

A wide-angle landscape photograph showing a lush green forest in the foreground, a calm lake reflecting the sky, and rolling hills in the distance under a dramatic, cloudy sky at sunset or sunrise.

Lantra

The Sector Skills Council for
environmental and land-based industries

A Skills Assessment for the Environmental and Land-based Sector UK report October 2009

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A Skills Assessment for the Environmental and Land-based Sector

October 2009

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1. Introduction

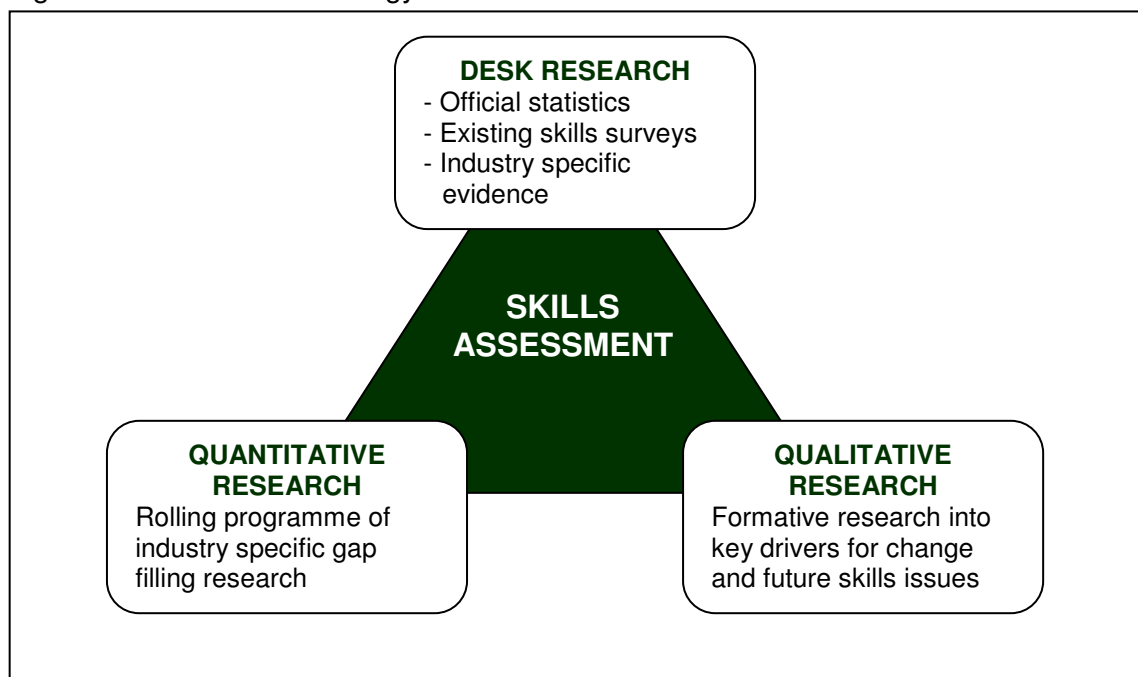
This Skills Assessment provides an up-to-date assessment of skills within the environmental and land-based sector. It is based upon a comprehensive review of changes and evidence that have surfaced over the past year.

The Skills Assessment updates part of the evidence base which underpinned Lantra's Sector Skills Agreement (SSA). Lantra do not intend to develop a new Sector Skills Agreement. Rather we have embedded the principles of the SSA within our wider working practices. The SSAs developed a mechanism for Sector Skills Councils to influence the supply of training and skills relevant to employers, and formalise employer commitment to workforce development. Annually, from 2009 onwards Lantra will publish a Skills Assessment and a separate Assessment of Current Provision report. These combined reports will provide the evidence base for our organisational wide planning and industry action plans with employers.

1.1 Evidence base for the Skills Assessment

The Skills Assessment has employed a series of research activities starting with a desk review of existing research, and then involving targeted primary research where there were gaps in the existing information.

Fig 1.1: Research Methodology for Skills Assessment



Desk research

A comprehensive review of Labour Market Information sources was undertaken. This report draws from existing data, research reports and intelligence sources to investigate current and future demand, productivity issues, recruitment issues, skill needs and skills gaps. Nationally available data such as the Inter-Departmental Business Register (IDBR), Labour Force Survey (LFS), Working Futures employment projections and the employer skills surveys conducted in each nation of the United Kingdom, were analysed and used within the research.

We have analysed the Inter-Departmental Business Register, rather than the Annual Business Inquiry (ABI) which is frequently used in other sectors. This is deliberate, as the ABI does not cover farms and is therefore not an appropriate source to analyse the size, shape and value of the sector.

Primary research

Lantra undertakes a rolling programme of primary research to augment the information which is already available. In 2008, Lantra launched a three-year research strategy¹ which outlines our approach. Our primary research includes:

- Employer skills surveys tailored to the needs of specific industries.
- Intelligence gathered from the workforce and employers from our products and services to business, notably the Skills Manager system, which is discussed in Chapter 4.
- Consultation with employers and other stakeholders on key issues and priorities coming out of the research.

1.2 Context

This year's report has been written at a time characterised by great changes in the skills and education policy brought about by implementation of Leitch's recommendations. In summary, Leitch proposed the creation of a more demand-led skills system capable of producing the skills that will allow the UK to compete against the best performing economies in the world. Following Leitch, a set of skill achievement targets have been established, and substantial changes to the learning and skills infrastructure are currently being implemented, particularly in England, in order that the targets may be achieved.

¹ Available at: <http://www.lantra.co.uk/stakeholders/research-documents/>

Dramatic developments in the financial and economic environment have increased the degree of uncertainty about immediate prospects in the economy and the labour market. Quarter four of 2008 saw a further contraction in GDP output of 1.5%, putting the UK economy technically into recession. While there have been recent falls in inflation, the CPI rate stood at 3% in February 2009, still higher than the target rate of 2%.

The performance of the economy in response to the external shocks it has faced has impacted on employment levels and the willingness of employers to invest in skills and training. During 2008 unemployment grew by 290,000 taking the overall level close to two million. The unemployment rate rose 0.9 percentage points over the year to 6.1%, its highest level since April 1999 (ONS, Labour Market Statistics, January 2009).

The environmental and land-based sector has weathered the impact of these external shocks better than many sectors. Gross Value Added across the agricultural, forestry and fishing industries declined by just 0.6% between Q1 2008 and Q1 2009. This compared to a decline of 12.5% across all production industries and 5.2% across the economy as a whole (ONS, Quarterly National Accounts).

The food producing and environmental parts of the sector have come under increased scrutiny over the past year as the challenge of food security and climate change have attracted increased interest from government. At the global level, recent research by the Smith Institute,² highlights there are long-term changes facing the sector brought about by population growth, economic growth in key emerging economies, changing dietary patterns, finite land availability, climate change, the continuing availability of key resources (notably water), the energy challenge (including the competition between crops for biofuels and food), and a slowdown in the rate of increase of food productivity.

This all has implications for employers and government alike. As the economy enters a period of uncertainty, with long-term challenges, it is important that the skills system can meet the challenge of a global economic downturn. In the past skill shortages have slowed the pace of economic recovery when it has occurred.³ A good understanding of labour market intelligence for the sector is vital to ensure that government, employers and individuals are able to make appropriate investments in skills.

² Feeding Britain (2009) The Smith Institute

³ Blake, N., Dods, J. and Griffiths, S. (2000), Employers Skill Survey: Existing Survey Evidence and Its Use in the Analysis of Skill Deficiencies,

Scotland

In September 2007, the Scottish Government published '*Skills for Scotland: A Lifelong Skills Strategy*'. Its vision is for a smarter Scotland with a globally competitive economy based on high value jobs, with progressive and innovative business leadership:

- Where people can work in teams, are creative and enterprising and hungry to continually learn new skills. They expect to realise their aspirations and are equipped to achieve their potential in a constantly changing world. People are motivated to contribute to Scotland's future and are confident that they can do so.
- Where people are entrepreneurial and innovative; small businesses are encouraged to grow and there is strong, coherent support for businesses of all sizes. Migrant workers and overseas students play a valuable role in an expanded workforce and economy.
- Where employers improve productivity by investing in their own staff and are able to access a skilled workforce that is increasingly literate and numerate with good ICT and problem-solving skills.
- Where learning and training providers work as one system and thanks to wider use of technology and e-learning, barriers of geography and rurality have been reduced.

The Scottish Government's strategy and vision *Future for Food in Scotland* is that it should make the nation healthier, wealthier and smarter with production making communities stronger and consumption respecting the local and global environment.

- A healthier Scotland will result from changing individual behaviour and attitudes about diet and food choices; from improving the nutritional quality, safety and freshness of food on offer in institutions and the catering sector; to supporting Scottish food manufacturers and retailers to take the initiative in driving forward consumer demand for more affordable, healthier food options. Communities across Scotland will enjoy better access to affordable, safe, healthy and fresh seasonal food.
- A wealthier and fairer Scotland will result from the sustainable economic growth of the food industry through greater co-operation and collaboration from primary production to final market, ensuring the long-term viability of primary producers, and increasing export markets for Scottish produce.
- A safer and stronger Scotland will result from a thriving food industry where local communities will flourish and become better places to live through improved access to amenities and services.

- A greener Scotland will result from reducing the environmental impact of food and drink production, processing, manufacturing and consumption by encouraging responsible behaviour throughout the supply chain through reduced emissions, unnecessary use of raw materials, waste, packaging, energy and water use.
- A smarter Scotland will result from a highly skilled and innovative food industry with consumers that are better informed about where their food comes from, how it was grown and the wider health, environmental, social and economic benefits of the choices they make.

Other key Scottish Government strategies that are supported by Lantra's work in Scotland through the Operational Plan include A Forward Strategy for Scottish Agriculture; Scottish Forest Strategy; Strategic Framework for Scottish Aquaculture; A Strategic Framework for Scottish Freshwater Fisheries; Curriculum for Excellence; Scotland Rural Development Programme; Rural Scotland; Better Still, Naturally.

Northern Ireland

The *Northern Ireland Programme for Government (2008-2011)* sets the overarching priorities and investment strategy for the Northern Ireland economy. The programme for government sets out what is going to be done by each government department, and those themes which are cross-cutting. There are five priority areas, each of which has a series of key goals attached. The priority areas are:

- Growing a dynamic, innovative economy
- Promote tolerance, inclusion, health and well-being
- Protect and enhance our environment and natural resources
- Invest to build our infrastructure
- Deliver modern, high quality and efficient public services.

The *Success Through Skills Strategy for Northern Ireland* is a Department for Employment and Learning initiative, the draft of which was launched in 2006. Its key aims are to raise the overall skills level in Northern Ireland and to address the high economic inactivity.

The Skills Strategy aims to help individuals progress up the 'skills ladder' improving the overall skills level in the process; improve the employability and skills of those excluded from the labour force, particularly through the Welfare to Work initiative; and to ensure high productivity and competitiveness to secure Northern Ireland's position in the global marketplace.

The Skills Strategy identified three groups of skills:

- Essential skills: Literacy, numeracy and, increasingly, ICT;
- Employability skills: such as team working, problem solving, and flexibility;
- Work-based skills: employer-specific skills.

The strategy recognises the key role SSCs can play in addressing the major skills concerns of individual sectors. SSCs must increase employer engagement by developing local representation and networking arrangements.

While the Department for Employment and Learning (DEL) has the overarching responsibility for skills and employment functions, the Department of Agriculture and Rural Development (DARD) plays a central role in delivering education, training and development for the sector. Post-16 'agricultural' education and training is the remit of DARD. DARD manages its agricultural education and training through its specialist college, College of Agriculture, Food and Rural Enterprise (CAFRE) comprising: Greenmount, Enniskillen and Loughry campuses.

DARD's Strategic Plan 2006 – 2011 outlines the need for the development of a lifelong learning strategy. DARD has committed to the development of this strategy and it is envisaged that preparatory work for the wider education policy will commence in 2009. This policy will be synergistic of the wider DEL review of education, while retaining a strong focus on agri-food and related education, training and development.

Northern Ireland Rural Development Plan 2007 – 2013. Specific areas where European Union support is to be targeted:

- Axis 1 – Improving the competitiveness of agriculture and forestry by supporting restructuring, development and innovation.
- Axis 2 – Improving the environment and countryside by supporting land management.
- Axis 3 – Improving the quality of life in rural areas and encouraging diversification of economic activity.

While Axes 1 and 2 have a strong farm/agricultural based focus, Axis 3 provides an opportunity for the wider local rural community to benefit from the programme.

Wales

'*Wales: a Better Country*' is the Welsh Assembly Government's strategy for the whole country and aims to promote a diverse, competitive, high added-value economy with high quality skills and education that minimises the demand on the environment.

The Welsh Assembly Government aims to create a Wales where everyone has the skills, motivation and opportunity to obtain good quality jobs that meet their aspirations and abilities, and where employers work with their employees and public sector agencies to raise skills to the highest possible levels to support high quality jobs in a growing economy.

In January 2008, Wales Assembly Government launched *Skills That Work for Wales*, the strategy for skills and employment. The strategy has four key themes:

- Meeting Needs, Meeting Demand – which positions employers as the key customers for employment and services. Emphasis is placed on the importance of a strong voice from employers through the new UK Commission for Employment and Skills, and through Sector Skills Councils.
- Workforce and Business Development – which aims to join up skills support with the broader programme of business support that addresses skills alongside wider business issues such as leadership, innovation, and business planning. Funding is refocused around a Sector Priorities Fund to deliver the strategic learning priorities identified by employers, for example through Sector Skills Agreements.
- Towards Full Employment - integrating employment and skills services, to develop more flexible and comprehensive individual support packages for people outside the labour market. The new 'offer', delivered in concert with the Department of Work and Pensions, Jobcentre Plus and other partners, will be called Careers Ladders Wales.
- People and Communities with a Future – empowering people to improve their skills will make a powerful contribution to promoting equality of opportunity for all. This means ensuring that both young people and adults achieve a basic level of literacy and numeracy. We will drive forward our commitment to tackling basic skills deficiencies across Wales by making basic skills an explicit part of GCSEs and considering a new entitlement for those over 19 to basic skills provision.

Welsh Assembly Government (WAG) Rural Development Plan 2007 – 2013. Specific areas where European Union support is to be targeted:

- Axis 1 – Improving the competitiveness of agriculture and forestry by supporting restructuring, development and innovation.
- Axis 2 – Improving the environment and countryside by supporting land management.
- Axis 3 – Improving the quality of life in rural areas and encouraging diversification of economic activity.

While Axes 1 and 2 have a strong farm/agricultural based focus, Axis 3 provides an opportunity for the wider local rural community to benefit from the programme.

Other key Welsh Assembly Government strategies that are supported by Lantra's work in Wales through the Operational Plan include: Food and Drink Strategy (in progress); Food Tourism Strategy (in progress); Agri Food Strategies for Organics, Horticulture, Dairy, Fisheries and Aquaculture; Red Meat Strategy (2009); Sustainable Farming and Environment: Action Towards 2020; Environment Strategy for Wales.

England

In England there have been a number of recent policy developments and strategies. *World Class Skills: Implementing the Leitch Review of Skills in England* (Department of Innovation, University and Skills (DIUS) 2007, outlined how the Leitch 'ambitions' would be addressed in England. It placed greater emphasis on demand-led funding and laid out changes to the learning and skills infrastructure, such as the roles of the new Skills Funding Agency and National Apprenticeship Service.

More recently there has been a changing emphasis to policy in England. Policy in early 2009 focused more on re-skilling rather than upskilling as a result of the recession. There has been a parliamentary inquiry into *Re-skilling for recovery: After Leitch, implementing skills and training policies*. Programmes such as *Train to Gain* have been altered to enable funding to support people who are out of work, or coming back into the workplace.

Within England each of the Regional Development Agencies (RDAs) has five statutory purposes, which are to:

- Further economic development and regeneration
- Promote business efficiency, investment and competitiveness
- Promote employment
- Enhance development and application of skills relevant to employment
- Contribute to sustainable development.

Each region has a Regional Economic Strategy (RES) and within it sectors or clusters that it seeks to promote as a priority. The environmental and land-based sector is not a priority for any of the RDAs. Each RDA also has a Rural Strategy and funds rural programmes such as the Rural Development Plan for England (RDPE) which aims to fulfil the same objectives as the RDP programmes already described for the other nations.

1.3 Structure of this report

Lantra's Skills Assessment for the environmental and land-based sector provides a summary of the latest trends in the demand for, and supply of skills. The report is structured around four main chapters:

- Chapter 2 draws on evidence from official statistics and other sources to outline the size and structure of the sector, providing information on the employment and business numbers by sub-sector/industry.
- Chapter 3 investigates the characteristics of the sector's workforce, including the current qualification levels from the Labour Force Survey.
- Chapter 4 outlines evidence from the Employer Skills Surveys conducted within each of the home nations, together with recent evidence from industry level surveys conducted by Lantra.
- Chapter 5 discusses productivity within the sector, and evidence on the uptake of high performance working practices (HPWPs).
- The final two chapters focus on the future. Chapter 6 provides qualitative evidence on the variety of drivers which are causing change in the sector. Chapter 7 provides quantitative evidence of what this might mean to future employment.

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2. Size and structure of the sector

Chapter summary

- The environmental and land-based sector is complex and diverse, covering 17 industries (or sub-sectors) across the four nations of the United Kingdom.
- The sector is significant, especially in terms of the number of businesses. There are 230,000 businesses in the sector, meaning 9% of all UK businesses are in the sector. The vast majority of businesses (96%) are micro-businesses employing fewer than 10 people.
- Industries focused on *Land management and production* comprises two-thirds of the sector's businesses (67%), and over half of the employment (55%).
- Although the sector is predominantly rural based it is worth noting that many of the 17 environmental and land-based industries are found across every nation and region of the UK. Indeed some industries, such as floristry and horticulture, landscaping and sports turf are more urban-based.

The environmental and land-based sector is complex and diverse, covering a range of sub-sectors across the four nations of the United Kingdom. Businesses in the environmental and land-based sector enhance the quality of life for every man, woman and child. They improve well-being, supply quality-assured food, ensure the health and welfare of animals, provide leisure activities, enrich the rural and urban environment, and protect our natural heritage.

2.1 Definition of the environmental and land-based sector

Lantra defines the sector in terms of 17 sub-sectors or industries, which are defined in Annex C. These share a number of common themes in terms of skill requirements, training needs and patterns of productivity. Whilst continuing to meet the specific needs of individual industries and the sector as a whole, Lantra also groups industries around three broad clusters:

- Land management and production
- Animal health and welfare
- Environmental industries.

A number of the industries have interests which cross over between the different clusters but they are classified on Figure 2.1 based on their primary interests.

Fig 2.1: Industries within the environmental and land-based sector

Land management and production	
<ul style="list-style-type: none">• Agricultural crops• Agricultural livestock• Production horticulture• Aquaculture	<ul style="list-style-type: none">• Trees and timber• Fencing• Floristry• Land-based engineering
Animal health and welfare	
<ul style="list-style-type: none">• Animal care• Animal technology• Equine	<ul style="list-style-type: none">• Farriery• Veterinary nursing and ancillary activities
Environmental industries	
<ul style="list-style-type: none">• Environmental conservation• Game and wildlife management	<ul style="list-style-type: none">• Fisheries management• Horticulture, landscaping and sports turf

2.2 Methodology and sources

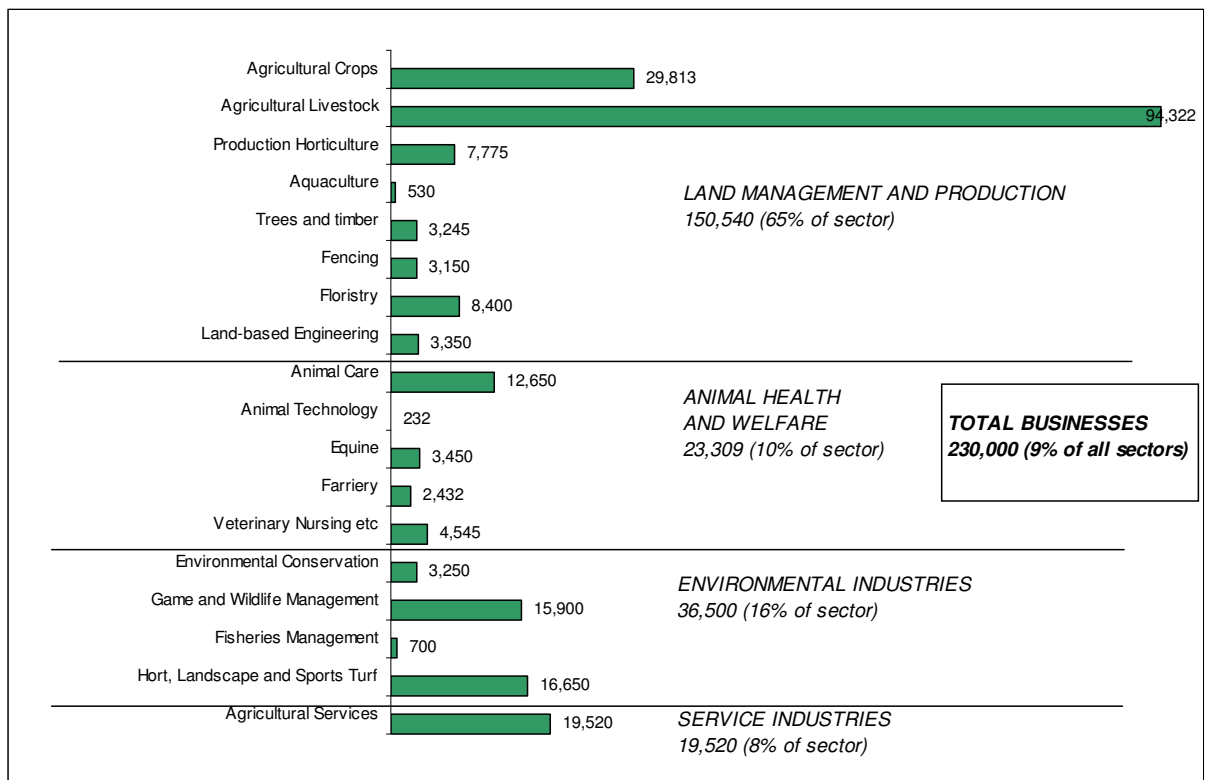
Accurately measuring the size and structure of the sector is difficult. This is due to both scarcity of data and also the way in which some of the available data are published. For some industries, determining the total number of businesses is possible, but employment distributions are less easy to establish. For other industries, the reverse is true.

Wherever possible official statistics, such as the Inter-Departmental Business Register (IDBR), Labour Force Survey (LFS) and June Agricultural Survey are used to ascertain business and employment numbers. For readers interested in the sources and methods used to ascertain the numbers in this chapter Annex C provides details.

2.3 Business and employment numbers

The sector is significant in terms of the number of business units. There are 230,000 businesses across the sector, comprising 9% of all business across the UK. In terms of size the sector is dominated by the *Agricultural livestock* and *Agricultural crops* industries, when combined they account for 54% of businesses in the sector. This contributes to the *Land management and production* cluster covering two-thirds (65%) of the sector's businesses. *Animal health and welfare* accounts for 10% and *Environmental industries* cover 16%. The remaining 8% of businesses provide services to agriculture.

Fig 2.2 Businesses by industry (UK)



Source: ONS Inter-Departmental Business Register 2008 (IDBR) and other source for some industries (see Annex C for details)

The relative significance of the sector varies across nations and regions with the sector proportionally larger in:

- Northern Ireland (23%)
- Wales (16%)
- Scotland (13%)
- South West (14%).

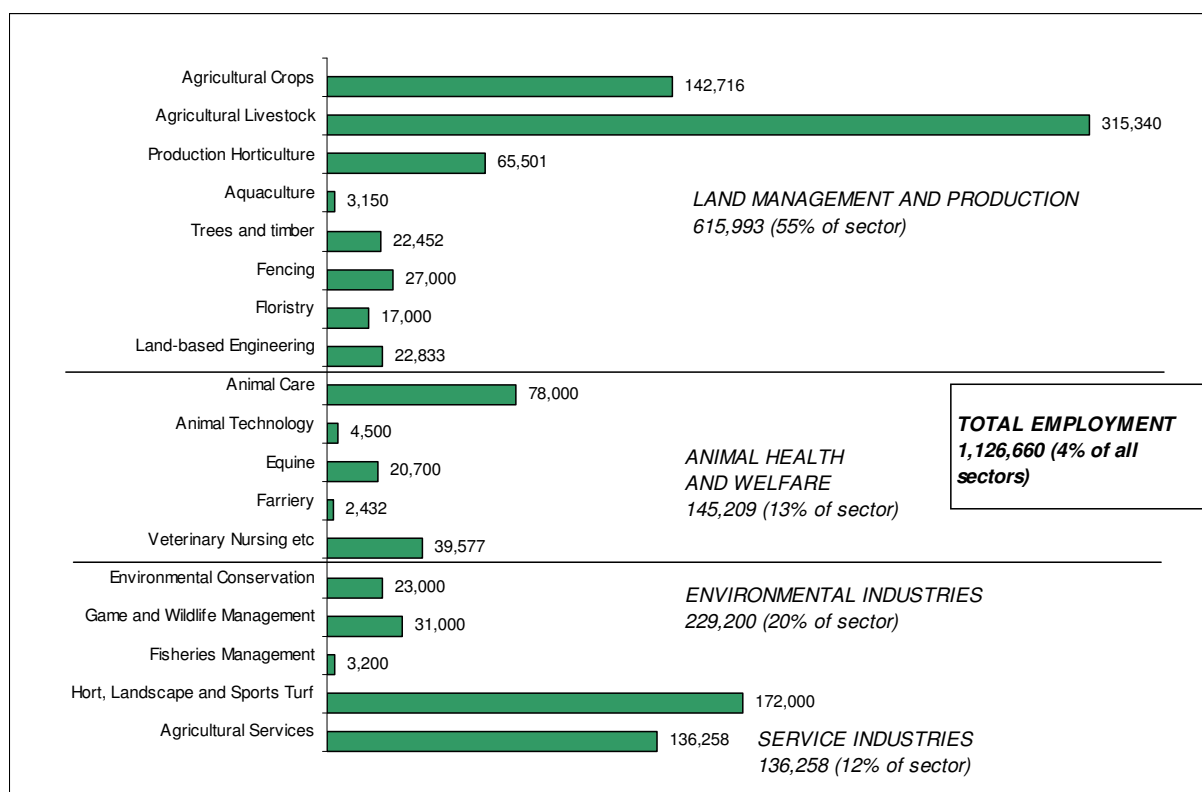
The sector is proportionally smaller in:

- London (1%)
- South East (6%).

A detailed breakdown of the sector's structure within each nation and the English regions is available in the LMI factsheets in Chapter 8. Figure 2.2 presents the number of business units by industry.

There are over 1,126,000 people employed within the sector and in 'environmental and land-based' jobs in other sectors. This equates to 4% of all employment across the UK. We have not included volunteers within the figures below, and they are particularly important for industries such as animal care and environmental conservation. Volunteering is discussed within Section 3.5.

Fig 2.3 Employment by industry (UK)



Source: Office of National Statistics Labour Force Survey Q1-3 2008. Other sources, such as the June Agricultural Survey, have been used for some industries – see Annex C for details.

Although the industries can be found across the whole country, in some areas specific industries comprise a much higher proportion of the overall sector. For example, the agricultural crops industry is more significant in lowland areas across the east side of England such as the Eastern Region, East Midlands and Yorkshire and Humberside. Table 2.1 identifies the distribution of employment in each industry by nation and region.

