north east england

Skills North East
The Regional Employment and Skills Partnership

North East Skills Priorities Statement 2011/12

This statement provides an overview of skills and employment issues and opportunities in the North East. It sets out priorities for the **North East** to inform provision for the academic year 2011/12+.

1. North East England: Introduction and Executive Summary

This statement is submitted by **Skills North East,** the Regional Employment and Skills Partnership for the North East. It has been developed through extensive consultation with employers and employer groups, colleges, training providers and universities, local authorities, strategic and funding bodies and a wide range of partners set out at Annex 3. The Statement sets out key employment and skills issues for North East England, articulates current and future employer and sector demand and indicates the required shift in focus of provision in order that the North East can accelerate the pace by which it must close the gap between the North East and the rest of England. It describes how it can support economic growth, grow the private sector and knowledge based economy and support and build upon our strengths including in innovation, manufacturing and low carbon.
The statement considers how in North East England, public sector intervention can have the strongest impact and deliver on the greatest possible economic and social return.

This statement takes full cognisance of the **Strategy for Sustainable Growth** and **Skills For Sustainable Growth** consultation and seeks in section 5 to describe how in the North East, the ambition for a skills system able to respond to the needs of a dynamic economy, build an empowered and internationally competitive skills base, develop and nurture talent and promote social mobility can best be delivered.

A partner document ***'Skills and the North East Economy, North East Aspirations for Education, Employment & Skills 2011-16'*** can be read in conjunction with this Statement, it provides a broader strategic assessment of how the North East will build a high skilled economy, it articulates the characteristics of a changing North East, it's opportunities and challenges and implications for the provision of training and skills.

Executive Summary:

North East England is characterised by;

- Smallest of England's nine administrative regions in terms of geography and population.
- Increasingly diverse and resilient economy, with key strengths in manufacturing, innovation and engineering, the impact of the recession 2007-8 impacting less on growth in the North East than other English regions[17].
- Only English region to experience a higher rate of GVA growth in the 2000s than in the 1990s largely attributable to increases in productivity[17].
- Demonstrable success in supporting economic restructure with world class capability and assets stimulating growth of emerging sectors including low carbon, renewable energy, plastic electronics and industrial biotechnology[29].
- Increasing rates of business formation, Growth in the number of businesses has exceeded national growth rates in recent years but remains lower than national average[91].

Key human capital characteristics and issues include;

- The qualifications profile of the North East improved markedly between 2000 and 2008 and is converging towards the national average[13, 15].
- Whilst skill levels have improved, current demand for and acquisition of higher level skills lags significantly behind national levels. the North East continues to demonstrate a low skills equilibrium[20]
- High levels of economic inactivity persist, whilst the gap between the region and the national unemployment average has narrowed significantly over the past 15 years, geographic concentrations of worklessness – remain[92].
- Ageing workforce in key sectors is compounded by highest percentage decrease (-19%) in UK of numbers of young people entering the labour market up to 2020[18].
- The North East demonstrates underutilisation of skills[13, 19], out-migration of skilled workers[57] and difficulty in attract highly skilled individuals to the region[57].
- The North East benefits from relatively high levels of employer engagement and investment in workforce development[40].

The North East can demonstrate significant success in achieving long-term economic improvement. Through targeted interventions, the North East has capitalised on its engineering and manufacturing heritage, has restructured its economic profile and moved towards a more diverse and competitive economy.
Whilst strong progress has been made, significant challenges remain requiring targeted and focused intervention to ensure that in a difficult economic climate, the North East does not regress and is able to deliver on its potential and ambition.

North East Ambition:

The North East ambition is to raise productivity and GVA per head, drive private sector growth and wealth creation, whilst maintaining levels of employment, achieved through:

- *Facilitating and enhancing the demand-led skills system, responsive to economic and business needs.*
- *Developing a skills system to support social mobility, providing the opportunity to participate and progress.*
- *Focusing on economically valuable skills to meet employer demand and give individuals the best possible career and job options. Providing the skills and qualifications to support growth sectors and stimulate emerging industries.*
- *Stimulating employer demand for intermediate and higher level skills.*
- *Shared responsibility for meeting education, employment and skills needs and demands between the learner, provider, employer and the state.*

This statement provides detailed analysis demonstrating the need to adopt a ‘push-pull’ approach to raising the skills profile of the North East. This involves both raising attainment levels ***and*** stimulating demand for intermediate and higher level skills if the North East is to deliver on increasing levels of economic growth, jobs, opportunities and skills.

It identifies a number of areas where shifts in approach or focus could make a significant difference to the pace and scale of increasing skills attainment, skills utilisation, employment and productivity in the North East. These are:

- **General Shifts:**
    - Focus of investment to shift away from (often PSA target driven) Level 2 and towards Level 3 (and to a lesser extent Level 4) to drive up productivity.
    - Greater emphasis on stimulating **employer demand** for skills, particularly higher level skills, to shift the skills equilibrium upwards.

- Recognise spatial discrepancies in qualification levels within the North East, and prioritise investments that help address systemic underperformance (including, but not restricted to, differences between urban and rural areas).
- Continued focus on employability skills, with this investment targeted at areas (sometimes geographically very small) with high concentrations of long-term unemployment.
- Prioritise increased investment in skills demanded by high growth and emerging sectors where the North East is developing a competitive advantage (e.g. Offshore Wind and Plastic Electronics) [29].
- Investment to improve Information, Advice and Guidance (IAG) and Labour Market Intelligence (LMI) aimed at **individuals**, **employers** and **providers** to ensure IAG is economically relevant, is able to articulate North East opportunity and promotes skills that will drive job creation.

- **Shift in Investment in 16 – 18 (individual demand-led):**
  - Address continued underachievement at Key Stage 4
  - Increased investment in support of STEM, in conjunction with a programme of improved IAG that demonstrates the range of careers open to people with STEM qualifications.

- **Shift in Investment in post-19 learning (individual demand-led):**
  - Shift in emphasis towards new learning (away from accreditation of prior learning) and skills acquisition.
  - Capitalise on the improved qualifications profile (the proportion of the workforce qualified to Level 2 now exceeds the national average) of the North East by investing in progression routes for those whose highest level qualification is Level 2.

- **Shifts in Apprenticeship Investment;**
  - Increased investment in employment engagement is required, particularly engaging SMEs. Although individual demand to begin apprenticeships remains strong, placing apprentices with employers presents a significant challenge.
  - Encourage uplift in apprenticeships in high-value added sectors which potentially offer greater job security and progression opportunities.
  - Increase the proportion of apprenticeship starts that are advanced apprenticeships (currently four in ten).

- **Shifts in Employer Demand-led Training (including Train to Gain).**
  - Greater investment in programmes of training that facilitate the acquisition of new skills more rapidly and through more innovative methods.
  - Increase emphasis on working with employers to address the overrepresentation of Skilled Trades Occupations in Skills Shortage Vacancies (26% against only 11% of all vacancies) [40],
  - Prioritise investment in training programmes that offer a high and demonstrable return on investment in terms of business productivity
  - Catalytic investment to support the skills needs of new and emerging and high-growth sectors that do not current present demand but will require (and have the absorptive capacity to utilise) skills very quickly.

Section 5 of this statement sets out five key features that will deliver the flexible, responsive market driven skills system needed to ensure the North East can deliver on its ambition. This will require shared responsibility between key stakeholders including providers, employers, learners, Local Enterprise Partnerships and the state.
These responsibilities include;

Shared Responsibilities	
Providers	• Flexible and creative responses to employer demand in respect of curricula and modes of delivery. • Marketing which promotes the positive business/economic benefits of skills activity to individuals and employers. • Transparency regarding performance and support of impartial IAG provision. • Continued emphasis on pursuing positive outcomes and social and economic inclusion. Greater responsibility for outcomes. • Continued investment in infrastructure and curricula 'ahead of the curve'. • Strengthening provision which supports key and emerging sectors.
Employers and Individuals	• Increased levels of investment which recognise the corporate and individual economic returns of skills activity. • Active consumerism and clear articulation of current and future skills needs. • For employers, individually and collectively, joint working with providers and partners at the local level, to shape provision and align activity to emerging economic opportunities. • An active commitment to lifelong learning and flexibility in accessing learning and skills.
Local Enterprise Partnerships	• A clear, employer led, articulation of local economic needs, opportunities and broader social and economic priorities. • Facilitation of clear strategic dialogue between employers and providers. • A comprehensive local approach to regeneration and economic development which recognises the contribution of skills to local economic prosperity and supports key emerging industries. • Provision of real-time LMI and economic intelligence to support learner choice and provider investment decisions.
Government	A streamlined skills funding and performance management system which: • Makes clear the boundaries of State, employer and individual intervention within a shared investment model. • Allows providers to meet the training needs of business in a flexible and creative manner. • Focuses on positive progression and away from accreditation of prior learning that does not link to positive outcomes. • Incentivises and holds providers to account on the basis of positive outcomes. • Provides transparency regarding provider performance. • Provides flexibility to shift funding towards Level 3+ qualifications. • Stimulates employers to invest in the development of higher level skills. • A universal approach to impartial IAG which makes accessible time relevant LMI and economic intelligence to inform learner choice. • A Business support structure which supports employers to articulate and meet their current and future skills needs. • An economic policy and investment framework which promotes: o Productivity, enterprise and business growth through developing innovation and exploiting research and development capabilities. o The development of sectors strategically important to the UK and the North East, such as low carbon vehicle, offshore wind, chemicals and process industries. o New approaches to financing and supporting business growth.

