main research report. It contains separate chapters on the demand for and supply of skills, as well as mismatches between demand and supply. Finally, Volume 3 provides evidence related to regional and local trends.

Skills in England 2005 has been produced by the Learning and Skills Council in partnership with the Department for Education and Skills and the Sector Skills Development Agency.

For information

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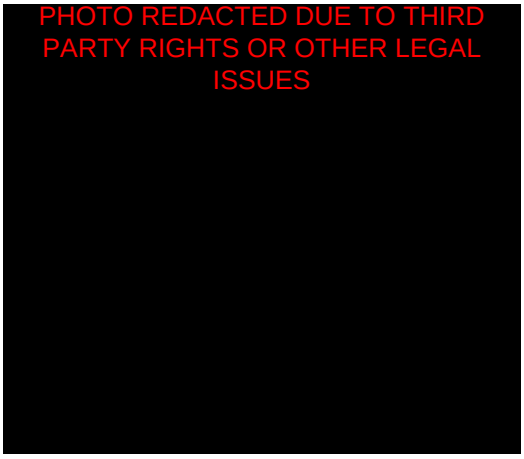

Key Messages sets out the main findings and broad policy implications from the assessment by the Learning and Skills Council (LSC) of *Skills in England 2005*. It highlights the key issues facing the LSC and its partners, identifying the key priorities for skills and informing the public debate on future skill needs.

Skills in England 2005 is presented in three volumes. *Key Messages* is Volume 1. The vast array of evidence from which this report has been distilled can be found in Volume 2, which is the *Research Report*. It contains separate chapters on the demand for and supply of skills, as well as the main mismatches between demand and supply. Finally, Volume 3, *Regional and Local Evidence*, provides more detailed trends and perspectives within England.

Skills in England 2005 was produced by the University of Warwick Institute for Employment Research (IER) and Cambridge Econometrics (CE). They were assisted by the steering group, which provided comments at various stages in the drafting process, for which the LSC is most grateful. The members of the steering group were:

Gareth Ashcroft
Learning and Skills Council

Clare Boden
Learning and Skills Council

David Campbell
Department of Trade and Industry

Rob Cirin
Learning and Skills Council

Adam Crews
Learning and Skills Council

Ahmad Eslami
Learning and Skills Council

Joyce Findlater (Chair)
Learning and Skills Council

Richard Garrett
Sector Skills Development Agency

Lesley Giles
Sector Skills Development Agency

Jacqui Hansbro
Department for Work and Pensions

Rebecca Riley
North West Development Agency

Liam Sammon
Learning and Skills Council

David Thompson
Department for Education and Skills

The following people at IER contributed to writing the various volumes: W. W. Daniel, Terence Hogarth, Dr David Owen and Dr Rob Wilson, with assistance provided by Jo Ciriani, Andrew Holden, Peter Millar and Amanda Kerry. At CE, text writing, data-gathering and processing were undertaken by Graham Day, Laura Ralston and Sasha Thomas.

The authors of the report remain solely responsible for the opinions expressed, the detailed content of the report and any remaining errors.

Rob Wilson

Terence Hogarth

Series editors

Foreword

I have great pleasure in introducing *Skills in England 2005*. This is the annual national skills assessment carried out by the LSC on behalf of ourselves and our key partners.

Skills in England draws together the most current and pertinent research and analysis of skills. It is a critical tool in developing a shared understanding of the supply of skills and the demand for those skills, both now and into the medium-term future. It seeks to inform government strategy and local provision, and to inform and complement the work of the Leitch Review.

The report is the result of a partnership approach between the key government agencies involved in the skills agenda and it brings together expert views. The findings of *Skills in England* are critical in steering the LSC to transform learning and skills and achieve our priorities:

- ensuring that all 14–19 year olds have access to high-quality, relevant learning opportunities
- making learning truly demand led so that it better meets the needs of employers, young people and adults
- transforming the learning and skills sector through *agenda for change*
- strengthening the role of the LSC in economic development so that we provide the skills needed to help all individuals into jobs
- improving the skills of the workers who are delivering public services
- strengthening the capacity of the LSC to lead change nationally, regionally and locally.

Much progress has been made in England, with unemployment rates at historically low levels, employment rates among the highest in Europe and the country's productivity having improved relative to that of our main competitors. The qualification and skills profile of the workforce has changed beyond recognition, with many more people acquiring higher level qualifications and the number without qualifications having fallen substantially. More people are engaged in further and higher education now than in the past.

The findings in the report emphasise the importance of skills to the economy, to the employer and to the individual. It reminds us that failure to pay sufficient attention to skills will result in flagging international competitiveness and increasing social division and exclusion. The pace of change is accelerating and brings with it an increased demand for skills. Skills must keep pace with this change or face becoming out of date.

England has been better at acquiring skills over the last decade but our competitors have not stood still. We must not rest on our laurels. We must continue to look at how to raise the demand for skills from employers, how to transform attitudes to education and training, increase access to learning opportunities for all and continue to improve the research and information that we have to drive our policy and strategy development.

Skills alone are not the only success criteria. We must continue to get the right mix of policy that is necessary for prosperity and social inclusion, to foster innovation and to develop entrepreneurship, exporting, and research and development capability.

In closing, I urge you to consider the information presented here and how it will inform your way forward in developing your contribution to personal success and that of the economy. The LSC looks forward to working with you to make England better skilled and more competitive.

Christopher N Banks CBE
Chairman, Learning and Skills Council

Summary

Introduction

1
Skills in England 2005 draws upon the latest research and analysis. It is an important tool in developing a shared understanding of the current supply of skills and the demand for those skills, both now and in the medium-term future. The report is a collaborative publication, overseen by a range of partners involved in the skills agenda.

2
Three volumes have been produced, with Volume 1 (*Key Messages*) providing the main findings and broad policy implications. It highlights the main issues facing all those involved in the skills agenda, with a view to helping to identify the key priorities for skills. The remaining two volumes provide more in-depth analysis.

Main skills challenges

3
The main skills challenges are identified as follows.

- Skills matter: they are the key to addressing the two main challenges facing the economy and the labour market — intensifying international competition and addressing social exclusion.
- The overall demand for skills is projected to continue to rise and the mix of skill requirements will also change rapidly — rising skill levels are expected in most occupations.
- The key drivers affecting the demand for and supply of skills are technology and demography.
- England (and the UK generally) have seen skill levels increase over the past decade. However, other competitors have increased at faster rates.
- There are significant skill gaps, some long-standing and persistent, which need to be addressed.
- It is not simply a case of needing more of the same: greater emphasis is needed on: adults and basic skills; vocational as opposed to academic qualifications; and focusing a significant proportion of post-16 training activity on future skill needs.

4
Perhaps the most difficult challenge of all will be to raise the demand for skills. Unless employers can be persuaded to recognise the benefits of, and to invest more heavily in, skills, further supply-side intervention is likely to be ineffective, resulting in skill surpluses rather than the well-paid, highly productive jobs that will characterise the successful 21st century economy.

Significant progress

5
Had *Skills in England* been written in the 1970s, it would have reflected a very different labour market situation from today's. At that time, participation in post-compulsory education was low, entry to higher education was very limited, and Britain's productivity performance compared with its main competitors was poor.

6
Thirty years on, and the country is in a much stronger position. The rate of unemployment is at a historically low level, employment rates are among the highest in Europe and the country's productivity has improved relative to that of its main competitors.

7
The qualification and skill profile of the workforce has also changed dramatically. The proportion of the labour force without qualifications has fallen substantially: many more people are acquiring higher level qualifications, and far greater numbers are employed in higher level occupations (managers, professionals and associate professionals).

8
Moreover, there is increasing evidence that demonstrates the financial benefits of learning. Individuals gaining additional skills and qualifications see a significant return on their investment in terms of future earnings. Results are highest for National Qualifications Framework (NQF) Level 3 and above but are also apparent for qualifications at Level 2 and those in basic literacy and numeracy.

9
Between 1993 and 2003, output per worker rose by 23 per cent. Evidence indicates that the improved skills of the workforce are contributing to improved productivity at both sectoral and company level. This suggests that improvements in the UK's relative productivity are due, at least in part, to the improvement in the skills of the labour force.

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There is consequently a much clearer recognition that the performance of companies and the prosperity of individuals are both very much dependent upon the skills they possess.

11
The economy is therefore in a stronger position than it was a few years ago. The UK ranks in the top 10 countries in the world by level of GDP. A point readily lost in much of the skills debate is how far matters have improved. But there is no room for complacency and there are a number of challenges still facing the labour market.

Key challenges

12
The key challenges facing us can be summarised as follows.

- The pace of change in technology, globalisation, and the changing pattern of demand for skills, is accelerating.
- Many existing skills will become obsolescent — there is an urgent need to look at the upskilling and re-training needs of the current workforce.
- Structural and occupational change, and technological and demographic drivers will continue to increase the demand for higher level skills.
- The need to replace skills will continue to fuel demand for low-skilled and semi-skilled occupations in sectors such as manufacturing and construction.
- The need for good technical skills (as well as "employability" skills) remains a key driver of many skill shortages.
- Demographic change (the declining numbers of young people entering the workforce beyond 2010) will lead to a greater reliance on older workers, and will increase the need to look beyond the current employed workforce, for example, attracting new migrants, moving people from benefits into work and so on.
- Too many young people are disengaging from education at age 16 and earlier.
- Too many adults still have basic literacy and numeracy problems.
- The issue of who pays for education and training beyond compulsory schooling is a continuing theme of the contemporary skills debate. The scale of investment required may be beyond the capacity of the State alone to pay.
- There is a need for greater flexibility in provision, including the development of new and better modes of partnership working between employers and providers.
- Migration may provide a solution to some skills needs.

Barriers to be overcome

13
We have summarised the barriers to be overcome as follows.

- There are encouraging signs that employers are recognising the benefits of skills development and investing more in training. However, persuading employers to raise their demand for skills by encouraging them to adopt higher value-added products and strategies is difficult, and advocacy may not be enough.