Table 2.1 - Employment shares by nation and region (row %)

		Nations				Regions								
								Yorkshire						
	Industry	England	Scotland	Wales	Northern Ireland	North East	North West	and the Humber	East Midlands	West Midlands	East	London	South East	South West
1	Agricultural Crops	85%	12%	1%	1%	3%	3%	10%	15%	10%	21%	n/a	14%	10%
2	Agricultural Livestock	55%	14%	17%	14%	2%	9%	6%	4%	8%	3%	n/a	6%	17%
3	Production Horticulture	89%	6%	3%	2%	1%	8%	6%	7%	13%	15%	n/a	26%	14%
4	Aquaculture	25%	70%	n/a	5%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
5	Trees and timber	72%	18%	10%	1%	9%	7%	5%	3%	6%	10%	5%	17%	10%
6	Fencing	90%	6%	3%	1%	4%	8%	15%	9%	6%	15%	12%	15%	6%
7	Floristry	85%	9%	5%	3%	4%	12%	10%	6%	10%	9%	14%	13%	8%
8	Land-based Engineering	72%	11%	8%	9%	2%	7%	4%	19%	9%	5%	2%	10%	14%
9	Animal Care	85%	10%	3%	1%	3%	8%	7%	9%	9%	12%	11%	14%	12%
10	Animal Technology	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
11	Equine	90%	5%	3%	2%	2%	9%	7%	9%	12%	16%	5%	17%	13%
12	Farriery	88%	7%	5%	0%	3%	8%	7%	9%	10%	13%	3%	17%	18%
13	Veterinary Activities	80%	7%	7%	6%	4%	7%	9%	7%	10%	11%	2%	19%	10%
14	Environmental Conservation Game and Wildlife	74%	12%	9%	4%	4%	9%	6%	5%	8%	7%	10%	11%	12%
15	Management	77%	17%	2%	4%	5%	9%	5%	6%	5%	13%	0%	16%	16%
16	Fisheries Management	55%	38%	5%	2%	2%	8%	8%	5%	5%	5%	5%	11%	9%
17	Horticulture, Landscape and Sports Turf	90%	5%	4%	1%	2%	10%	8%	7%	9%	11%	14%	18%	11%
	Agricultural services	86%	7%	5%	3%	3%	8%	8%	11%	7%	11%	5%	19%	13%
	Total Sector	76%	10%	8%	6%	3%	8%	8%	8%	9%	10%	4%	14%	13%

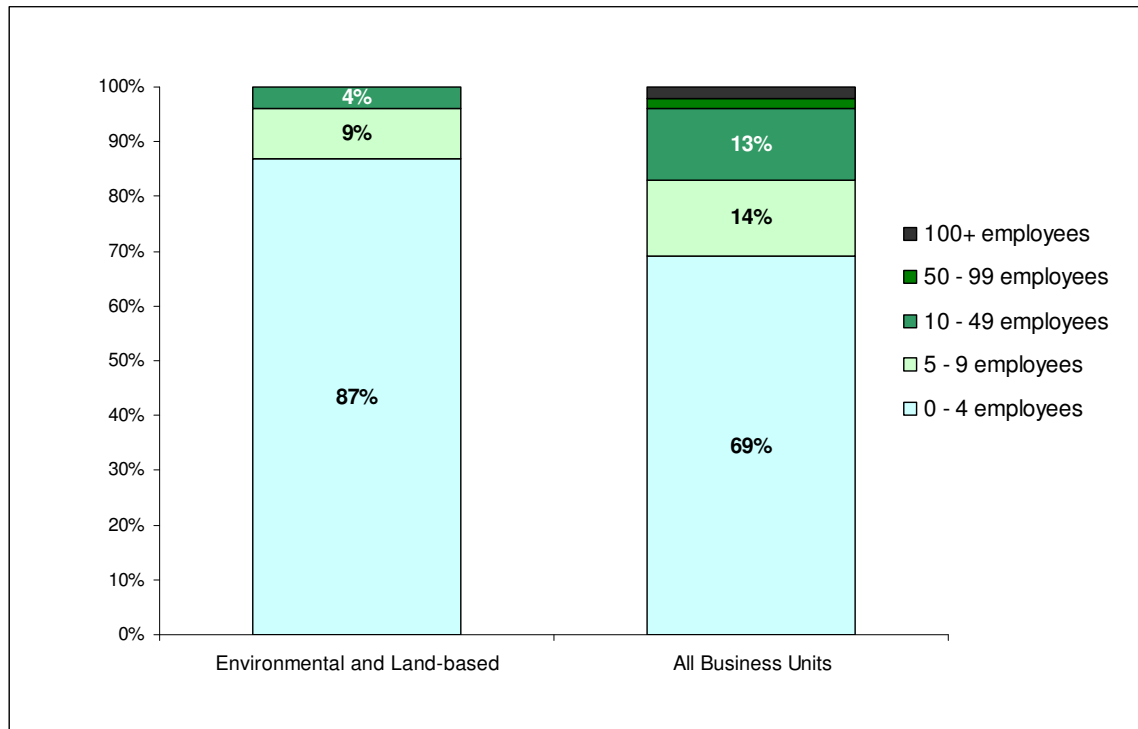
Source: Office of National Statistics Labour Force Survey Q1-3 2008. Other sources, such as the June Agricultural Survey, have been used for some industries – see Annex 3 for details.

 High concentration of nation's/region's employment is within industry

2.4 Business characteristics

Micro-businesses predominate across the sector, as 96% of the businesses within the sector employ less than ten people. Linked to this self-employment is a key feature of the business population. Of the total workforce, approximately 42% are self-employed.

Fig 2.4 Businesses by size



Source: ONS Inter-Departmental Business Register 2008 (IDBR)

Rurality

A significant proportion of the businesses in the sector are based in the rural economy. For example whilst 25% of all business units are located in rural areas, the comparable figure is 87% for the agricultural sector (IDBR 2008). Some industries within the sector have more of an urban focus, with *Floristry* and *Horticulture, Landscaping and Sports Turf* being notable examples.

Voluntary sector

Labour market information indicates that there are around 500,000 regular volunteer workers across the sector.⁴ Certain industry clusters within the Lantra footprint have large numbers of volunteer workers, particularly within the animal health and welfare and environmental industry clusters.

Voluntary organisations range from large, well established and significantly resourced organisations such as the Blue Cross, the Royal Society for the Prevention of Cruelty to Animals (RSPCA), the Royal Society for the Protection of Birds (RSPB), the National Trust and BTCV (formerly the British Trust for Conservation Volunteers), through to smaller, locally-based organisations typically employing fewer than 10 staff.

⁴ National Council for Voluntary Organisation (2009)

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3. Workforce characteristics

Chapter summary

- The sector has an ageing workforce, with an older age profile than that found for any other major industrial sector. One in twelve (8%) of all workers are over 65, compared to 2% across the economy as a whole.
- The sector's workforce is predominantly male (69%) and from a white ethnic group (99%).
- Employment is concentrated in *skilled trade occupations* (such as farmer, stockman, greenkeeper, groundsman) which account for a third of all employment; and *elementary occupations* (such as farm worker) which account for a quarter. There are also a significant proportion of people employed as *managers*.
- Qualification attainment, the government's most favoured proxy measure for skills, is generally low in the sector. Across the UK 15% of the workforce has no qualification (compared to 8% for all sectors).

This section provides an analysis of the environmental and land-based workforce. It looks at the structure of the workforce by working status, gender, ethnicity and age. The level of qualifications held, and occupational structure is also included.

3.1 Working status

Figure 3.1 indicates that 79% of employment within the environmental and land-based sector is full time. This compares to 75% in the UK economy as a whole. The level of full-time employment varies by nation such that Northern Ireland has the highest proportion of full-time workers (87%), and Wales has the lowest level (72%).

Fig 3.1 Full- and part-time employment

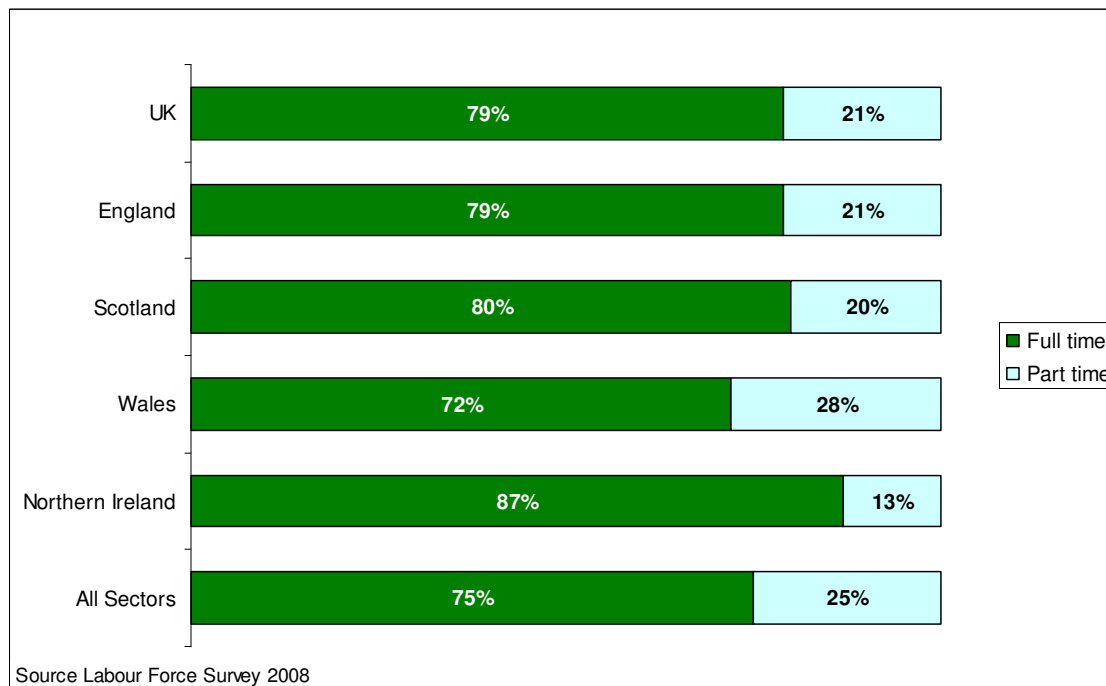
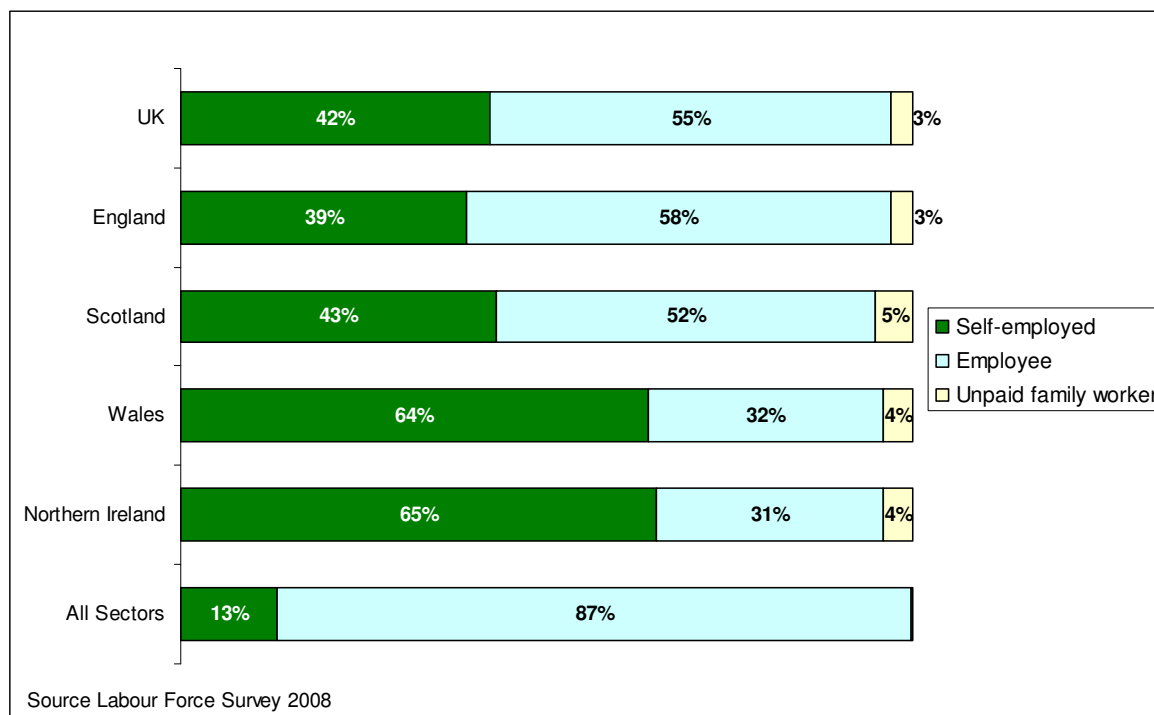


Figure 3.2 shows there is a high level of self-employment in the sector. Self-employment accounts for 42% of all employment in the sector across the UK compared to 12% across all sectors.

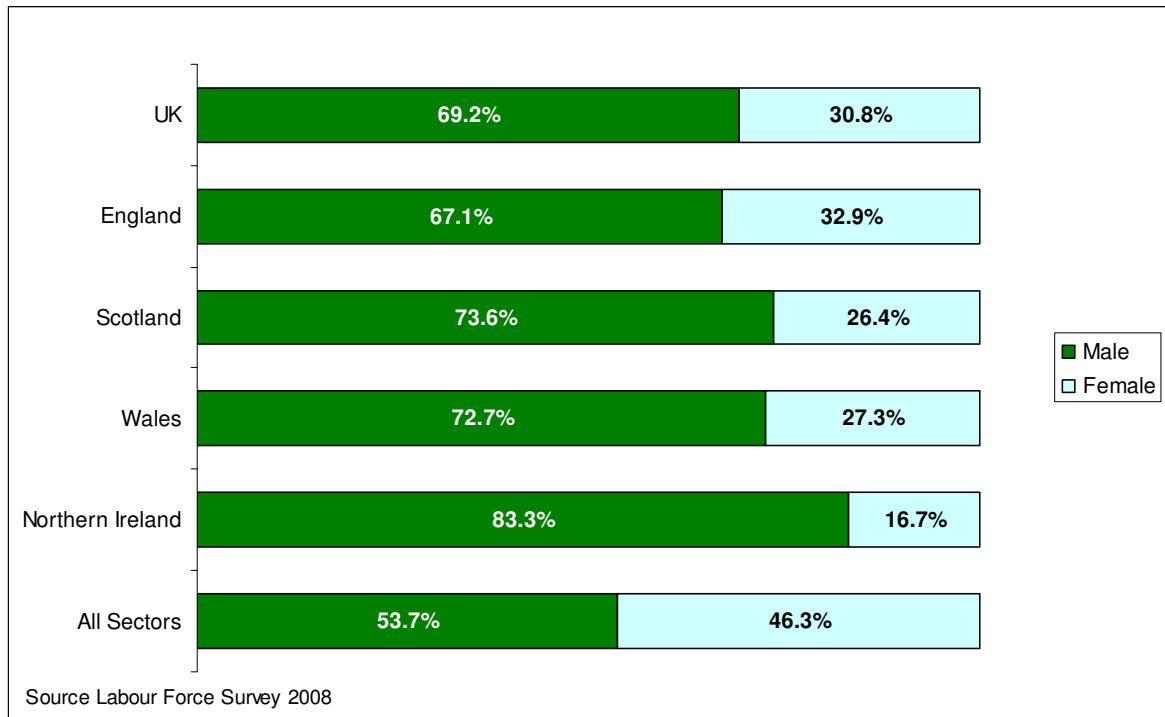
Fig 3.2 Self-employment



3.2 Gender

The sector is dominated by male workers whom account for 69% of the workforce in the UK. The percentage of male workers is highest in Northern Ireland (83%) followed by Scotland (74%), Wales (73%) and England (67%). As a comparison, the percentage of males working in all other sectors in the UK is 54%.

Fig 3.3 Employment by gender



Employment in the sector is dominated by men, who make up over 69% of total employment. There are variations in this pattern across the nations and particularly by industries such that:

- Some industries are more male dominated such as *Agriculture* (81%) and *Horticulture, landscape and sports turf* (96%)
- Some industries are female dominated such as *Floristry* (91%) and *Veterinary nursing and ancillary activities* (69%), further details of variations by industry can be found in the industry factsheets.

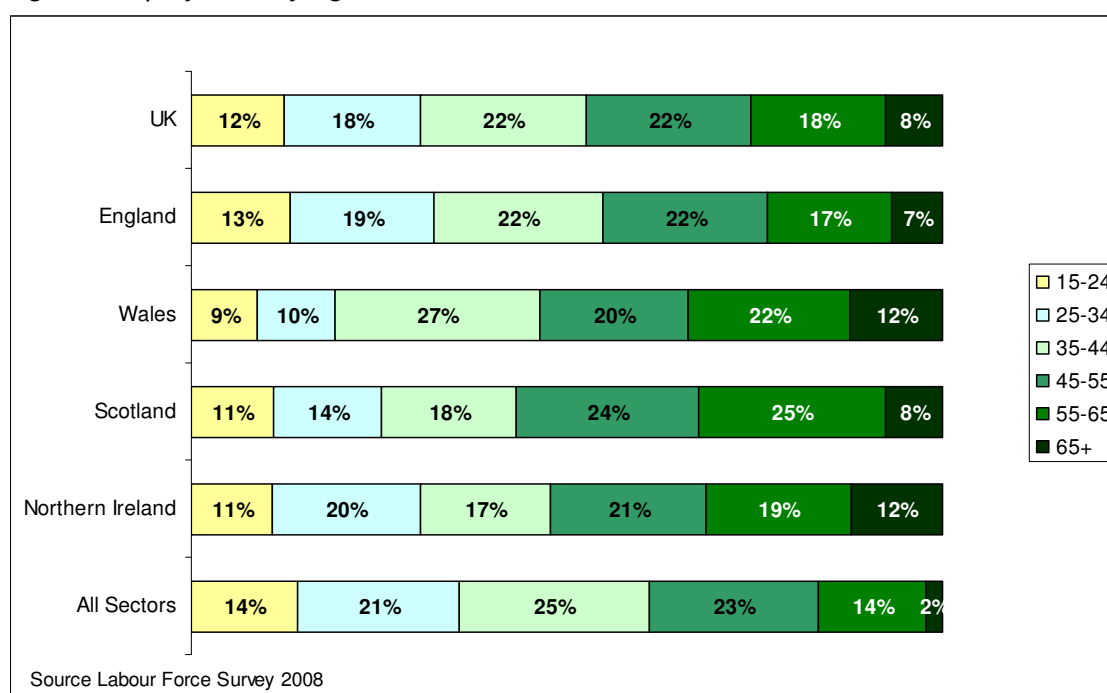
3.3 Age

The environmental and land-based sector has an ageing workforce. In the UK one in every twelve workers (8%) in the sector are aged 65 or over compared to only 2% for all sectors.

There are variations in each of the four nations such that:

- 33% of workers are 50+ in England
- 44% of workers are 50+ in Scotland
- 41% of workers are 50+ in Northern Ireland
- 45% of workers are 50+ in Wales.

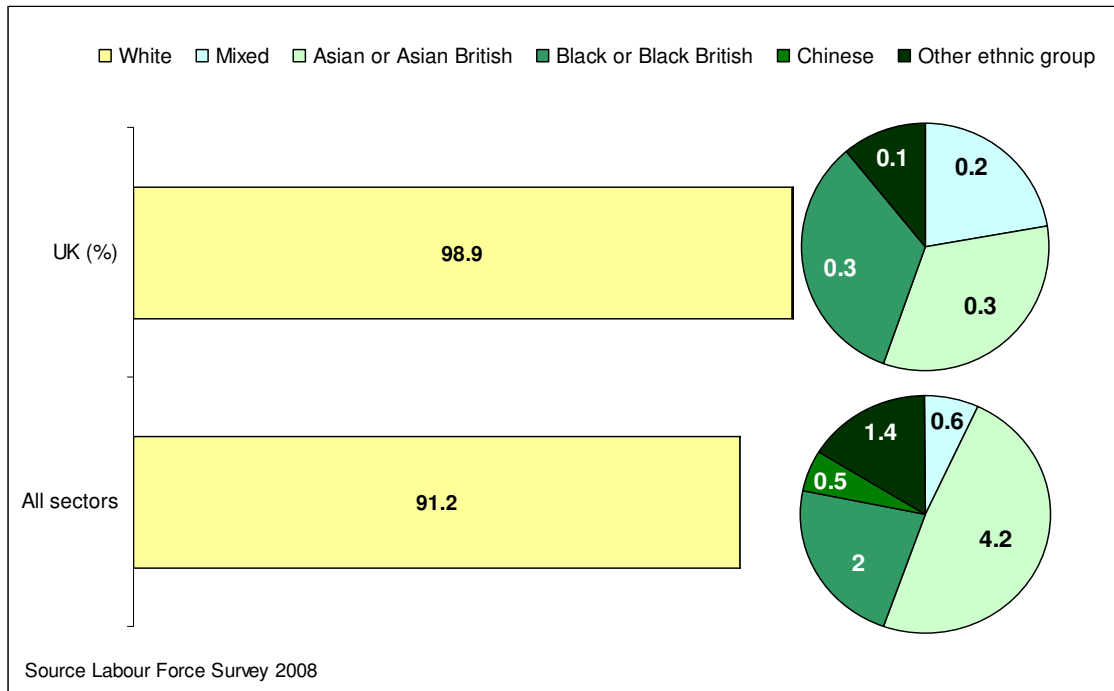
Fig 3.4 Employment by age band



3.4 Ethnicity

The sector's workforce is dominated by people from a white ethnic group (98.9%), significantly greater than the average across all sectors (91.2%).

Fig 3.5 Employment by ethnic group



3.5 Volunteer workers

There are an estimated 500,000 regular volunteers within the environmental and land-based sector.⁵ Lantra recently undertook research into the skills and training needs of volunteers working in the environmental and land-based sector.⁶ This study has provided clear evidence of the importance of volunteering to the sector, particularly to industries such as *Environmental conservation* and *Animal care*.

The majority of organisations that engage with environmental and land-based volunteers would simply not be able to function without the help of volunteers. This assertion is supported by the findings of Lantra's primary research. Organisations were asked 'Do volunteers play a key role in supporting your business activity?' and almost 9 out of 10 organisations stated, 'Yes, a significant contribution,' and less than 3% of organisations answered 'No'.

⁵ National Council for Voluntary Organisations (2009)

⁶ Lantra, Investigation into skill and training needs of Volunteers, March 2008

The sector is popular with volunteers, within a Cabinet Office report⁷ 18% of formal volunteers stated that 'Conservation, the environment, heritage' and 'Animal welfare' were the fields of interest of the organisations that they volunteered for.

Putting an exact number on the number of volunteers in the sector is difficult. Findings from the 2005 Citizenship Survey⁸ reveals that there are over two-thirds (68%) of people in England who have volunteered *informally* in the last 12 months. Numerically, this equates to 27.4 million people who volunteer across all industry sectors. If this finding is then cross-referenced with that from the Cabinet Office research it would indicate that there are nearly five million volunteers active within the environmental and land-based sector.

Lantra's research demonstrates that there is a broad range of activities and roles which environmental and land-based volunteers assume. They not only support some tasks which are carried out by paid staff in their host organisations but they also provide invaluable assistance to operational procedures (fundraising, marketing, administration, etc.) which help to sustain the organisation they willingly donate time to.

3.6 Migrant workers

Migrant workers form a significant proportion of the workforce in the sector, particularly within agriculture. Non-UK born nationals comprise 12% of total employment⁹. However, this statistic will exclude the seasonal workers who form a sizable proportion of the workforce. Migrant workers are more commonly found in these seasonal jobs.

Agriculture is characterised by large fluctuations in labour demand throughout the year, particularly for highly seasonal crops or where technology does not allow machinery to replace labour (e.g. fruit and vegetable production often requires hand picking). The variation in peak to low season labour demand within UK agriculture is one of the key reasons behind the current reliance on migrant workers.

Recent research for the Migration Advisory Committee (MAC) showed that 84% of all peak season agricultural workers are now migrants.¹⁰ Although this finding should be treated with caution, as it is based on 268 survey responses which may have been self-selecting.

The sector uses migrant workers from the Accession 8 (A8), largely Eastern European nations. Workers from these countries register to work in the UK through the Workers Registration Scheme (WRS), numbers through which peaked in 2006 (as shown on Figure 3.3). This excludes some migrants, such as those who access the UK through a sector specific scheme called SAWS (Seasonal Agricultural Workers Scheme). The Government has restricted SAWS to Romania and Bulgaria in recent years, the current quote is 16,250 workers per year, but this will rise to 21,250 in 2010.

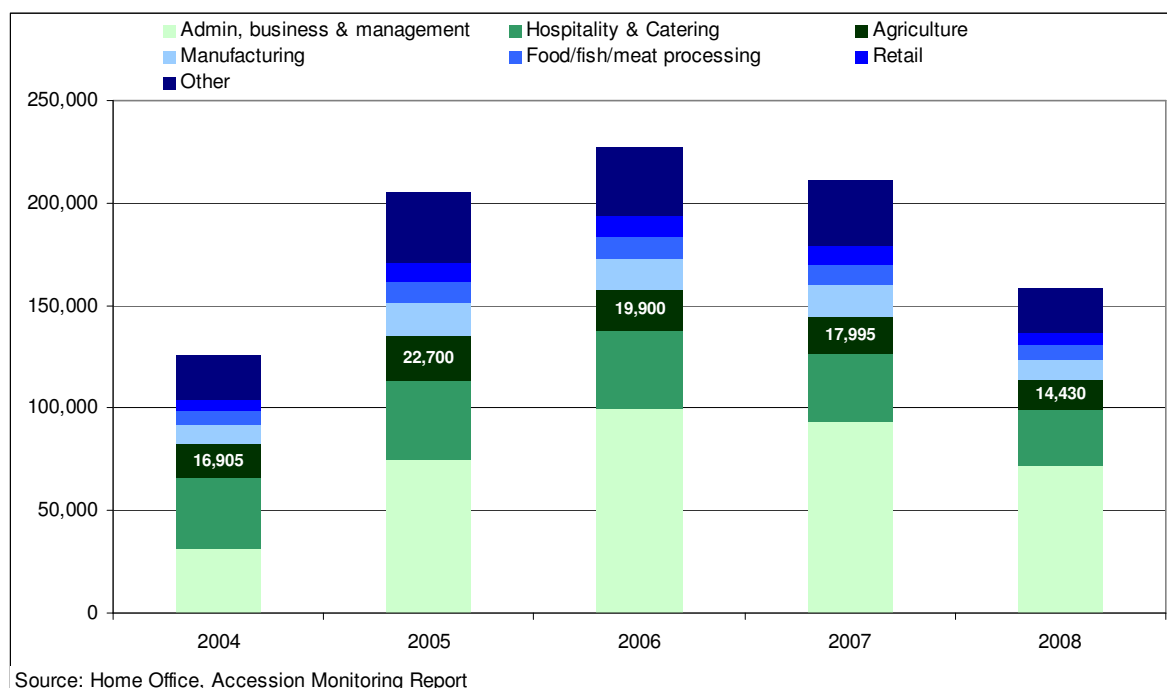
⁷ Cabinet Office, Helping Out: 'A national survey of volunteering and charitable giving'. September 2007.