2. Current and Future Economic Demand

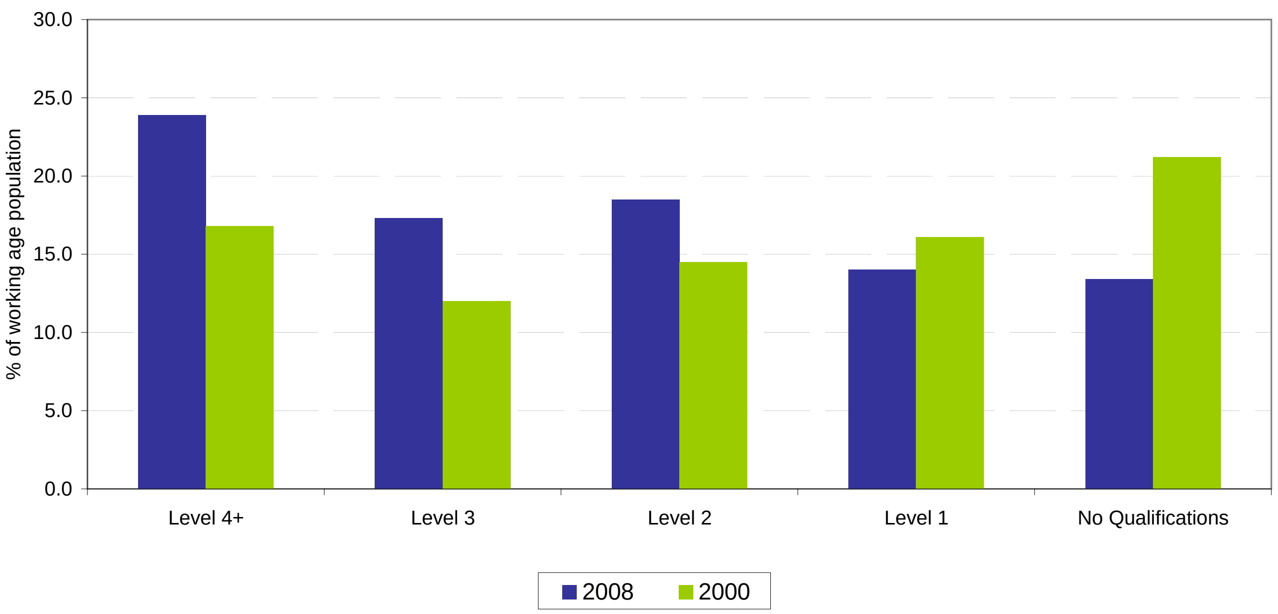
The North East displays a healthy demand for training and learning – from both employers and individuals. Evidence from the 2009 National Employer Skills Survey (NESS) suggests that employer investment in skills remains strong[39]. Increasing numbers of young people are continuing in education to degree level. Strong sectors within the regional economy (Chemicals, Pharmaceuticals, Metals, Automotive and Process / Petrochemicals) are highly productive and generate significant demand for higher level skills, particularly STEM skills.

A shared response between the government, employer and the individual in raising the skills profile of the North East will realise benefits including improved performance, higher productivity, access to opportunities and a thriving economy.

2.1 Current skill levels of the North East workforce

The qualifications profile of the North East improved markedly between 2000 and 2008[13, 15]. The proportion of the working age population with no qualifications fell by almost 8%, equivalent to c100,000 people[13, 15]. There was equally significant growth in the proportion qualified to Level 4+ (up 7%), Level 3 (up 5%) and Level 2 (up 4%)[13,15] This performance has helped the qualification profile of the North East converge towards the national average. The proportion of the working age population with either Level 1 or no qualifications is now almost identical to the rest of the UK[13].

Figure 1: Highest Qualification Held, North East[13, 15]



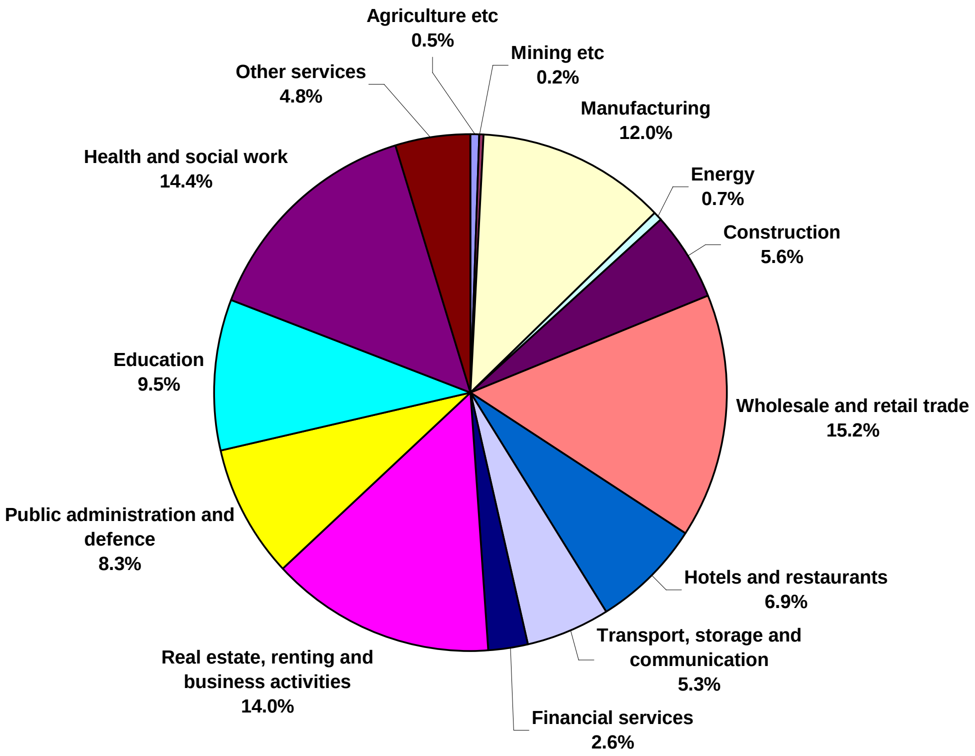
The North East demonstrates a persistent deficit in higher level skills. The region has a smaller proportion qualified to Level 4+ (5% fewer) and an equivalently larger proportion qualified to Levels 2 and 3.
Urban / rural differentiation exists in some rural areas one quarter of residents have no qualifications, largely due to barriers to access[13].

2.2 Current North East employment structure

Figure 2 displays the distribution of employment in the North East across standardised ONS sectors. The most prominent employment sectors are *Wholesale and Retail Trade*, *Health and*

Social Work and *Real Estate, Renting and Business Activities*, which collectively account for over 43% of employment. Relative to employment across England, the sectors most overrepresented (in terms of location quotients) are *Mining* and *Energy* and the sector most underrepresented is *Financial Services*[12].

Figure 2: Structure of Employment in the North East, by Sector[12]



Economic Inactivity:

A buoyant economy between 1993 and 2008 saw levels of economic inactivity in the North East fall steadily if unspectacularly, from 26.7% of working age adults in 1994/5 to 23.7% in 2009.[13,15] Nevertheless, the proportion of people who are economically inactive has remained stubbornly above the UK average and there is evidence of concentrations in disadvantaged communities.

Economic 'cold spots' pose a significant challenge for the North East. 'Cold spots' experience deprivation in terms of education, skills and training, living environment, crime, barriers to housing and services, health deprivation and disability, employment and income. Reaching out to these communities, tackling young people's low levels of skills attainment and providing training in employability and economically valuable skills are important factors in increasing individual social mobility and regenerating geographic areas.

Although this trend may be partially attributable to industrial restructuring, there are examples within the North East where economic inactivity has become a cultural norm, often characterised by intergenerational inactivity. This trend is supported by causes of inactivity shifting away from physiological impediments – typically caused by previous employment in heavy industry – and towards psychological challenges, such as anxiety and depression.

- The rate of economic inactivity remains 2.4 percentage points above the UK average[13];
- Of all nine English regions, the North East has the highest proportion of working age people in receipt of some sort of benefit – 20.4%; a full five percentage points above the UK average[13];

A sustained period of economic growth saw levels of economic inactivity in the North East fall, however the rate of inactivity remains stubbornly above the UK average. Those who are economically inactive face multiple barriers to entering the labour market. Given that economic forecasts suggest growth will be modest, those who are currently inactive will require intensive support to help them (re-)enter the labour market. Cyclical unemployment caused by the recession could compound the low North East base position in relation to long-term economic inactivity.