- Attitudes to education and training generally are still a problem. This is not just amongst individuals. Many employers continue to regard education and training as a cost to be avoided or cut, rather than an investment in an asset to be valued, and again advocacy may not be sufficient.

- Demographic trends emphasise the need to engage more of the existing and potential workforce in training that will provide them with essential skills for future employment. However, half of those with low skills still say that nothing will induce them to enter formal learning. Failure to convince these groups endangers the prospects for future economic prosperity as well as social cohesion. Train to Gain and other innovative approaches to the way people are trained in the workplace can help to achieve this.

- Issues of access and barriers to greater participation, particularly among low-skilled sections of the workforce, also need to be addressed. This includes dealing with problems of lack of equal opportunities for some sections of the workforce, such as women, as highlighted by the Women and Work Commission (2006).

- There is still a widespread perception that vocational skills remain a poor second to academic ones, both amongst society at large and for many individuals. For many, post-compulsory education is still seen as an elitist course for the few rather than a universal right. More needs to be done to counter this, both within the education and training system and in society more generally. This is partly a matter of improved information, but it also requires changes from Government to redress the balance between vocational and academic courses.

- Adopting a "siege mentality" is likely to be counter-productive and inhibit the changes necessary. This is associated with the mistaken belief that China and other developing economies can only grow at the expense of domestic jobs and prosperity, and that the only way to save local jobs is by adopting protectionist trade policies. The emphasis needs to be on creating more new "good" jobs rather than protecting old "poor" ones.

- There is a need for further improvements in labour market information on current and future skill changes to assist in tackling these problems by making people better informed. In particular, these need to address the failure to recognise: the full benefits of education and training; the value of vocational as opposed to academic routes; and the significance of replacement demands as opposed to net changes in employment levels.

Concluding remarks

14
Skills have a key role to play in helping to meet the challenges facing the economy and the labour market, as well as enabling individuals to take full advantage of the opportunities they face. By presenting the main conclusions as a set of challenges and related barriers, the size of the task can be easily seen. While much progress had made, there remains much to do. No single policy will address all these challenges, and nor is there one simple solution. Rather, the key messages contained within *Skills in England* will help the LSC and its partners to lead the way in identifying the main threats and opportunities and to set priorities to meet these challenges.

Introduction

Skills in England 2005 summarises the main developments in England's skills base over the past 12 months. In doing so, it highlights the main issues facing the LSC and its partners.

Skills in England 2005 pulls together the latest evidence on the supply of and demand for skills and the policy implications for the Learning and Skills Council.

15
Key Messages sets out the main findings and broad policy implications from the assessment by the Learning and Skills Council (LSC) of *Skills in England 2005*. It highlights the key issues facing the LSC and its partners, with a view to helping to identify the key priorities for skills.

16
Given the long-term nature of the issues to be addressed, it is not surprising that many of the main messages remain the same as those in previous *Skills in England* reports. At the same time, much new evidence has emerged over the past 12 months which can help to refine and focus the main areas of interest and to identify where changes may be needed.

17
Skills in England 2005 is in three volumes. *Key Messages* represents Volume 1. The vast array of evidence from which this report has been distilled can be found in the *Research Report* (Volume 2). Volume 3 provides *Regional and Local* perspectives.

Two Major Challenges

Skills provide the means to tackle two of the most pressing challenges currently facing the economy and society: raising productivity and promoting social inclusion. Further development of the country's skills base is necessary to meet both of these challenges.

18
Skills matter because they provide the key to addressing the two major challenges facing all developed economies:

- intensifying international competition in the provision of goods and services
- risks of social polarisation, division and exclusion.

International competition and productivity

19
The world is becoming increasingly "flat", enabling competition on equal terms from many developing countries in providing both products and services to UK citizens. These competitive pressures are dependent on the skills of the workforces (as well as other things such as technology and costs). Individuals, as well as companies and governments, are now able to operate on an international stage. Technological developments have resulted in the increasing mobility of both capital and labour across international borders.

20
Skills are now regarded as critical to economic development. They play a crucial role in underpinning economic growth, improving productivity and enhancing competitiveness. They also provide the key to individuals engaging in and benefiting from these developments.

21
The potential for China and India, as well as a number of other fast-industrialising countries, to capture a larger share of the world's markets, means the imperative to invest in skills is greater than ever. England, the UK and Europe cannot compete on labour costs with the likes of China and India. Competitive advantage must be based on the quality of the labour force. The low-skill, low value-added trajectory is not sustainable in the long term.

Economic context

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The economy has faced a number of challenges during 2004/05:

- sustained increases in oil and other energy prices
- weak growth in export markets
- weakness in domestic demand
- a subdued housing market.

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Consequently, the economy slowed and expectation of growth was just 1.5 per cent for 2005. This is likely to constrain all types of investment, as the State, businesses and individuals all tighten their belts.

24
So far, the impact of the slowdown on the labour market has been limited:

- employment grew by around 1.75 per cent in the third quarter in 2005: much of this was in full-time jobs

Over 2005, there has been an economic slowdown but the impact upon the labour market has been limited with the unemployment rate at a historically low level.

Productivity levels need to improve if the country is to respond adequately to increased global competition. Skills are one of the keys to improving productivity.

- employment rates are amongst the highest in the world
- unemployment has remained at a historically low level, (just below 5 per cent using the International Labour Organisation (ILO) definition), the lowest for 30 years and the lowest of all the leading industrialised countries (the so-called G7).

25
The economy is therefore in a relatively strong position. The UK ranks in the top 10 countries in the world by level of GDP. A point readily lost in much of the skills debate is how far matters have improved in recent years, but there is little room for complacency.

26
The Skills Strategy (HM Treasury, DfES, DTI and DWP, 2005) and the Leitch Review (HM Treasury, 2005) have identified a number of outstanding, long-term issues:

- raising productivity levels to match those of other developed economies
- responding to increased global competition, especially from the rising Asian economies
- stimulating the supply of skills, including further increases in participation in further and higher education
- encouraging increased demand for, and deployment of, skills in the workplace.

Continuing productivity problem

27
Productivity is continuing to improve, but the gaps with some key competitors remain and they are not standing still.

28
GDP per worker:

- between 1993 and 2003, output per worker rose by 23 per cent
- the latest evidence shows that in 2004, the UK has higher productivity (GDP per worker) than Japan and is more or less equal with Germany but it remains behind France and the USA.

29
GDP per hour worked:

- over the period 1990 to 2004, the UK has converged towards the G7 average
- but it is still below Germany, France and the USA, although ahead of Japan.

30
The underlying causes of the productivity gap are complex, but systematic underinvestment in both physical and human capital over many years remains a key factor. Analysis presented in Volume 2 of this report suggests that there is a growing body of evidence that skills can contribute to improved productivity at both sectoral and company level. This suggests that at least part of the improvement in relative productivity performance is due to the improvement in skills supply, even if the underlying relationships are complex and difficult to unravel.

31
Other explanations for the continuing productivity gap include:

- ICT take-up has been less rapid than in some other countries, especially the USA
- the country has been more successful at getting people into work than many of its competitors. Consequently, more people are engaged in work with low productivity. Were more marginal workers to be excluded, as in some other countries, labour productivity might be higher
- too much activity is concentrated in the production of low-value goods and services.

32
There are too many people in employment with poorly developed skills. There are many industries in the UK in which relatively low value-added products or services, produced through largely low-skill, labour-intensive systems of production, are the norm. They typically have the following characteristics:

- they produce primarily or wholly for the local or domestic market
- they currently face little threat from cheap imports
- they often rely upon labour-intensive production systems and get by on low profit margins
- they often make considerable use of migrant labour.

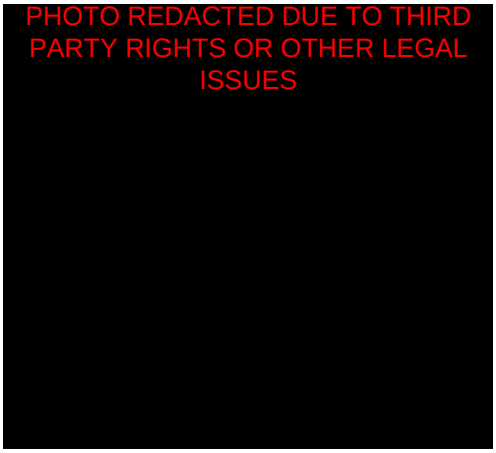
33
Examples include parts of the construction sector, many parts of retailing, catering, care of the elderly and similar service activities. Some parts of manufacturing such as textiles also have similar characteristics, although here international competition is much more of an issue.

34
Shifting such businesses up the value-chain, whilst compelling from the perspective of raising national productivity, is much less attractive to the individual employer who might be getting along quite comfortably (for the time being at least). A slightly less favourable economic climate might further dampen any enthusiasm to invest in physical or human capital.

Social polarisation and division

35
A key risk, worldwide as well as within the UK and England, is social exclusion. Social division and polarisation can result in a breakdown in social and political order, with severe economic consequences. The ideal is to build a society that achieves a balance between wealth creation and social cohesion. Economic development and social cohesion are intimately linked. The former can facilitate the latter but the latter (or rather the lack of it) can constrain the former. The best form of social inclusion is employment. But poor jobs, with low skills, low pay and low esteem, can pose almost as many problems as no jobs.

36
A key problem is that, while many will undoubtedly benefit from current economic and technological developments, there is a danger that change can be divisive, polarising society into those who benefit and those who do not. A notable feature of recent and projected future employment trends is the development of an "hour-glass" shaped labour market, with the creation of more jobs at the top and bottom of the skills spectrum, but a thinning out in the middle. Because of their low- or no-skill requirements, many of these jobs at the lower end of the spectrum are vulnerable to future international competition and technological change.



Economic growth does not benefit everyone equally and, depending upon how the gains from growth are distributed, can result in social exclusion. Skills provide a mechanism to tackle social exclusion.

Low-skilled jobs are vulnerable to international competition and technological change. Raising people's skills reduces their vulnerability to job loss and the resulting risk of being socially excluded.