⁸ Department for Communities and Local Government, '2005 Citizenship Survey'.

⁹ Labour Force Survey 2008 4Q average

¹⁰ Staff Shortages and Immigration in Agriculture, Scott 2008 for Migration Advisory Committee

Fig 3.6: Workers Registration Scheme, migrant workers employed in the UK



The Migration Advisory Committee research highlights the importance of migrant workers in helping farmers balance on a tightrope of profitability between:

1. Low price of produce (set by retailers/consumer) – since 1988 food prices have grown by 8.5% while overall price inflation by 22%.
2. Staff shortages – strong reliance on temporary staff to fill ‘low skilled’ vacancies (due to highly seasonal work patterns) and an increasingly diminutive pool of migrant workers (due to change in immigration policy and work standards).

The report concludes that:

“Demand [for temporary labour] is most likely to be met through immigration unless either the UK economy undergoes a prolonged period of recession... or UK consumers start paying more for food and retailers pass the money down the food supply-chain” (Scott, 2008: 10)

Lantra undertook research into the business needs of employers employing migrants in 2007.¹¹ This highlighted that employers were using migrant workers because the UK workforce was unwilling to work in jobs they perceived as *dirty, dangerous* and *demanding*.

¹¹ A study of the business needs of those employing migrant workers in the land-based sector in England/Wales - Lantra (2007)

Migrant workers were mainly used in low skilled roles in agriculture, such as:

- Fruit and vegetable pickers/packers/sorters
- Weeding and planting farm labourers
- Warehouse workers
- Gardeners
- Chicken catchers
- Graders.

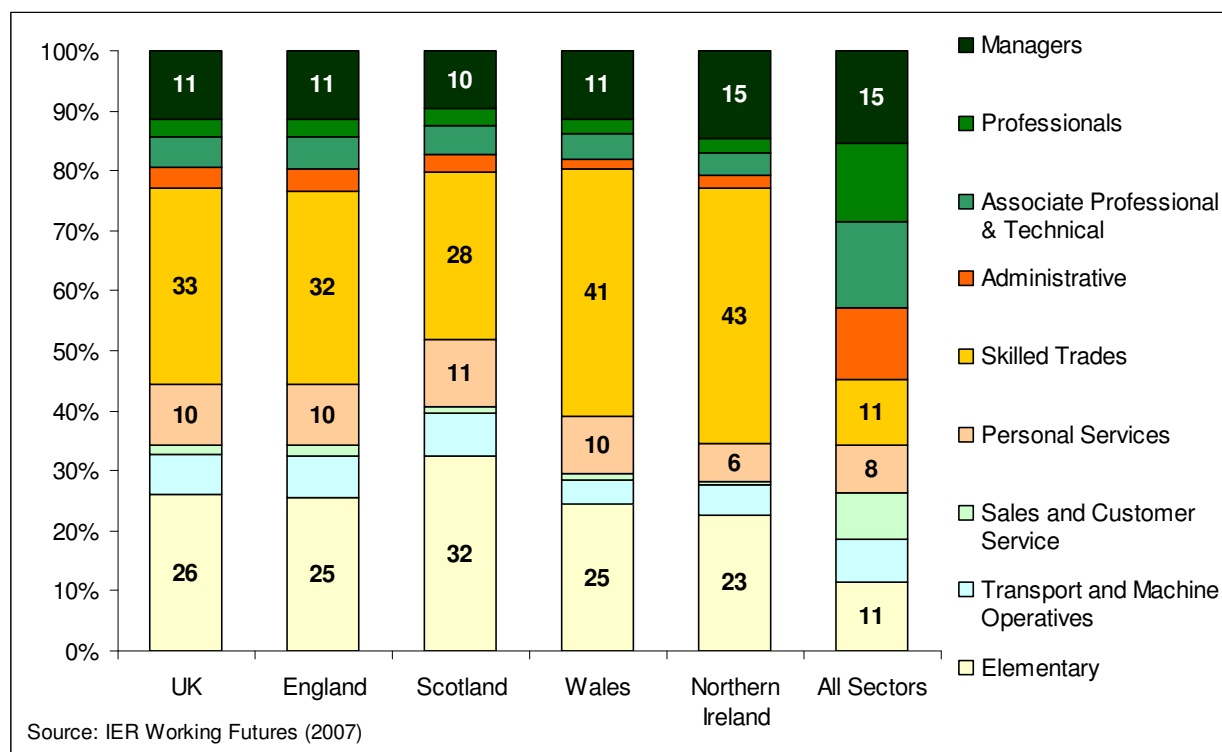
Migrant workers were often over-qualified, with 87.3% of employers stating that migrants were generally over-qualified to do the job. Having said this, employers highlighted a number of skills which were in need of development, most commonly communication and English language skills.

3.7 Occupations

The occupational structure of the sector differs significantly from the average across all sectors of the economy. Whilst the structure of employment by occupation does vary by nation it is noticeable that employment is concentrated in:

- Skilled trade occupations (e.g. farmer, stockman, and groundsman) account for a third of UK jobs in the sector, and more than 40% in Wales and Northern Ireland. This compares to just 11% across all sectors.
- Elementary occupations (e.g. farm worker, seasonal worker) account for over a quarter (26%) of UK jobs, and are as high as 32% in Scotland.

Fig 3.7 Employment by occupation



Skills at Work 1986-2006¹² concludes that job skills are distributed in line with occupational expectations with those at the top of the hierarchy requiring more skills than those at the bottom. Such is the sector's occupational structure.

Examples of the sector specific job roles within each of these broad occupational areas are shown in Table 3.7.

Table 3.7 Occupational areas and example job titles

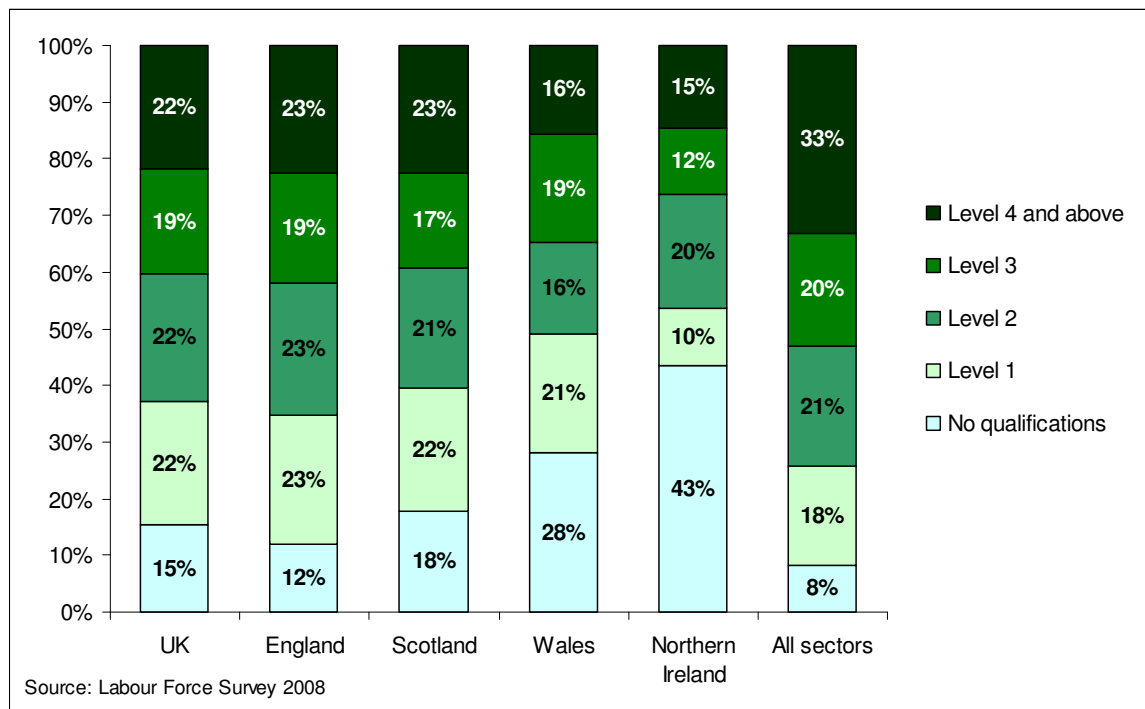
SOC Major Group	Example Sector Job Roles
Managers and senior officials	Farm manager Conservation manager
Professional occupations	Land-based engineer
Associate professional and technical occupations	Forestry consultant Agronomist Field technician
Administrative and secretarial occupations	Administrator Farm secretary
Skilled trades occupations	Farmer Stockman Greenkeeper Groundsman Florist
Personal service occupations	Zookeeper Veterinary nurse
Sales and customer service	Shop assistant
Transport and machine operative	Forest machine operator Tractor driver
Elementary occupations	Field worker Farm worker Seasonal worker

¹² Felstead et al (2007) Skills at Work 1986-2006, ESRC

3.8 Qualification levels

The profile of qualifications in the sector is lower than that found across the rest of the economy. A significant proportion of the workforce does not have nationally recognised qualifications – 15% across the UK, but as high as 28% in Wales and 43% in Northern Ireland.

Fig 3.8 Qualification levels



Important questions we visit in Chapter 4 are:

- Is there evidence that the high level of workers without qualifications impacts on businesses?
- Does the high level of people with no qualifications indicate there is a low level of skills?

4. Skills challenges

Chapter summary

- Skills deficiencies when recruiting staff continue to pose a challenge for employers, although this challenge has decreased over the last few years. In total 61% of establishments report difficulty in recruiting staff with the required skills, compared to 70% in 2005. These problems appear to be more acute than in the wider economy, with the UK average at 52%.
- Skills shortages are high in both volume and proportion terms within *skilled trade occupations* across all parts of the sector as well occupations within agriculture more generally.
- Skills gaps (in the existing workforce) also exist, although these appear to be less of a concern to employers than skills problems when recruiting. The level of skills gaps varies significantly by industry and nation. However, across the sector as a whole the proportion of employers who report skill gaps, and the proportion of staff that are viewed as having a skills gap, is lower than the average across all sectors in England, Scotland, Northern Ireland and Wales.
- Although the majority of jobs in the sector are skilled (based on the amount of time it takes to learn to do them well) many jobs do not require formal qualifications. There is some evidence of over-qualification at Level 1 and 2 with the qualification level with greatest under-supply being at Level 3.
- Employers require a wide range of skills from their staff. There is a 'spikey' profile to the skills demand, with employers requiring skills at a mix of levels. The skills which employers most frequently cite as being required (and also in need of improvement) are job specific *technical skills*. The nature of these skills vary significantly by different industries and job roles and would include *operating machinery, driving tractors, animal care/handling and farming*.
- Generic skills, such as *team work, problem solving and communication* are being seen as increasingly important. Given the high proportion of self-employed people in the sector it is perhaps unsurprising that *management skills* and *business skills* (such as finance and marketing) are seen as important.

This chapter reports upon the skills challenges facing the environmental and land-based sector. The chapter discusses several topics such as, the skills employers identify as important, incidence of skills gaps and shortages, the impact of skills deficiencies and employer training activity. The focus of the analysis is to provide a cross-sector picture, although there is a discussion of issues within each of the 17 industries at the end of the chapter.

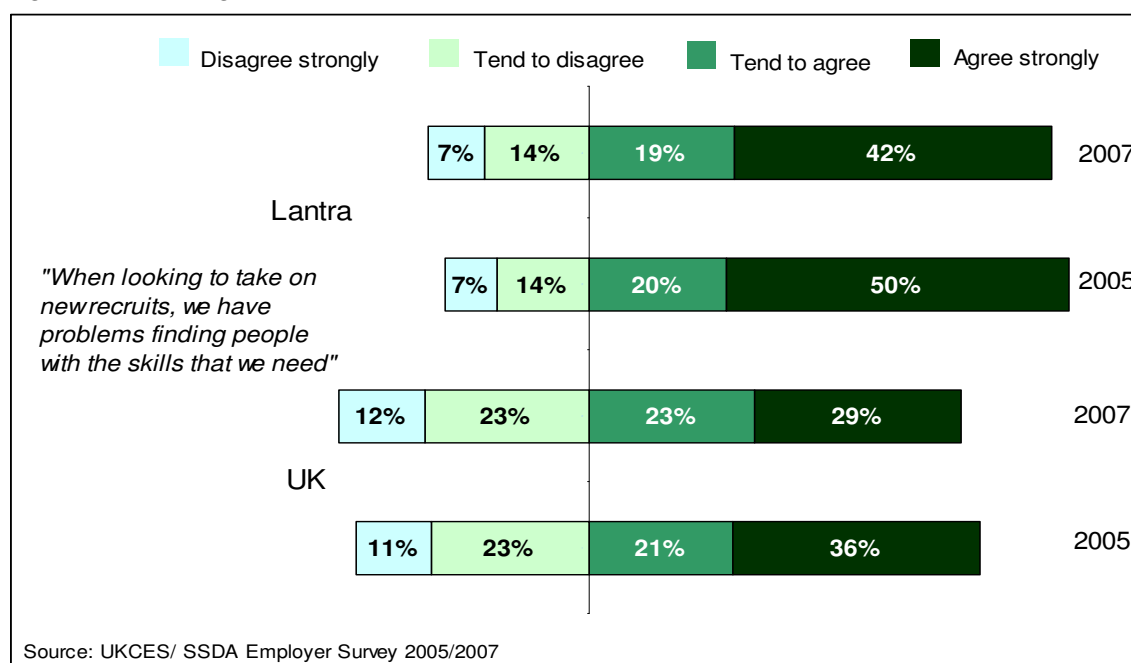
Evidence was been sourced from the Employer Skills Surveys conducted in each of the home nations,¹³ and the UK Commission for Employment and Skills Employer Survey. Whilst results are available from each of these surveys for the environmental and land-based sector these should be treated with caution. The definition of the sector used in each of the surveys is based on a Standard Industrial Classification (SIC) definition of the sector, which excludes a number of industries (see Annex B for details). As such, Lantra's own primary research and industry specific evidence from trade associations and other bodies have also been use to ensure a full picture of the sector is presented.

4.1 Recruitment difficulties

A significant proportion of employers have problems finding people with the skills they need when they are looking to take on new recruits. In total 61% of establishments agree (that is, tended to agree or strongly agree) that they had difficulty in recruiting staff with the required skills (see Figure 4.1).

The proportion of employers having difficulty recruiting staff with the skills they require has declined over recent years. Between 2005 and 2007 there was a nine percentage point fall in the proportion of environmental and land-based employers who felt they had problems in finding suitably qualified staff. Interestingly, the proportion of employers who *tend to agree* that finding suitably qualified staff is a problem has been relatively stable, with the proportions who strongly agree accounting for the majority of this drop.

Fig 4.1 Recruiting staff with the skills needed



¹³ These include National Employer Skills Survey [for England] (2007), the Scottish Employer Skills Survey (2008), Northern Ireland Skills Monitoring Survey (2005) and Future Skills Wales Survey (2005)

Despite these problems it is important to note that employers within the sector will experience them less frequently than most employers. Using evidence from the Employer Skills Surveys from each nation, Table 4.1 shows that between 6% and 13% of employers in the sector had a vacancy at the time they were surveyed. Employers in the sector tend to be small, and because of this recruitment will be an infrequent activity for many.

The table also shows the level of skills shortage vacancies (SSVs) and hard-to-fill vacancies (HtFVs). These are specific types of vacancy, where employers have difficulty recruiting for any reason (for HtFVs) or skills related reasons (for SSVs).

Table 4.1 Summary of recruitment issues

	Lantra	All employers
England 2007		
% with a vacancy	9	18
% with a hard-to-fill vacancy (HtFV)	4	7
% with a skills shortage vacancy (SSV)	3	5
HtFVs as a % of vacancies	47	30
SSVs as a % of vacancies	29	21
Scotland 2008		
% with a vacancy	14	18
% with a hard-to-fill vacancy (HtFV)	n/a	10
% with a skills shortage vacancy (SSV)	n/a	9
HtFVs as a % of vacancies	78	50
SSVs as a % of vacancies	n/a	24
Wales 2005		
% with a vacancy	6	21
% with a hard-to-fill vacancy (HtFV)	3	10
% with a skills shortage vacancy (SSV)	1	4
HtFVs as a % of vacancies	n/a	n/a
SSVs as a % of vacancies	13	14
Northern Ireland 2005		
% with a vacancy	13	11
% with a hard-to-fill vacancy (HtFV)	8	6
% with a skills shortage vacancy (SSV)	n/a	n/a
HtFVs as a % of vacancies	64	52
SSVs as a % of vacancies	5	17

Source: National Employer Skills Survey (England), Scottish Employer Skills Survey, Future Skills Wales Survey, Northern Ireland Skills Monitoring Survey. Note: Due to timescales and different question formats results are not comparable across nations.

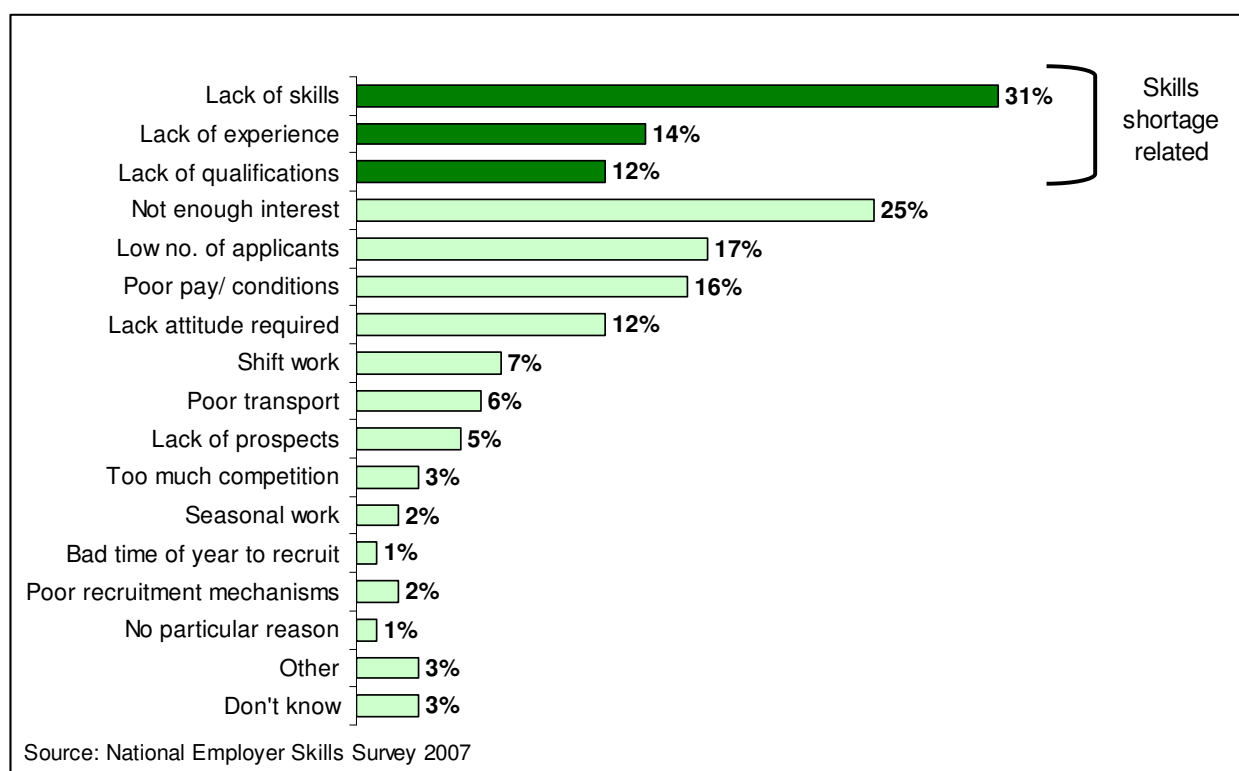
N/A – data is not robust or is unavailable.

Figure 4.2 illustrates the reasons identified by employers within the sector to explain their reporting of hard-to-fill vacancies. The most common reason was a 'lack of skill required' on the part of applicants, 31% of employers reported this cause.

Within the sector it is noticeable that many vacancies are hard-to-fill due to reasons which are not skills related such as a lack of interest or a low number of applicants. Employers within the sector, particularly in agriculture, often express the view that the sector has an outdated image, and that individuals now prefer to work in other parts of the economy.

In addition, employers frequently cite issues to do with the types of jobs they are recruiting to such as poor pay/conditions or lack of prospects. This is particularly true of lower level jobs and seasonal jobs.

Fig 4.2 Reasons for hard-to-fill vacancies



The volume and concentration of skills shortages vary by occupation. The next series of tables and graphs explore this.

Table 4.2 - Skills shortages by occupation

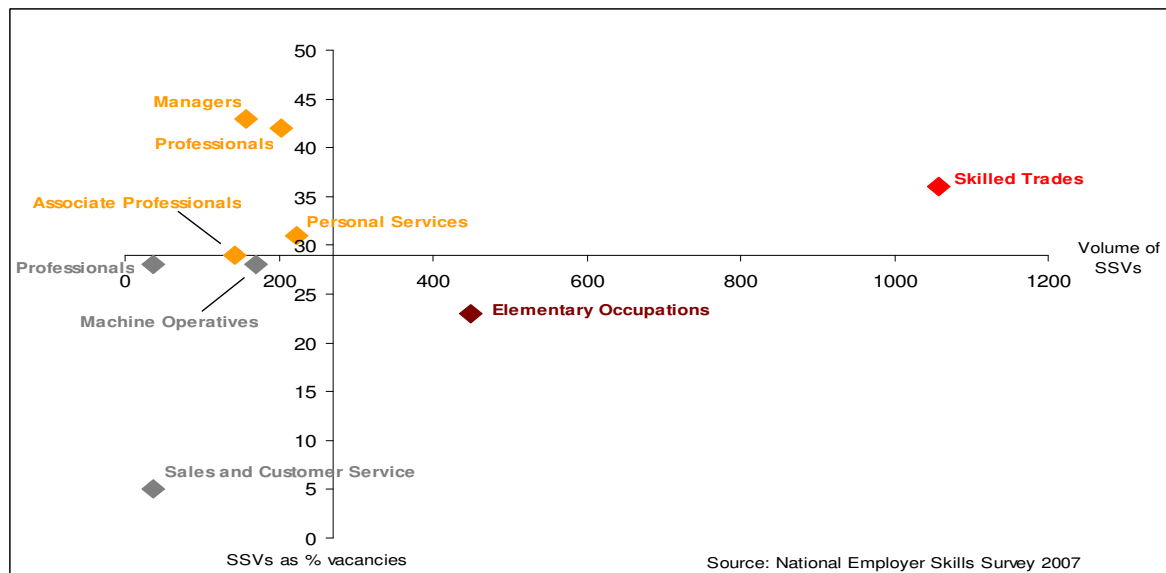
Occupation	Vacancies (n)	Hard-to-fill (as % vacancies)	Skills shortages (as % vacs)
Managers	366	58	43
Farm managers (1211)	98	70	70
Natural environment and conservation managers (1212)	31	29	29
Managers in animal husbandry, forestry, fishing n.e.c. (1219)	8	0	0
Professional occupations	482	56	42
Veterinarians (2216)	300	47	34
Associate professionals	490	37	29
Conservation and environmental protection officers (3551)	566	19	19
Countryside rangers (3552)	178	0	0
Administrative/clerical	726	10	5
Skilled trades	2,938	57	36
Farmers (5111)	590	75	62
Horticultural trades (5112)	387	73	24
Gardeners and groundsman/women (5113)	1,682	43	27
Agricultural and fishing trades n.e.c. (5119)	572	53	21
Floral arrangers, florists (5496)	339	82	59
Personal services	716	45	31
Veterinary nurses (6131)	396	46	31
Animal care occupations n.e.c. (6139)	454	58	40
Sales and customer service	133	40	28
Machine operatives	608	34	28
Agricultural machinery drivers (8223)	132	33	32
Elementary occupations	1,951	49	23
Farm workers (9111)	359	78	63
Forestry workers (9112)	132	73	73
Fishing and agricultural occupations n.e.c. (9119)	899	40	2
All occupations in sector	8,462	47	29

Source: National Employer Skills Survey 2007 (England only). Note data on recruitment issues is by occupation within the sector is not available from the surveys conducted in the other UK nations.

n.e.c. stands for not elsewhere classified

At a broad occupational level (shown in bold) skills shortages form the highest proportion of vacancies for highest skilled occupations, namely *managers* and *professionals*. The absolute number of skills shortage vacancies is highest within skilled trades. There are over 1,100 skills shortage vacancies for these occupations, which accounts for 43% of all SSVs.

Fig 4.3 Summary of skills shortage vacancies by occupation (SOC major)



The graph shows that skills shortages are significant for *skilled trades* in terms of there overall volume, and in terms of their density. In volume terms the next largest group are *elementary occupations*, although skills shortages comprise a lower density of the total vacancies for these occupations. Below we review occupations at a more detailed level.

Fig 4.4 Summary of skills shortage vacancies by occupation (4 digit SOC)



4.2 Skill gaps

The following table reports data regarding skill gaps within the Lantra sector for each of the four nations. In all nations, skill gaps are reported by the minority of businesses. All four nations repeat a similar trend; that being Lantra reports lower rates of skill gaps (by employment and by establishment) than the equivalent national total. The nation with the highest rate of establishments reporting skill gaps is Scotland (13%), whilst Northern Ireland exhibits the lowest rate (7%). Conversely, Northern Ireland reports the highest rate of skill gaps by employment (9%).

Table 4.3 Incidence of skill gaps

	Lantra	All employers
England 2007		
% of establishments reporting skill gaps	11%	15%
Number of employees with a skill gap	16,800	1,361,100
Skill gaps as a % of employment	5%	6%
Scotland 2008		
% of establishments with skill gaps	13%	20%
Number of employees with a skill gap	2,800	178,900
Skill gaps as % of employment	8%	8%
Wales 2005		
% of establishments reporting skill gaps	8%	18%
Number of employees with a skill gap	450	63,800
Skill gaps as % of employment	4%	6%
Northern Ireland 2005		
% of establishments reporting skill gaps	7%	9%
Number of employees with a skill gap	Not available	Not available
Skill gap as % of employment	9%	9%

Sources: National Employer Skills Survey 2007, Scottish Employer Skills Survey 2008, Future Skills Wales Survey 2005, Northern Ireland Skills Monitoring Survey 2005.

Note: the above surveys are undertaken at different times, and use different questions to identify skills gaps. As such the findings are not directly comparable.

The main cause attributed by employers for skill gaps amongst their employees, is a lack of experience. A lack of staff motivation, failure to train and an inability of the workforce to keep up with change are also commonly cited. These results suggest that, given time, the majority of skill gaps can be overcome by staff gaining the necessary experience within their role.

Evidence from each of the surveys suggests that skills gaps impact businesses in different ways. Most commonly they lead to an increased workload for fully skilled staff; however they can also lead to increased running costs, difficulty in meeting customer requirements and quality standards.