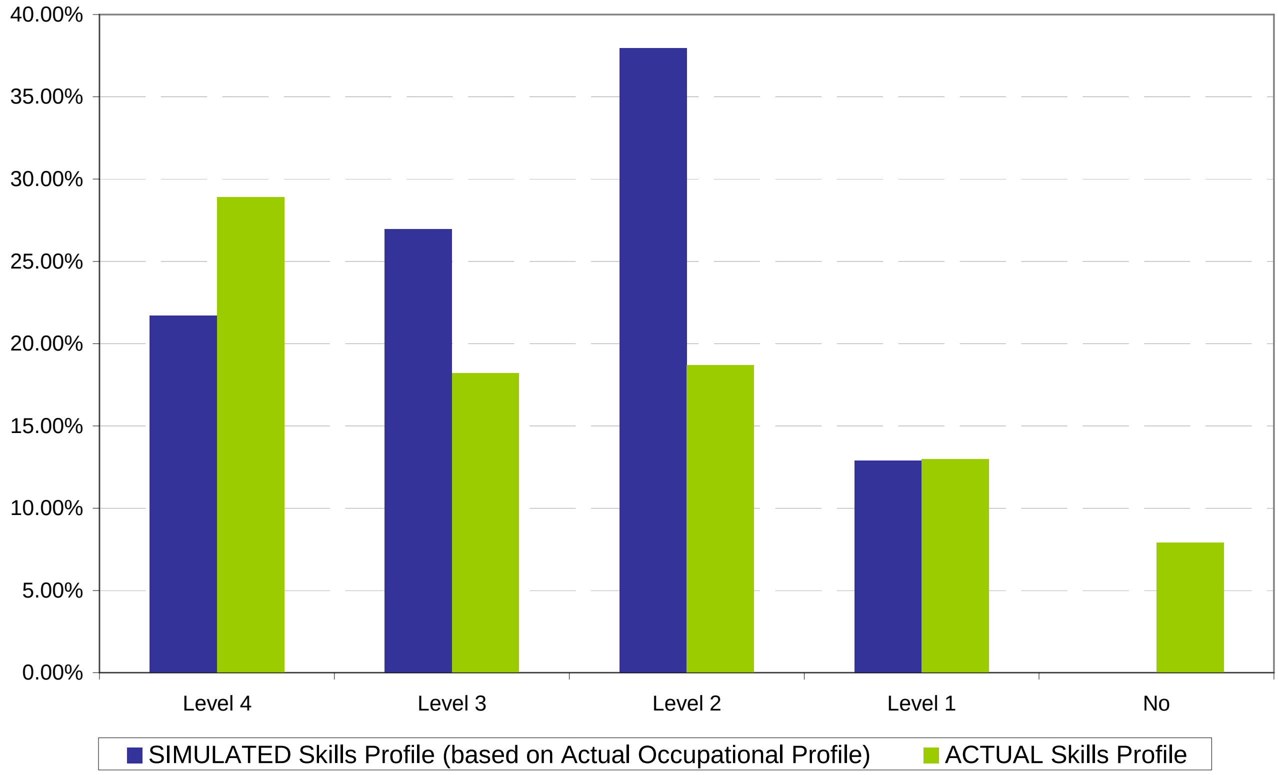
2.3 Current Employer Demand for skills

- Level 3 skills are sought by employers in all sectors. Technical, numeracy, literacy and softer skills are all viewed as essential to maintaining and growing business in an increasingly competitive global market.
- STEM skills are sought by employers in all sectors and at all levels. The ICT skills needed for lower occupations are increasing as more complex technologies are introduced in the workplace. This trend is increasing the need for high level ICT skills, even in lower level jobs.
- Growing the number of apprenticeships will be critical in helping the North East meet the needs of employers work specific skills requirements (particularly the needs of emerging industries).
- Training and Learning Providers at all levels must further increase awareness of the benefits of higher skills amongst their different customer groups.
- A co-ordinated set of information, based on existing knowledge and sources of demand led LMI will have to be available to learning providers so they can help their customers make better training decisions.
- Ever more targeted and flexible training provision, delivered in a range of innovative ways will be required to engage hard to reach clients who may face multiple barriers to employment and progression. Importantly for the North East provision must take into account rural hinterlands where qualifications levels are already low due to difficulties in getting access to learning.
- Collaborative identification of skills needs and priorities as they arise will be essential if the North East is to develop and maintain the internationally competitive skill base necessary.

2.4 Identifiable mismatches between current supply and demand

The proportion of the North East workforce employed across the twenty-five occupational groups provides an indication of demand for skills within the economy. ONS data indicate skills levels required by each of these occupational groups. The ONS research reviews the current occupational profile of the region to indicate the skills levels required to support this. Figure 3 compares the simulated skills profile with the actual skills profile to further understand current skills mismatch.

Figure 3: North East: Occupational Profile: Simulated vs Actual Skills Profile, 2008[13,19]



From this analysis, the key issues to emerge are:

- This discrepancy indicates the need to stimulate demand for higher level skills by encouraging firms to adopt new technologies and innovative practices and employ leadership and management techniques to drive up productivity.
- The occupational structure of the North East suggests that there is an increasing trend for all roles to require a minimum of Level 1 and 2 qualifications. This emphasises the need to target those with no qualifications to ensure that they are equipped with entry level skills, enabling them to fully participate in the economy.
- At the intermediate level there is clearly an undersupply of skilled workers.

The North East is characterised by a low demand for higher level skills. A higher proportion of the North East workforce is qualified to Level 4 than the occupational structure requires (fig 3 refers) Consequently, the lack of opportunity in the region discourages young people from progressing to higher level skills, existing skills are under-utilised and it is difficult to attract highly skilled individuals to the region. Achieving economic growth will require a 'push-pull' approach, promoting a combination of both rising qualifications and stimulating demand for higher level skills.

Significant weighting is attached to both increasing demand for high level skills *and* **increasing the number** of people in the North East with high level skills given the nature of derived demand and potential impact.

- Level 4+ skills are a driver of employment and economic development. Along with innovation, research, quality and high value-added goods and services, they deliver sustained competitive advantage.
- Stimulating employer demand for higher level skills is an important element of restructuring the North East economy – providing jobs and opportunities.
- Attaining higher level skills is a key factor in promoting social mobility - encouraging individual progression and ensuring people fulfil their full potential.
- Higher level skills prepares our workforce for the jobs of tomorrow.

Skills gaps refer to skills deficiencies of employees, internal to a firm. Skills shortages refer to a shortage of skilled people in the labour market as a whole. The 2009 NESS indicates that an estimated 15,000 people in the North East have skills deficiencies[39]. Current Skills Shortage Vacancies (SSVs) are disproportionately common amongst skill trades occupations which account for over 26% of current SSVs, but only 11.4% of overall vacancies[39] (Figures 4 and 5).

Engineering & Manufacturing make an important contribution to employment in the NE, accounting for 12.5% of the region's workforce (against 10.9% of the national workforce)[39]. Skills shortages and gaps in these sectors therefore have increased significance. The complexity and range of activities within engineering and manufacturing mean that their interests are represented by several Sector Skills Councils. Net replacement demand in this sector is estimated to be c40,000 between 2010 and 2020. Recent employer surveys indicate that employers are not confident that their specific skills needs can be met in the medium term[24].

Legislative change will also drive demand for skills. Sectors impacted more heavily will include financial services, where forthcoming legislation is expected to affect the large number of independent financial advisors in the region. Legislation and targets associated with reducing carbon emissions will put pressure on industries to upskill and train large proportions of their workforces in new disciplines and ways of working. This is expected to be of particular significance to construction, chemicals and pharmaceuticals, manufacturing, transport and primary sector activities in the North East.

The fast pace of technological change, the changing policy framework and the needs of priority and emerging sectors highlight the growing importance of STEM skills to drive economic growth.

Figure 4[39]
Percentage of total employees with skills gaps by sector

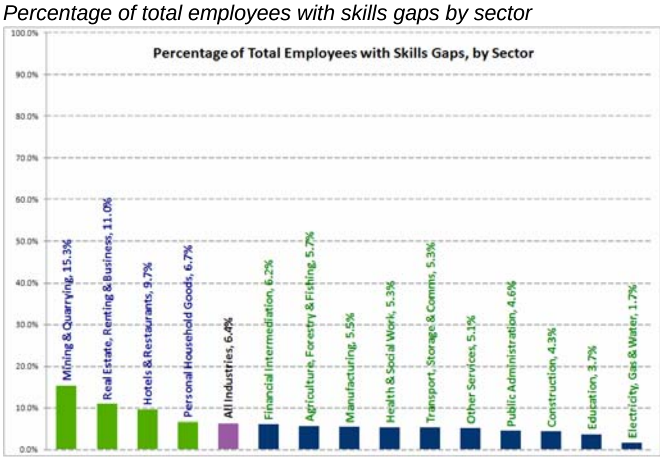
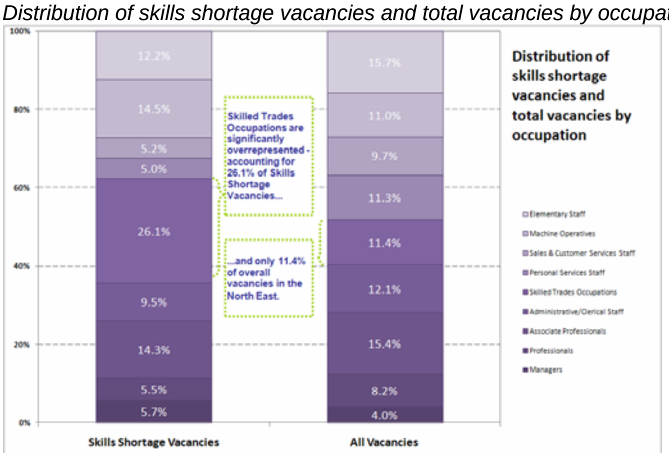


Figure 5[39]
Distribution of skills shortage vacancies and total vacancies by occupation



2.5 Future skills needs of the North East workforce

Forecasting work undertaken using the North East Economic Model, analysed two 'economic growth' scenarios, plus a baseline assessment[24]. This clearly indicates that, **without intervention** to stimulate the North East economy, **the number of people employed is forecast to fall** by approximately 2% between 2010 and 2020 (equivalent to 23,000 jobs)[24]. Although the number of people employed is forecast to contract, a commensurate fall in the working age population determines that the participation rate can be maintained. Given the tightening of public spending and its associated impact, maintaining employment at the current rate presents a challenge. Employment opportunities will also arise through people leaving the labour market. The importance of satisfying the skills requirements of these opportunities presents a clear rationale for continued intervention.