37
The long-term solution to poorly developed basic skills, unemployment and social exclusion is to ensure that people gain qualifications and skills as part of their formal education. Studies of government-funded training programmes, aimed at those who are out of work, suggest that these tend to have only modest success in producing qualifications or employment outcomes. But formal education is not the only way in which people acquire skills. There will be a growing need to train and re-train the adult workforce after the normal period of formal education.

38
The high proportion of those with no formal qualifications, or lacking basic skills, has wider implications for society. Perpetrators of crime, for instance, often have low skills, low incomes, and/or are out of work. Equipping them with basic skills can improve employability and reduce the level of re-offending. Similarly, poor health is associated with unemployment. So investment in skills can play a key role in improving social welfare and cohesion.

39
Another key dimension of polarisation is geography. There are significant geographical disparities within England. London and the South East continue to outperform the rest of the economy in terms of most key economic indicators such as output, productivity and employment. There are even more significant differences within regions. These are associated with sectoral structures, but also have a strong geographical element.

Key Drivers of Change

Technology is changing the structure of the economy: it affects the way goods and services are produced, helps productivity growth, changes the content of people's jobs and even substitutes for people. At a time of falling birth rates and a potential shortage of young people, technology potentially offsets some labour shortages. However, it also creates a demand for new skills related not just to the operation of new technology, but marshalling its full potential to raise economic performance.

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The key drivers of change are:

- technology, especially but not exclusively related to ICT
- demographic change, notably a rapidly ageing population.

41
Associated with these two main drivers are several other important features, including increasing mobility of both capital and labour.

Technology

42
Technology, especially ICT, is driving various changes in ways of working (producing and delivering goods and services):

- continual innovation
- 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.

43
The implications for employment are complex, and include:

- rising real incomes, which have resulted in people spending more of their income on leisure and entertainment, as well as on health care and education
- other changes in patterns of demand 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 transference abroad of many jobs — typically in manufacturing but increasingly in data processing — to locations with much lower labour costs
- automation, that is, substituting robots and machines for jobs
- outsourcing of many significant functions (for example, design, cleaning, security), resulting in their shifting from the production sector to the service sector.

44
England, the UK and Europe cannot compete purely on price. The low-skill, low value-added trajectory is not sustainable in the long term.

Technological change is a fundamental driver of skills requirements. The challenge is to ensure that technological change results in new, relatively highly skilled, well-paid, secure jobs.

Demographic change will result in increasing competition for young labour market entrants. This will necessitate employers finding new sources of labour.

45
Clearly, economic competitiveness is not predicated on skills alone. Other factors such as innovation are also important. However, while the UK continues to do well in terms of invention, it lags behind in turning these inventions into new products and services. Additionally, one of the barriers to knowledge transfer is the lack of managerial, entrepreneurial and technical skills.

Demography

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Prospective demographic changes are profound:

- falling birth rates
- postponed labour market entry
- increasing average age of the population
- trends towards earlier retirement (until recently at least).

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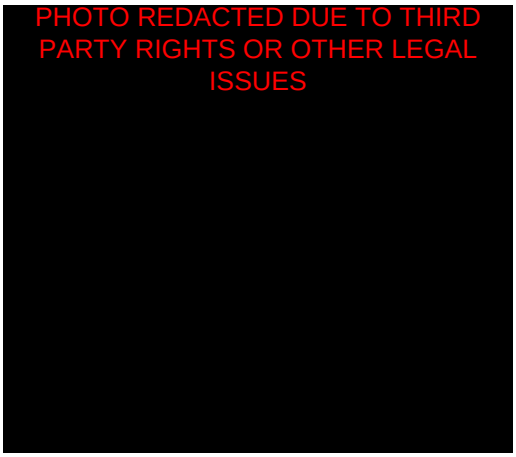
The implications are that:

- there will not be enough young people to go around and as a result employers will face a very competitive labour market for young entrants
- employers will need to target older workers and those not in the current workforce, including new migrants, to meet many of their requirements
- this in turn will have implications for re-training and upskilling.



Why Skills Matter

Increasing the level of skill in the workforce is to the benefit of all. For the individual, possession of higher level skills is associated with a higher level of lifetime earnings. A highly skilled workforce is more productive and adaptable, so employers benefit too. For the State, individuals' higher earnings and more productive employers raise tax revenues and reduce the costs associated with social exclusion.

48
Skills matter:

- **for the individual:** 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:** highly skilled workforces, other things being equal, are more productive. Skills also contribute, critically, to an organisational culture that is adaptable and responsive to change
- **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 lowered. 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.

How skills benefit the individual

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The evidence summarised in Volume 2 demonstrates that obtaining skills and qualifications for the individual:

- aids participation in the labour market (that is, improves employability)
- increases income levels
- provides a whole host of other non-economic benefits, including better health.

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Long-term unemployment and social exclusion are related to individuals lacking the basic skills that allow them to hold down a job. Over recent years, Government has sought to ensure that social welfare and skills-related policies are better matched, for example, by using the benefits system to trigger training interventions with people who are unemployed.

51
Research on the economic returns suggests that individuals obtaining additional qualifications continue to benefit from higher earnings. Until recently, this was particularly evident in relation to graduates.

For the individual, obtaining additional qualifications reduces the risk of becoming unemployed and is related to achieving higher earnings, especially when viewed across the lifecycle.

Employers with more highly skilled workforces and those that invest in the development of their employees perform more successfully.

52
However, recent evidence contained in *Class of '99* (Purcell et al, 2005), a longitudinal study of graduate progression through the labour market, suggests that the graduate earnings premium may be starting to reflect a decline in the relative demand for graduate skills and knowledge that prevailed throughout the 1990s. Nevertheless, the report also states that employers still appear willing to pay graduates a significant premium. Furthermore, graduates themselves valued highly their time in higher education. It needs to be borne in mind that not all the benefits and returns to investment in education and training are of an economic nature.

53
Skills and learning do pay for other levels of qualification too. Although returns are highest for NQF Level 3 and above, there is some evidence of a return on investment for qualifications at Level 2, as well as qualifications in basic literacy and numeracy. Analysis conducted by the Department for Education and Skills (DfES) confirms that these returns apply to older adults as well as young people.

54
Despite this, most investment in training remains inversely proportional to need. Education and training are not equitably distributed. There is a long tail of people who remain very poorly qualified and trained. Conversely, those who are best qualified tend to be those who receive most additional training.

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55
Upskilling the adult population of working age requires their willing and active participation. They (and their employers) need to be convinced that it is worth it. This means challenging some existing attitudes and beliefs, particularly amongst those groups that do not see the benefits or even the relevance of education and training. This may require better information and guidance, promotion and easing of barriers and problems of access.

Business case for employers

56
Skills also matter to employers. Without the skills necessary to produce whatever goods or services they sell, organisations are unable to achieve their most basic objectives. But it is clear that they often face a choice about the product and skill strategies and trajectories they follow. These choices can result in very different outcomes.

57
In order to convince employers to invest more heavily in skills, it is necessary to demonstrate a business case. For example, manufacturing companies in the upper quartile of productivity performance have a much higher ratio of skilled to unskilled workers than those in the lower quartile. Available evidence suggests that skills accounted for around 8 per cent of the productivity difference between well- and poorly performing organisations. But in practice, the relationship between skills and performance is much more complex than such statistics might indicate.

58
Recent research comparing high value-added (HVA) companies and medium value-added (MVA) companies found higher levels of skill and knowledge in the former. The key conclusions were that:

- high levels of skill and knowledge were prerequisites to becoming an HVA-type company but not a sufficient condition
- to become an HVA-type company also requires access to capital for investments in a range of activities, such as IT, marketing, acquisition of new plant and machinery and so on.

59
Tellingly, the study found that HVA companies regarded skill deficiencies as obstacles to be overcome through training, whilst the MVA ones regarded them as barriers to development.

60
The Apprenticeships Task Force (ATF, 2005) highlighted the business benefits for organisations investing in this form of training. It points to a number of financial benefits accruing to companies, including:

- lower levels of scrap because apprentices are more careful in their work
- lower recruitment costs because apprentices tend to stay with the organisations that trained them
- higher levels of productivity from apprentices.

61
But the ATF also points out that if Apprenticeships are to generate a return to the employer, they need to be embedded within companies' human resource practices. That is, apprentices need to have a career structure and opportunities for progression so that they can stay with the employer long enough for the benefits to accrue.