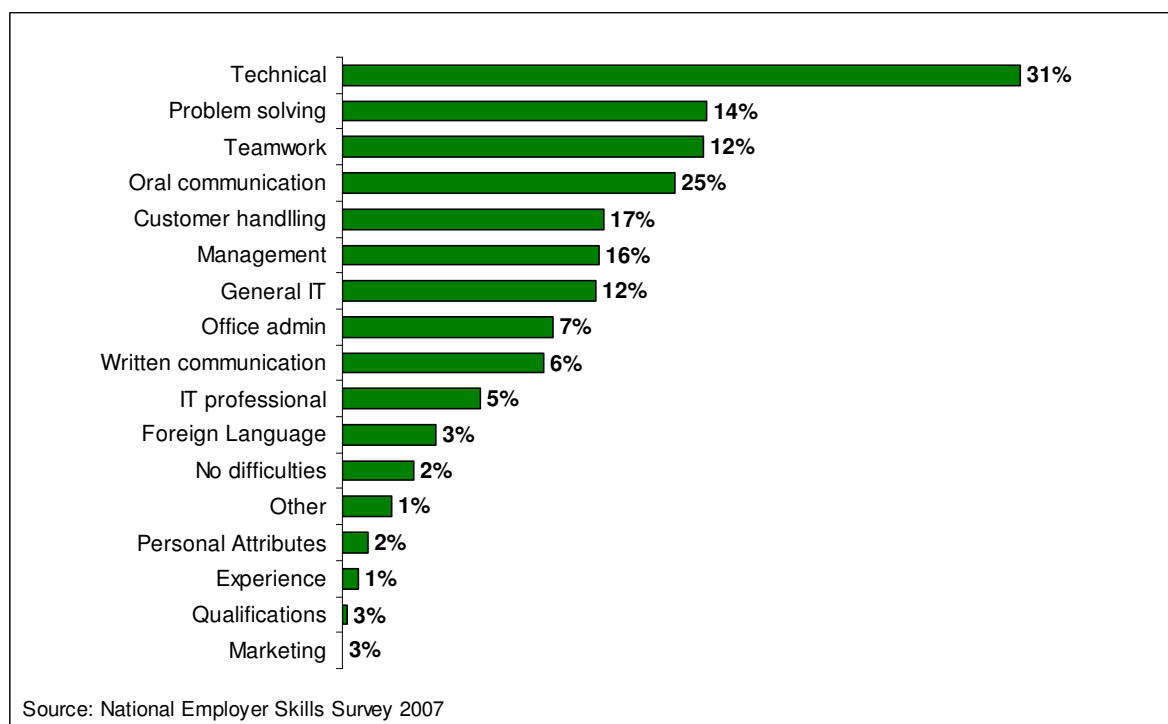
4.3 Skill needs

The skills considered, most often, to be in need of improvement within the sector within each of the nations are those categorised as ‘technical’ or ‘job specific’. Softer skills including ‘problem solving’, ‘team working’, and ‘oral communication’ are also frequently cited by employers as other areas requiring improvement.

Within the national surveys the categories of marketing/sales skills, management and general business skills are less frequently acknowledged by employers as being in need for improvement. However, these surveys often provide a picture of the skills which employers most commonly cite as being important amongst their staff, and they may overlook their own skill needs within this.

The Sector Skills Agreement research¹⁴ conducted by Lantra concluded that business skills (such as marketing, sales and finance) and management skills are becoming increasingly important within the sector, especially amongst business owners and staff in management positions.

Fig 4.5 Skills in need of improvement



The category of ‘technical’ skills was regarded by the majority of employers as the primary skill need amongst staff within Skilled Trade Roles and Elementary Roles.

14 Lantra SSA – see www.lantra.co.uk/stakeholders/ssa

Table 4.4 Examples of technical skills

Industry	Examples
Agricultural crops	Operating machinery/tractors Farming Spraying Service, repair and maintenance of machinery
Agricultural livestock	Operating machinery Animal husbandry Farming Animal handling/management
Production horticulture	Operating machinery Plant knowledge Tool/equipment operation
Aquaculture	Operating machinery Knowledge/care of fish
Trees and timber	Operating machinery/chainsaws Tree surgery Tree knowledge/skills
Fencing	Fence installation Operating machinery Technical drawing
Floristry	Floristry Specialist flower handling and arranging Artistic/creative
Land-based engineering	Service, repair and maintenance of machinery Mechanics/mechanical engineering Electronics
Animal care	Grooming Animal handling/management Knowledge of animals and fish
Equine	Horse management/handling Operating machinery Horse riding
Farriery	Farriery Blacksmithing Mechanics/mechanical engineering
Veterinary activities	Veterinary nursing Animal handling/management IT Anaesthetics
Environmental conservation	Operating machinery Wildlife knowledge
Game and wildlife management	Operating machinery Estate management
Horticulture, landscaping and sports turf	Operating machinery Landscaping Green keeping Tool/equipment operation

Source: Lantra Sector Skills Agreement 2006

4.4 Qualifications versus skills

Another way of looking at the mismatch between supply and demand for skills are to look at evidence from employees on the skills and qualifications they feel are needed to do their jobs. This is explored within the *Skills at Work* research.¹⁵

Whilst discussing specific skills required in the sector it is worth highlighting that there is a gap between the skills needed, and how these skills are recognised by government in their preferred proxy measure for skills, namely qualifications. Skills at Work 1986 - 2006 noted that 'Agriculture' has a low level of qualifications required on entry into jobs, but there is a high level of time required for someone to learn to do the job well. This suggests that in the industry skills are acquired in large part on-the-job.

Fig 4.6: Proportion of jobs not requiring qualifications

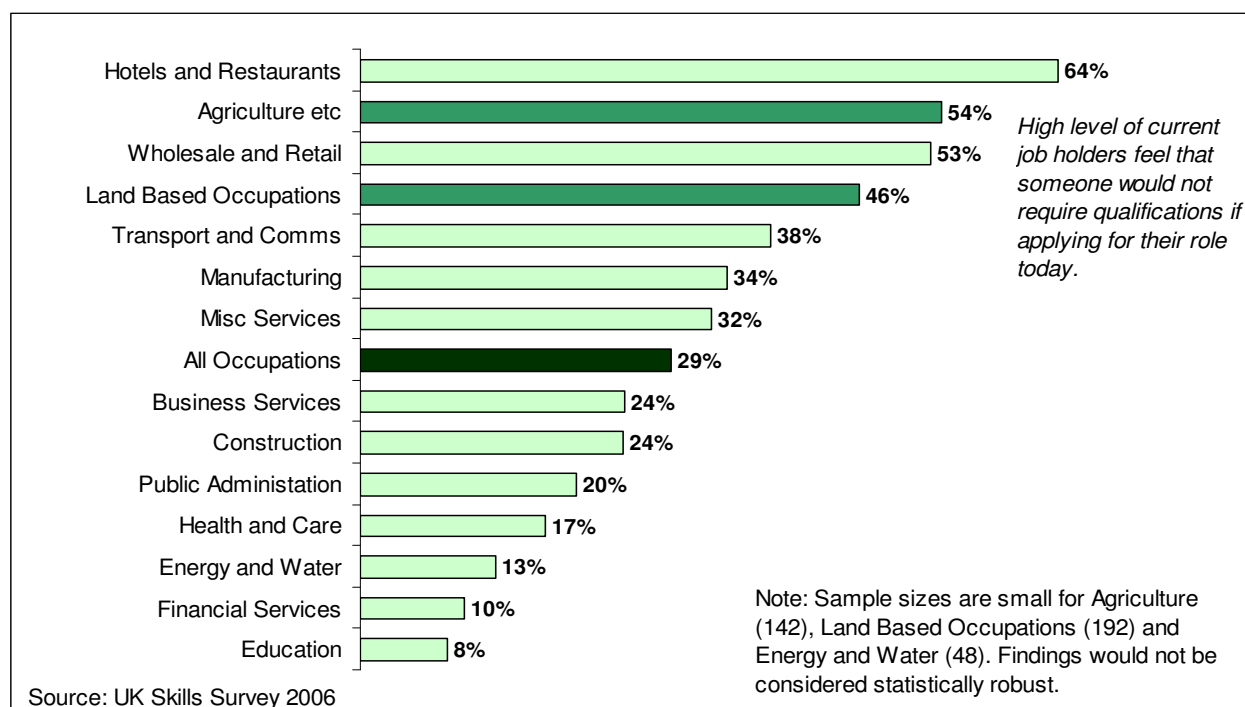
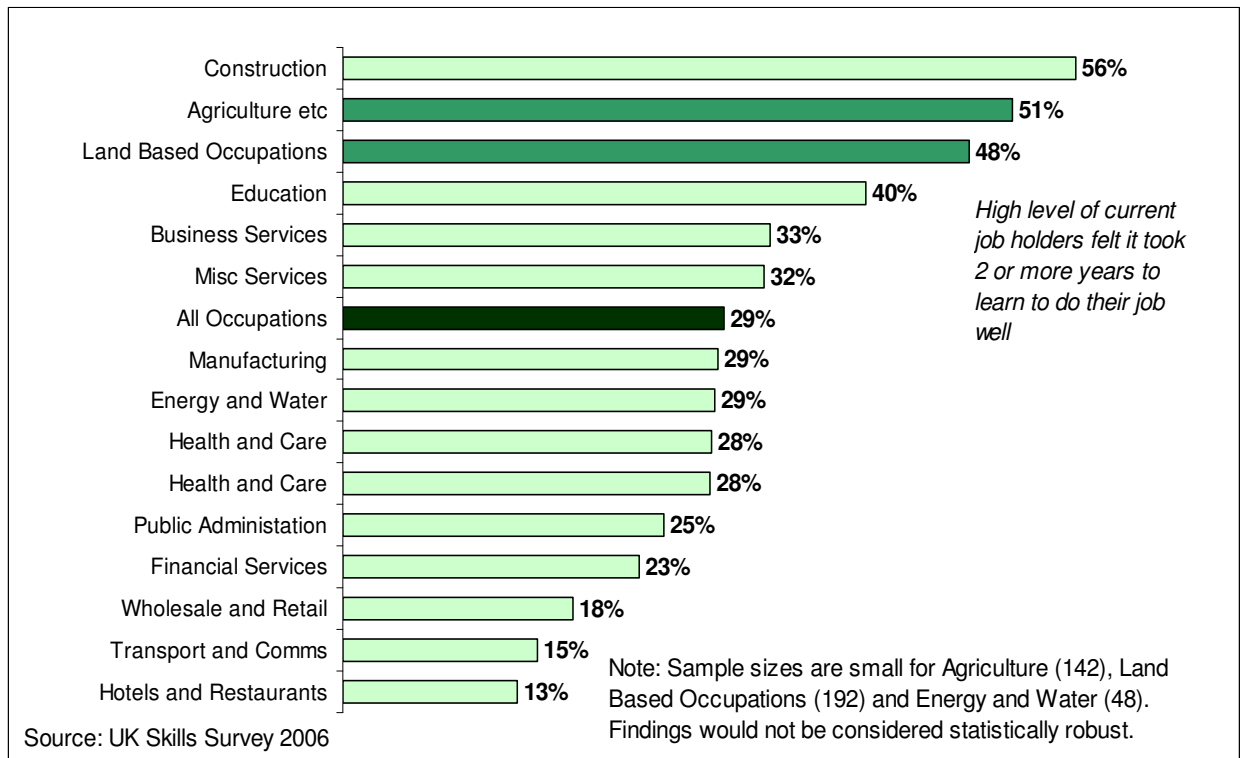


Figure 4.6 shows that 54% of all jobs in the agricultural industry do not require any qualifications to enter. This is higher than the 29% across all occupations. For land based occupations, across all sectors just under half (46%) of jobs would not require qualifications.

¹⁵ Felstead et al (2007) Skills at Work 1986-2006, ESRC

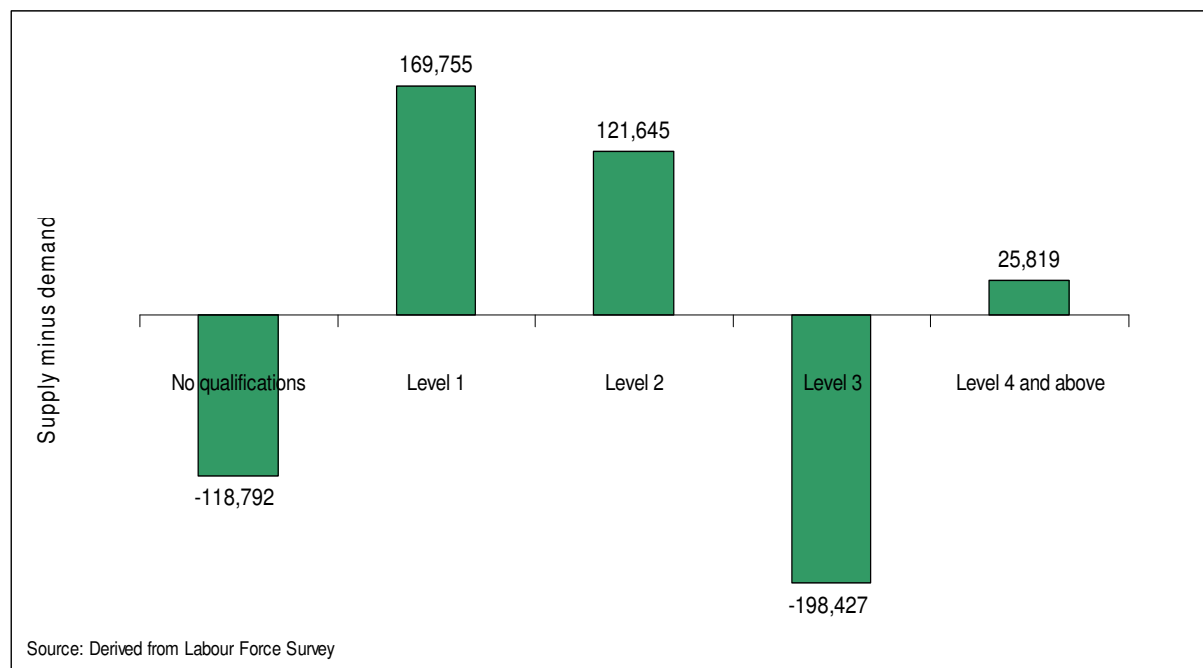
The length of time to learn the job via on-the-job training or other development is another proxy measure of skill. In contrast to the data on qualifications, Figure 4.7 shows that jobs in the sector require a longer period of time to learn how to do them well. This indicates that jobs in the sector require skills, although many employers do not measure this in terms of formal qualifications.

Fig 4.7: Proportion of jobs requiring two or more years' learning time



Comparing the sector's occupational structure as a measure of the level of skills employers are demanding (Section 3.7), and the current level of qualification attainment (Section 3.8), as a measure of skills supply, it is possible to examine where skills may be in under-supply and over-supply.

Fig 4.8 – Are qualifications well utilised?



The chart shows where qualifications at a particular level are currently in over-supply (where numbers are positive) or under-supply (when numbers are negative).

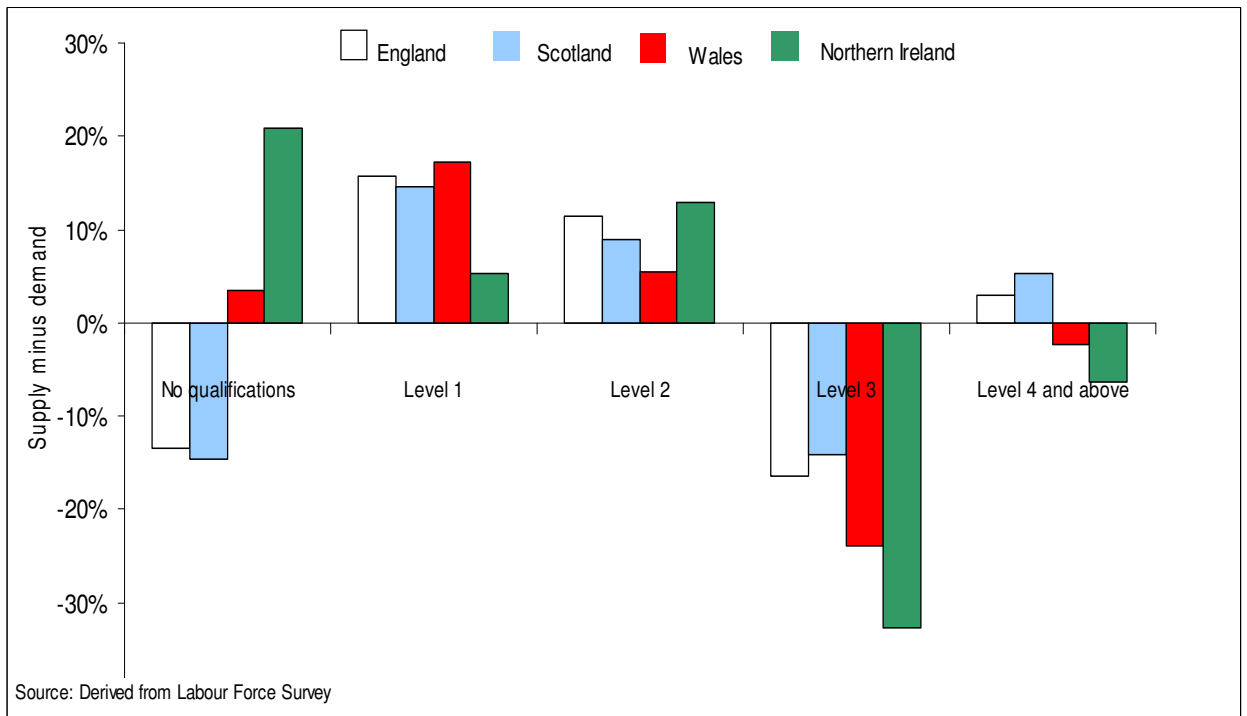
This shows that the high proportion of the workforce with no qualifications may not be a 'problem' from the employer's perspective, as there is an even greater demand for jobs in the sector which require no formal qualifications. This suggests there is an element of over-qualification for the low-skilled/elementary roles.

There is also an under-supply of people with Level 3 qualifications. This should represent more of a concern to employers as individuals will be working in Level 3 occupations without qualifications at this level. In contrast there appears to be more people qualified to Level 1, Level 2 and to a lesser extent Level 4 than there are jobs at these levels.

This would suggest that:

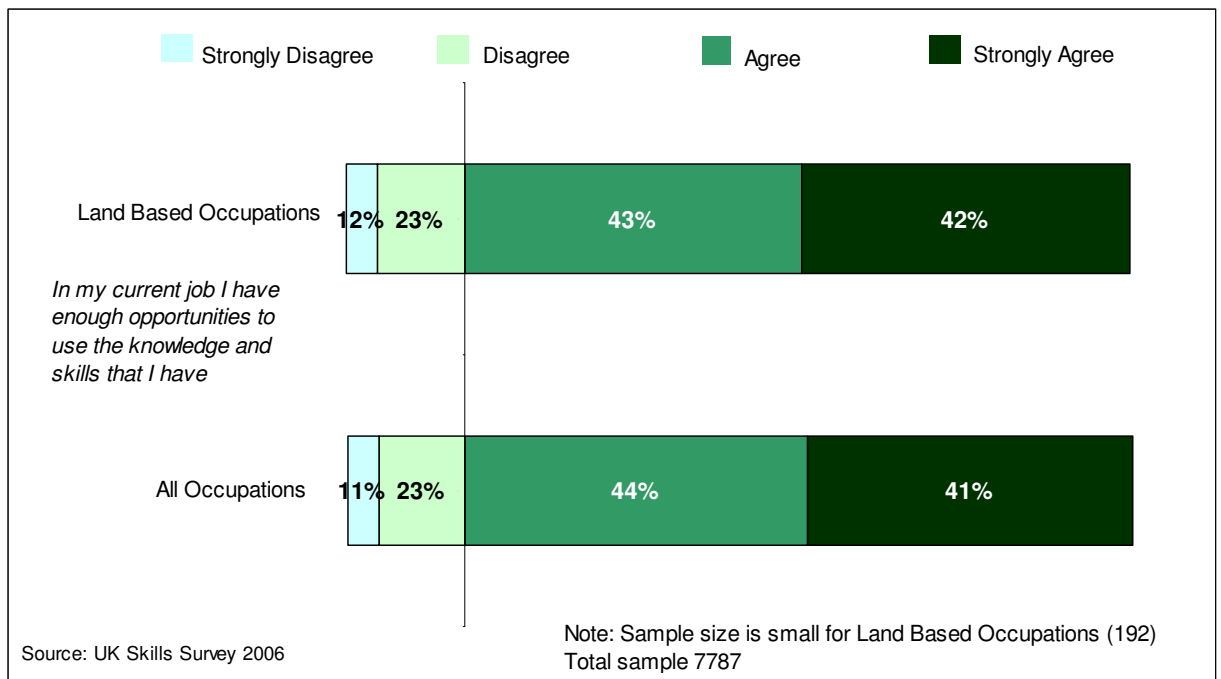
- There are many people working in lower skilled occupations in the sector who are overqualified for their roles. Potentially their skills are not being fully utilised.
- There is a deficit of people with Level 3 qualifications

Fig 4.9 – Are qualifications well utilised (by nation)?



This evidence is supported by findings from the UK Skills Survey, which show that over a third of employees (35%) do not feel that their jobs provide them with enough opportunities.

Fig 4.10 – Skill utilisation



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5. Productivity and high performance working

Chapter summary

- Economic measures of performance are not appropriate for much of the environmental and land-based sector. Many of the industries have environmental or animal welfare goals and operate within the public and voluntary sector.
- Total factor productivity across the wider agricultural sector has risen steadily since the 1970s. The sector has become much more efficient, producing more with less. The sector has increased the value of its outputs by 20% in real terms since 1973, despite the level of inputs (notably labour) falling by 20%.
- Within the agricultural sector Gross Value Added (GVA) per full-time equivalent worker is 29,000 Euros in agriculture. On this measure UK productivity is the sixth highest in the EU. The sector is significantly more productive in the UK than in the Eastern European states. However, productivity lags behind that of small Northern European states, such as the Netherlands, Denmark, Belgium, and Luxembourg. The UK has higher animal health and welfare standards than most of the EU, and it could be argued that there is a trade off between these issues and economic measures of performance.
- Key factors which have led to increased productivity in agriculture have been the technological development and capital investment in machinery (particularly in the arable sector), the introduction of new farming practices and methods, introduction of new crop strains and animal breeds. Since the 1970s average farm size has increased, and larger farms are able to make greater labour savings from investment in machinery.
- Skills (and knowledge) are necessary at a management level to make business/structural changes outlined. The sector will demand different, generally higher level, skills as a result of the changes.
- The adoption of High Performance Working Practices in agriculture, and the wider sector, is low due to the dominance of micro and small employers. Further research is required to understand what constitutes high performance working within the sector.

This chapter looks at how productive the sector is in comparison to the UK, Europe and internationally. It examines how we can measure productivity within the sector; how skills and training affects productivity; and the effect of High Performance Working Practices (HPWPs) on business.

Evidence has been pulled together from a variety of sources. As some of the sector's industries are within the public and voluntary sector the measurement of economic value or productivity is not appropriate. As such, we have focused the analysis on the agricultural sector, on which a wide range of evidence is published.

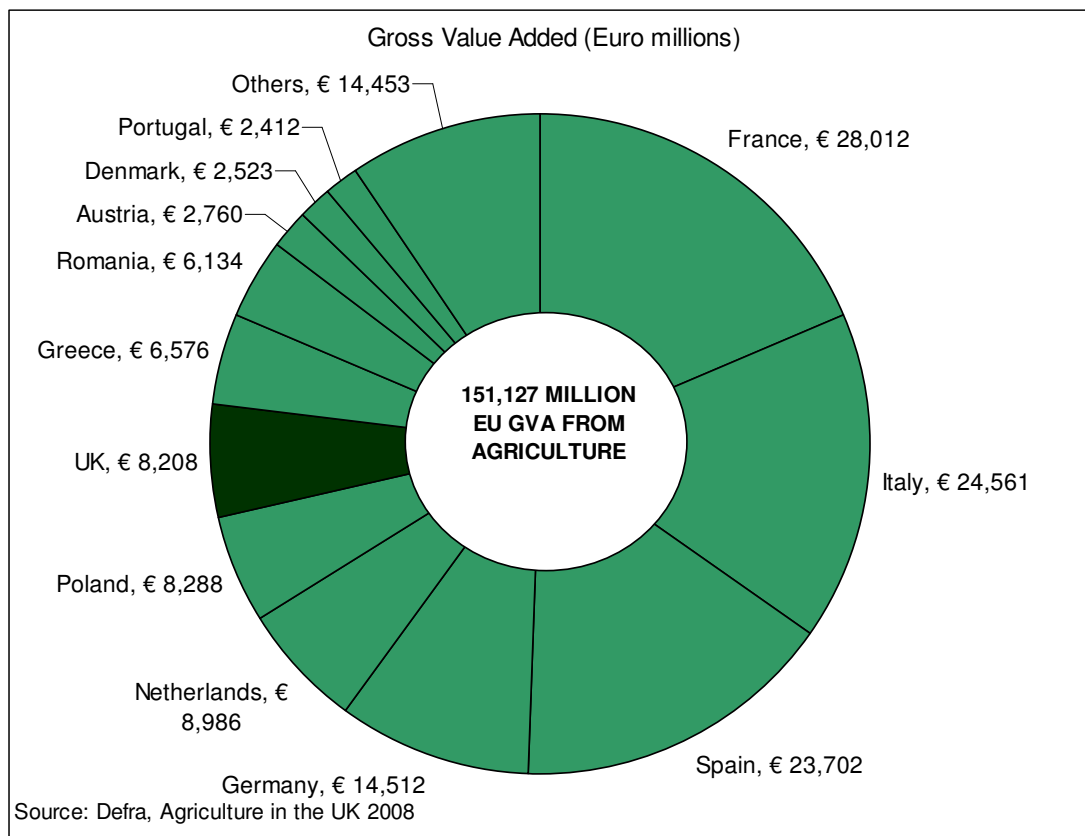
5.1 Productivity and output trends

In its simplest form, productivity is defined as the ratio between output and input. So, increasing productivity means being more efficient at producing the outputs of goods and services from labour, capital, materials and any other inputs that are necessary.

It is hard to measure productivity within the environment and land-based sector industries. Productivity is usually measured by Gross Value-Added (GVA), that is, the difference between the value of goods and services produced and the cost of raw materials and other inputs which are used up in production. GVA is used to measure how each company, industry or sector contributes to the economy. In most sectors of the economy prices are set by the 'selling' businesses, however in agriculture the price is set by the market. Farmers are often described as *price takers* rather than *price makers*.

A number of factors, in addition to skills, will impact on the measurement of productivity in the sector. For instance, within a natural system output can vary as a result of factors not in a businesses control, such as climate or disease. As such if there is bad weather, and poor yields, in other parts of the world agricultural commodity prices will rise and UK agricultural productivity will increase. Figure 5.1 shows the Gross Value Added of the agriculture industry in the UK compared to the other 26 EU member states.