Figure 6: Source - Future Employment and Skills Model, ONS Sub-national Population Projections, Cambridge Econometrics forecasting data[24]

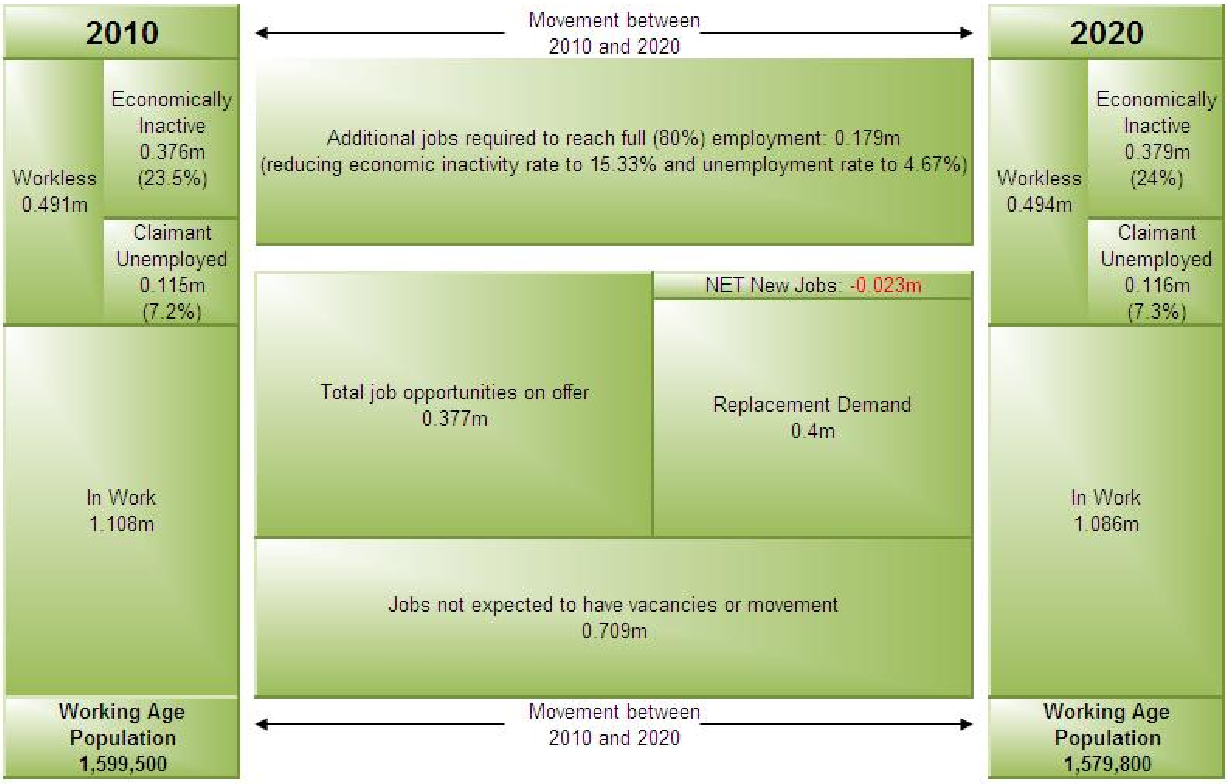


Figure 7 below considers the change by skills level – and illustrates that the rate of change is predicted to be generally lower for jobs requiring no qualifications or lower skills levels than it is for those jobs requiring intermediate and higher level skills.

Figure 7: Forecast Employment Change by Skills Level[24]

	2010	2020 Baseline	Change	Percentage change
No Qualifications	**141,383**	**138,739**	-2,644	-1.9%
Level 1	**119,873**	**117,998**	-1,875	-1.6%
Level 2	**279,102**	**273,495**	-5,607	-2.0%
Level 3	**271,019**	**267,848**	-3,171	-1.2%
Level 4	**238,220**	**231,229**	-6,991	-2.9%
Level 5	**59,240**	**56,360**	-2,880	-4.9%
TOTAL	**1,108,837**	**1,085,669**	-23,168	-2.1%

Occupational analysis yields similar results. Between 2010 and 2020 the contraction in number of jobs is – under the baseline scenario – forecast to be -4.1% for professional occupations and -1.8% for managers and senior officials, whilst the rate of contraction is considerably lower for process, plant and machine operatives (-2%) and elementary occupations (-0.2%)[24].

Despite the move to a more knowledge intensive economy, demand will remain for jobs that require no or low qualifications. These will offer entry level opportunities that enable labour market participation.

Without targeted intervention to stimulate the North East economy the number of people employed is forecast to fall. Forecasting work highlights that this would particularly impact on opportunities for those with Level 4 and Level 5 qualifications which would have a detrimental impact on the drive to restructure and rebalance the North East economy.

Failure to intervene would result in negative impact on the drive to encourage young people to progress to intermediate and higher level skills. Forecasting work suggests that demand will remain for jobs that require no or low qualifications. Whilst these will offer entry level opportunities that enable labour market participation, to shift the North East from its low skills equilibrium will require people and businesses to move further towards the higher end of the value chain. To achieve this will require stimulation of the demand for particularly higher level skills, providing opportunities for progression and driving up of qualification levels.

2.6 Future North East workforce

- Up to the end of primary school (Key Stage 2) North East results are in line with the national average slightly higher in mathematics and science, but as pupils pass through secondary education, performance relative to other English regions dips significantly[44]. In addition, there are significant shortages of teachers with subject expertise in STEM subjects, specifically physics and mathematics.
- Despite improvements in recent years the proportion of young people achieving 5 GCSEs **including English and Mathematics** remains below the national average. Overall GCSE performance ranks better than the national average, but performance in the core skills of Mathematics and English lags significantly[45].
- Attainment of Level 2 qualifications by age 16 remains lower in the North East than in many other regions. 53.4 per cent of the regional cohort aged 19 in 2007/08 had achieved a Level 2 by their 16th birthday, compared with 55.4 per cent in England. Attainment by age 16 is improving faster in the North East than nationally[46].
- The proportion of young people who achieve a Level 2 between ages 16 and 19 has historically been higher in the North East (22.5 per cent of the cohort aged 19 in 2007/08) than in all other regions. This 'conversion rate', coupled with rising attainment at age 16, means that the attainment gap between the North East and England is closing[46].
- Despite rising attainment, however, around 8,000 young people in the North East – almost a quarter of the regional cohort – reached their 19th birthday in 2007/08 without achieving a Level 2 qualification[46].
- At each stage of the education system, attainment in the North East slips slightly further behind the national average. This trend reduces the likelihood of young people progressing to higher level skills, increasing the need for adult skills provision to reverse structural underperformance.
- The North East has more success in vocational learning than the other English regions. In 2008/9, 19.1% of participation by 16-18 year olds was via apprenticeships, compared to 13.6% nationally. Overall, 11% of the total 16-18 population was engaged in work-based learning, compared with 7% nationally. Progression via School Sixth Form, by contrast, accounted for 23.7% of learners, against 28.9% nationally. While the proportion in work based learning is steadily declining, the gap between the North East and England as a whole remains. There are specific concerns about the impact of the recession on employers' ability to provide apprenticeship opportunities[26].
- The North East success rate in obtaining a full Level 3 qualification at an FE institution is 79%, slightly lower than the English average success rate (81.2%). However, there is substantial variation throughout the region[47].
- Participation via the FE route also varies considerably between local authority areas.
- Foundation degrees have proven to be an attractive and effective route into higher education for learners. There are 275 foundation degrees on offer to students in the North East (2009/10)[61].

- c20,000 18-29 year olds from the North East applied to enter full time higher education in 2009, an increase of 7.4% (or 1,367 additional applications) on the previous year. This percentage growth in applications is smaller than, but in line with, the figure for the UK as a whole (8.7% in 2009)[42].
- 9% of young people (16-19) in the North East are NEET against a national average of 6.5%. At age 18, this is more concerning issue, with 12.3% NEET, compared with 8.3% nationally[4].

The North East has made significant improvements in the last decade, however if the region is to encourage and promote young people to progress to higher level skills it must address lag in attainment at each stage of the education system. This will require focus on 'pull' factors - stimulating demand for intermediate and higher level skills and providing the opportunities to encourage young people to participate and progress.

2.7 Emerging sectors

- **Industrial Biotechnology:** The National Industrial Biotechnology Facility in Tees Valley is a world-class hub for industrial biotechnology, unique in Europe. It positions the North East at the heart of a bioscience revolution, well placed to drive and deliver a sustainable industrial biotechnology agenda. This will ensure that the UK can meet the sustainable development and consumption needs of the 21st Century. The facility is forecast to generate over £11bn by 2025. To achieve this growth will require graduate and postdoctoral level skills in science and technology – with a particular requirement for combinations of skills in chemistry, biology and engineering[55].
- **Plastic Electronics:** The North East is capitalising on the commercialisation of the physical sciences through unique and specialist facilities, including the national Plastics Electronics prototyping centre (PETEC) based at NETPark, County Durham. Electronics and electronic engineering and subsequent application in the fields of energy, defence, and medical-related technologies all have the potential to create up to 1,500 high value added jobs and businesses through targeted incubation, supply chain development and university spin outs[55].
- **Offshore Wind:** The National Renewable Energy Centre (NaREC) in Blyth holds the world's largest offshore wind blade test facility and UK's first wind turbine skills training tower. The North East will host the UK's first offshore wind manufacturing facility on the north bank of the Tyne. The scale of opportunity in the offshore wind sub sector is significant in terms of competitiveness and jobs. It is estimated that the industry has the potential to create up to 16,000 new jobs in the North East. This will include 7,000 professional and technician engineers mainly in core electrical and mechanical areas, with jobs split across manufacture, construction, installation and maintenance. It is anticipated that the North East offshore wind industry will require 3,000 skilled engineers by 2019[55].
- **Ultra – Low Carbon Vehicles:** The North East is one of the first designated national Low Carbon Economic Areas. The world's first affordable mass produced zero emission cars will be manufactured from the Nissan base in Sunderland, securing £420m new investment and maintaining 2,200 jobs. The North East will be established as the European Centre of Excellence for Battery Manufacturing. The bulk of the skill needs to support this manufacturing capability will be operative/technician electrical engineering competencies[55].

The fast pace of technological change and the emergence of new sectors will lead to a demand for new skills and, consequently, new courses to meet this demand. Developing programmes and courses to meet emerging demand involves a degree of risk. Funding systems can disincentivise providers and encourage risk averse behaviour. Catalytic public investment can mitigate the risk and incentivise the development of specialisms in key growth areas, to anticipate and pre-empt demand.