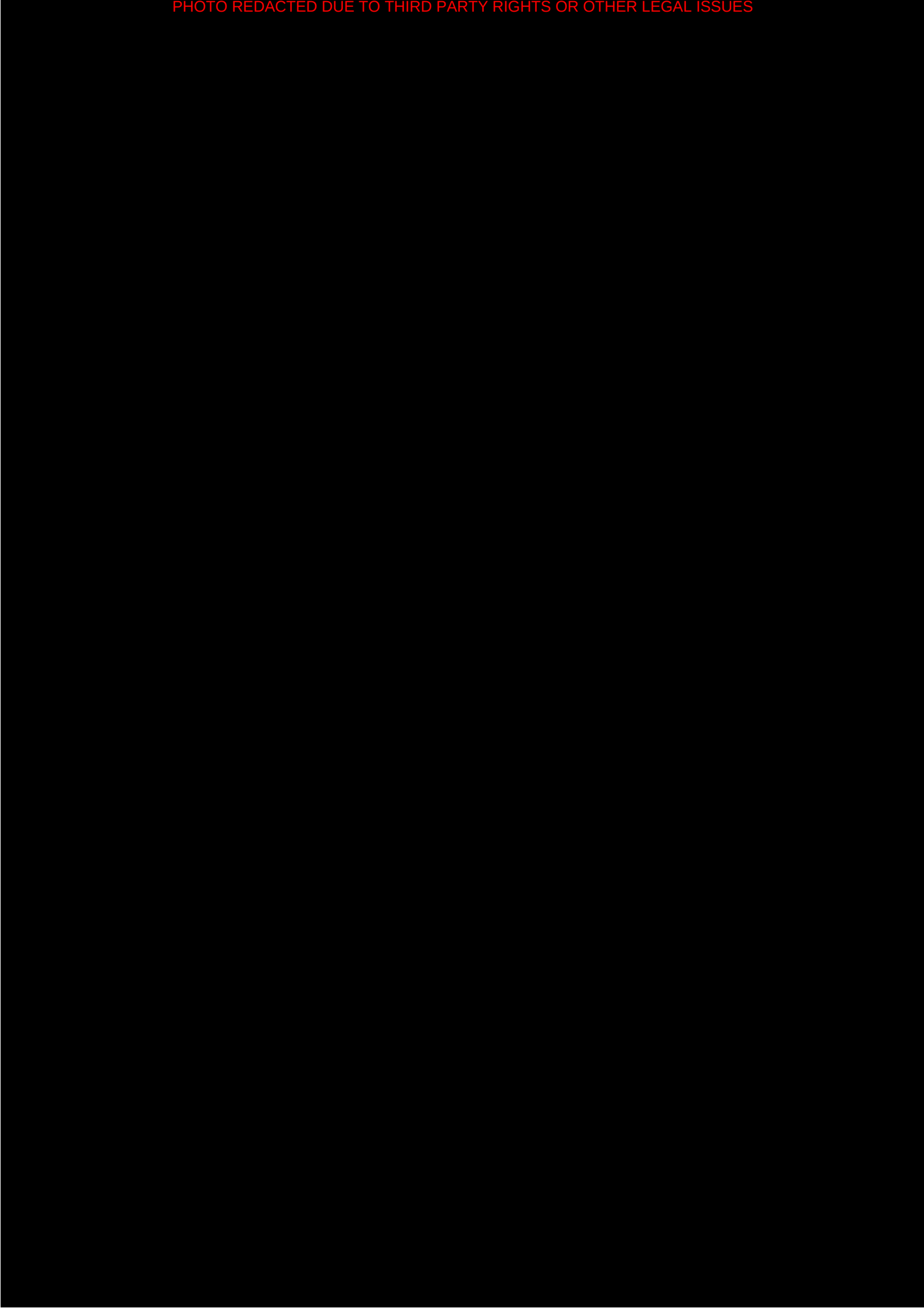
62
Demonstrating a direct link between skills and profits is more difficult. The bottom line is subject to a variety of complex factors, only partly under the control of businesses themselves. There is, however, important indirect evidence that skills, and related investment in human capital, are valued by the stock market. Studies by KPMG (2002) and others suggest that international investors set skills at the top of the list of factors influencing investment location decisions. Other research suggests that stock market investors who focus on companies that invest more heavily in skills can achieve a 50 per cent higher rate of return.

Benefits to the State

63
Finally, investing in skills matters for the State, particularly in terms of the impact that skills have on the overall performance of the economy. The Department of Trade and Industry (DTI) and others have emphasised that skills are one of the key drivers of productivity. The evidence of a positive link between skills, earnings and productivity provides a central plank in any strategy to improve the latter.

64
The links between skills, employment and pay provide the rationale for why skills are so important to the social exclusion agenda. Employment, especially in well-paid, high-skill jobs, is the best guarantee of social inclusion. There is also evidence that education helps individuals to become more actively engaged as citizens and that a more equitable distribution of education aids social cohesion.

For the State, skills are a key to raising productivity, increasing prosperity, reducing unemployment and improving social cohesion.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Supply of Skills

The supply of skills is changing rapidly. The level of skill in the workforce has increased, participation in post-compulsory education compares favourably with that in other countries, immigration has offset some potential labour shortages, and there have been major policy initiatives to further boost the supply of skills, notably through Train to Gain.

65
In terms of skills supply, the following trends are observed.

- There has been a significant improvement in skills supply, with a growing share of the labour force in possession of formal qualifications.
- However, much of the growth in qualifications is due to a cohort effect resulting from young entrants to the labour market being better 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 OECD average, though the percentage of 16- and 17 year olds continuing in education compares less well.
- On other measures, especially focusing on lower level and intermediate level skills, the international comparisons are less favourable, and there are some signs of the gap widening.
- Migration has become an increasingly important source of labour supply. The accession of the new Eastern European countries to the European Union, many of which have strong vocational education and training systems, will provide a further source of skills.
- In addition, there have been major policy developments that aim to boost supply:
  - the Train to Gain programme (previously the National Employer Training Programme) aims to boost the supply of skills within organisations, especially at NQF Level 2 and Skills for Life, by providing subsidised training via employers
  - an active labour market policy, through the New Deal programmes of assistance, is exploring ways of encouraging the economically inactive to become active
  - the Apprenticeship programme continues to offer a vocational alternative to more academic routes.

Overall labour supply

66
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 1 million using ILO definitions (a rate of 5 per cent). At this level, the

The evidence demonstrates that the supply of skills has improved both quantitatively and qualitatively against a background of a tight labour market.

The recent accession of 10 more countries to the European Union, many of which have strong vocational education and training systems, provides a source of relatively well-skilled people.

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 (that is, encouraging those outside the workforce to become economically active or net inward migration).

67
Over the past year, the working age population has increased by 271,000, with as much as two-thirds of this increase being due to net international migration. This has been highlighted as an important source of labour, especially in those parts of the country where there are labour and skills shortages. The accession of 10 more countries to the European Union — most of which have strong educational and training systems, but low wage levels — provides a potentially rich new source of skills.

68
Recent research (Green et al, 2005) suggests that (to date), the impact of migrants on the labour market (in terms of wages and unemployment) has been relatively slight, despite much media hype. Recent migrants, including those from the recently enlarged EU, still account for only a relatively small proportion of employment in most industries, even in agriculture and construction. New migrants are, however, quite heavily concentrated in certain parts of the country, especially in London. Migrant workers are heterogeneous and have experienced mixed success in the labour market. They tend to be employed in sectors experiencing skill shortages (such as food processing, hotels and catering, and health and social work industries, together with business services) and in a number of unskilled and lower skilled occupations (for example in agriculture, construction and some services) where the supply of labour from the resident population is lacking.

69
The future supply of skills depends upon the overall level of labour supply. This reflects:

- demographic trends (including declining birth and mortality rates) and the increase in the average age of the population
- new sources of labour supply, including migration
- individual decisions about labour market participation, including retirement.

70
The average age of the population and the labour force is rising. A large proportion of the current workforce will soon reach retirement age. On the other hand, the looming pensions crisis may reduce the proportion of those retiring, as people work longer in order to top up their pensions. The average retirement age also looks sets to rise as a result of the legislative changes to official retirement ages for state pensions.

Improving the supply of skills

71
There has been a huge improvement in skills supply over the past 10 years. Using formal qualifications as the measure of skills, the most striking feature is the fall in the proportion of people without any formal qualifications, declining from 18 per cent in 1995 to 10 per cent by 2005. This is largely a cohort effect, as older people leaving the workplace are more likely to possess no qualifications, while the younger people replacing them are much more likely to have acquired formal qualifications.

72
At the same time, the proportion of people educated to higher levels has risen sharply:

- the proportion qualified to NQF Level 3 or equivalent rose from 16 per cent in 1995 to 18 per cent by 2005
- the corresponding share for those qualified to NQF Level 4 rose from 18 per cent to 23 per cent over the same period
- there has also been a large increase in the proportion with qualifications at NQF Level 5, which has more than doubled over the last decade, although this still represents only just over 5 per cent of the economically active population in England.

73
These trends are projected to continue. Forecasts in *Working Futures* (Wilson et al, 2006) and the Leitch Review (HM Treasury, 2005) all suggest substantial, long-term increases in the proportion of the workforce qualified at NQF Level 4 and above and reductions in the proportion with no formal qualifications.

74
The strong positive trends in the participation and attainment rates of people in post-compulsory education will result in significant increases in the numbers of employees qualified at intermediate and higher levels.

75
Adults currently of working age will make up most of the workforce up to 2014. There is a need therefore to improve the skills of those adults in the existing workforce and outside it to bring them up to similar levels as those entering the labour force.

76
Apprenticeships provide an important route into skilled employment for many young people. There are currently some 250,000 in learning places, following around 200 different courses. This programme is now aimed at a rather different cohort of young people in terms of ability and educational achievement than was the case in the past. This is having an impact on success and completion rates, which are both increasing. This represents an important step in the right direction, both in terms of the target group (which needs to be encouraged to achieve more), and the emphasis on the vocational as opposed to the academic.

International comparisons

77
Despite these improvements, international comparisons reveal a more mixed picture.

- On average, people spend a relatively long period in the education system compared to the OECD average, with many people going on to gain a first degree (at least 16 years of education).
- However, the post-16 participation rate for those immediately continuing their secondary education is lower in the UK (at 75 per cent, compared with the OECD average of 82 per cent).
- The UK and England still have a relatively high proportion of the workforce with no or very low formal qualifications and relatively few at intermediate level (NQF Level 3).
- According to the latest *Skills Audit* (Steedman et al, 2004), around 64 per cent of the UK workforce were qualified to NQF Level 2 or better in 2003, lower that the USA (73 per cent), France (77 per cent) and Germany (85 per cent).

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International measures of skill supply are important because they provide a comparative indication of how well competitor countries are investing in education and training.

There is still much more emphasis on academic rather than vocational qualifications in comparison with many other countries.

- The participation of 17 year olds with poor academic records (that is, possessing fewer than five good GCSEs at grade C and above) remains poor — almost 50 per cent are not studying.

78
There is also much less emphasis on vocational as opposed to academic qualifications compared with other countries.

79
The proportion of the population who do not complete what OECD refers to as upper secondary education (that is, carrying on in school beyond the age of 16) has been falling, in common with most other OECD countries. In the UK it is now 36 per cent of the population as a whole (aged 25–64). This is just above the OECD average but much higher than Germany and the USA (both below 17 per cent). The UK is also losing ground compared with many countries, and it ranks only 22nd (out of 30) in terms of the proportion in the 25–34 age group who have completed their studies to this level.