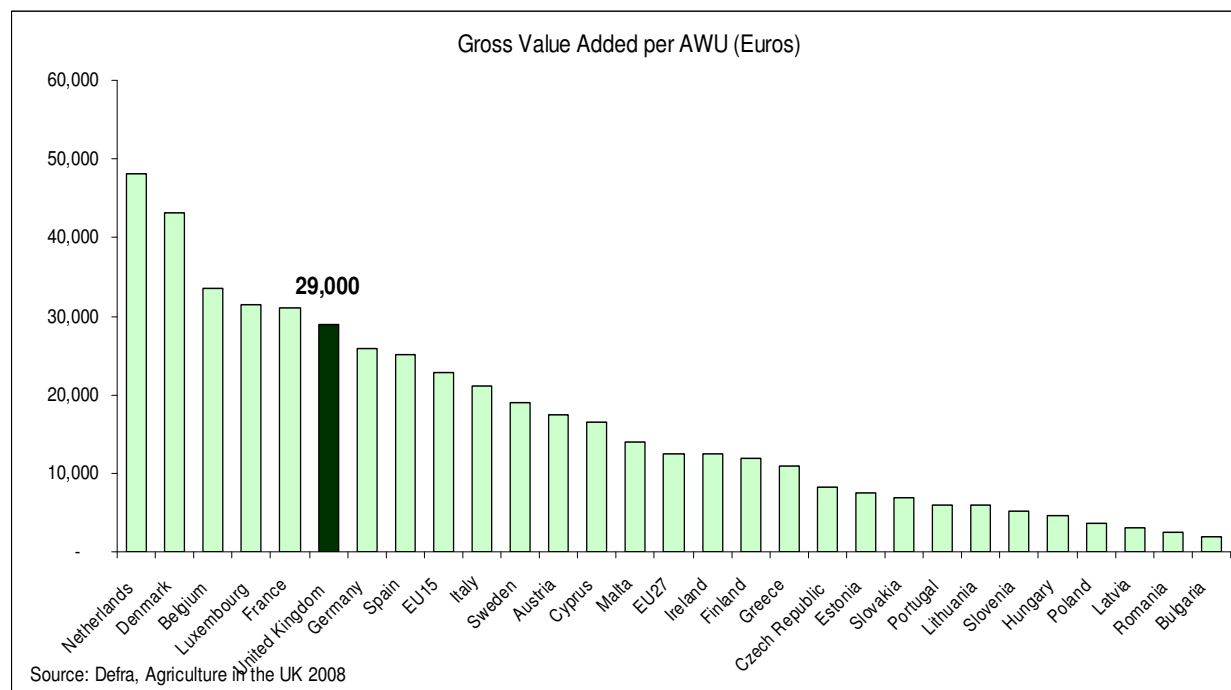
Fig 5.1 Gross Value Added of agriculture by EU member states



Measured in terms of GVA the UK was the seventh largest nation in the EU with only France, Italy, Spain, Germany, Netherlands and Poland with a higher GVA. This is a crude measure of the sector's performance as it does not take into consideration that some countries will have larger agricultural land areas and more employment in agriculture.

The graph shows GVA per full-time equivalent worker (or Annual Work Unit as it is described in agricultural statistics). This graph enables us to compare GVA across countries with different sizes of industry. The UK performs significantly above the EU average, and is ranked sixth in the EU on this measure, close to France, Germany and Spain and significantly more productive than the sector in the new Accession States in Eastern Europe.

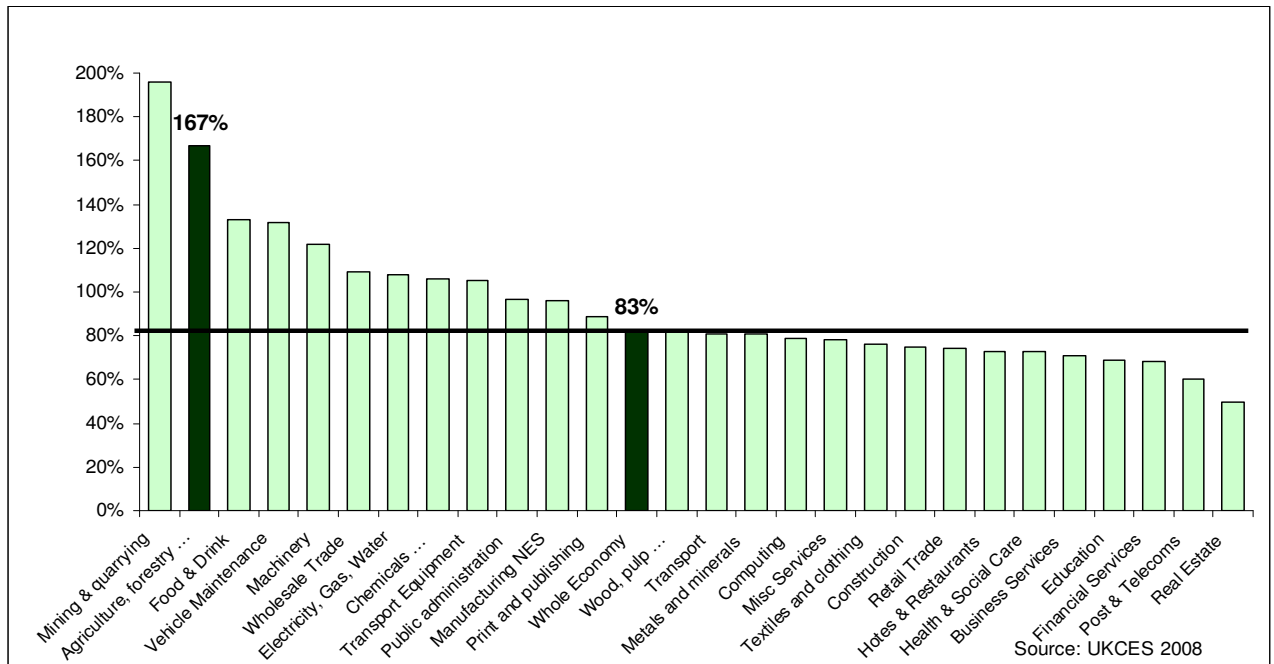
Fig 5.2 Gross Value Added of agriculture by Annual Work Unit



The Netherlands and Denmark have the most productive sectors on this measure; this is many due to their livestock industries. In these countries livestock farming (particularly for pigs and poultry) is more intensive and often with indoor systems, some of which would not be allowed in the UK due to tighter rules relating to animal welfare. The livestock industry in the UK does not farm in such an intensive manner, due to the higher standards of animal health and welfare which have been adopted by the UK governments. As such it is important to consider the balance between economic drivers and animal health.

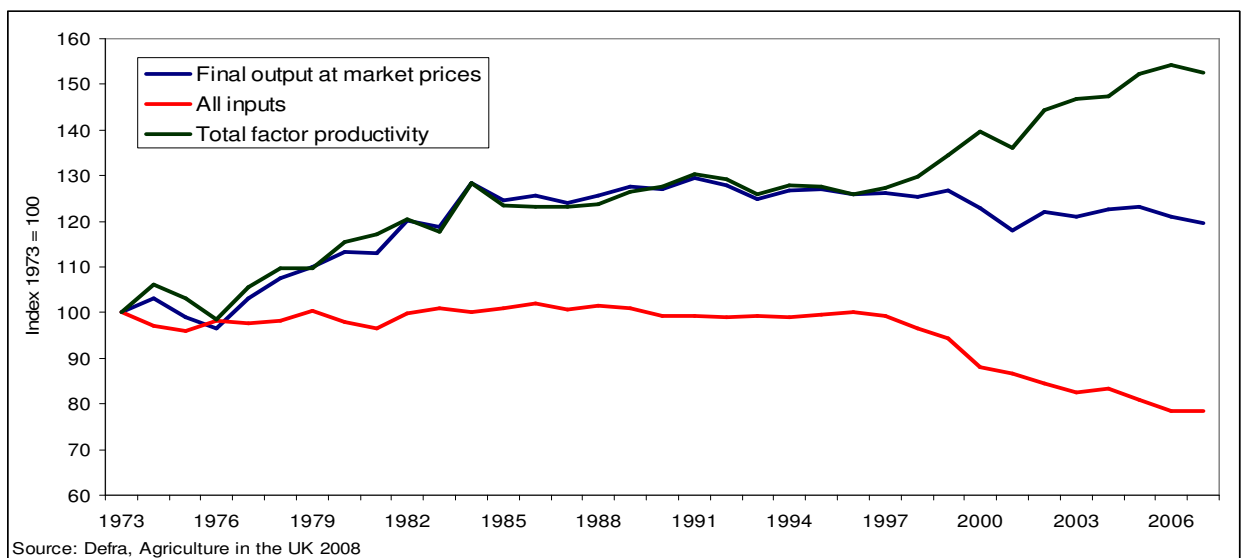
Figure 5.3 shows UK productivity as a percentage of Europe. Here, the sector definition includes forestry and fishing in addition to agriculture. This shows the sector has the second highest productivity of all industries, in comparison to the EU. Whereas the UK's overall productivity is 83% of that across the EU in the sector, UK productivity is 167% of EU levels.

Fig 5.3 – UK Productivity by sector as a % of EU average



Figures 5.4 shows total factor productivity trend. That is the volume of output leaving the industry per unit of all inputs including fixed capital and labour. It includes all businesses which are engaged in farming activities, including specialist contractors.

Fig 5.4 Productivity in agriculture 1973 - 2007, UK



According to Defra statistics, since 1973, agriculture productivity has grown by 52%, the volume of final output at market prices has increased by 20% and the volume of all inputs has fallen by 22%.

5.2 Training and productivity: the business benefits of training

It is well evidenced that a well-trained, skilled workforce has been linked to higher productivity. Skills can account for around an 8% productivity difference between well performing and poorly performing organisations.¹⁶ Investment in training has been shown to result in higher profits for example, raising the proportion of workers who are trained in an industry by just five percentage points (e.g. from 10 to 15%) is related to a 4% increase in value-added per worker.¹⁷

As well as increasing productivity, training has been shown to contribute to workplace survival by reducing the chances of a business shutting down by around a half. During a study of businesses between 1998 and 2004, 1 in 4 businesses which did not train shut down during the period, compared to 1 in 9 of businesses who did train.¹⁸

Increasing skills of employees could lead to an increase in wages, with highly skilled workforces demanding a higher salary bracket, however research has shown that benefits to the employer (e.g. increased productivity) exceed any increase in wages.¹⁹

However just providing ad hoc training is not enough. For a business to gain the most benefit from training, particularly within small businesses, the training needs to be applied consistently and strategically. It is important that training is thoroughly planned out by employers so that it is related to performance requirements and skills need, rather than just focusing on the quantity of training. In order for training to be consistent and focused, it is essential that businesses have a training plan.

¹⁶ LSC: Skills in England 2007 Volume 1: Key Messages Sept 2007

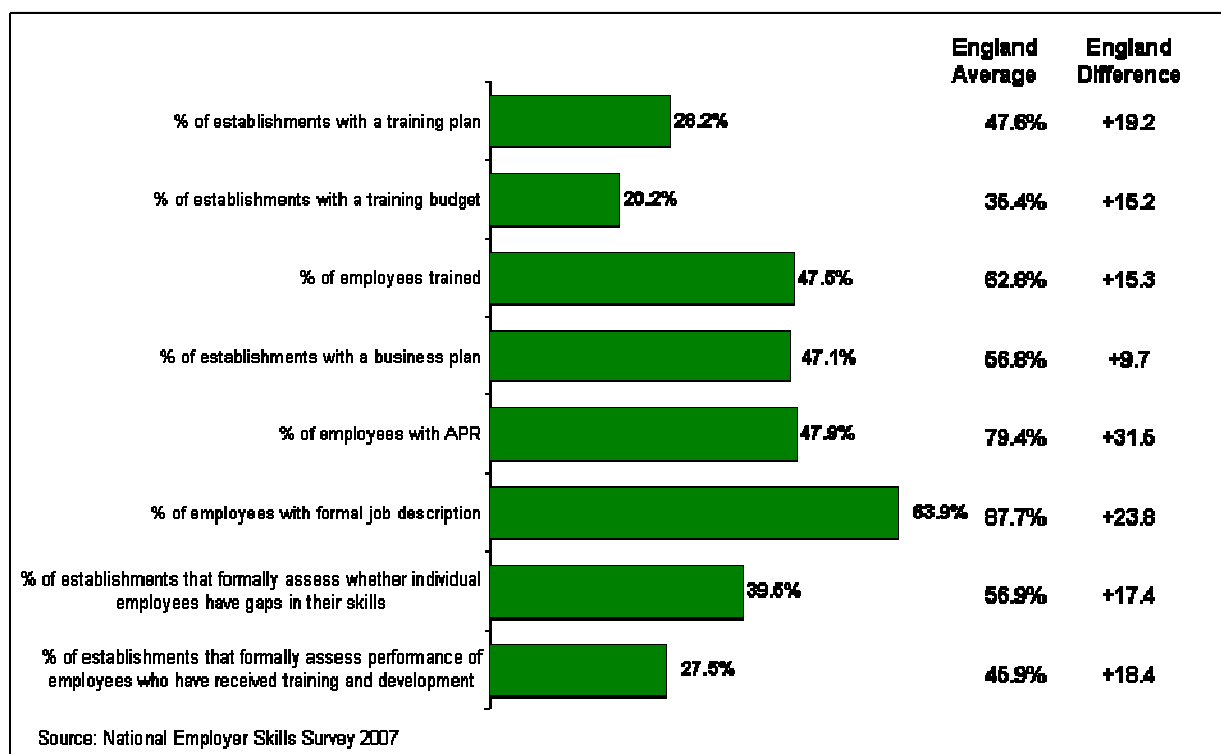
¹⁷ UKCS, Skills Pay: The Contribution of Skills to Business Success, September 2004

¹⁸ UKCES, Training, Job Satisfaction and Establishment Performance May 2007

¹⁹ UKCS, Skills Pay: The Contribution of Skills to Business Success, September 2004

Figure 5.5 shows how businesses within Lantra's footprint perform for eight key training indicators, compared to England overall.

Fig 5.5 Training indicators

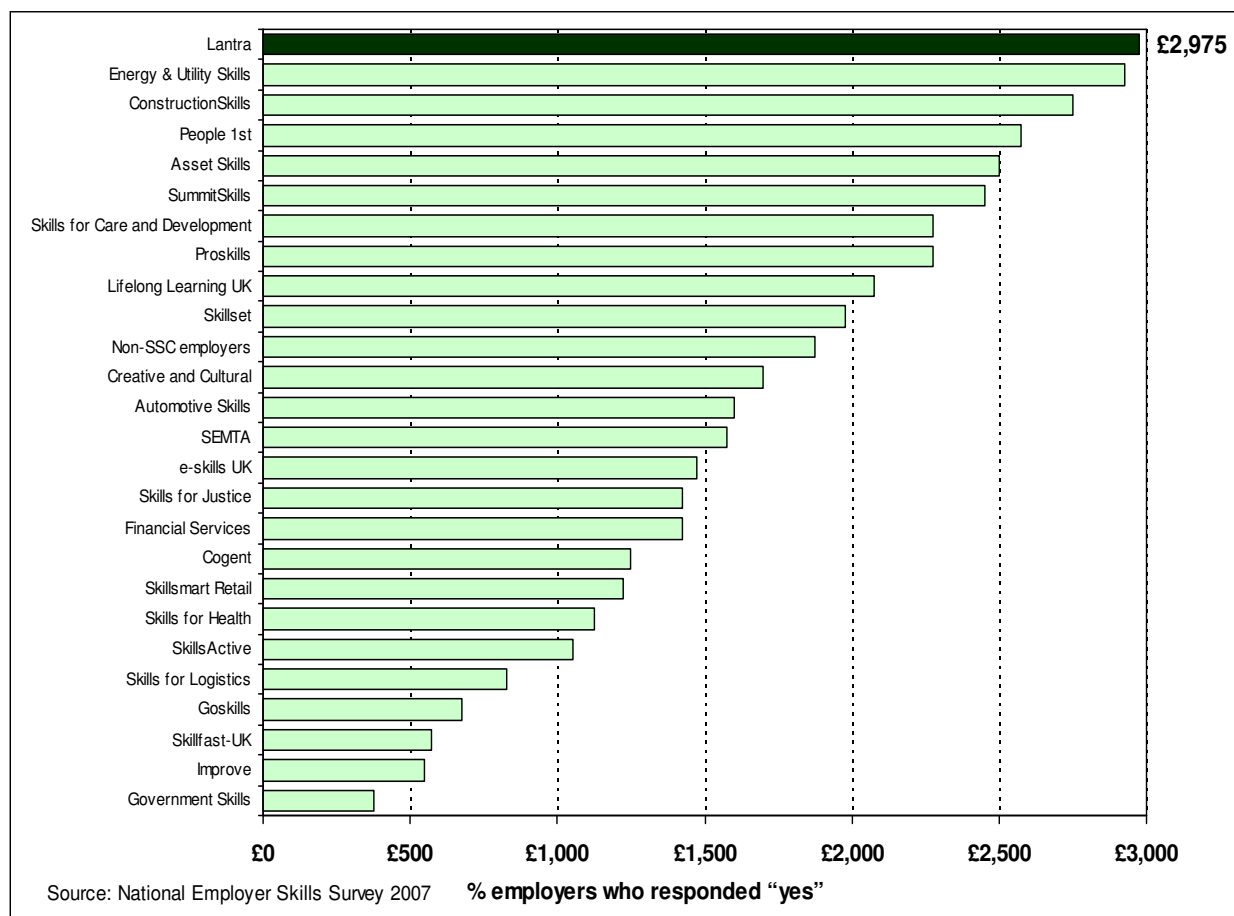


The environmental and land-based sector scores less than the England average for each of the training indicators. Some 28% of businesses within Lantra's footprint in England have a training plan. This is 19 percentage points lower than the England average of half of all businesses. Less than half of employees in the sector have undertaken training.

The reasons for the low level of training activity can partly be explained by the lack of formal systems and planning in businesses to support this training. *Cost*, and closely related to this *time*, are also significant barriers to undertaking training.²⁰ The cost of undertaking training is significantly higher in the sector. Figure 5.6 shows the training spend by employee (£s) for SSC sectors in England. Lantra leads all SSCs with just under £3,000 spent per employee. This is due to the dominance of micro-businesses within the sector.

²⁰ A more detailed analysis of these issues is included within the Assessment of Current Provision for the environmental and land-based sector (2009) Lantra

Fig 5.6 Employer training spend per employee (England only)



Analysis of this data by IFF research²¹ and the UK Commission for Employment and Skills²² has concluded that the size of business is the primary factor at work in terms of this distribution. For off-the-job trainees, the smallest employers spend around eight times the amount on off-the-job training that the largest employers spend; for on-the-job training the smallest employers spend approximately six times the amount the largest employers spend per on-the-job trainee. They conclude that the lack of economies of scale for small employers is the reason for this.

5.3 High Performance Working Practices (HPWPs)

As we outlined in Chapters 3 and 4, skills levels in the sector are rising yet there is still evidence of skills deficiencies in the workforce. Training to increase skills is proven to make a positive contribution to organisational or business performance; however skills should not be seen in isolation. Just increasing skills with training is not enough. This is because the potential of a skilled workforce is not always turned into real performance. The utilisation of skills within the workforce is essential. Improved organisational productivity and management capacity are essential for success.

²¹ National Employer Survey Main Report (2008) IFF Research

²² Ambition 2020: World Class Skills and Jobs for the UK (2009) UKCES

To ensure that skills are utilised effectively a combination of elements need to be in place. These elements have a strong focus on other human resources practices but also business planning. These practices are known as High Performance Working Practices (HPWPs).

The Skills for Business Network Employer Survey identifies 16 'high performance' practices:

1. Whether the employer funded or provided training in the previous 12 months
2. Whether the employer operated any one of the following workforce development practices: supervision structures; work shadowing; 'work stretching'
3. Whether the employer conducts training needs assessments
4. Whether the employer has a training plan
5. Whether the employer has a training budget
6. Payment of bonuses based on overall organisational performance
7. Individual performance-related pay
8. Flexible benefits (e.g. for child care, travel costs, medical expenses)
9. Whether the employer conducts staff appraisals
10. Formally assess performance of employees who have received training or development
11. Existence of formal procedures for employee consultation
12. Consultation with trade unions on matters other than pay and conditions
13. Establishment accredited for IIP (or within organisations accredited for IIP)
14. Accredited for ISO 9000
15. Creation of teams for specific projects
16. Existence of a formal written business plan

The application of HPWPs is not a 'tick box' approach. There is no magic formula to create a more productive business and consequently there is confusion around which practices are the most important.

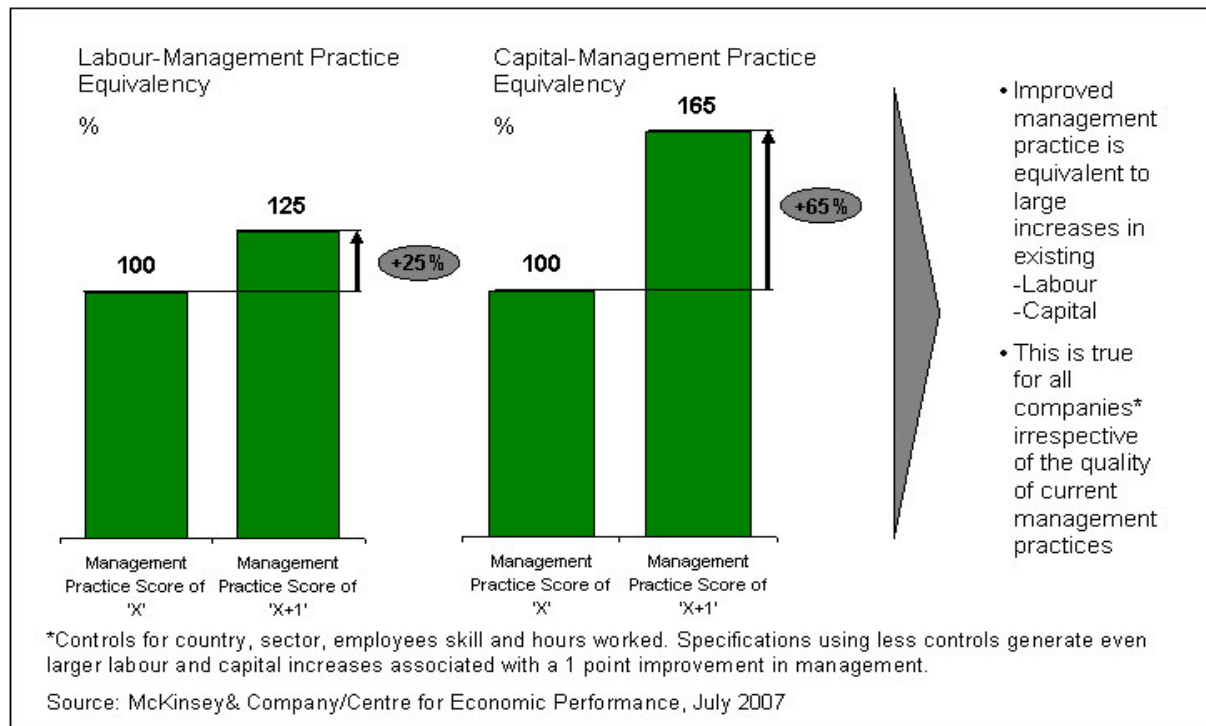
DTI research suggests that there is no right or wrong way of applying practices as long as three core principles are adhered to:²³

- Senior management lead the process and develop a strong supporting culture
- Appropriate people management policies are consistently and effectively applied
- High performance organisational practices are clearly linked to organisational objectives and business goals.

²³ DTI, HPWPs: Linking Strategy and Skills to Performance Outcomes 2005

The role of management is key for productivity. Improving management practice is associated with large increases in productivity and output.²⁴ Research into manufacturing operations by McKinsey & Company and the Centre for Economic Performance showed that just a single point improvement in management practice was associated with the same growth in output as a 25% increase in the labour force or a 65% increase in invested capital (Figure 5.6).

Fig 5.6 Relationships between management practices and productivity



However the research demonstrated that many businesses lacked insight into their own poor management practices, not recognising that their management practices needed improving and so not putting measures in place. By doing so, businesses are missing out on the opportunity to significantly improve their businesses management practices and, in turn, increase productivity.

HPWPs and small businesses

The Skills for Business Employer Survey shows that 30% of establishments are using at least 10 of the 16 HPWPs identified above. However within Lantra's footprint this is only 7%. This is likely to be due to the size of the businesses.

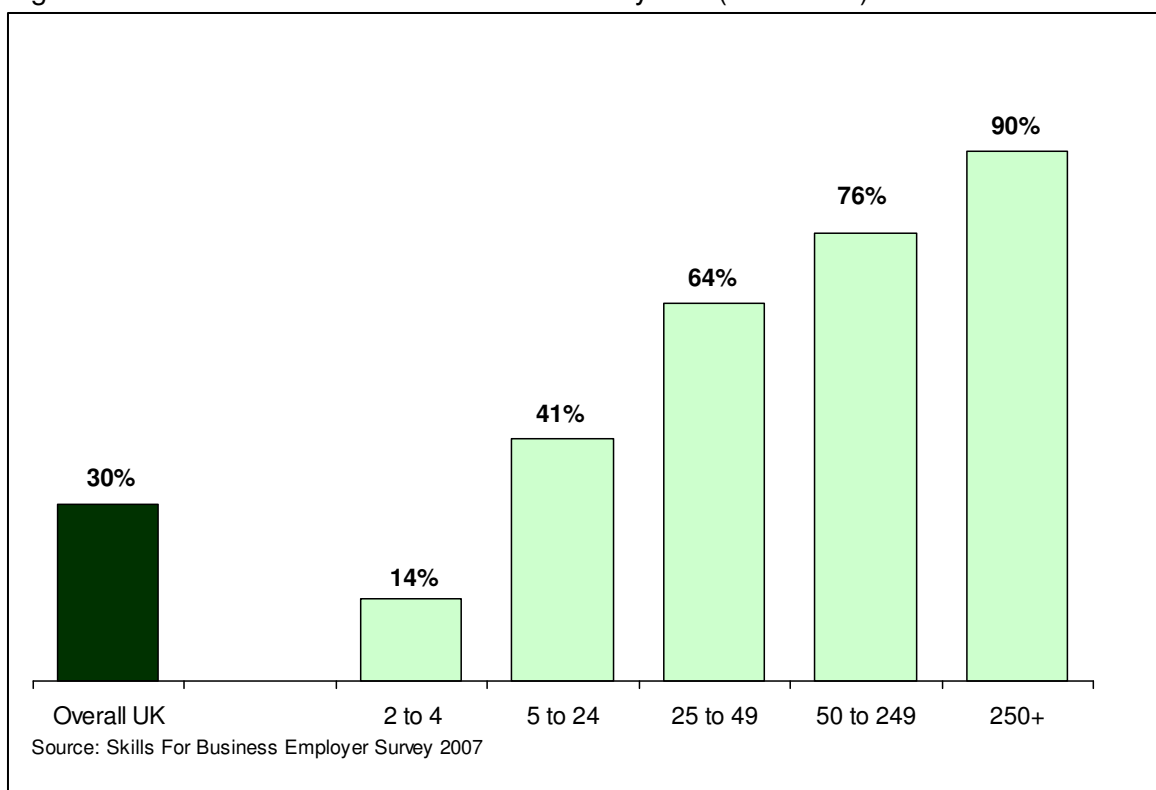
²⁴ McKinsey & Company, Management Practice and Productivity: Why they matter; July 2007

Research has identified that many small businesses do not have enough internal resources for it to be feasible to adopt certain HPWPs. For example, at a basic level, creating teams to work on projects would be problematic with a business of less than four employees. Certain practices would require a financial commitment which may be seen as out of reach for small businesses, such as Investors in People or the ISO 9000 quality management system.

The Skills for Business Employer Survey examines the relationship between establishment (business) size and the take up of HPWPs in more detail. The research found that uptake differed greatly by the size of the establishment.

Figure 5.7 shows the proportion of businesses with ten or more HPWPs by business size. It is clear that the larger the size of the business, the higher the proportion of businesses with ten or more HPWPs. The proportion of businesses adopting at least ten HPWPs ranges from 14% of businesses with two to four staff, to 90% of businesses with 260 or more staff.