2.8 Specific Issues to consider

STEM

North East employers and forecasters highlight the increasing need and demand for STEM knowledge skills and qualifications. The North East is the only UK region to export more than it imports - largely due to the strength of its manufacturing and engineering sector which requires a supply of basic STEM skills which employers can enhance with specific skills. However, engineering and manufacturing compete with other industries for individuals with STEM skills. Where there are large proportions of older workers then this will exacerbate any losses in this important skill group. Science, technology, engineering and mathematical knowledge require a sound grounding in numeracy and literacy skills. Increasing the proportion of young people with 5 A*-C GCSE's including Mathematics, English and Science would clearly increase the pipeline of individuals into STEM careers in the North East.

In 2009 North East Universities graduated 1,150 students with first degrees in engineering disciplines[56]. However, taking into account the net flow of graduates out of the area (c25%[57]), graduate choosing further study, or otherwise unavailable for work (c27%[58]), and the number of graduates taking jobs in fields unrelated to engineering (c41%[59]), fewer than 400 individuals may actually have been available to North East companies. To put this in context, regional predictions suggest that the Offshore Wind Industry alone may have a net recruitment demand for 3,000 graduate engineers by 2019[55].

This issue is mirrored across other occupational levels, with advanced technicians also identified as an area of potential shortages. To meet this demand will require a significant increase in the participation and attainment in STEM subjects throughout the educational pipeline. The North East has seen good progress in this area with pre-16 pass rates at Level 2 rising over 14% in the last 4 years to just above the national average. Further work is required post-16 however, with only 4% of the total A-level entries in Maths, Chemistry, Biology and Physics taking place within the North East and pass rates sitting between 4.1% (maths) and 6.3% (biological sciences) below the national average[60].

STEM skills at all levels are essential for the growth of new and priority sectors in the region.

Apprenticeships

The North East has traditionally high levels of participation in apprenticeships; however this is in part attributable to the utilisation of programme led apprenticeships as a route to engagement and participation. The withdrawal of the programme led apprenticeship option will impact heavily on participation rates. Overall, almost two thirds of the starts in 2008/09 related to administration, construction & building services, manufacturing, hair & beauty, hospitality and health & care. Around four in ten of the starts were Advanced Apprenticeships[48].

The North East welcomes the intent to focus emphasis on progression to Level 3 and strengthening of Level 3 Apprenticeship Frameworks. This has great potential to support increasing demand and opportunity in craft, technician and advanced craft skills. The North East, despite demonstrating a strong track record in apprenticeships recognises the following constraints/limitations:

- In the academic year to date the North East has seen a fall in apprenticeship starts, primarily in 16-18 year olds and largely attributable to lack of employer engagement. Demand for apprenticeship places, particularly from young people, significantly exceeds supply[48].

- The focus of available apprenticeship places does not align with North East economic opportunities and priorities. Around half of current vacancies are in customer services, administration, management and health and social care. The mix and balance is strongly driven by individual choice, resulting in a mismatch against sectoral and economic demand. For example, levels of enrolment in health and beauty in the North East equal that of engineering[48].
- Given the increasing shift in public funding towards apprenticeships, but in the absence of a targetry framework or strategic economic focus, there is a risk that the current mismatch will deepen and widen, and the North East's ability to support the ambition to significantly increase numbers of apprenticeships may be constrained.

Professional Technician Level
The increasing shift to higher technology advanced manufacturing will require skilled technical employees at Level 4 and 5. The North East's emerging industries contribute to this demand with demand for skilled technicians driven by more advanced technology, scale of new investment and infrastructure for e.g., offshore wind turbine manufacture, installation and maintenance. Demographic trends are highly relevant, with the current technician workforce ageing rapidly.

Management and Leadership
Management and leadership skills are increasingly required due to rapidly changing legislation, technology and global market conditions. Management and leadership skills are also recognised as key to enhancing skills utilisation within the workplace, but in the North East these skills are especially critical as enterprise levels are low. If an additional c40,000 people in the North East possessed the necessary management and leadership skills to run a business then the North East could potentially reach England average levels of enterprise and self employment. To match the 2008 national stock rate would require an additional 35,050 North East VAT registered businesses – taking the stock from the present 63,450 to 98,500.
Business Enterprise North East data indicates that employer demand for strategic planning and developing new business is high, particularly in manufacturing industries. An emphasis on management and leadership skills will help maintain the North East strengths in manufacture and export.[87]

Higher Level Skills
The majority of North East graduates are 'loyals' (domiciled in the North East and remained here to study) or 'returners' (those who have studied elsewhere but have returned to the region) [42]. A significant number of these students are engaged in foundation degrees, nurse training, diplomas and certificates rather than first degrees, and first degrees in STEM subjects. This indicates that although we demonstrate good retention, we may not be developing or retaining the right mix of skills to support the regional economy or meet the future needs of emerging sectors.

Employer demand for graduate level skills in the North East remains low; too few high value added industries, employing a low proportion of highly skilled individuals. Perceptions remain that the region does not offer high level career paths, compounded by relatively low graduate salaries. The North East is the lowest paying region for engineering graduates, with salaries at around 80% of national salary levels.

The increase in the proportion of people who have completed university or higher level further education has not been matched by an associated increase in the number of high skilled jobs in the North East. Too few North East employers are innovating or pursuing high skills, high growth strategies and, consequently, failing to effectively utilise these skills. The North East requires greater levels of employer ambition and innovation, with engagement and investment in skills raised. This would enhance the capacity of more North East firms to be high growth, high skill, high value added businesses. To achieve this requires emphasis on stimulating new industries and innovation and encouraging leadership and management capabilities.

3. Distribution of Current Investment

In the North East an estimated £3bn per annum is invested in skill development. Over £1bn comes from the public purse which is broadly broken down as follows:

- £572m Learning and Skills Council (including £180m focussed on 19+ and Apprenticeships)[9].
- £371m Higher Education Funding Council for England (HEFCE)[8].
- £78m Working Neighbourhoods Fund allocated to North East Local Authorities[51].
- An estimated £150m Jobcentre Plus (JCP).
- £21m European Social Fund (ESF)[49, 50].
- Other discretionary funding (e.g. HEFCE workforce development: £7m+)[7].

Private Sector investment outstrips public sector investment by 2:1. The National Employer Skills Survey (2009) estimates North East employers contribute c£1.95bn to workforce development. A proportion of this is allocated to meeting legislative requirements but this is still a significant investment[39]. In 2009 over 40% of companies in the North East undertook both in-house and off-site training – the second highest amongst the English regions[39].

Public funding policy has targeted public investment towards Level 2, e.g. in 2008/09 fewer than 1 in 10 of achievements were at Level 3. Level 2 starts in the 19+ year group outnumbered those at Level 3 by a ratio of 67:1.

Public investment in the North East supports a relatively high proportion of repeat qualifications. Investing in repeat qualifications can deliver economic return when assigned to the delivery of economically valuable/relevant qualifications. This supports the individual in learning new skills or updating their skillset in response to economic restructure.

Skills Funding Agency 19+ and Apprenticeships investment consists of two elements - Adult Learner Responsive and Employer Responsive. The table below summarises public investment, including that for young people:

Figure 8 – North East Provider Allocations, 2009/10[9]

Adult & Community Learning	14,022,000
School Sixth Forms	85,114,292
16-18 (excluding Apprenticeships)	234,798,371
Adult Learner Responsive	85,772,598
16-18 Apprenticeships	48,563,590
19+ Apprenticeships	31,488,329
Train to Gain	72,646,198
Total	£572,405,378

Most of the current Adult Learner Responsive (ALR) budget is assigned to particular sectors with a proportion supporting generic programmes such as literacy & numeracy, IT or employability/preparation for work programmes. The Employer Responsive budget currently covers both Train to Gain and Apprenticeships. Over 80% of the Train to Gain starts in 2008/09 were at Level 2 or below[31] and in 4 main areas: manufacturing, construction, health & social care and transport & logistics[31].

European Social Fund: The European Social fund (ESF) is an important funding stream with a priority to increase participation and support the growth of new sustainable jobs. There are established mechanisms in place to ensure these priorities are reflected in the tenders issued by the Skills Funding Agency and Jobcentre Plus. The fund has been particularly valuable in that it can be used in a flexible and responsive way to meet need and identified priorities.

Addressing the current levels of **economic inactivity** remains a key priority. During 2010/2011, for example, the Skills Funding Agency is financing, utilising ESF support, a range of skills based programmes for the unemployed. These include programmes to: (a) provide a flexible response to the needs of unemployed individuals, principally JSA claimants unemployed people with skills; (b) provide young unemployed people (aged 18-24) with skills; (c) support and regulate learning for offenders both in custody and in the community.

4. Priorities for, and Shifts in Investment

Advice on how colleges and training providers can better focus Skills Funding Agency investment to support the North East Skills Priorities Statement 2011/2012

<table>
<tr><th></th><th colspan="2">Key Sectors and Shifts in Investment Needed[31]</th></tr>
<tr><td rowspan="4">Current Needs</td><td colspan="2"><u>Agricultural sector</u>
This sector consists of c4,000 employers working in environmental and land based industries. Most businesses are concentrated in the rural parts of Northumberland and County Durham. The workforce is estimated to be 18,000 with predictions showing a slight contraction in this total, however, net recruitment will remain positive with around 1,000 employees required by 2012. New entrants will be required at both ends of the sector; lower skilled employees who will be trained ‘on the job’, and higher skilled individuals who are comfortable with the latest research and best practice in areas such as soil management, field crop production and integrated farm management. North East employers see potential in the national low carbon agenda, specifically around biofuels[72]. Land based industries in the North East are an important area of innovation and enterprise and underpin the developing tourism sector. The workforce is skewed towards older groups which makes it essential to encourage high calibre new entrants who are able to learn a wide range of skills – many in the STEM category. Demand for Level 3 training is stable and makes up around 15% of the total.</td></tr>
<tr><td>Current delivery pattern: (06/07 – 08/09):
1. Employer responsive (Train to Gain) - starts remain low, but rising over the last 3 years.
2. Employer responsive (Apprenticeships) - numbers rising
3. Learner responsive (adults) - enrolments falling.
4. Learner responsive (young people) - enrolments rising.</td><td>Recommended changes to provision:
The nature of the sector suggests that this is broadly in line with current requirements.</td></tr>
<tr><td colspan="2"><u>Chemicals, Polymers, Life Sciences and Pharmaceuticals</u>
This sub-sector of North East manufacturing has significant strengths, with c750 dedicated companies employing c30,000 staff within the overall process or manufacturing industries. Strong interdependent clusters of companies exist across the area, with a biopharmaceutical supply chain presence evident in Tyne and Wear, County Durham and Northumberland. Large scale chemical manufacturers are concentrated around Teesside where the UK’s largest integrated petrochemical cluster, containing 58% of total UK petrochemical industry, is located. North East employers predict skills needs driven by high replacement demand in traditional areas, plus new opportunities in biotechnology, composite materials and low carbon processing. Specific demand is identified for senior level employees with advanced technical leadership skills and scientifically literate technicians and graduates. Manufacturing process industries are forecast to require c2,000 people to meet total replacement demand up to 2012[63].