80
There is still a need to continue to focus on basic skills. Adult skills are improving but only slowly. Currently, overall attainment levels remain poor when compared to many other OECD countries. Almost 30 per cent of the employed workforce are still only qualified to NQF Level 1. Many currently not in employment have very poor qualifications and skills. Some 20 per cent of adults still lack basic literacy skills, which hinders their involvement in learning and employment. This remains a real challenge.

81
Other countries are not standing still. Many competitor countries, including those rapidly developing ones in Asia, place great importance on investing in skills. There is no room for complacency.

Workplace-based training

82
The *National Employers Skill Survey* (NESS) (LSC, 2006) also provides estimates from an employer's perspective. Overall, the data for 2005 reveals the following.

- 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 engage in off-the-job training.
- 45 per cent have a training plan.
- 33 per cent have a training budget.

83
Previous surveys show that where training is provided, it tends to be the larger employers that do so. However, evidence from NESS 2004 (LSC, 2005) suggests that smaller businesses train a higher *proportion* of their workforces and provide them with longer periods of training.

84
In both large and small businesses, the type of training provided tends to be:

- job specific
- health and safety
- induction.

85
There is relatively little emphasis on training to meet future skill needs amongst the existing workforce.

86
Comparisons with previous surveys suggest that there has been a steady improvement in recent years in the provision of such training, but that it remains focused on these areas rather than on future skill needs.

87
The incidence of non-formal, job-related education and training is relatively high compared to the OECD average, but the intensity is much lower. The average duration of this activity at 28 hours (per participant per year) is less than half that of the OECD average of 62 hours.

Other measures to boost skills supply

88
The Government has recently introduced a range of programmes and policies designed to help people avoid the benefits and poverty trap when entering work. New polices relate to:

- changes to the New Deal for Lone Parents to assist this group in combining work and childcare
- Pathways to Work to help those on Incapacity Benefit get into work
- In-work Credits, payable to lone parents on Income Support when in work.

89
Other factors that will have an impact on labour and skills supply either currently or in the future will be:

- the points system that allows people from outside the EU to work in the UK if they possess sought-after skills
- age discrimination legislation that may well act to stimulate economic activity rates of older people
- the Train to Gain programme (previously the National Employers Training Programme), which will provide free training, or heavily subsided training (via the employer) to employees who lack basic skills or qualifications at Level 2.

Various programmes are now in place to boost skills supply even further. It is important that programmes focus on future skill needs.

Demand for Skills

Employment levels and the demand for skills have increased, but there is a marked pattern to the changing demand for labour. There is a strong demand for people in many parts of the service sector typically employed in professional and sales or personal service jobs. In contrast, manual jobs in the primary and manufacturing sectors have been in decline.

Economic growth and technological change have generated a growing demand for skilled people.

90
In summary, findings in relation to the demand for skills are as follows.

- Economic growth has generated growing 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 amongst skilled trades, operatives and elementary occupations. However, 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 a sufficient condition. Employers also need to have in place policies that will facilitate innovation, and human resource practices that allow their employees to blossom.

91
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.

Trends in the demand for skills: sectors

92
Over the past 10 years, there has been a steady shift in employment towards the service sector and of job losses amongst manufacturing industries and in the primary sector and utilities.

93
At a sectoral level, the main areas of **increase** include:

- business services
- distribution
- non-market services, including health and education.

94
The main **decreases** have been in:

- agriculture
- mining
- utilities
- most parts of manufacturing.

95
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 demands remain significant. Even occupations and industries that have experienced sharp declines in employment can have substantial replacement demand requirements, especially where 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 among all occupations can substantially outstrip the scale of other changes.

Trends in the demand for skills: occupations

96
The changing fortunes of different sectors have had a direct effect on the demand for skills, since the patterns of occupational employment vary significantly between industries. These changes have been reinforced by shifts in occupational structures within industries.

97
At an occupational level, the main **increases** have been for:

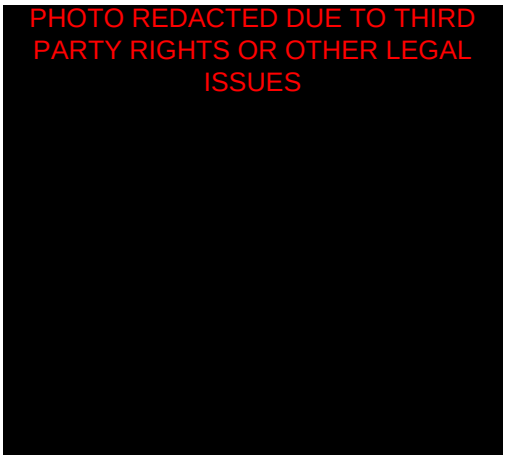
- managers
- professionals
- associate professionals
- some relatively low-skilled occupations associated with sales and care of customers and clients.

98
The **decreases** in employment have affected most lower level manual and non-manual occupations, including many skilled trades.

99
The overall changes in the occupational structure of employment suggest that the skill intensity of much work is increasing. However, there has also been a strong tendency towards a **polarisation** of the labour market, with employment also growing among a number of lower skilled occupations. This is resulting in a move towards an "hour-glass" shaped occupational structure, with many jobs at both the high and low skill ends but relatively fewer in the middle. At the same time, structural changes affecting the sectoral mix of employment and technological developments (increased automation and so on) have made such unskilled jobs highly vulnerable and potentially unsustainable over the longer term.

The demand for skills is giving rise to polarisation in the occupational structure: a strong demand for people to work in relatively high- and low-skilled jobs respectively.

Improvements on the supply side have ensured that the qualifications profile of those in employment has increased.



100
There are still many job openings in traditional crafts, trades and operatives. Indeed, meeting replacement demand is a crucial issue for many employers. Recruitment problems in skilled trades and similar areas result from a combination of an ageing workforce (and therefore large outflows and replacement needs), coupled with the lack of entry by young people into many of these vocational and technical areas.

Rising skill needs in most occupations

101
The proportion of those in employment with formal qualifications has also been growing steadily. The qualifications profile of those in employment has improved markedly over the past decade or so.

- In 1995, just below 40 per cent of those in employment had a qualification at Level 3 or higher.
- By 2005, the corresponding figure was just below 50 per cent.

102
In part, this is a reflection of supply-side changes, including the massive expansion in participation in higher education (HE). Young people in the UK typically progress to NQF Level 3 by age 19 and then on to HE (NQF Levels 4 and 5) by their mid 20s. There is relatively little progression to NQF Level 3 from below once young people get beyond the mid-20s age group.

103
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. The latest *Working Futures* (Wilson et al, 2006) results suggest that by 2014, over 60 per cent of the employed workforce will be qualified to NQF Level 3 and above.

104
In responding to these needs, the better education of young people is crucial but, given demographic trends, it may not be enough. There is also an urgent need to upskill and re-train adults, both within and outside the current workforce.

105
Whilst technical skills allow people to competently carry out the specific tasks in their jobs, these often need to be accompanied by a range of generic (employability) skills, if their performance is to be optimised. In recent years, evidence from NESS, the skills surveys and other sources suggest that employers have placed increasing emphasis on the importance of:

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

106
Some generic skills can also play an important role in facilitating the acquisition of more technical and specific skills (especially basic literacy, communication and numeracy skills).

Working Futures projections

107
The new *Working Futures* (Wilson et al, 2006) employment projections, produced on behalf of the Sector Skills Development Agency (SSDA) and the LSC, provide a comprehensive and detailed view of both historical and future employment prospects by occupation and industrial sector to the year 2014.

108
Manufacturing employment is expected to decline, albeit less rapidly, while growth in services is expected to slow down, compared to trends observed in the past 10 years. In general, the changes projected are less dramatic than those observed over the past decade.

109
The corresponding projections by occupation show strong growth in higher level occupations such as managerial, professional and associate professional and technical occupations but also among the (generally less well-qualified) personal service occupations. The expected areas of job gains are concentrated, therefore, mainly in areas requiring high-level skills.

110
These changing patterns of employment levels (expansion demands) are a key indicator of changing skill needs. Replacement demands are projected to be even more important, especially in sectors projected to see employment decline (with many skilled, semi-skilled and low-skilled job openings in sectors such as manufacturing). The prospect of a wholly service or wholly knowledge economy is not immediate. Moreover, as noted below, skill shortages are often focused in such declining sectors (including many parts of manufacturing). The scale of replacement demand across all occupations is projected to outstrip substantially the scale of expansion demand (by a factor of eight to one).

Raising the demand for skills

111
There is increasing recognition in policy circles of both the threats and potential opportunities facing the economy. In recent years, a consensus has emerged among policy-makers that England is unable to compete internationally on the basis of labour costs. Rather, it needs to compete on its ability to bring about the innovation of high-value products, produced efficiently. This has led to an increased emphasis on the need for investment in, and deployment of, higher level skills.

112
This has resulted in more emphasis on the need to raise the level of skill demand and deployment from employers. But the main policy levers are all still supply-side ones. The policy interventions aimed at increasing educational participation and the acquisition of formal qualifications have had some impact on improving the competitiveness of the economy. On balance, the rapid changes in the supply side have also had a positive impact on the economy.

113
But the big question is: can supply-side changes by themselves restructure the economy quickly enough to turn the threat of increased global competition into an opportunity? Persuading employers operating in low value-added markets, satisfied with the modest but steady profitability of their current operations, to move into higher value-added areas will be difficult. Often they are unwilling to make the physical and human capital investments necessary to shift into these markets, which may be essential for longer term survival. Over the short-term, the risk is considered too great. Hence policy-makers fall back on the supply side.

It is not just about the supply of skills. Employers need to have in place business strategies that will allow the skills base to boost productivity.

Persuading some employers of the benefits of changing business strategies will require support from the State.

114
It is important to stress that the arguments in favour of continued investment are dynamic rather than static ones. Investment in skills needs to increase year-on-year to keep pace with competition in the global economy. In this sense, it is never possible to complete the task of investment in skills and training. It is an ongoing process, not a one-off exercise.