Fig 5.7 Establishment with 10 or more HPWPs by size (all sectors)



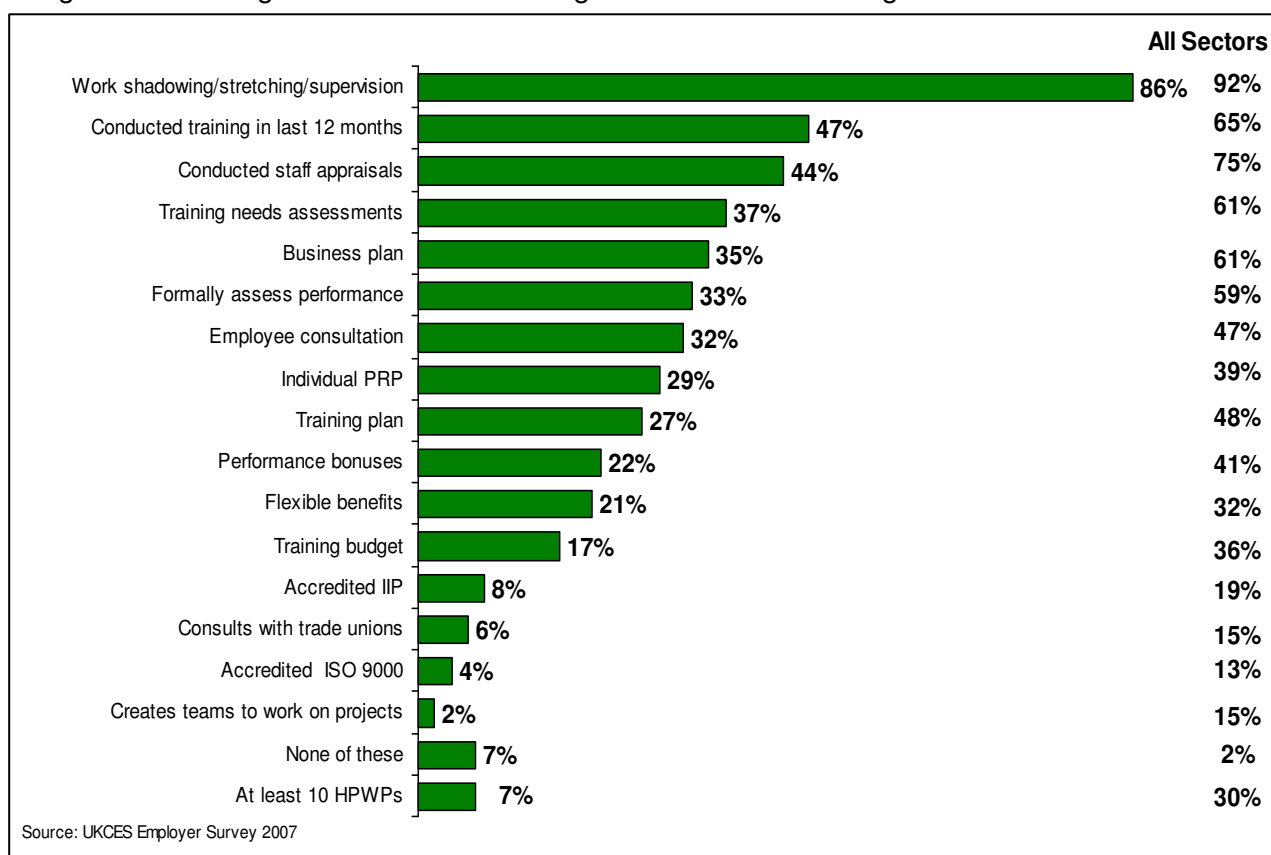
It is also worth noting that the survey found that the adoption of HPWPs is dominated by public sector and/or relatively large, often multi-site establishments. The assumption could be made that this is due to the size and focus of these establishments. Research amongst SMEs showed that 96% of companies surveyed did not have a dedicated HR Manager.²⁵ Instead human resources responsibilities were absorbed by general managers as part of their usual role. The lack of a dedicated HR manager may not have the resources to commit to adopting and implementing certain HPWPs.

HPWPs and Lantra

Figure 5.8 shows the percentage of businesses within Lantra's footprint which undertake each High Performance Working Practice. Some 7% of the businesses in the environmental and land-based industries surveyed have adopted at least ten HPWPs compared to 30% of all businesses in England. Some 7% of the businesses in Lantra's footprint do not adopt any of the practices listed compared to just 2% of UK businesses overall. Only a third have a formal written business plan.

Practices which are undertaken by the largest proportion of environmental and land-based businesses are work shadowing (86%), conducting training (47%) and conducting staff appraisals (44%).

Fig 5.8: Percentage of businesses with High Performance Working Practices



²⁵ University of Kent, High Performance Work Systems in SMEs: Do they really exist? 2008

Although official data suggests that environmental and land-based businesses may be falling short in adopting high performance working practices, evidence suggests that many of Lantra's businesses may be undertaking variations of HPWPs but they are often not formally recognised and therefore not captured in surveys.

For example, although businesses in Lantra's footprint may not be accredited to ISO 9000 quality standards, there are other standards which are adhered to by a variety of businesses demonstrating quality from animal welfare to environmental responsibility.

Red Tractor Food Assurance - The Red Tractor quality assurance scheme for England and Wales is an independent mark of quality that guarantees the food being sold comes from farms and food companies that meet high standards of food safety and hygiene, animal welfare and environmental protection.

Lion Quality Scheme – The Lion Quality mark, is a registered trademark, which can only be used by subscribers to the BEIC on eggs which have been produced in accordance with UK and EU law and the Lion Quality Code of Practice. Approximately 85% of UK eggs are now produced to Lion Quality standards.

Northern Ireland Beef and Lamb Farm Quality Assurance Scheme (NIBL FQAS) - The NIBL FQAS gives assurances to farmers' customers (abattoirs, wholesalers, retailers and consumers) about the quality of the farm on which their beef and lamb has been produced. The standards go beyond the relevant, minimum legislation and demands 'best practice' is followed by approved producers.

Quality Meat Scotland (QMS) - QMS is a non-departmental government body which runs a range of Consumer Assurance Schemes, including Cattle and Sheep, Pigs, Processors, Feeds, Hauliers and Auction Markets. Member farms are assessed regularly to ensure that they are adhering to the strict standards and codes of practice set out by QMS.

Farm Assured Welsh Livestock - Farms that belong to the Farm Assured Welsh Livestock comply with a set of standards ensuring high standard of animal welfare, husbandry, hygiene, and environmental controls.

Protected Geographical Indication (PGI) - Welsh Lamb and Beef can gain PGI status, that is, only lambs and cattle born and reared in Wales and slaughtered in an approved abattoir can be marketed as Welsh, in the same way that only ham from Parma from pigs reared in a certain way, can be called Parma ham. This status comes with strict standards that are monitored at every stage of the supply chain.

Master Florists - Independent florists can apply to be listed on the Master Florist directory. There is a strict vetting procedure and florists must subscribe to the industry Code of Practice which is set and assessed by the British Florist Association (BFA).

UK Woodland Assurance Standard (UKWAS) - UKWAS is an independent certification standard for verifying sustainable woodland management in the UK. The Forest Stewardship Council (FSC) and the Programme for Endorsement of Forest Certification Programmes (PEFC) provide information and advice about accredited certification bodies (also referred to as 'certification authorities' or 'certifiers') able to carry out an independent third party evaluation against the UKWAS standard.

There are also trade associations and member organisations where members are encouraged to adhere to standards of practice. In order to be eligible to join, businesses are vetted in areas such as the quality of work, premises, paperwork and accounts, work ethics, health and safety issues to ensure that they meet the required standards.

British Association of Landscape Industries (BALI) - BALI was established in 1972 to provide a voice for landscapers and, most importantly, to raise standards throughout the industry.

Linking Environment and Farming (LEAF) - LEAF was established to develop and promote Integrated Farm Management (IFM). IFM is a whole farm policy which provides the basis for efficient and profitable production which is both economically viable and environmentally responsible. As a member of LEAF farmers have access to a Leaf Audit, which is a practical whole farm business management tool.

6. Drivers for change

This chapter considers the main drivers for skills demand across the sector, including those arising from competitive position strategies, the impact of international competition and wider environmental changes. The sector analysis of drivers is grouped under the following headings:

- Climate change
- Food security
- Animal health and welfare
- Energy and fuel security
- Labour supply
- Economic
- Health and safety.

These are the key priorities identified by sector business at Lantra's Council meeting held in July 2008. More detail of how the drivers vary by nation, region and industry is provided within the factsheets. This information has been developed following qualitative research with each of the industry and national advisory groups. Lantra will be undertaking further research into innovative practices within the sector during November 2009. The aim of this research will be to understand new practices which have been adopted by cutting edge businesses and explore the benefits and skills implications of these.

6.1 Climate change

Climate change is having an effect on the processes and operations of the sector. This affects water supplies, crop development and the types of crops that can be grown and in which locations. The sector has a positive input into this agenda with the ability to not only produce non-fossil fuels but to produce sustainable alternatives and so contribute to the overall reduction in greenhouse gases.

As a result of climate change businesses in the sector have to adjust to the following influences:

- Increasing demands to demonstrate how they manage their business in an environmentally responsible manner – with specific requirements to contribute to a low carbon economy
- Management of scarce resources such as water
- Management of resources which can have a damaging impact on the environment such as nitrates

- The need to plan the use of plants and landscapes to survive changes 20 years ahead
- Along with energy prices, climate change is forcing businesses to review their use of energy and to recycle energy and use alternative sources
- Biodiversity
- Skills for Sustainability.

6.2 Food security

Following difficulties faced by industry in the wake of such outbreaks as Bird Flu, Salmonella and Blue Tongue the issue of biosecurity is now paramount. The issues and business drivers around food security are becoming much more important to consumers and producers alike. Businesses need to be able to identify and manage risk. Consumers expect high standards and a wide range of choice of products. Assurance schemes require traceability and robust systems in the food chain which impact on primary producers.

As a result of food security, businesses in the sector have to adjust to the following influences:

- Consumer behaviour – demands for greater convenience, healthy lifestyles, wide range of choice
- Increasing drive for economic, environmental and social sustainability in the farming and food sector
- Food quality, traceability and quality assurance
- Globalisation, developments in trade and markets and (sustainable) supply chains
- New approaches to land management. Conflicting priorities for land-use/planning decisions.

6.3 Animal health and welfare

Animal health and welfare has become increasingly important to owners, veterinary surgeons, para-professionals and animal carers, occupations involved in the livestock industry, consumers, members of the public and governments. The Animal Welfare Act [and Animal Health and Welfare Act (Scotland)] is the most comprehensive modernisation of laws on domestic and captive animals for a century. A new duty of care, together with the consolidation and review of over 20 pieces of animal welfare legislation relating to farmed and non-farmed animals has provided these industries with an array of factors affecting business performance and professional development.

As a result of animal health and welfare, businesses in the sector have to adjust to the following influences:

- Codes of practice driving up standards in respect of duty of care and the transporting of animals
- EU legislation outlining standards of practice
- Biosecurity
- Disease identification and control
- Risk management.

6.4 Energy and fuel security

The sustainability of fuel and energy sources, together with their market and consumer prices is constantly in the news. Not only are the operating costs of the sector adversely affected by this global market change but the sector is now being regarded as a sector able to research and develop potential (and sustainable) solutions.

As a result of energy and fuel security businesses in the sector have to adjust to the following influences:

- Rising energy and fuel costs
- Alternative and renewable energy sources
- Energy efficiency
- Natural resource management
- New/biotechnology
- Local food procurement.

6.5 Labour supply

The sector has an ageing employment profile in an increasingly competitive job market. The expansion of the EU has provided new sources of migrant labour but also restricted seasonal schemes as new migration policy is implemented. Young people, career changers and non-traditional groups must be attracted to the sector. The sector needs to raise its profile and that of the highly skilled jobs and career progression open to those working in the sector.

As a result of the supply of labour businesses in the sector are having to adjust to the following influences:

- Demographic profile of the sector – high replacement demand and the need to provide skills development opportunities for adult new entrants and career changers together with the need to retain and develop staff
- Skills intensification of work; technological advances; diversification and commercialisation
- Image of the sector – the need to engage with young people, the careers advisory services and the 14-18/19 curriculum across four countries
- The supply and quality of migrant workers – recognition of their skills and experience and engagement with migration policy.

6.6 Economic

Much of the sector operates within a policy-driven framework, whether driven by UK governments, European Union or the World Trade Organisation. The evolution of markets both within the EU and globally and increased competition and changes in consumer behaviour means that markets for products and services are constantly being redefined. Increased consumer spending in the amenity horticulture and garden retail, countryside recreation, equine and natural heritage sectors place a greater emphasis on the provision of high quality services and the impact of the sector on social and community inclusion.

As a result of economic drivers businesses in the sector have to adjust to the following influences:

- Consumer spending – Section 7.1 reviews the impact of recession on the sector
- Implementation of Common Agricultural Policy (CAP) reform, including Cross Compliance
- Urban/rural regeneration – including the social inclusion agenda and environmental enhancement
- Technological change
- Modernisation of rural delivery
- Regional, national, UK and EU policy
- Sustainability
- Globalisation of markets
- Commodity and produce prices.

6.7 Health and safety

Whilst this is an issue for all industries in the sector, some industries by the nature of the work they carry out are considered as priority targets by the Health and Safety Executive, particularly agriculture, horticulture and forestry.

As a result of health and safety drivers businesses in the sector have to adjust to the following influences:

- Risk assessment – for example; lone working, working with animals, family run businesses (deaths to children and public as workplace is the home also) and ageing workforce
- Legislative requirements
- Recognition of competence/self-regulation.

7. Employment trends

Chapter summary

- Employment in the sector has fallen by 24% since 1997, and forecasts suggest overall employment levels will continue to decrease, albeit, at a slower rate.
- Despite the decline in employment levels the sector has a significant future labour requirement, mainly due to the high levels of replacement demand driven by the workforce age profile. The Institute of Employment Research Working Futures projections suggest that the sector will need to attract 110,000 new entrants over the next ten years. This is likely to be an underestimate, as these projections exclude a number of Lantra's industries.
- The proportion of workers employed in high-skilled occupations has risen from 16% in 1997 to 20% in 2007 and is forecast to rise to 23% by 2017.
- Overall, the proportion of workers employed in low-skilled occupations has decreased from 37% in 1997 to 34% in 2007 and is forecast to decrease further to 31% by 2017. This reduction in low-skilled occupations is seen in England, Scotland, and Northern Ireland; however, in Wales the proportion has remained almost constant.

This chapter examines how employment in the sector is expected to change over the next 10 years. The data has been generated as part of the *Working Futures* project undertaken by the Institute of Employment Research (IER) in 2008 and is based on official Standard Industrial Classifications (SIC 2003). The projections are based on a continuation of past patterns of behaviour and performance. Therefore they indicate what is likely to happen and should not be regarded as what will necessarily happen.

Lantra's footprint is not well defined by SIC therefore it is only possible to provide a picture for the changes occurring within some of the environmental and land-based industries namely agriculture (including production horticulture and agricultural services), forestry, and veterinary nursing and ancillary activities.

It should be noted that the *Working Futures* model was run during February 2008 when the "credit crunch" had started but before the UK entered recession. We have not included short-term numerical projections of the impact of recession; rather we discuss the impact of recession on the sector next, before analysing the long-term employment projections.

7.1 Impact of recession

The environmental and land-based sector has a diverse spread of 17 industries. Although these industries share many common characteristics the recession has not affected all industries in the same way. Broadly speaking, it is the industries which are reliant on discretionary consumer spending (notably *floristry*) or are linked to the construction sector (such as *Trees and timber*, *Fencing* and *Landscaping*) which have been most adversely affected by the recession. Although some elements of the agricultural industries has been affected (such as organic production) demand for food is non-cyclical, and as such the sector has weathered the downturn more strongly than most parts of the economy.

Agriculture

Food and drink is one of the few areas in which the recession is likely to present positive opportunities. Historically, agriculture has acted in antithesis to other UK industries during times of overall economic decline. Generally speaking, the weakening of domestic currency (£Sterling) relative to the rest of the world acts to reduce import pressures on UK farmers (i.e. the cost to import produce effectively increases) and similarly elevates UK export prices. Under these circumstances, the prospects are favourable for domestic agricultural business assuming weather and growing conditions are strong.

However, the recent cold winter reduced the UK's vegetable crop yield in the face of higher than expected demand. The importation of produce was therefore necessary over this period; this meant greater input costs for intermediary companies (in terms of both quantity and price). The situation was further accentuated by the receding confidence in the pound. Now that England's primary growing season is upon us, the country's agriculture should improve greatly both in terms of exporting greater quantities of produce and supplying a higher proportion of the domestic market.

The economic crisis is changing consumer attitudes. Expensive organic and fair trade products are being abandoned as the economic downturn takes hold. Consumers are seeking cheaper better value for money alternatives to organic lines, regardless of the product's environmental credentials. Farming strategies will therefore need to realign themselves with these current market demands.

The Farmers Guardian reported that during 2008 borrowing in the agricultural sector increased by £950 million to £11.1 billion. Although production in the sector should remain stable at least over the coming year; the servicing of these debts is a concern as the cost of credit is increasing. Producer confidence is likely to be affected as purchases of inputs (e.g. animal feed, fuel, and fertilisers) become an increasing burden. Large machinery purchases are likely to be avoided. Specifically, tenant farmers are to face further difficulties in obtaining bank loans, as they have no collateral/security to support their loan application.

Trees and timber

Within the trees and timber industry demand has evaporated; many businesses face the unpleasant scenario of short-term working and redundancies. Although timber stocks have risen, production for 2008 is estimated to have decreased by as much as 25-40% on the 2007 figures (estimates reported in the timber trades journal: 20/12/08). All parties involved along the wood supply chain, from harvesting contractors to panel products, are suffering.

Staff retention is expected to become a critical issue in the months ahead. Experienced people are leaving the sector and there is no guarantee that they will return when things improve. There is a large base of self-employed contractors who do the harvesting and maintenance work for larger companies, who are now looking extremely vulnerable. The industry will be left with a gap in employment/skills if these people were to fall out of the sector.

Relative collapse in research and development funding has contributed to a lack of innovation within the industry; which leaves several businesses badly placed to capitalise on opportunities when an economic upturn occurs.

Production horticulture

The recession has made it easier for businesses within the production horticulture to recruit labour from local populations. Industry representatives suggest that the composition of the production horticulture's workforce is changing. Until recently migrant workers (due in the main to beneficial currency exchange rates) had been in the majority, whilst local workers considered the work not fit for their status. However, given the weakening of the pound this situation has altered. Foreign workers now look upon the industry less favourably because the returns are not as attractive; whilst in times of high domestic unemployment local populations seem more willing to accept whatever work opportunities become available.

Landscape

A downturn in the housing market has seen a reduction in the number of new housing development projects; the consequence of which has been felt two-fold by the landscape industry. Firstly, the availability of work itself has declined due in part to this slow down in housing developments, but also owing to the general cutbacks in household expenditure on "luxury" items. Secondly, the shrinkage in employment within construction has displaced a number of workers and labourers (both skilled and unskilled) into neighbouring industries, such as landscape. Dialogue with employers suggests that this displacement has resulted in a proliferation of 'cowboys' within the industry. These non-specialists now threaten to undercut their higher-skilled competitors in order to secure what little work is available.

Fencing

Contrary to trees and timber and landscape, another industry linked to construction, fencing looks to be on the rise again as contracts return following a particularly difficult Christmas period.

Floristry

During the economic downturn the UK is witnessing a decline in discretionary spending by households. This directly affects the floristry industry. Anecdotal evidence suggests that floristry businesses are closing down each week as a result of this recent frugal consumer mentality.

The suggested impacts of the recession on floristry wholesalers are, however, more ambiguous. Whilst some wholesalers appear to be performing well in a struggling marketplace, others are collapsing due to the bankruptcies of key customers who still owe substantial sums to the businesses.

Environmental

The environmental sector, as a largely government-funded sector, is likely to experience some short-term cutbacks (i.e. recruitment will be reduced) but will largely remain stable.

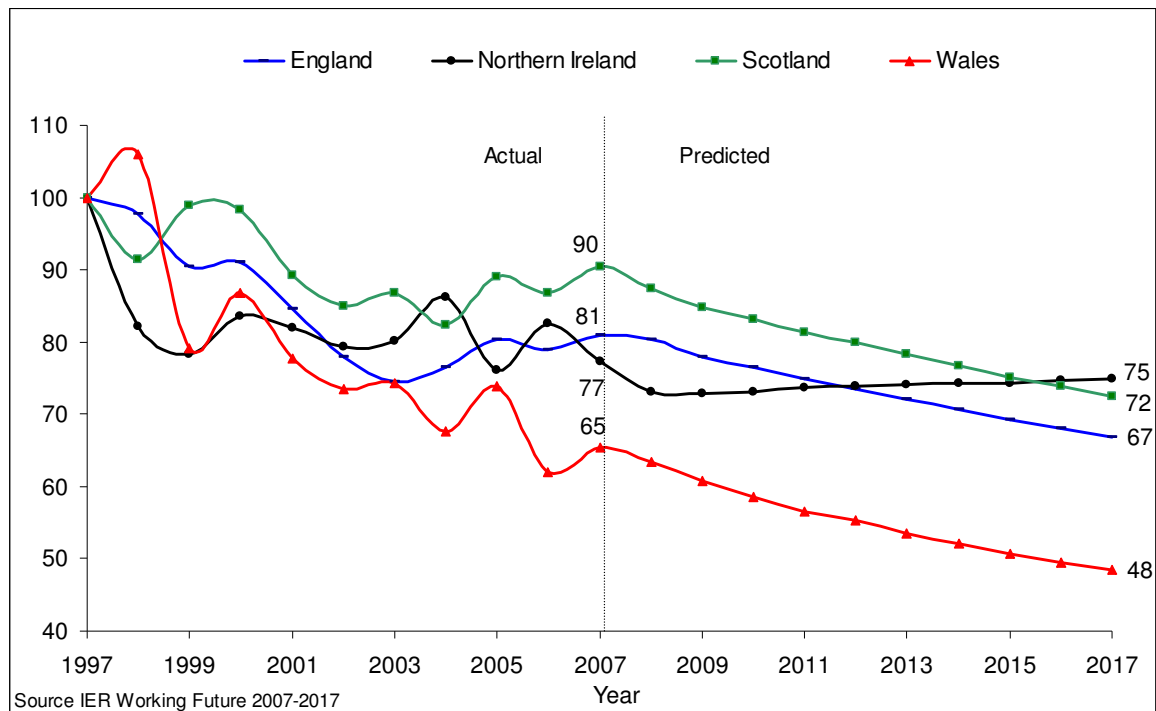
7.2 UK summary

The Working Futures projections show that employment levels in the environmental and land-based sector declined by 24% between 1997 and 2007 (compared to an 11% rise in the whole economy).

Working Futures 2007-2017 highlight a number of issues which have contributed to this decline:

- Farms within the European Union were subsidised for their production under the Common Agricultural Policy (CAP). CAP subsidies for production have been removed, with farms now only receiving payments for undertaking environmental management measures in the form of the Single Farm Payment. The viability of smaller farms is being called into question.
- Agricultural prices and incomes have fallen for many years. The recent increase in agricultural prices would have been welcomed by arable farmer (which isn't labour intensive), but will have adversely impacted on the livestock industry in the form of increased feed costs.
- The sector has been beset by problems such as Foot and Mouth Disease and Blue Tongue which have added to the pressure on the livestock industry.

Fig 7.1 Change of sector employment levels, UK 1997 - 2017 (Index: 1997 = 100)



Looking forward to 2017, the Working Futures projections show both output and productivity will increase over the next ten years. However, long-term productivity growth is expected to outpace output growth, and so employment is expected to fall by 2-2.5% per annum.

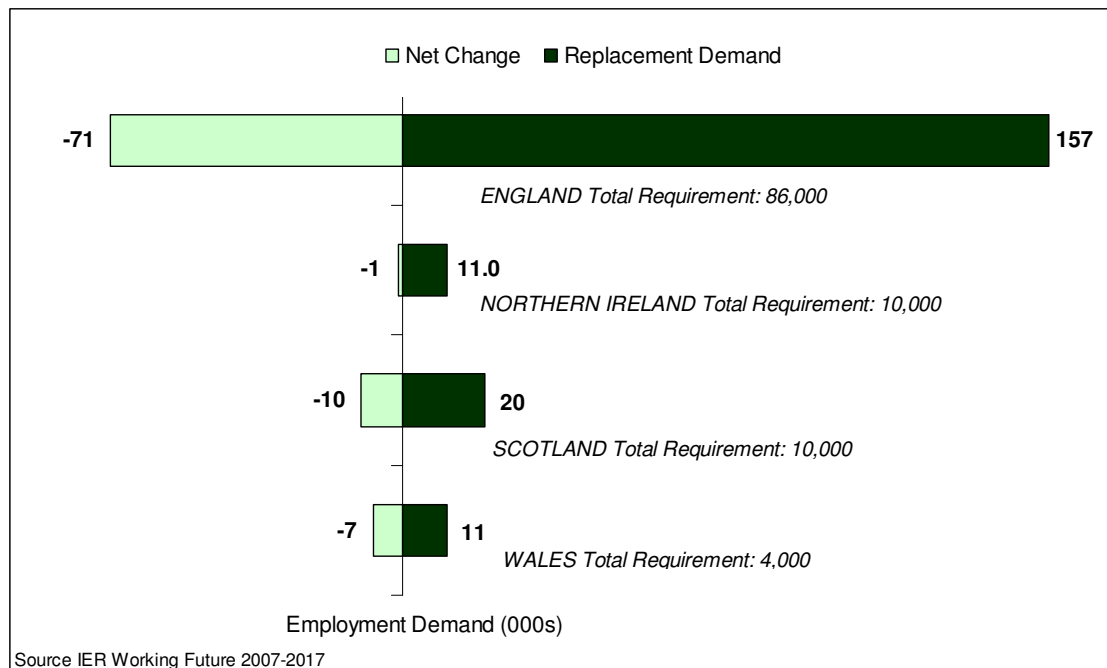
The main drivers for this decline in future employment are seen as three fold:

- Firstly, small farms are expected to continue to close or being consolidated within larger units. Larger farms are better able to substitute labour with machines.
- Secondly, there has been a diversification from food producing to other activities in the rural economy. Many who used to work in farming may continue to work in the same place, but in different activities, such as leisure and tourism.
- Finally, the projections expect previous trends (such as disease outbreaks) to reassert themselves. This indicates that if the sector can become collectively better at risk management, reducing the likelihood and impact of disease outbreaks the actual level of employment decline will be less than projected in Working Futures. 'Skills' have an important role to play within this.

Employment projections by nation

Figure 7.2 summarises the net change in employment levels and the employment requirements in the environmental and land-based sector per nation. Overall, this means the sector's workforce is forecast to decline by 90,000 workers between 2007 and 2017. The sector will still need to recruit new workers, as the replacement demand will be greater than this overall employment decline in every nation.

Fig 7.2 Projected employment demand, UK 2007 - 2017



Definitions:

Net change refers to the expected expansion or contraction in overall employment levels. Employers will often need to replace those workers who leave due to mortality, retirement, career moves, or related reasons. This is known as the **replacement demand**. The sum of the net change and replacement demand is referred to as the **total requirement**.