Skills development in this sector includes the Health & Social Care sub sector where skill development is driven by policy and is high. Take up of apprenticeships and skills development has been lower amongst the strategically important chemical and pharmaceuticals industries and this highlights the importance of promoting and providing training which is relevant to employers. The forecast increase in the level and mix of skills requires clear articulation of the benefits of increasing skill levels and how this leads to individual learning progression.</td></tr>
<tr><td>Current delivery pattern (06/07-08/09, excluding health):
1. Employer responsive (Train to Gain) – starts are well up on 07/08
2. Employer responsive (Apprenticeships) – steady flow of starts.
3. Learner responsive (adults) - starts static.
4. Learner responsive (young people) – enrolments falling.</td><td>Recommended changes to provision:
Investigations into demand in this area indicate that there are insufficient numbers of learners. Investment should be focussed on providing incentives to boost employer and individual investment in up-skilling and skills development.</td></tr>
</table>

Construction and the Built Environment

This is an important sector to the North East both in terms of employment and significant levels of skills need. The sector employs c130,000, accounting for around 13% of total employment. Employment is concentrated in the major urban areas, with clusters around Newcastle, Gateshead, Sunderland and Middlesbrough. Parts of the construction industry have been severely affected by the recession. Despite forecasts for growth, there are concerns amongst North East employers that they cannot maintain high numbers of apprentices and training programmes over 2010-12. Demand will be driven by requirements for energy efficient new build and retrofit. These skills are most likely to be gained by upskilling the current workforce. However skilled craftsmen are still demanded by employers in an industry that continues to have a higher density of harder to fill vacancies. Businesses are predominantly SMEs and sole traders so leadership and change management skills are acknowledged as vital, as is support to enable small companies to take on apprentices. Smaller in number are the specialist training and skill requirements to meet the needs of the heritage sector[64].

Engineering construction is a key sub-sector in the North East, with specific clusters on the Tyne, the Tees and the Wear, servicing offshore and sub sea projects. The ECITB recognises 36 significant companies as being headquartered in the North East, employing c7,000 people with a c20,000 employed in related occupations, e.g. engineering and technical consultancy, those registered as working offshore. North East employers expect growth in the sector to mirror developments in the Energy Sector, from growth in carbon capture and storage, offshore wind, and nuclear decommissioning / new build. Skilled science and engineering graduates and technicians will continue to be in demand. Shortages are reported in specific occupations including pipe fitters, welders and erectors64.

Building Maintenance Services is an expanding sub sector due to the trend for companies to out-source roles such as cleaners, estate managers and security officers. The drive for energy efficiency in this sector results in skills and qualification needs around multi-skilling, resource efficiency, improved management, business and ICT skills[64].

All areas of this industry rely on a flow of young people who are capable of reaching high levels of ability as new technologies, new techniques and new ways of working demand constant updating of skill levels. This industry would like to see a 30% increase in Advanced Apprenticeships (based on 2008/09). Around 80% of apprentices come from the 16-18 year group and industry would like this proportion to increase to around 85%-90%.

Current delivery pattern (06/07-08/09):	***Recommended changes to provision:***
1. Employer responsive (Train to Gain) - starts show growth in 2008/09. 2. Employer responsive (Apprenticeships)- starts are steady 3. Learner responsive (adults) enrolments are falling. 4. Learner responsive (young people) – enrolments are rising steadily.	Forecasting predicts an average employment annual growth of 3,500, with many of the jobs requiring Level 3+ skills. This suggests that balance of provision must shift towards Level 3. Learner numbers appear sufficient although apprenticeship numbers will need to increase. A co-ordinated approach required to ensure good learning provision exists to meet demand for energy efficiency related skills.

Creative and Cultural

The North East has a broad and diverse cultural and creative sector with c5,000 businesses in the broad sector grouping employing c60,000 staff. Substantial activities are found in advertising and design, new media, games, software, Film, TV and Radio, in addition to more specialist activities, e.g. the only significant visual effects presence outside of London. CCSkills reports that employers experience recruitment difficulties because prospective candidates do not have experience (40%) and/or a lack of specialist skills (37%).

Employers predict growth as a result of innovative developments in digital technologies, particularly taking advantage of new platforms for content delivery. The digital and creative industries are growing faster in the North East than anywhere else in England. The industry reports that this will drive a need for multi-skilled sector professionals who are able to adapt to new business models by utilising a mix of creative and technical skills[65]. This sector has no difficulty attracting well qualified, highly motivated, individuals who are more likely to experience difficulty in accessing occupations commensurate with their qualification level. Industry bodies suggest that an increase in the number of apprenticeship places would help more individuals acquire vital experience and knowledge in their area of interest. Business skills also have to be learnt since these industries have high levels of free-lancers, portfolio working and self employment.

	Current delivery pattern (06/07-08/09): 1. Employer responsive (Train to Gain) – start numbers small 2. Employer responsive (Apprenticeships) - start numbers small 3. Learner responsive (adults)- enrolments are falling 4. Learner responsive (young people) - enrolments show a significant rise on 07/08.	***Recommended changes to provision:*** Numbers in learning appear sufficient but take up of employer responsive provision is low. This is not attributed to shortage of provision but lack of employer demand. Effort for this sector should focus on employer engagement and driving employer commitment to skills development.
	Energy The North East energy sector has a small but highly skilled workforce c2,500 working in extractive and mineral processing activities. This is a skilled though ageing workforce, and demand over the 2011-12 will be almost exclusively to high level roles. The energy sector also employs c7,000 individuals in gas, electricity and water industries and is an area where enterprises is growing. The North East is well positioned to capitalise on natural and built assets to support significant growth in this sector. Recruitment is expected to increase, driven by infrastructure replacement programmes, peak retirement of existing staff and the growth of new technologies, particularly the development of offshore wind, which is forecast to bring up to 16,000 jobs to the North East over the next ten years[67].The industry is concentrated in Tyne and Wear and the Tees Valley, a continuing trend as companies locate around the rivers and ports to take advantage of the opportunities in offshore energy. Future skills demand is expected in both higher and low level occupations. Skilled graduate and technician engineer in core electrical and mechanical disciplines are identified as areas of potential shortage[67]. New industries and opportunities associated with renewable energy and technological advances will demand new mixes of specialist skills. Provision is under pressure to offer ‘state of the art’ courses in skill development for these industries and work with employers to increase the number of high calibre recruits to for Advanced Apprenticeships.	
	Current delivery pattern (06/07-08/09): 1. Employer responsive (Train to Gain) – starts are rising steadily. 2. Employer responsive (Apprenticeships) – numbers are steady 3. Learner responsive (adults) - enrolments well down on previous years. 4. Learner responsive (young people) – enrolments falling.	***Recommended changes to provision:*** Ensuring that learning provision and courses are relevant to employer needs will require close working with industry and a responsive approach to their own learning and upskilling to meet the needs of the future.
	Financial and Professional Services Despite major issues, most notably with Northern Rock, this sector remains significant to the North East, employing c31,000, which includes significant Contact Centre activity which benefits from the lowest level of churn in the UK. North East employers report that the occupational structure of the sector demands higher level skills (an estimated 97% of employees are in occupations that require intermediate and above qualifications). Net replacement demand of c2,600 staff is forecast to 2012, many in support functions. Skills demand in the sector is focussed around well qualified individuals with either specialist technical proficiencies or highly developed customer service skills. The North East has a high proportion of self-employed financial advisors with CPD requirements in order to meet new legislation in 2012[69]. This is a key sector, both in terms of numbers employed and as an area of enterprise growth. The main requirement is to ensure that individual workers have Level 3 /4 skills which are now the accepted entry level to the industry. The high level of skills and qualifications sought puts pressure on industry employers to increase the number of young people taking the apprenticeships route. Currently, the proportion undertaking a Level 3 training route seems low, which points to increasing both existing employee and employer demand for Level 3 training and increasing the number of apprenticeships.	
	Current delivery pattern (06/07-08/09): 1. Employer responsive (Train to Gain) - starts reveal significant increases 2. Employer responsive (Apprenticeships) - starts showing a steady rise. 3. Learner responsive (adults) - Enrolments falling. 4. Learner responsive (young people) - Starts showing a steady rise.	***Recommended changes to provision:*** To accommodate projected growth will require a fall in provision at Level 2, for those already in work of c10% per year, with a corresponding increase in Level 3 provision.