115
A more fundamental concern is whether or not the demand for skills is sufficient to meet future economic challenges. Persuading employers of the benefits of shifting towards higher value markets will require considerable business support – it is not simply a skills issue. Unless employers have some means of assessing and managing the risk of moving into higher value markets they are unlikely to do so, and consequently they will not demand the necessary skills. Train to Gain brokers will have a key role to play here.

116
There are two important provisos to the high value-added strategy. First, it is not just about skills. Policies need to be in place that will foster innovation, research and development, export activity and entrepreneurship, (although, of course, these also require suitably skilled people to carry them through). Secondly, not everyone can be a rocket scientist or employed in highly qualified and highly paid jobs. There will remain a substantial demand for relatively low-skilled jobs, generating relatively low levels of value, over the medium term at least. These are typically service jobs meeting domestic demand. That is not to say that they are immune to being improved through skills training and indeed the improvement of basic skills will remain a high priority in these areas. Rather the point is that it is not just about that somewhat elusive concept, the knowledge economy.

117
It is clear that there are several areas in which the UK and England have established comparative advantage (for example, pharmaceuticals, financial services, the media and creative industries). Whilst these areas need a continued supply of high-level skills, picking winners is notoriously difficult. Instead, 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 adaptive and responsive system, capable of identifying and meeting needs in a flexible fashion. Policy initiatives such as the LSC's *agenda for change*, the Skills Strategy and the further education White Paper (DfES, 2006), are addressing these concerns.

118
Perhaps the major challenge for the skills agenda is to consider how the demand side can be stimulated. Historically, in countries such as Germany, various labour market institutions reinforced the virtuous circle of capital investment, high productivity and high wages, supported by a strong vocational education and training system. In other countries, such as Sweden, social choices have been made that set a high value on skills and that strongly encourage employers to adopt strategies that rely on high skills.

119
The policies adopted in other countries include high minimum wages, licence to practice in many non-professional occupations and proactive labour market intervention to encourage both individuals and employers to invest in education and training. However, there are no models of success that can be simply emulated. This remains a complex and difficult area. Given this conclusion, the LSC and its partners face significant challenges over the coming decade. While there are no simple solutions, it is hoped that Key Messages will help to inform the debate around identifying and responding to the main threats and opportunities.

Skill Gaps and Priorities

Skill gaps can be identified in a number of ways: the gap between this country and its main competitors; where supply needs to be improved to meet future demand; how the market signals imbalances between supply and demand; and employers' reports of skill shortages.

120
The main skill gaps and priorities facing education and training providers can be identified in four main ways.

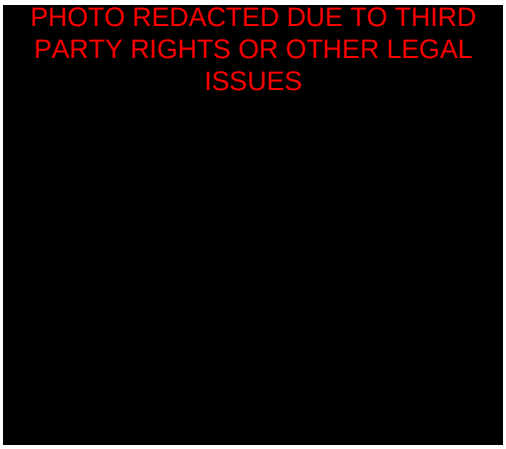
- **International comparisons**, focusing on where England and the UK compare poorly – there are still several areas where other countries appear to have significantly better skilled workforces.
- **Expected future changes**, identifying key growth areas and replacement needs – these are areas where supply will need to be focused to keep pace with expected future needs.
- **Market signals**, such as rates of pay and rates of return, which reflect the balance between supply and demand – these provide an indication of where the market is signalling that more investment is needed.
- **Employers' perceptions**, including recruitment problems and internal skill gaps – these indicate those areas where there are the most significant current skill deficiencies.

Skill gaps 1: international comparisons

121
The first measure of the skill gaps that the economy faces is based on how the skills of the workforce (and the population more generally) compare with other countries. Any existing gap (or widening thereof as other countries continue to invest in skills) is likely to weaken the competitive position of the economy.

122
The UK is lowest of all the countries compared in the latest Skills Audit (Steedman et al, 2004) in terms of the proportion of those employed who are qualified to NQF Level 2 or higher. The main problems lie at NQF Levels 2 and 3. At NQF Level 3, there are some indications of improvement. The Level 3 entitlement may have contributed to this. There was rapid growth in the proportion qualified to NQF Level 3 between 1994 and 2003 for those aged up to 21. The UK achieved the fastest increase of all five countries compared. But this does not take account of the fact that in many other countries there is progression beyond age 21, and if ages up to 28 are included, the comparison looks much less favourable. Moreover, nearly all the gains relative to other countries occurred up to 1998, with a sharp slow-down thereafter.

123
This reflects a similar analysis of trends in the rate of qualification acquisition in the UK. The latest evidence suggests that the Government's targets for educational attainment will only be met if the rates of improvement and acquisition of qualifications observed over the first half of the period 1994–2004 are achieved once again. The implication is that other countries are likely to pull even further ahead unless these targets are achieved.



A growing economy will require many new skills.

Replacement demand is the most important indicator of future skill need. Even in declining sectors of the economy, the demand for labour and skills will be great.

Skill gaps 2: future demands

124
The second major indicator of skill gaps is where future changes are likely to lead to increases in demand for certain types of skill. The supply side will need to keep pace with these developments if skill shortages are to be avoided. These changes have many different dimensions, and include both expansion demand and replacement demand aspects.

125
The main focus of the *Working Futures* (Wilson et al, 2006) projections is upon the likely future requirements of employers. The key features are:

- employment growth of just under 0.5 per cent a year to 2014
- creation of 1.3 million additional jobs between 2004 and 2014
- just over half the additional jobs likely to be taken by women and to be part time.

126
Continued structural change in the economy will see big shifts in the mix of employment in different sectors. The main **growing sectors** in terms of projected employment (2004–2014) are:

- most parts of the marketed **service sector,** especially in business and miscellaneous marketed services
- growth also expected in **non-marketed services** (especially in education and health).

127
Declining sectors in terms of projected employment include:

- the **primary sector** (including utilities)
- most of the manufacturing sector.

128
Employment in **construction** is not expected to change much.

129
Significant changes will also occur for the structure of occupational employment. The **growing occupations** are projected to be:

- culture, media and sports occupations
- business and public service professionals (and associate professionals)
- teaching, research and science or technology professionals (and associate professionals)
- corporate managers.

130
The **declining occupations** are expected to include:

- administrative, clerical and secretarial
- skilled metal and electrical trades
- process, plant and machine operatives
- elementary occupations, especially clerical and service related.

131
The need to replace staff will also result in a large demand for employees, even in those parts of the labour market experiencing job loss. This will result in significant skill demand in declining sectors and occupations as well as the "winners". The net changes (expansion demands) therefore only tell part of the story. It is also crucial to measure the replacement needs in both sectors and occupations. These often show very different patterns.

132
In absolute terms, the top five occupations based on their level of **replacement demand** over 2004–2014 are:

- corporate managers (1.6 million)
- caring and personal service occupations (920,000)
- sales occupations (820,000)
- administrative, clerical and secretarial occupations (820,000)
- teaching and research professionals (760,000).

133
In most of these occupations, there is strong expansion demand and strong replacement demand. For those employers facing such demands there is likely to be strong competition for the skills required, especially where these are sector specific.

134
In many other occupations there is weak (or even negative) expansion demand but quite strong replacement demand. This includes many skilled trades and semi-skilled operatives, often with sector-specific skill needs. Meeting such needs can prove difficult, especially where employers are attempting to recruit young people into an occupation or industry perceived to be in long-term decline.

135
Changes in occupational structure in favour of higher level occupations will drive up the demand for formal qualifications. Much of the rapid increase in employment will take place in those parts of the economy already characterised by a highly skilled and qualified workforce.

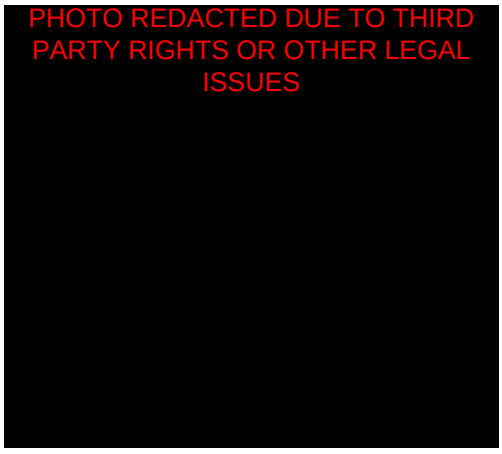
136
The scale and nature of expected future skill needs will therefore be a great challenge for Government and public agencies, as well as for individuals and employers. These changes will require new skills and qualifications from the workforce (especially high-level professional, managerial and ICT skills, and information- and customer-handling skills at all levels).

Skill gaps 3: market signals

137
Market signals provide the third important indicator of skill gaps and priorities to be faced. Where supply is failing to keep pace with demand, market pressures will tend to raise the price (that is, the relative wage). Where a particular skill or qualification is in short supply, this will be reflected in a change in the price employers are willing to pay for that skill. Examination of trends in pay, pay relativities and rates of return can provide useful information about where investment in skills is likely to reap the greatest benefit.

138
There is, of course, a distinct occupational profile to earnings. Those in so-called higher level jobs that typically require highly skilled and qualified people earn the most. Evidence on the returns to obtaining additional qualifications (and by implication additional skills) suggests that such investments are rewarded through higher levels of income over the lifecycle and that the rates of return to investment in such qualifications compares well with alternative investments. That said, the returns to obtaining a degree are now showing signs of reducing as the number of graduates increases, and they may decline further.

Meeting future skill needs will be a great challenge for Government, public agencies, individuals and employers.