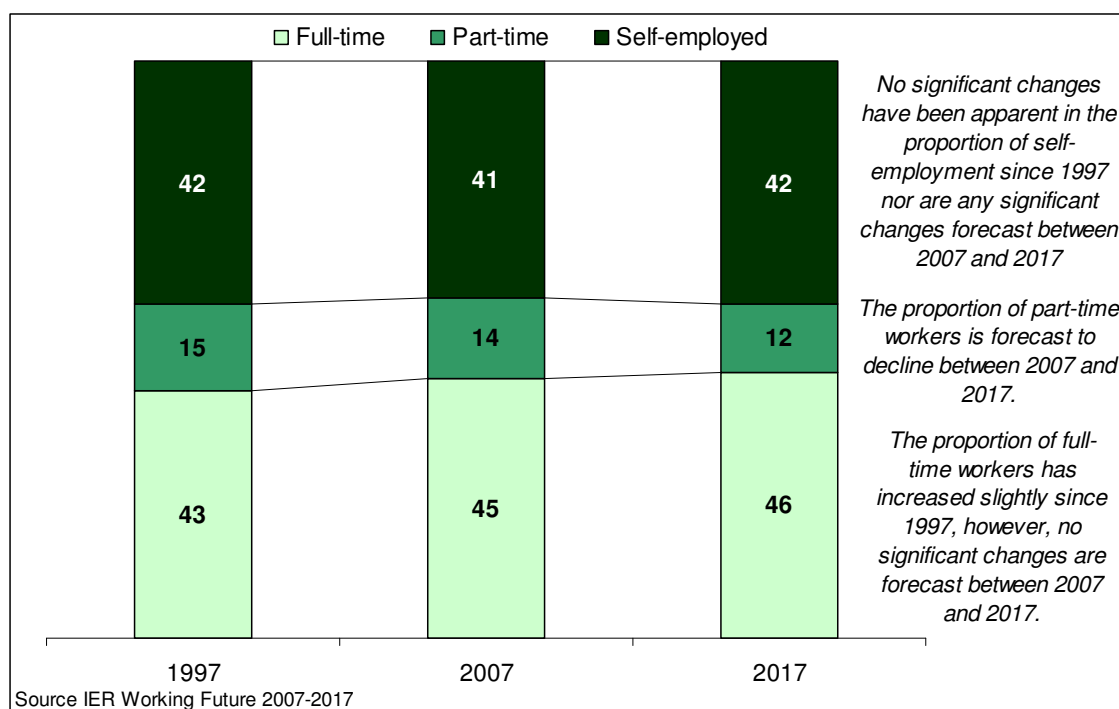
7.3 England

Changes in workforce characteristics

Composition by status and gender

Figure 7.3 shows the proportions of full-time, part-time and self-employment, historically, and in the future. Historically, there have been no significant changes in composition. By 2017 the proportion of part-time workers is forecast to decline by just 2%.

Fig 7.3 Working status, England 1997 - 2017

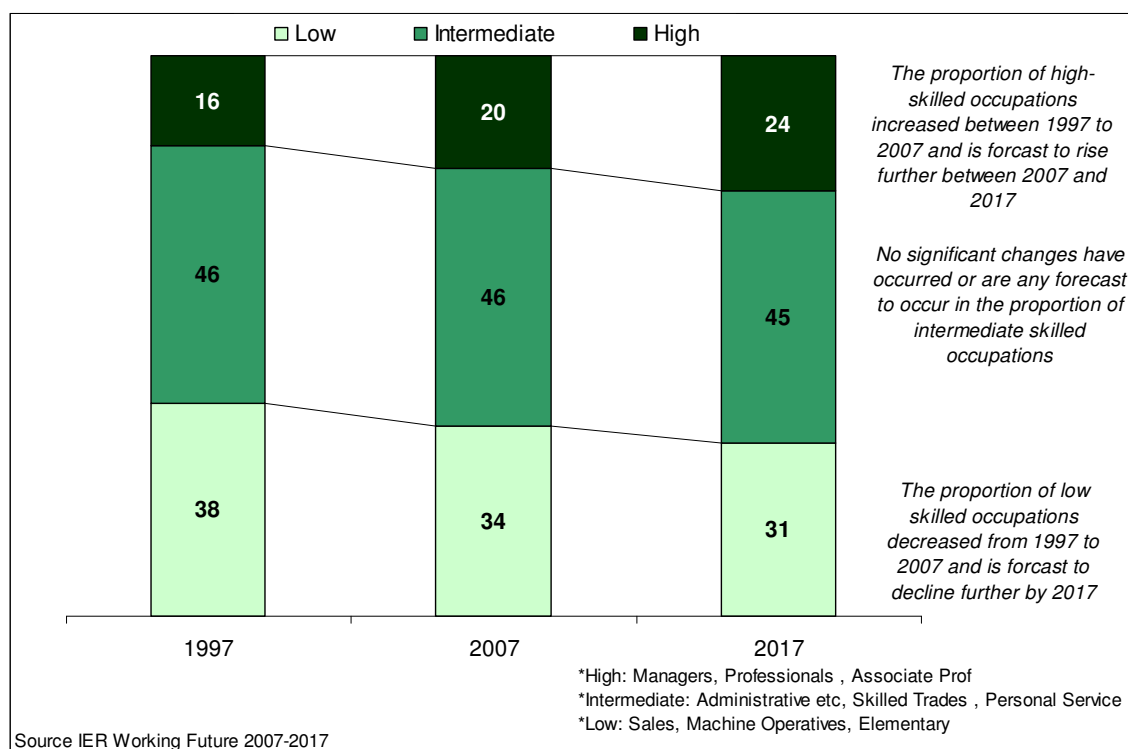


In England in 2007, males accounted for 66% of the sector's workforce compared to 53% for the whole economy in England. Full-time workers and the self-employed are predominantly male whereas part-time workers are predominantly female, however, the gender distributions within the full-time and part-time groups have changed considerably since 1997 and these changes are forecast to continue into the future. In 1997, males accounted for 80% of full-time workers; however, by 2007 the percentage dropped to 68% and is forecast to decline further to 57% by 2017. A similar pattern is also observed with part-time workers. In 1997, 47% of the part-time workforce accounted for males. Since then this figure has dropped to 32% in 2007 and is forecast to drop to 24% by 2017. The gender distribution of the self-employed has remained relatively unchanged since 1997 and is forecast to remain the same in the future. Males account for approximately three-quarters of the self-employed workforce.

Composition by occupational skill level

Historically, there were large proportions of people in intermediate and low-skilled occupations and only a small proportion in high-skilled occupations. Since 1997 this pattern has been changing such that by 2007 the proportion of high-skilled occupations had increased by four percentage points and the proportion of low-skilled occupations had decreased by four percentage points. This trend is forecast to continue in the future with high skilled occupations rising by a further 4% by 2017 and low-skilled occupations declining by a further three percentage points.

Fig 7.4 Workforce composition by occupational level, England 1997 - 2017



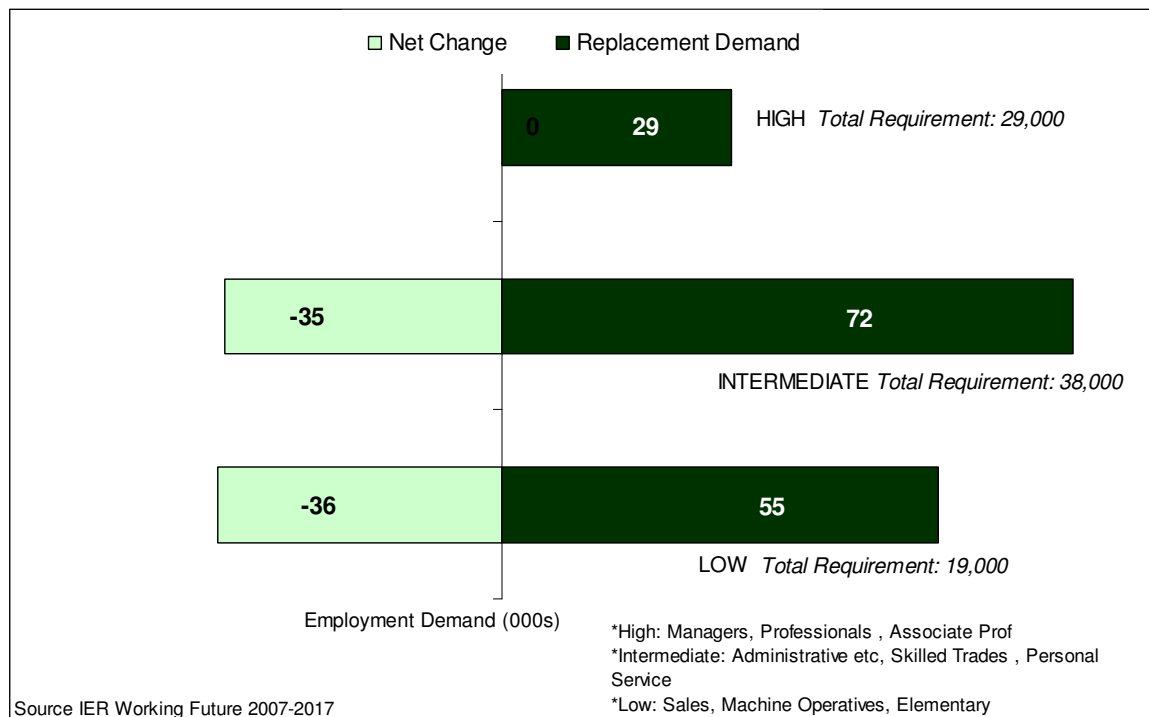
Employment projections by occupational skill level

Figure 7.5 summarises the net change in the sector's employment levels and the employment requirements in England over a ten-year period from 2007-2017.

Over the 10-year period, the sector's workforce in England is expected to decline by 71,000. This loss will be from intermediate and low-skilled occupations but there is no forecasted loss of those in high-skilled occupations.

Although there will be a natural shrinkage in the workforce, the sector in England still has a net total requirement for 86,000 new workers between 2007 and 2017. Almost half of these (38,000) will be needed to fulfil intermediate skilled occupations, one-third (29,000) to fill high-skilled occupations and 19,000 for low-skilled occupations.

Fig 7.5 Change in employment by occupational level, England 2007 - 2017



7.4 Northern Ireland

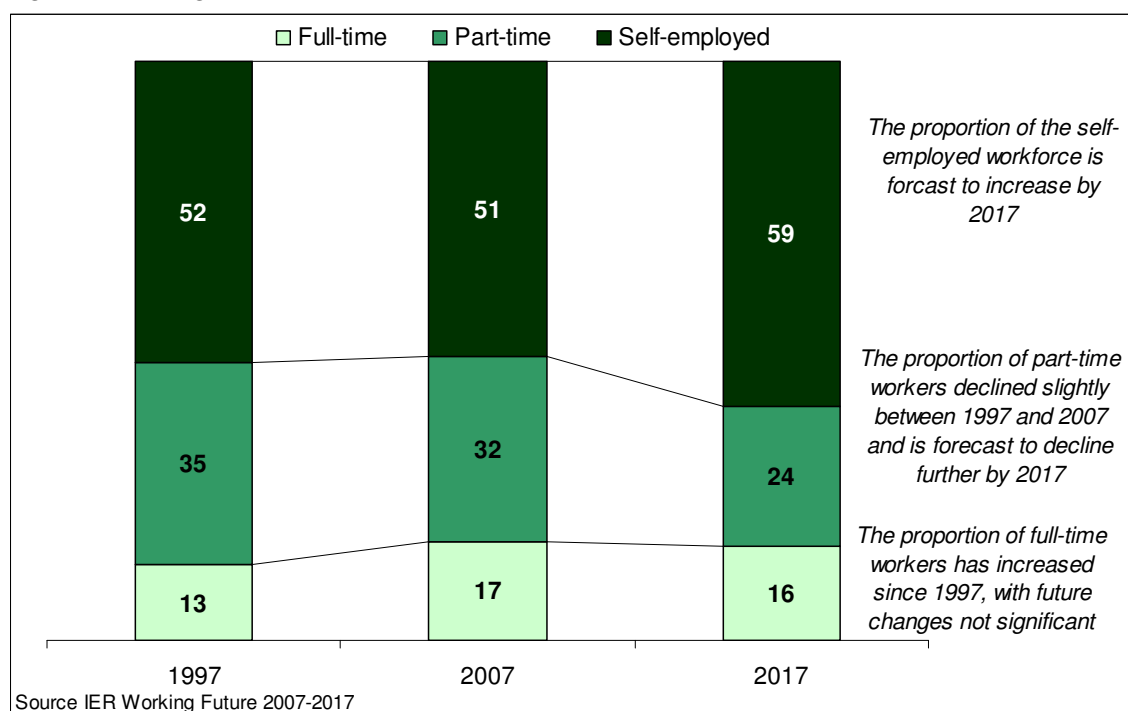
Changes in workforce characteristics

Composition by status and gender

In 1997 the majority of the workforce in Northern Ireland was either self-employed or employed on a part-time basis (52% and 35% respectively), see Figure 7.6. Only one-eighth of the workforce was employed full time. Since then, the proportion of full-time workers has increased by 4% and part-time employment has decreased by 3%. The level of self-employment has remained almost unchanged at 51%; however this is still higher than the UK sector figure of 41%.

By 2017, the part-time workforce is forecast to decline further by 8% and the proportion of self-employment is expected to increase by 8% such that self-employment will account for three-fifths of the sector's employment in Northern Ireland.

Fig 7.6 Working status, Northern Ireland 1997 - 2017

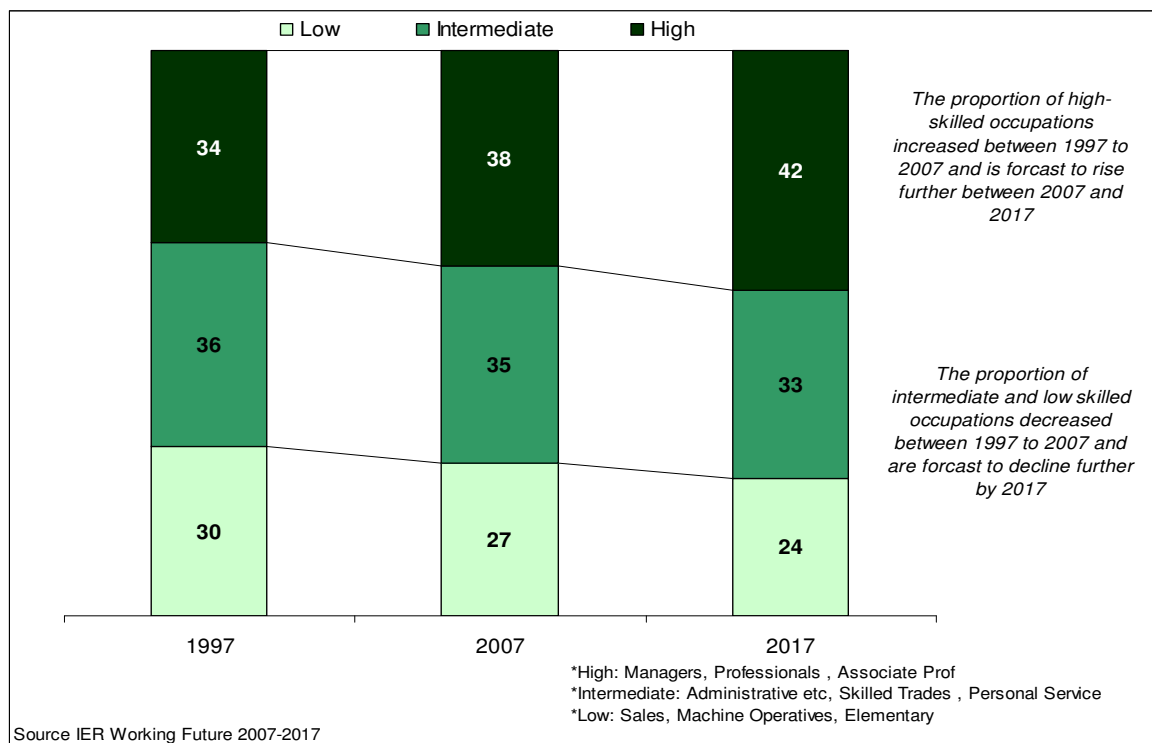


In Northern Ireland males account for almost 9 out of 10 workers in the sector (86% in 2007) compared to 53% for the whole economy. This proportion is forecast to rise slightly to 89% by 2017.

Composition by occupational skill level

Historically in the sector in Northern Ireland there was a fairly equal distribution of the workforce in low, intermediate and highly skilled occupations (Figure 7.7). By 2007, the proportion of people working in highly skilled occupations had increased by 4% whilst a 3% decline was observed in the proportion of people within low-skilled occupations. This trend is forecast to continue in the future with high-skilled occupations rising by a further 4% by 2017 and low-skilled occupations declining by a further 3%.

Fig 7.7 Workforce composition by occupational level, Northern Ireland 1997 - 2017



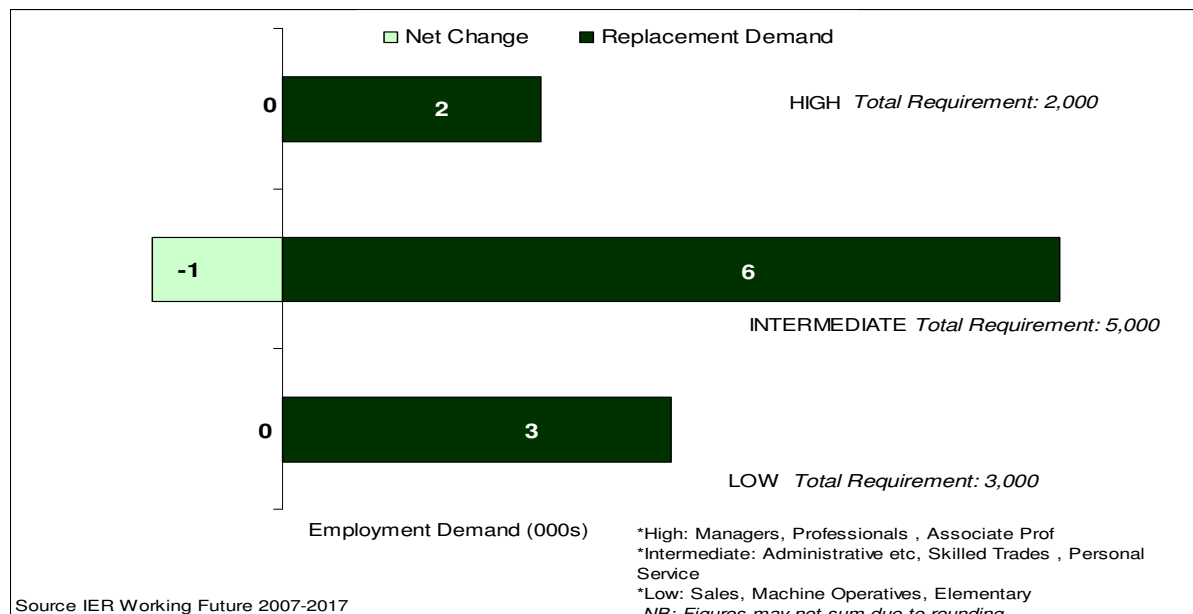
Employment projections by occupational skill level

Figure 7.8 summarises the net change in the sectors employment levels and the employment requirements in Northern Ireland over a ten-year period from 2007-2017.

Over the ten-year period, the sector's workforce in Northern Ireland is expected to decline by 1,000. This loss will be from intermediate skilled occupations only.

Although there will be a natural shrinkage in the workforce, the sector in Northern Ireland still has a net total requirement for 10,000 new workers between 2007 and 2017. Half of these will be needed to fulfil intermediate skilled occupations.

Fig 7.8 Projected employment demand, Northern Ireland 2007 - 2017



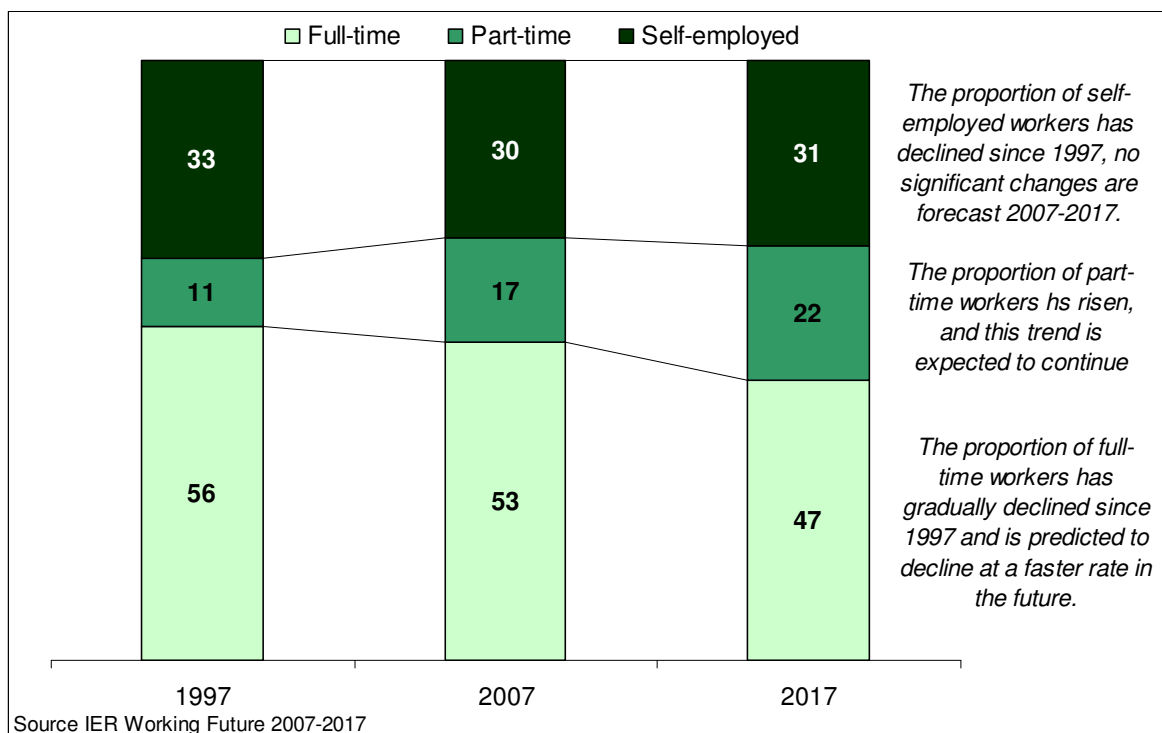
7.5 Scotland

Changes in workforce characteristics

Composition by status and gender

Figure 7.9 shows the proportions of full-time, part-time and self-employment, historically, and in the future in Scotland. Since 1997, the proportion of part-time workers has increased by 6% and is forecast to rise by a further 5% by 2017. In contrast the proportion of full-time workers has declined by 3% since 1997 and is forecast to decline by a further 6% by 2017. There have been no significant changes in the proportion of the self-employed nor is the proportion expected to change significantly in the future. Compared to the rest of the environmental and land-based sector Scotland has the lowest proportion of self-employment (30% in 2007 compared to 41% in the UK).

Fig 7.9 Working status, Scotland 1997 - 2017

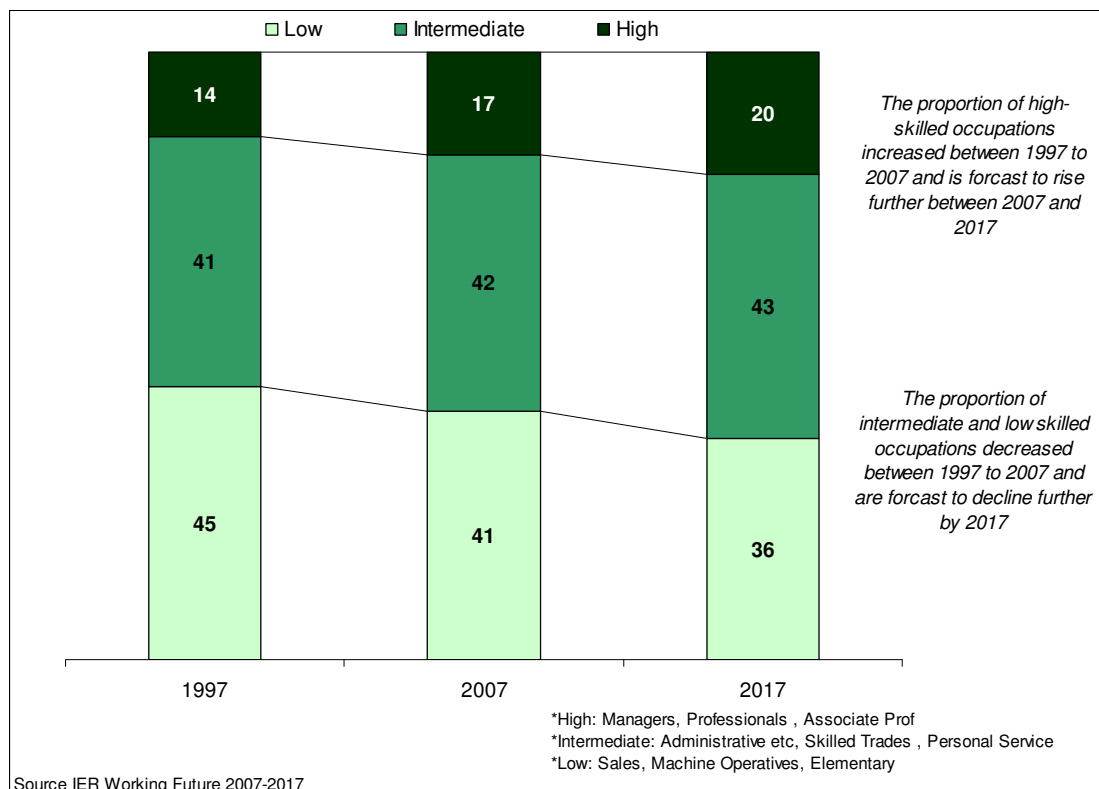


In Scotland in 2007, males accounted for 67% of the sector's workforce compared to 52% for the whole economy in Scotland. Full-time workers and the self-employed are predominantly male, however, the gender distributions within these groups have changed considerably since 1997 and these changes are forecast to continue into the future. In 1997, males accounted for 88% of full-time workers; however, by 2007 the percentage dropped to 75% and is forecast to decline further to 68% by 2017. Likewise, 79% of the self-employed workforce accounted for males in 1997. Since then this figure has dropped to 67% in 2007 and is forecast to drop to 61% by 2017. In contrast, males accounted for only 29% of the part-time workforce in 1997. By 2007 this proportion rose to 44% as is forecast to remain at 44% by 2017.

Composition by occupational skill level

In 1997 there were large proportions of people in intermediate and low-skilled occupations and only a small proportion in high-skilled occupations. Since 1997 the proportion of people within high occupations has increased by 3% and this trend is forecast to continue with a further rise of 3% by 2017. In contrast the proportion of people within low-skilled occupations has decreased by 4% since 1997 and is forecast to decline by a further 5% by 2017 (Figure 7.10).