<table>
<tr><td rowspan="4"></td><td colspan="2"><u>Health, Social Care and public sector</u>
The public sector is an important source of jobs in the North East but the number and type of jobs is highly dependent on government policy. Health & Social Care industries employ the highest proportion of public sector workers where the implementation of the personalisation agenda is driving the need for new skills and training. There are c166,000 individuals working across the Health and Social Care sector which has grown over the last ten years. As a baseline, the sector is predicting that population demographics and replacement of staff retiring or moving to other sectors will result in demand for c14,300 staff 2010-12. Demand for skills associated with new ways of working will increase training requirements. This is due to the introduction of new technologies and the redesign of roles e.g. care workers, medical, nursing and scientific staff. Employers in the North East also report that they continue to rely on economic migrants to fill some strategically important vacancies[70]. Impending changes due to austerity measures will impact on all workers across the public sector as the sector restructures and individuals take on new areas of responsibility.</td></tr>
<tr><td>Current delivery pattern (06/07-08/09):
1. Employer responsive (Train to Gain) – Starts rising.
2. Employer responsive (Apprenticeships) – Starts below 07/08 levels but still higher than 06/07.
3. Learner responsive (adults) – enrolments falling.
4. Learner responsive (young people) - enrolments rising.</td><td>Recommended changes to provision:
This pattern of provision is largely governed by statutory minimum levels of qualification for the workforce. As statutory targets are reached, this will allow a reduction in Level 2 provision which will be targeted at new entrants only. Funds could then be more targeted to grow and develop skills of key supervisory / management staff to Level 3+.</td></tr>
<tr><td colspan="2"><u>Information and Communication Technology, Digital Services</u>
The North East has a thriving ICT and Digital sector of c30,000 individuals ranging from large telecoms subsidiaries to a holistic set of digital, new media and software SMEs (see above). The workforce is split between c1,000 companies with embedded staff providing key support functions to the rest of the economy. Clusters exist around Tyne and Wear, Tees Valley and Northumberland, with innovation and new business start up being driven by centres of excellence at regional universities and dedicated North East Innovation Connectors. The existing workforce is already highly skilled with c70% of individuals in higher level occupations, mostly with Level 4+ qualifications. This trend is expected to continue with increasing demands for multifaceted technical professionals who also possess leadership, project management and creative skills[66].

This sector’s workforce has similar characteristics and requirements to those found in Financial & Professional services. Highly developed customer service skills, team working, numeracy, etc. are viewed as essential by employers. This means building on the increasing numbers of higher level Apprenticeship starts and implementing Level 3 training where required within the existing workforce.</td></tr>
<tr><td>Current delivery patter 06/07-08/09):
1. Employer responsive (Train to Gain) - Starts reveal significant increase in 08/09.
2. Employer responsive (Apprenticeships) - starts down slightly on 07/08.
3. Learner responsive (adults) - Enrolments falling steadily
4. Learner responsive (young people) - Enrolments steady</td><td>Recommended changes to provision:
Projected growth in this sector will require increases in Level 3 provision, accommodated by 10% reduction per year at Level 2 for those in work. Provision of ICT skills training will continue to evolve in order to meet new technological advances and employer requirements.</td></tr>
</table>

	Manufacturing The North East has a strong manufacturing base and is the only region of the UK to export more than it imports. Manufacturing operations span the North East but there are specific concentrations in County Durham, Sunderland and Tees Valley. The sector employs around c135,000, over 13% of the workforce, spread across a variety of industries and occupations. Particular strengths are in manufacturing for the Engineering, Food and Drink, and Automotive industries. Replacement demand over 2010-12 period is forecast to be c5,000 workers, around half being in higher and intermediate occupations [1,10]. The employee profile in North East manufacturing varies between sub-sectors but c40%, are currently employed at craft level and below. Many of these will require upskilling as technological innovation drives up requirement for intermediate and higher level skills. Over two thirds of North East manufacturers have indicated that staff will have to acquire new skills and knowledge and this trend will intensify in the short and medium term[1,10] In line with other sector employers demand is strongest for technical and engineering skills, particularly those relating to CNC and CAD machine operation, welding, and assembly line/ production robotics[1,10]. Advanced Manufacturing and design engineering is a crucial sub-sector delivering, above average productivity, salaries and exports. Many North East companies are at the forefront of the new advances in areas such as nanotechnology, materials science, electronics, mechatronics, ICT and biotechnology with the potential to transform engineering and manufacturing, driving demand for graduate engineers. Employers have reported areas of specific demand, e.g. composites, metal spinning as well as generic requirements for STEM skills, selling skills and good management skills. Employers recognise that growing the North East economy will be highly dependent on the commercialisation of new innovative products and processes, and that strategic leadership and developing new markets are key to this process[1,10]. The pace of change in the manufacturing and process industry requires a shift in the balance of provision from Level 2 towards Level 3. There are also compelling arguments to increase apprenticeships ensuring alternative routes to higher skills. Employees will increasingly be expected to achieve and progress to higher skills levels, e.g. undertaking Advanced Apprenticeships with a view to continuing on the route to HE. In line with other sectors, manufacturing process industries will be keen to recruit well qualified individuals capable of adapting and learning new skills associated with meeting the challenges of operating within complex supply chains in global markets. There has been an increase in demand from the 16-18 year group for engineering and manufacturing learning which shows that opportunities presented by new industries and ways of working has become more attractive. High quality Information, advice and guidance (IAG) that includes employer input is critical to ensure individuals continue to have a good knowledge of the industry they are entering and how they can progress.	
	Current delivery pattern (06/07-08/09): 1. Employer responsive (Train to Gain) - significant growth over the last 2 years. 2. Employer responsive (Apprenticeships) – overall starts remain steady. 3. Learner responsive (adults) - enrolments declining. 4. Learner responsive (young people) - enrolments rising.	***Recommended changes to provision:*** Forecasting models indicate a reduction in the numbers employed. Replacement demand is forecasted to be high - c3,000 per year. To satisfy this need, apprenticeship numbers need to increase by at least 10% per year, and Train to Gain Level 3 numbers need to continue their growth, with the aim of at least 1,000 per year in the next 2-3 years.

Tourism, Hospitality and Leisure

The North East has a vibrant tourism, hospitality and leisure sector with c8,000 VAT registered business units concentrated in the urban areas. Tourism related businesses reach into the rural hinterlands and are an important source of enterprise and employment in the sparsely populated areas of Northumberland and Durham[73]. The sector employs c90,000 individuals, a large number in lower level/part-time occupations. This employment profile impacts on skills demand and North East employers place emphasis on softer skills such as team working, customer service and commercial awareness, as opposed to more formal qualifications. The easy entry to self-employment also points to latent demand for good leadership, business and marketing skills. There is scope for exploring latent demand from employers for training in leadership and management skills such as strategic planning, developing new markets and products as well as how to benefit from a more formally trained workforce. There are also reports of niche skills shortages, notably amongst chefs and catering professionals. An expansion of the Hotels & Catering workforce is forecast over the 2010-12 period. This may be constrained by economic conditions but there is a replacement demand forecasted for c7,000 individuals of which c3,000 are expected to have training requirements. This is due to learning specific skills for the job but also because most are forecast to require intermediate level and above skills[73]. Sector employers report many barriers to training including access to training (due to remote locations) as well as difficulties in meeting the costs and finding the time. However, demand for skills in the sector is growing where there is an increased appetite for Level 3 provision. The industry as a whole has upskilling needs due to consumer expectations for the highest standards in customer service, marketing and business skills. Clear routes to high skills (Level 4+) must be apparent to both individuals and employers. More work must be put into highlighting the benefits of high skills to both employers and individuals.

Current delivery pattern (06/07-08/09):	Recommended changes to provision:
1. Employer responsive (Train to Gain) - starts rising rapidly. 2. Employer responsive (Apprenticeships) - starts rising. 3. Learner responsive (adults) - enrolments falling. 4. Learner responsive (young people) – enrolments rising.	Currently, provision is broadly in line with requirements. Employer representatives must continue work and efforts to grow demand for higher business skills with emphasis on management.

Transport

The North East transport sector employs c65,000, broadly split between logistics (80%) and passenger transport (20%). A total replacement demand of around c5,000 is forecast in this sector over the 2010-12 period, concentrated amongst high and low end occupations - c3,500 needed to fill intermediate / higher and c1,500 in lower occupational areas[74].

The logistics sub-sector provides key underpinning services to both the manufacturing and retail sectors, with a significant number of additional staff employed directly in those areas. The sector is expected to grow in the coming years, driven by globalisation. It will see significant commercial challenges around fuel costs and the increasing drive towards a national low carbon economy. Introducing new technology is seen as a key route to raising efficiency, particularly at the three main North East ports. Skills demands are being driven by these factors with advanced IT literacy and strategic leadership and management skills recognised as particularly important. Improved customer service and good knowledge of health and safety will continue to be essential skills areas[74].

Passenger transport is central to North East goals to keep growing the number of visitors to the region. The sector is predicted to grow slightly over the longer term but the ageing workforce will lead to a replacement demand for c800 staff over the period[74]. Both sub sectors require high level knowledge in new areas, e.g. fuel efficiency, new legislation, health & safety, etc. Additional provision secured for taxi/private hire drivers and a new qualification aimed at Road Passenger Vehicle Driving Level 2 (formally Road Passenger Transport Level 2) has resulted in demand in these 2 areas being largely met. There is potential to increase the proportion of apprenticeship routes into the sector which is currently low. Some flexibility may be needed as age restrictions and industry image impact negatively on recruitment patterns.

Current delivery pattern (06/07-08/09):	Recommended changes to provision:
1. Employer responsive (Train to Gain) – starts show a massive rise on 07/08 2. Employer responsive (Apprenticeships) - starts rising slightly. 3. Learner responsive (adults) – enrolments down by a quarter. 4. Learner responsive (young people) - enrolments steady.	A gradual demand for upskilling is anticipated. Following the clearance of the RPVD Level 2 backlog then provision should switch to issues around replacement demand and allow for a 5% increase at Level 3 as the industry develops.