It is necessary to monitor earnings levels and earnings change to identify where the market is signalling that skills supply is not keeping pace with demand.

139
The discussion (in paragraphs 51–53) has already highlighted the positive rates of return associated with gaining additional skills. The latest evidence, in research conducted on behalf of the DTI (Dickerson, forthcoming 2006) shows that the returns are generally higher for academic rather than vocational qualifications. The main exception here is in relation to professional or vocational qualifications at Level 4 and above, typically the type of qualification necessary to gain entry to occupations where earnings are highest, that is, in professional practice.

140
But there are also returns to investment in basic skills and many vocational qualifications. Evidence indicates that there are returns to investment in basic skills learning (such as numeracy and literacy), as well as to other generic skills such as ICT and management. This suggests that the emphasis by Government, employers and individuals should not just be on formal academic qualifications at higher levels.

141
These results suggest that, on average, the demand for skills has kept pace with supply. Rates of return generally have held up for higher qualifications, despite the enormous increases in supply, although, as noted above, this may be about to change. However, given the historically high levels, even if rates of return were to fall, such investments would still be worthwhile, with significant positive returns.

Skill gaps 4: employers' perceptions

142
The final measure of skill gaps is that based on employers' own perception of their current skill deficiencies. Employer skills surveys and other sources provide evidence about both external recruitment problems and internal skill gaps among the existing workforce. This provides further insight into where investment in skills should be focused.

143
From this perspective, the evidence on the detailed nature of skill imbalances shows that the proportion of employers facing skill-shortage vacancies has been persistent and stable over recent years.

144
Employers' perceptions are recorded in the annual *National Employers Skills Survey* (NESS), which provides evidence about the extent of the current mismatch between skill supply and demand. The survey provides information about skill-shortage vacancies (SSVs), which are defined as those hard-to-fill vacancies (HtFVs) arising from difficulties in recruiting because of a shortage of applicants with the skills, qualifications, or experience required, and skill gaps (the extent to which members of the existing workforce are proficient at their jobs).

145
According to NESS 2005 (LSC, 2006), the breakdown between these causes was as follows.

- 31 per cent of HtFVs were due to applicants not having the required skills.
- 17 per cent of HtFVs were due to applicants not having the required experience.
- 13 per cent of HtFVs were due to applicants not having the required qualifications.

146
Other reasons included not enough people interested in the job; low numbers of applicants with the required attitude; lack of motivation or personality; and poor terms and conditions (such as pay) offered for the post.

147
The skills shortage problems identified by employers are most severe for skilled trades and associate professional and technical occupations. Machine and transport operatives are a close third (mainly qualified at NQF Level 2).

148
This message is consistent across all recent employer skills surveys. Such skill mismatches appear to be persistent and stable, with little change between 2001 and 2005 (with 5 per cent of establishments reporting SSVs). The more serious nature of this shortage appears when looking at these skill shortages as a proportion of vacancies. Around a quarter of all vacancies are reported as being SSVs – this equates with around 143,000 SSVs in 2005.

149
The types of skill shortage are wide ranging. As in previous years, *NESS 2005* indicates that difficulties finding applicants with the required technical and practical skills was the main skill-based reason leading to a recruitment problem (reported in relation to just over a half of all SSVs).

150
There were many other skill needs that featured prominently as a cause of SSVs. Around a quarter or more of SSVs arose as a result of problems with:

- customer-handling skills
- oral and written communication skills
- problem-solving skills
- team working skills
- literacy.

151
The employer surveys also emphasise that the biggest source of skill shortages are specific technical skills. Although generic skills are also important, such employability skills are desirable but not sufficient for employer competitiveness.

152
SSVs tell only part of the story. It is often unmet skill needs within the workplace that act as a major constraint upon an organisation's ability to meet its goals. In 2005, 16 per cent of establishments reported that at least some of their staff lacked full proficiency in the job they were employed to do. About 6 per cent of all employees had a skills gap (around 1.26 million employees). Encouragingly, the NESS series reveals that the percentage of establishments reporting skill gaps has fallen since 2001 by around 7 percentage points (16 per cent compared with 23 per cent in 2001).

153
The problems of skill gaps in the workforce are concentrated in the following occupations:

- sales
- machine operatives
- elementary occupations.

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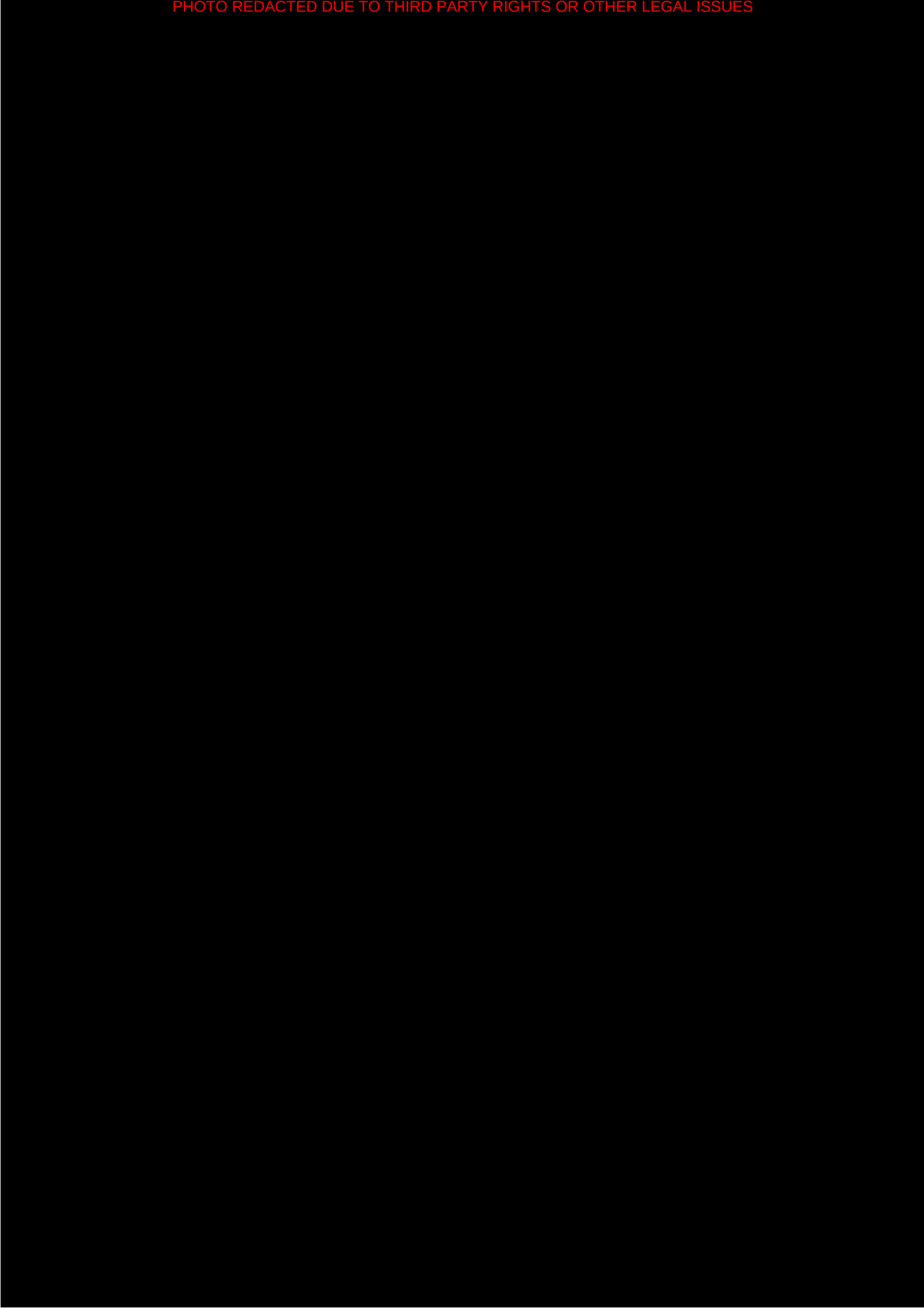
Many skill gaps are transitory and relate to either staff lacking experience or having been recently recruited, but there is a range of less transitory skill gaps that have a major impact on business performance.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154
The main explanation for there being a skills gap was staff lacking experience or having been recently recruited. This reason applied to just under three-quarters of all skill gaps. This suggests that these skill gaps are transitory and will disappear as people acquire experience. The other main reasons given included (including multiple responses) were:

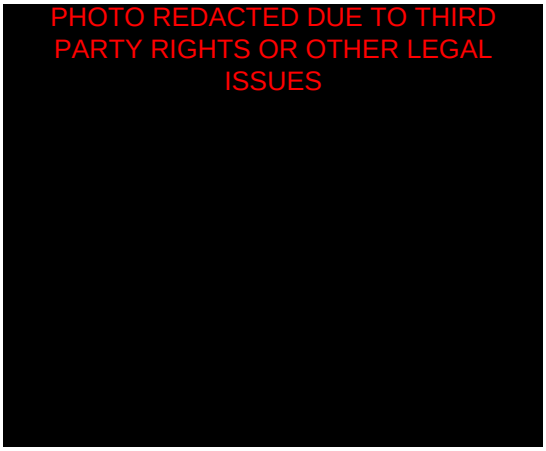
- staff lacking motivation (around a third of responses)
- failure to train and develop staff (around a quarter of responses)
- inability of workforce to keep up with change (approximately a quarter)
- recruitment problems (about a fifth).

155
Arguably, these are less transitory. The types of skill needing to be improved to offset skill gaps were the same as those reported in relation to SSVs. This indicates a strong level of external and internal demand for these types of skills.

156
Skill gaps can adversely affect organisational performance. Around one in eight of all employers with skill gaps reported that skill gaps had a major impact upon their business, and in addition around two-thirds said it had some impact in 2005. The principal impact – reported by around a half of employers reporting skill gaps – was increased workloads for other staff. But there were more severe impacts on organisational performance, including:

- increased operating costs (reported by just over a quarter of establishments with skills gaps)
- difficulties meeting quality standards (a quarter)
- difficulties introducing new working practices (a fifth)
- delays in developing new products or services (just under a fifth)
- loss of business or orders to competitors (just under a fifth).