Fig 7.10 Workforce composition by occupational level, Scotland 1997 - 2017



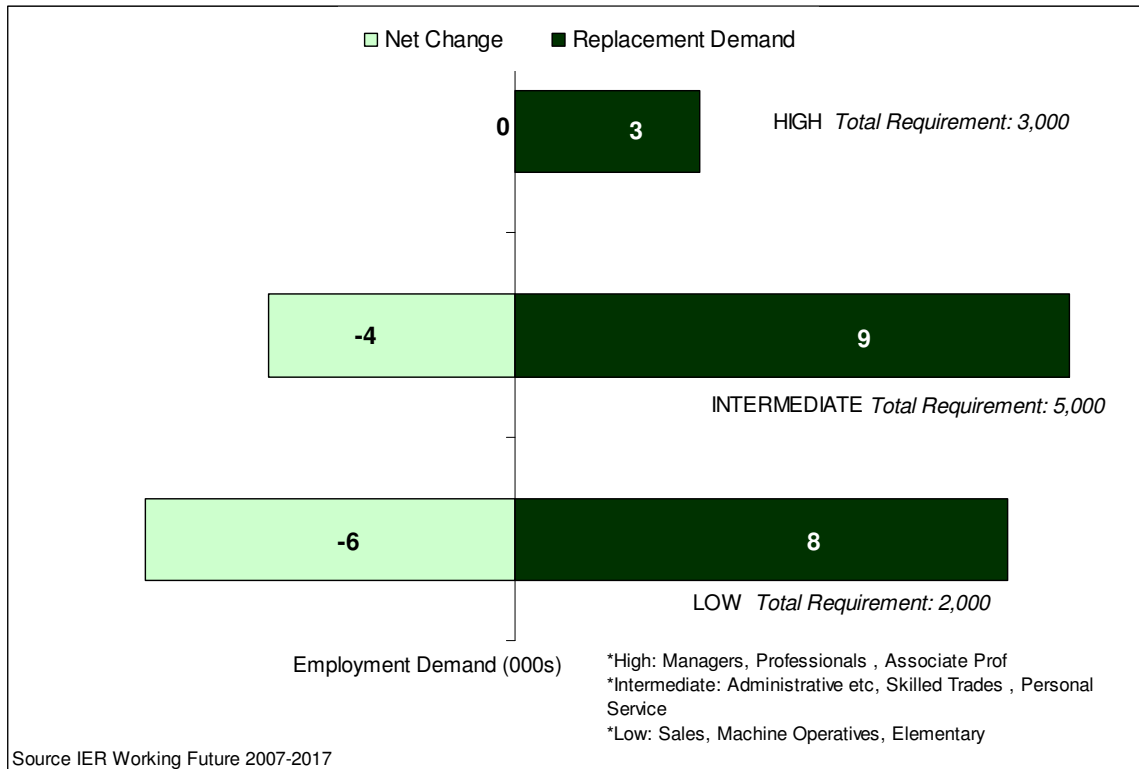
Employment projections by occupational skill level

Figure 7.11 summarises the net change in the sector's employment levels and the employment requirements in Scotland over a ten-year period from 2007-2017.

Over the ten-year period, the sector's workforce in Scotland is expected to decline by 10,000. This loss will be from intermediate and low-skilled occupations but there is no forecasted loss from high-skilled occupations.

Although there will be a natural shrinkage in the workforce, the replacement demand is double that of the net change, therefore the sector in Scotland still has a net total requirement for 10,000 new workers between 2007 and 2017. Half of these will be needed to fulfil intermediate skilled occupations.

Fig 7.11 Projected employment demand, Scotland 2007 - 2017



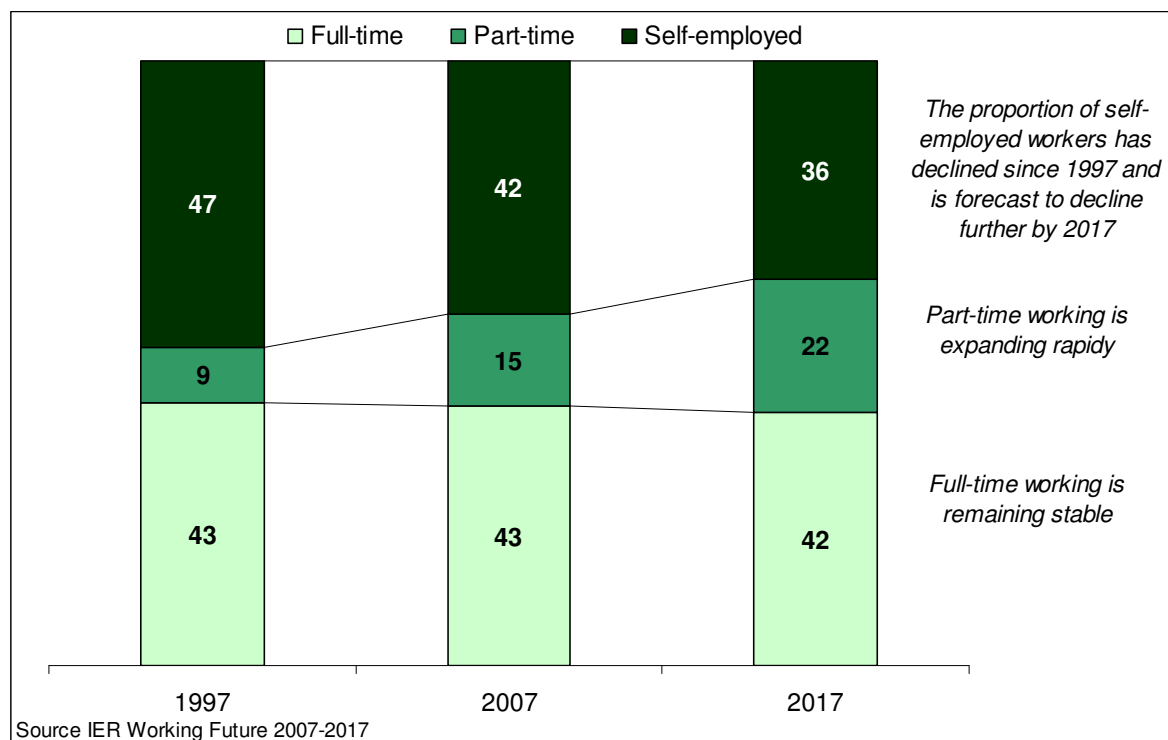
7.6 Wales

Changes in Workforce Characteristics

Composition by Status and Gender

Figure 7.12 shows the proportions of full-time, part-time and self-employment, historically, and in the future. In 1997 the majority of the workforce was made up of self-employed or full-time workers. Less than one-tenth of the workforce was employed on a part-time basis. Since 1997 the proportion of self-employment has declined by 5% and is forecast to decline by a further 6% by 2017. In contrast the proportion of part-time workers has risen by 6% since 1997 and is forecast to rise by a further 7% by 2017.

Fig 7.12 Working status, Wales 1997 - 2017



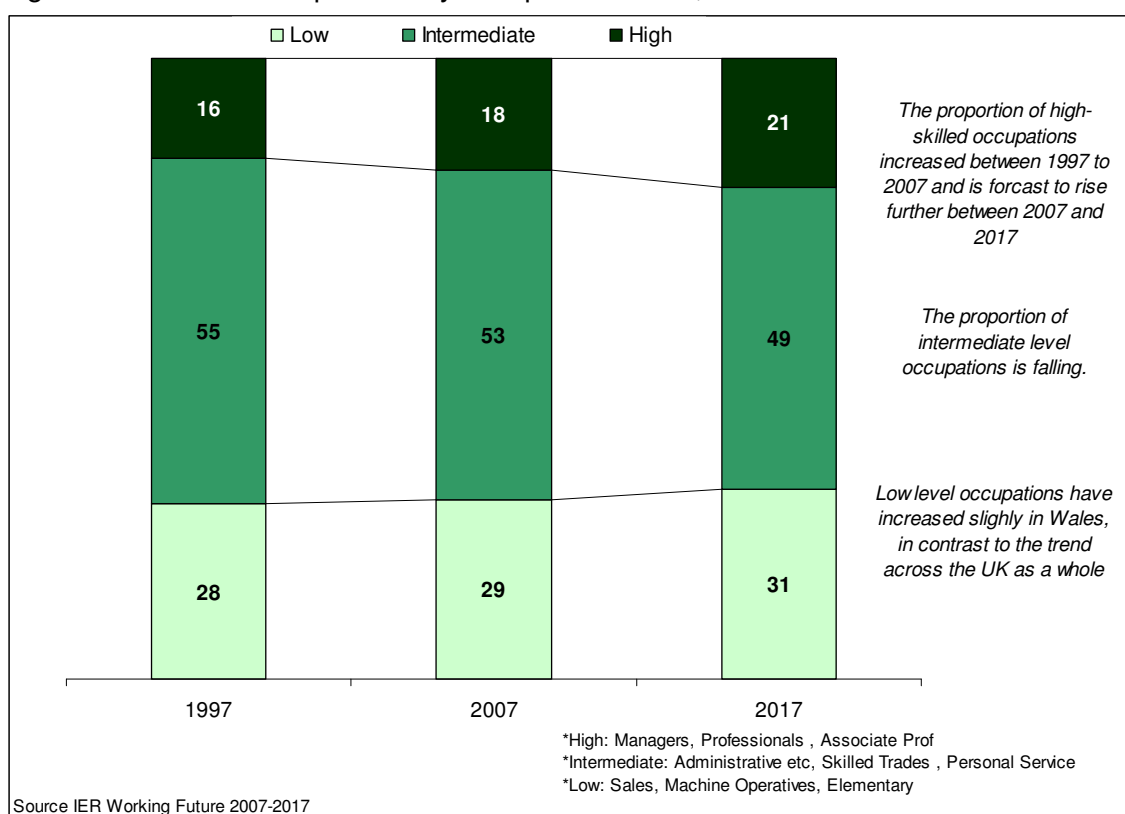
In Wales in 2007, males accounted for 72% of the sector's workforce compared to 53% for the whole economy in Wales. Full-time workers and the self-employed are predominantly male whereas part-time workers are predominantly female, however, the gender distribution of those working part-time has changed considerably since 1997 and these changes are forecast to continue into the future. In 1997, males accounted for only 17% of part-time workers; however, by 2007 the percentage rose to 27% and is forecast to rise to 32% by 2017.

The gender distributions of the self-employed and the full-time workers have remained relatively unchanged since 1997 and are forecast to remain the same in the future.

Composition by occupational skill level

The change in occupational composition in Wales is somewhat different from the other three nations. All other nations have seen a decline in the proportion of people employed in low-skilled occupations whereas in Wales the proportion has increased albeit very slightly since 1997 and is forecast to rise by a further 2% by 2017. However, there are similarities in that the proportion of people undertaking high-skilled occupations has increased by 2% since 1997 and is forecast to rise by a further 3% by 2017.

Fig 7.13 Workforce composition by occupational level, Wales 1997 - 2017



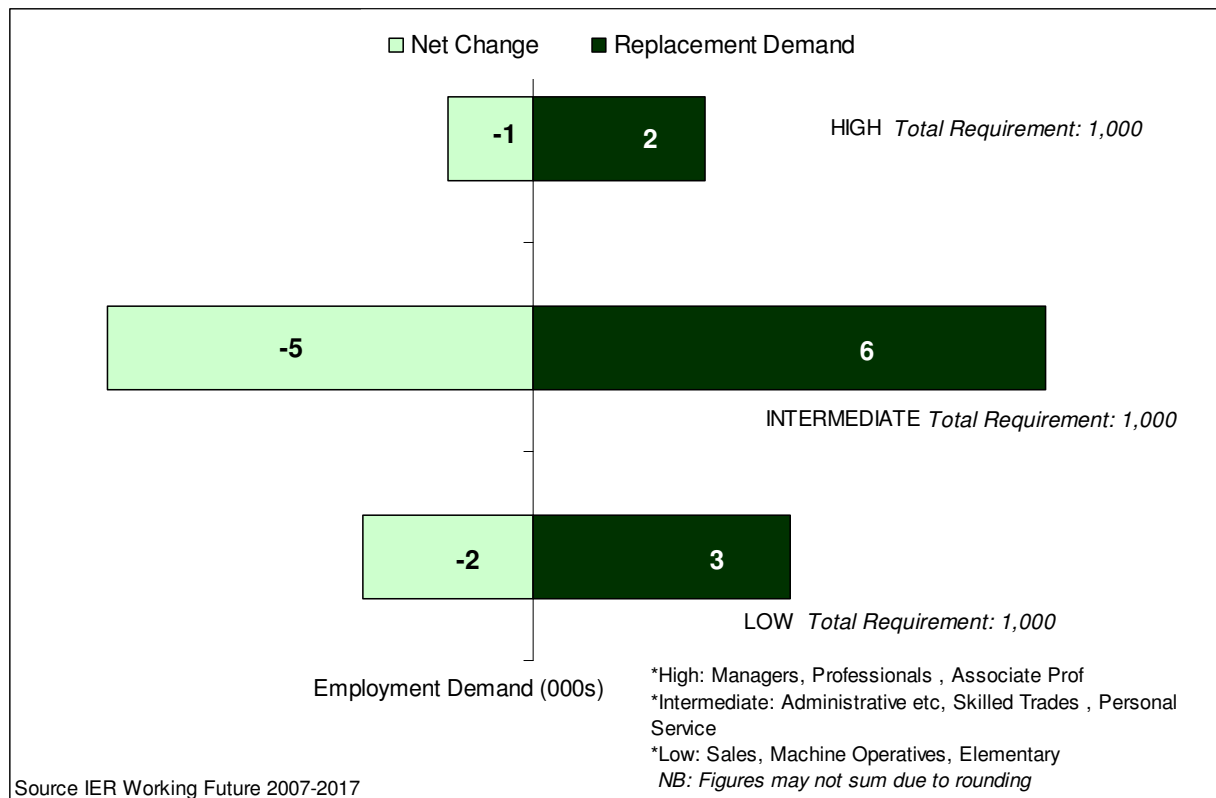
Employment projections by occupational skill level – Net change, replacement demand and total requirement

Figure 7.14 summarises the net change in the sector's employment levels and the employment requirements in Wales over a ten-year period from 2007-2017.

Over the ten-year period, the sector's workforce in Wales is expected to decline by 8,000. This loss will mostly be from intermediate skilled occupations.

Although there will be a natural shrinkage in the workforce, the replacement demand is larger than the net change, therefore the sector in Wales still has a net total requirement for 3,000 new workers between 2007 and 2017.

Fig 7.14 Projected employment demand, Wales 2007 - 2017



8. Conclusions

Sector characteristics

The environmental and land-based sector is diverse, covering 17 industries. Whilst these industries exist across all nations and regions, their relative significance varies. It is important that Lantra and other policymakers take into consideration this variation.

Micro-sector employers dominate the sector, and linked to this there are very high levels of self-employment. Many of the issues highlighted in this report are due to these factors. For instance, the low levels of organisations who have trained their staff are strongly linked to the size of business.

The characteristics of the sector and its workforce differ greatly for the average across the economy of a whole. Demography is a major issue with the workforce being much older than average, with there also a concentration of male and white workers. There are also variations across industries. For example, across agriculture there are a concentration of seasonal low-skilled roles, and a heavy (albeit declining) use of migrant workers. Industries like animal care and environmental conservation make extensive use of volunteer workers. It is important to understand these sectoral and industry level variations.

Skills challenges

Employers report a low level of skills gaps (in their current workforce), but a high level of skills shortages (when recruiting). This issue seems to affect a variety of jobs, but is most concentrated in skilled trade roles. The skills which are most likely to be lacking are job specific technical skills, which are in high demand from the sector.

In recent years migrants have been a key source of labour helping employers to manage the mismatch between supply and demand. The numbers of migrant workers have fallen over the last two years, and the long-term sustainability of this strategy could be questioned.

Qualifications and training

Training levels are also low, with the main barriers to training being that *staff do not need training*, and *the costs of training are high*. There is evidence that employer spend on training per employer is the highest of any sector. This appears to be related to the lack of economies of scale employers can benefit from when sourcing training.

Qualification levels are low, and this will be a concern to government. However, the evidence is that many people in the sector are actually overqualified particularly at Levels 1 and 2. This is not to say there is a low level of skills in the sector, but rather that employer's place greatest value in individuals learning on-the-job, or via bite-size courses rather than full qualifications.

Drivers for change

The sector and its skills needs are affected by a range of drivers for change. *Climate change* and government/EU policy related to the environment are seen by employers as being the most significant. A range of other drivers exist such as *food security*, *animal health and welfare issues*, *economic issues* and the *supply of labour* itself.

The recession and its impact have dominated recent government policy development with regard to skills. The recession has had a negative impact on the sector's industries which are linked with the construction industry (such as *trees and timber*, *landscaping* and *fencing*) and areas dependent on discretionary spending like *floristry*. However the majority of the sector has only experienced a small downturn when compared to the economy as a whole.

The future

There is strong evidence that jobs are becoming increasingly skilled within the sector. Employers have been able to become more efficient, developing new methods and technologies which have led to a decline in the number and proportion of lower-skilled roles. This will present a significant challenge in upskilling the existing workforce.

Demographic changes will present a major challenge. With 8% of workers in the sector aged 65 or over (2% all sectors) there is evidence that people work for longer in the sector than elsewhere. A high proportion of the workforce will retire over the next ten years. The sector will need to attract and develop *new blood* to replace their skills.

What happens next?

It is important that the issues highlighted within this report are acted on by Lantra and partners. The Skills Assessment is an evidence base and does not document our response. Lantra has developed a Strategic Plan²⁶ which sets the framework for this, together with a series of industry action plans which are driven by employers across the sector.

²⁶ See <http://www.lantra.co.uk/about-us/>

9 Factsheets by nation, region and industry

Factsheets can be accessed for the following nations, regions and industries via www.lantra.co.uk/stakeholders/research-documents/

<ul style="list-style-type: none">• England• Scotland	<ul style="list-style-type: none">• Wales• Northern Ireland
<ul style="list-style-type: none">• North East• North West• Yorkshire and Humberside• East Midlands• West Midlands	<ul style="list-style-type: none">• East of England• London• South East• South West
<ul style="list-style-type: none">• Agricultural Crops• Agricultural Livestock• Production Horticulture• Aquaculture• Animal Care• Animal Technology	<ul style="list-style-type: none">• Trees and Timber• Fencing• Floristry• Land-based Engineering• Farriery• Veterinary Nursing and Ancillary Activities
<ul style="list-style-type: none">• Equine• Environmental Conservation• Game and Wildlife Management	<ul style="list-style-type: none">• Fisheries Management• Horticulture, Landscaping and Sports Turf

9.1 Where to go for further information

If you have a query, or require information on the sector which you can not find within this report or the factsheets please contact us. Lantra undertakes a range of research studies each year, and it isn't possible to highlight everything within the Skills Assessment.

Please contact:

connect@lantra.co.uk – marking your email for attention of the Research Team.

Or telephone 02476 696 996, and select the research team option from the menu.

Annex A – Glossary of Abbreviations

ABI	Annual Business Inquiry
DEFRA	Department for Environment Food and Rural Affairs
DIUS	Department for Innovation, Universities and Skills (now BIS Business Innovation and Skills)
DTI	Department for Trade and Industry (now BIS Business Innovation and Skills)
EU	European Union
GNP	Gross National Product
GVA	Gross Value Added
HPWPs	High Performance Working Practices
HtFVs	Hard to Fill Vacancies
ICT	Information and Communications Technology
IDBR	Inter Departmental Business Register
IER	Institute for Employment Research (University of Warwick)
LFS	Labour Force Survey
IIP	Investors in People
LSC	Learning and Skills Council
MAC	Migration Advisory Committee
NESS	National Employer Skills Survey
NVQ	National Vocational Qualification
ONS	Office for National Statistics
RDA	Regional Development Agency
RES	Regional Economic Strategy
SIC	Standard Industrial Classification
SME	Small or/and Medium-sized Enterprise
S/NVQ	Scottish/National Vocational Qualification
SOC	Standard Occupational Classification
SSA	Sector Skills Agreement
SSC	Sector Skills Council
SSG	Sector Strategy Group
SVQ	Scottish Vocational Qualification
SSVs	Skills Shortage Vacancies
TFP	Total Factor Productivity
UK	United Kingdom
UKCES	United Kingdom Commission for Employment and Skills

Annex B – SIC/SOC footprint

SIC 2003	Description
0100	DEFRA/Scottish Executive Agricultural Data
0111	Growing of cereals and other crops not elsewhere classified
0112	Growing of vegetables, horticultural specialities and nursery products
0113	Growing of fruit, nuts, beverage and spice crops
0121	Farming of cattle, dairy farming
0122	Farming of sheep, goats, horses, asses, mules and hinnies
0123	Farming of swine
0124	Farming of poultry
0125	Other farming of animals
0130	Growing of crops combined with farming of animals (mixed farming)
0141	Agricultural service activities
0142	Animal husbandry service activities, except veterinary activities
0150	Hunting, trapping and game propagation including related service activities
0201	Forestry and logging
0202	Forestry and logging related service activities
0502	Operation of fish hatcheries and fish farms
	Wholesale of agricultural machinery and accessories and implements, including
5188	tractors
8520	Veterinary activities
9253	Botanical and zoological gardens and nature reserve activities

It is important to note that SIC 2003 codes provide a narrow definition of the sector. Some of the industries within the sector can not be defined in terms of SIC code, such as fencing, floristry, animal care, animal technology, equine, farriery, environmental conservation, fisheries management, game and wildlife management.

SOC 2000	Description
1211	Farm Managers
1212	Natural Environment and Conservation Managers
1219	Managers in Animal Husbandry, forestry, fishing n.e.c.
2216	Veterinarians
3551	Conservation and Environmental Protection Officers
3552	Countryside Rangers
5111	Farmers
5112	Horticultural Trades
5113	Gardeners and Groundsmen/women
5119	Agricultural and Fishing Trades n.e.c
5496	Floral Arrangers, Florists
6131	Veterinary Nurses
6139	Animal Care Occupations n.e.c
8223	Agricultural Machinery Drivers
9111	Farm Workers
9112	Forestry Workers
9119	Fishing and Agricultural Occupations n.e.c

Annex C – Business unit and employment sources

This annex provides details of the sources used to develop the business and employment numbers quoted in this publication. Lantra uses Official Statistics wherever possible. Official Statistics used include the Inter Departmental Business Register (IDBR), Labour Force Survey (LFS) and the June Agricultural Survey.

Official Statistics can not be used for industries which cannot be defined in terms of SIC code (see Annex B). For these industries we use a mix of sources. The most common source used for these purposes is the Experian National Business Database.

All of the figures quoted by Lantra have gone through a rigorous quality assurance process. A variety of sources are used to triangulate evidence where there are gaps in Official Statistics. All of the figures have been discussed and sense checked with Lantra's industry advisory groups.

Industry	Source	Definition (SIC unless stated)
Agricultural Crops	- IDBR (Businesses) - June Agricultural Survey, Government Agricultural Departments (Employment)	0111 0130 – Mixed farming has been divided between crops, livestock and production horticulture at a regional level based on the size of each industry.
Agricultural Livestock	- IDBR (Businesses) - June Agricultural Survey, Government Agricultural Departments (Employment)	0121 0122 0123 0124 0125 0130 (part)
Production Horticulture	- IDBR (Businesses) - June Agricultural Survey, Government Agricultural Departments (Employment). - Garden centres business have been added using membership details from the Horticultural Trades Association (HTA)	0112 0113 0130 (part)
Aquaculture	- IDBR (Businesses) - LFS (Employment)	0502
Trees and Timber	- IDBR (Businesses) - LFS (Employment)	0201 0202
Fencing	- Experian National Business Database	Yellow Pages Classification for Fencing Contractors
Floristry	- Experian National Business Database (Businesses) - LFS (Employment)	Yellow Pages Classification for Florists (Businesses) SOC 5496 (Employment)
Landbased Engineering	- IDBR (Businesses) - LFS (Employment)	2931 2932 5188 7131

Animal Care	- Experian National Business Database	Yellow Pages Classifications for Animal Carrier Services, Animal Welfare Organisation, Bird Breeders, Boarding Kennels and Catteries, Cat Breeders, Dog Breeders, Dog Clipping and Grooming, Dog Training, Pet Services (e.g. Walking, Boarding at home), Pet Shops, Rabbit Breeders, Wildlife Parks, Zoos.
Animal Technology	- Institute of Animal Technology licensed businesses (Businesses) - Institute of Animal Technology licensed practitioners (Employment)	
Equine	- Experian National Business Database	Yellow Pages Classification for Riding Schools, Racehorse Trainers, Racing Stables, Riding Stables
Farriery	- Farriers Registration Council, Register of Farriers (all Farriers have to be registered by law.	
Veterinary nursing and ancillary activities	- IDBR (Businesses) - LFS (Employment)	6131
Environmental conservation	- Experian National Business Database (Businesses) - LFS (Employment)	Yellow Pages Classification for Environmental consultants. SOC 1212, 3551, 3552 (Employment)
Game and Wildlife Management	- British Association for Shooting and Conservation, Shooting Sports – Findings of an economic and environmental survey – PACEC 2006	Note: Businesses defined as providers who operate for business reasons Note: Employment numbers are Full Time Equivalents.
Fisheries Management	- Experian National Business Database	Yellow Pages Classification for Angling Clubs
Horticulture, Landscaping and Sports Turf	- Experian National Business Database (Businesses) - LFS (Employment)	Yellow Pages Classification for Landscapers, Garden Services and Parks and Gardens SOC 5113 (Employment)

Annex D: Skills assessment for the environmental and land-based sector User feedback form

1. Please indicate the type of organisation in which you work

Government department or agency	<input type="checkbox"/>
Employer	<input type="checkbox"/>
Employer body/Trade association	<input type="checkbox"/>
College/Training provider	<input type="checkbox"/>
Other (please state)	<input type="checkbox"/>

2. How would you rate this report in terms of:

Accuracy

	1 (Low)	2	3	4	5	6	7 (High)
Being up to date	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Subject coverage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Presentation and usability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Impact on your work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. Please tell us how you think we could improve the Skills Assessment?

4. Do you have any suggestions for subjects you would like Lantra to cover in future research?

Please return completed questionnaires to:
Research Team, Lantra, Lantra House, Stoneleigh Park, nr Coventry, Warwickshire CV8 2LG

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The Sector Skills Council for
environmental and land-based industries

Lantra

Lantra, the Sector Skills Council for environmental and land-based industries, is passionate about skills and improving business performance.

Lantra helps businesses improve their performance by:

- Helping them identify, develop and fully utilise business-critical skills
- Managing national and regional projects which enable them to access funding and business support
- Providing a wide range of products and services which support skills and business development
- Influencing and shaping learning provision to meet their needs
- Undertaking research into current and future skills needs which supports an evidence-based approach to policy and public investment in learning and development.

Lantra supports individuals by:

- Helping them assess their learning needs, record their achievements and access learning so that they remain economically active
- Helping potential entrants make informed career decisions, undertake nationally recognised qualifications and progress into employment
- Developing National Occupational Standards, vocational qualifications and learning programmes which support entry into employment and career progression.

Lantra represents the interests of around 230,000 businesses and over 1.5 million workers and volunteers in England, Wales, Scotland and Northern Ireland. The sector covers 17 industries which are clustered around:

- Land management and production
- Animal health and welfare
- Environmental industries.

www.lantra.co.uk

The Alliance

Lantra is a member of the Alliance – an organisation comprising all licensed Sector Skills Councils (SSCs) – which together articulate the voice of the employers of around 90% of the UK's workforce on skills issues.

www.ssalliance.org



INVESTOR IN PEOPLE