157
Skill deficiencies tend to be highly concentrated in particular sectors, especially related to manufacturing and construction. Generally the problems are most severe where employment levels are declining, yet there will be productive employment opportunities here for the foreseeable future, and these sectors will remain fundamental to the well-being of many local communities. This again highlights the need for good labour market information to inform people about labour market realities.



Skill gaps are most severe in sectors of the economy where employment is in decline.

Implications for Individuals, Employers and the State

The evidence to date reveals much improvement in the skills profile of the country. Even so, the evidence also points to the need for continued investment in skills by individuals, employers and the State. Accordingly, there is much for these actors to do.

For individuals, good labour market information is required in a fast-changing economic environment so that they can make rational decisions about what job paths to follow.

For individuals and the labour force

158
The implications for individuals and the labour force are summarised as follows.

- The projected net increase in employment (jobs) between 2004 and 2014 is 1.3 million, but the number of young people in the workforce aged 16–24 is expected to increase by less than quarter of a million. The difference has to come from increased participation of older workers, migration or some people having more than one job.
- This shortfall becomes even more of a problem in the period beyond 2010, when the population of young people aged 16–24 will start to decline by over 60,000 per year.
- These demographic trends mean that young people will be in a seller's market – adult recruitment will be needed to meet replacement demands in many cases:
  - adults may need to work longer, which may help meet the gap
  - inward migration is also likely to remain a key feature, but
  - there will need to be significant inflows into employment from those currently unemployed or economically inactive.
- The skills required in many jobs are rising and the process of technological and organisational changes means that some of these will become obsolete more rapidly, requiring new education and training.
- Some generic skills will become increasingly important but so also will the need for fundamental technical skills.
- Good labour market information will be needed to ensure that individuals can make rational choices about what paths to follow.
- In today's highly mobile markets, employment and industry will follow skills, as investment decisions by multinational concerns are increasingly motivated by economic rather than political considerations.
- Individuals will compete for work, not only on their abilities and formal qualifications but based on their attitudes and their willingness to adapt and learn, and keep their skills and knowledge up to date.

For employers

159
The implications for employers are as follows.

- The pace of change in technology, globalisation, and the changing patterns of demand for skills is showing no signs of abating.
- Organisations will need to become more agile and responsive and generally to raise their game in terms of productivity and high value-added strategies.
- The responsibility for "working smarter" rests with top-level management, making choices about product and skill strategies and trajectories.
- Given the likelihood of tight labour markets, employers will need to invest more in education and training, using upskilling and retraining to retain key staff and their competitive edge.
- They will need to attract and retain older workers.

For the State

160
The implications for the State are as follows.

- The success and well-being of the nation will be dependent upon the productivity and competitiveness of its firms, which in turn will depend on the skills of their people.
- This has implications for the basic education of all young people as well as the continuing education and training of adults (including any basic literacy and numeracy needs).
- The continuing problems of skill shortages and skill gaps highlight that there needs to be a focus on vocational as well as academic education.
- The State needs to encourage more adults to re-engage in learning.
- There are still questions about who should pay for such training: individuals, employers or the State. Currently the UK is just below the OECD average in terms of total expenditure on education per person (5.9 per cent of GDP). This might need to rise to over 10 per cent if the State were to take on the full burden, which may be more than it can bear.
- The State needs to focus on how best to engage with companies. Although small firms account for most employers, 97 per cent have fewer than 50 employees, and 3 per cent of firms employ 72 per cent of all workers. The quickest route to the vast majority of employees is therefore through this 3 per cent (some 37,000 companies). Even excluding the public sector, 2.9 per cent of firms employ over two-thirds of all workers.
- Smaller firms need to be targeted in different ways via the geographical, sectoral and supply chain clusters in which most of them are to be found. New initiatives such as Train to Gain are beginning to take this approach.
- Reliance on migration to fill labour supply gaps raises other issues. In a sense this is poaching from countries that can ill-afford to lose some of their more skilled citizens. Moreover, it can cause blockages of future work opportunities for low-skilled residents, at whom much current skills policy is directed, as well as risking exacerbating problems in some parts of the country where there are already racial and ethnic tensions.

For employers, the prospect of a tight labour market will require them to invest more in the education and training. For the State, the imperative is to boost the skills supply even further and encourage employers to raise their game.

Concluding Remarks

Skills in England 2005 has reviewed, from the perspective of the ongoing skills debate, the threats and opportunities facing the economy over the medium term. Its prime conclusion is that skills matter because they provide the key to addressing the two main threats facing the country, global competition and social exclusion.

Skills matter because countries increasingly compete on the basis of the skills available in their populations.

161
The key conclusions from this review relate to the threats (and opportunities) facing the economy over the medium term and the role of skills development in helping to meet that challenge. England, in common with all other developed economies, faces two major threats over the coming decade:

- intensifying competition
- social division and exclusion.

162
Skills matter because they provide the key to addressing both these threats. There is a growing body of evidence that countries compete on the basis of the skills of their population. In business, employers compete by innovation and the efficient deployment of their assets, including the skills and knowledge of their workforces. At an individual level, employment opportunities and pay are highly dependent upon skills and attitudes. Employment in high-skill, high productivity jobs provides the best guarantee of social inclusion.

163
The demand for skills is being driven up by continuing structural and technological change. The pattern of demand is also changing. The shift away from primary and manufacturing industries towards services will continue, but there will still be many jobs in the former, as well as in construction and many other sectors, that require technical and vocational skills.

164
Occupational structures are changing in favour of higher level managerial, professional and associate professional jobs within most sectors. In many cases, higher level qualifications (NQF Level 4 and above) are becoming a necessity. However, there will also be significant job growth for many less demanding jobs, especially associated with some parts of the service sector (such as sales and various personal service jobs involving care).

165
There is an increasing polarisation of jobs occurring, a shift towards an "hour-glass" labour market, with many more job opportunities at both the top and bottom of the skills spectrum, at the expense of the middle. However, this tendency can be exaggerated, and there will still be a large number of jobs at middle level (typically requiring qualifications at NQF Level 3), with strong replacement requirements as the present workforce ages.

166
The drivers of change are many and complex. There are two key factors that will play a role in the future demand for and supply of skills:

- **technological change**, especially, but not exclusively that related to ICT, is making the world a much smaller place, where individuals, as well as companies and governments, can operate on a world stage. These factors are having a strong, and generally positive, impact on the demand for skills

- **demographic change**, both within England and at an international level, will impact on the supply side. Domestically, falling birth rates and an ageing population will combine to squeeze the available supply of skills and put pressure on employers to widen their search for labour to include those currently not employed. They will also need to consider new migrants. International factors will continue to facilitate such flows. But while migration may provide a partial solution to some skill shortages, it brings with it new problems.

167
There has been considerable progress in skill acquisition in England and the UK over the past decade, with significant increases at all levels. But progress has been quite slow and other countries have not stood still. Moreover, the trend in improvement has slowed in the second half of the last decade.

168
On a number of key comparisons, England and the UK generally still lag behind many other developed economies. In terms of general educational attainment, the latest data suggests almost 30 per cent of working-age adults have only low-level qualifications.

169
For many young people, the educational system works well, especially for those who are strong academically. But these represent only half the population. Those that do not do well tend to disengage. Participation in education at age 17 and above is poor (especially failing youngsters, who do not do well academically, and adults). Even for those who do continue in formal education, there is little progression beyond age 21, in sharp contrast to other countries.

170
Employers' skills surveys provide a more detailed picture of where some of the main problems are. Somewhat paradoxically, some of the areas with the most significant skill shortages and gaps tend to be in sectors and occupations in which employment levels are falling. Despite this, there are often significant replacement demands. These problems are most acute in occupations requiring vocational and technical skills. It is in skilled trades and associate professional and technical occupations (and to a lesser extent machine and transport operatives), especially in sectors where overall levels of employment are static or in decline, that employers can experience some of the greatest difficulties. There are still significant skill gaps for technical and vocational skills for some sectors such as parts of manufacturing and construction. In most cases, it is lack of supply rather than the pace of growth in demand that is the key factor, many people being unwilling to work in these sectors.

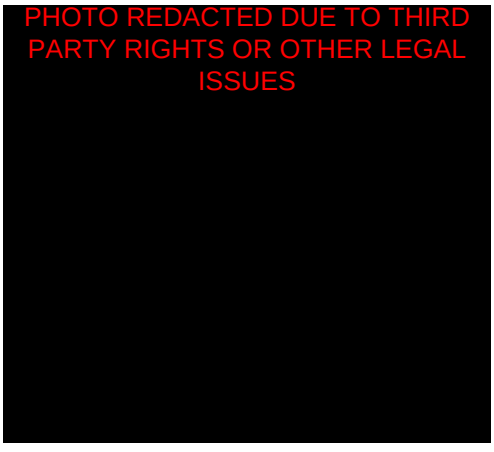
171
Simply continuing current trends will not meet these needs. Some new developments are encouraging, such as: improvements in adult basic skills; increasing use of Apprenticeships; greater participation in intermediate-level vocational courses; and better employer engagement (under the auspices of the sector skills councils). But much more emphasis is needed on these aspects.

- Much training remains focused on the young and on induction. Those who are best qualified receive most, while those most in need get least.

- There is a greater need to focus on adults, especially those who have missed out on basic numeracy and literacy skills.

- More also needs to be done to encourage employers to focus their training on future skill needs (as opposed to induction and health and safety, important as the latter undoubtedly is).

From a policy perspective, more of the same is not the answer – more emphasis is needed on meeting future skill requirements and focusing on those most in need.



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Learning and Skills Council
National Office

Cheylesmore House
Quinton Road
Coventry CV1 2WT
T 0845 019 4170
F 024 7682 3675
www.lsc.gov.uk

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