Wholesale and Retail

The wholesale and retail industry is concentrated in urban areas of the North East. It comprises c10,000 VAT registered employers with c130,000 employees. This rises to c182,000 when smaller units and self-employed individuals are taken into account. A considerable proportion of the workforce (c50,000) are employed in lower level occupations. Customer service and selling skills are valued by employers over formal qualifications (over 40% of sales staff have fewer than five good GCSEs or equivalent). Niche retail clusters are a crucial element of the sub regional tourism offer and overall, wholesale and retail represent a large important sector in the North East offering a wide range of opportunities. This can be seen in the high level of demand forecast across the broad sector – c16,000 workers of which c13,000 will be for intermediate and above occupations. Skills gaps include customer handling, team working and commercial awareness - business skills are seen by employers as key to sector development[76].

With direct and strong links to all sectors including tourism activities this sector is characterized by volume employment and easy entry to self-employment. The industry has experienced a reduction in uptake of Advanced Apprenticeship over the 2008/09 period. This is disappointing as there is increased emphasis on softer skills and also ICTs as this is a sector where new technology is frequently deployed to increase productivity. An upturn in the economy and/or further increases in online shopping will drive up skill levels further – in many cases to Level 4+.

Current delivery pattern (06/07-08/09):	***Recommended changes to provision:***
1. Employer responsive (Train to Gain) - starts more than twice the 07/08 figure. 2. Employer responsive (Apprenticeships) - starts have returned to 06/07 levels after a rise in 07/08. 3. Learner responsive (adults) – enrolments falling. 4. Learner responsive (young people) - enrolments showing a steady rise.	Training is expected to be dominated by the need to cater for replacement demand as numbers in the industry are expected to fall slightly. To meet with new demands Level 3 provision needs to rise by around 5% per year, with equivalent reductions at Level 2

Cross-Cutting Issues

Third / Voluntary Sector

It is estimated that c560,000 people are employed in voluntary sector organisations across England sector which suggests that c22,000 people work for voluntary sector organisations in the North East. They play an important role in the North East and support the economy by building social cohesion and integrating those individuals who are in danger of being marginalised from society. Skills priorities include basic skills, skills for life, generic skills, management and leadership (including partnership skills and strategic planning) and technical/job specific skills. Other key skills include campaigning, volunteer management and accountability and governance[88].

Public Sector

The public sector employs c263,000 people in, health, social care (see above) justice, lifelong learning, local and central government functions. The North East has successfully positioned itself as a cost efficient base for national public sector operations[75]. Future employment in this sector is highly sensitive to the impact of public sector budget cuts however a significant skills demand is expected to continue, with employers signalling a need for staff to be upskilled and reskilled in order to fully implement the modernisation and efficiency agendas. Leadership, performance management, commercial acumen, change management, greater multiskilling and increased ICT skills are all identified as essential for the future[75].

Science, Technology, Engineering & Mathematics

The expected growth in lower level occupations can mask the importance of employers increasing needs for STEM skills even in lower level occupations which increasingly need these skills, particularly ICT skills. At the other end of the occupational scale there is strong current and predicted future demand for higher level STEM skills, e.g. growth is forecast in managerial, senior official, professional, associated professional and technical occupations as well as sector growth in areas requiring high levels and mixes of STEM skills. Often higher level occupations are populated with graduates that have followed traditional academic routes but STEM skill shortages could be ameliorated by ensuring that alternative routes exist to higher level skills, e.g. apprenticeships.

Apprenticeships

An increase in the number of Advanced Apprenticeships is seen as an essential means of raising productivity and providing the work embedded skills that employers require. The supply of apprentices will mainly be drawn from younger/new entrants to the labour market who have already reached a good standard of education, e.g. (5 A*-C GCSE or Level 2 equivalent). Where opportunities exist for those already established in the workplace then their experience in the sector will be taken into account.

Skills Funding Agency data shows that a significant numbers of starts currently come from other age groups. A shift in provision towards Level 3+ would be welcomed by employers, particularly as entrants gain experience and knowledge. For 19-24 years, a gradual increasing emphasis on Level 3, and a wider roll-out of Level 4 would support growth and impact while for those aged 25+ years, the focus should be on Level 3+, with a phasing out of Level 2 provision. Overlaps and confusion with Foundation Degrees must be avoided with clear route ways to progression. The evidence suggests that in some areas there is lack of demand from employers and awareness raising and promotion of the value and benefits of Apprenticeship programmes must be worked through. The system would benefit from a system that measures Apprenticeship achievement and its role in progressing into HE. UCAS is investigating the application of a UCAS points system to Apprenticeships which would be welcomed by the region's employers as apprenticeships are a popular way to ensure they grow the job and work specific skills they need.

Leadership & Management

Addressing shortfalls and growing good managerial skills is a key priority for the North East economy where levels of private enterprise need to grow further. Where there are strong preferences for managers that have worked their way up through the industry, e.g. amongst engineering and process industries then the Advanced Apprenticeship route could meet these needs. It is these industries that benefit most from developing and growing the skills they need in close partnership with training providers although this requires long term strategic planning as this can take some years. Where high level generic management and leadership skills are needed then a wide range of suitable options have to be accessible to employers. These courses e.g. leadership, finance, developing new business, marketing and strategic planning, etc. have to meet a diverse set of needs which goes beyond 3 and 4 year business degree courses. The SFA is currently in year 3 of its flexible bite-size 3 year leadership and management programme which has proved successful. In the North East the number of employers, including SMEs, engaged between 08/09 and 09/10) has tripled.

Emerging and new industries in the North East are driving new growth areas which will require new and different skill sets, e.g.

Industrial Biotechnology: This sector currently accounts for less than 5% of total chemical and pharmaceuticals sales. Growth, driven by the need to reduce carbon emissions expected, will increase the sectors importance as it is predicted to become a significant contributor to the European economy. The National Industrial Biotechnology Facility in Tees Valley is a world-class hub for industrial biotechnology, unique in Europe. It positions the North East at the heart of a bioscience revolution, well placed to drive and deliver a sustainable industrial biotechnology agenda. This will ensure that the UK can meet the sustainable development and consumption needs of the 21st Century. To achieve an £11bn forecasted growth (by 2025) will require graduate and postdoctoral level skills in science and technology – with a particular requirement for combinations of skills in chemistry, biology and engineering[55].

Plastic Electronics: The North East is capitalising on the commercialisation of the physical sciences through unique and specialist facilities, including the national Plastics Electronics prototyping centre (PETEC) based at NETPark County Durham. Electronics and electronic engineering and subsequent application in the fields of energy, defence, and medical-related technologies all have the potential to create up to 1,500 high value added jobs and businesses through targeted incubation, supply chain development and university spin outs[55].

Offshore Wind: The National Renewable Energy Centre (NaREC) in Blyth holds the world's largest offshore wind blade test facility and UK's first wind turbine skills training tower. The North East will host the UK's first offshore wind manufacturing facility on the north bank of the Tyne. The scale of opportunity in the offshore wind sub sector is significant in terms of competitiveness and jobs. It is estimated that the industry has the potential to create up to 16,000 new jobs in the North East. This will include 7,000 professional and technician engineers mainly in core electrical and mechanical areas, with jobs split across manufacture, construction, installation and maintenance. It is anticipated that the North East offshore wind industry will require 3,000 skilled engineers by 2019 [55].

Future needs	**Ultra – Low Carbon Vehicles**: The North East is one of the first designated national Low Carbon Economic Areas. The world's first affordable mass produced zero emission cars will be manufactured from the Nissan base in Sunderland, securing £420m new investment and maintaining 2,200 jobs. The North East will be established as the European Centre of Excellence for Battery Manufacturing. The bulk of the skill needs to support this manufacturing capability will be operative/technician electrical engineering competencies[55]. Technical skills have been cited as an area for development and the BIS New Automotive Innovation and Growth Team has suggested a need for industry-university collaboration to provide research structures to develop the low carbon economic area. No statistics can isolate and measure the specific skill needs in these areas but the FE sector has reported increased interest in courses aimed to address the predicted needs of these important industry sectors. Collaborations between learning providers and interested stakeholders will be necessary ensure that the appropriate provision is developed in a timely manner to meet employer needs. The requirement for Sector Skills Councils and Awarding Bodies to work at the pace of industry is critically important. The need to support the 'emerging' market will become increasingly important, and will enable this region to build upon its competitive advantages.

5. Priorities for Intervention: An effective, responsive skills system

The evidence set out in this statement demonstrates that for the North East to develop an internationally competitive skill base it needs to be 'ahead of the curve' in terms of anticipating and taking action to meet the current and future skill needs of North East employers and emerging sectors. It summarises key employer and sector skills demands and identifies where change and shift is required in order to meet demand and capitalise on opportunity for both North East business and the current and future workforce.

There are **five key features of an effective** education, employment and skills system**,** which all partners in the North East feel are critical to ensuring the system anticipates and responds to the needs of a dynamic North East economy. These five areas present a number of key considerations for:

- Schools, Colleges, Learning Providers and Higher Education institutions who are critical to ensuring the North East skills system is responsive and economically relevant.
- Local Enterprise Partnerships, in their work to identify local economic priorities.
- Employers and individuals in their learning choices and investment in skills.
- Strategic funding bodies and national policymakers in developing skills policy and focussing reducing investment.

Underpinning the considerations are the principles of:

- Focussing public sector intervention where necessary to unlock potential and leverage additional investment.
- A shared responsibility between providers, consumers (employers and individuals) and the state.
- Achieving the best possible economic return for public sector investment.

Feature One – an 'outcome based' approach
A more 'outcome based' approach to skills provision would provide greater alignment between supply and demand to promote economic growth. The North East welcomes the freeing of providers to respond to expressed demand. However, analysis suggests that the North East is subject to a greater degree of market failure and requires both a 'demand-led' and 'outcome-based' approach.

An effective skills system will influence behavioural change and both respond to expressed employer and individual demand and address imbalances between individuals and those localities where disadvantaged individuals are concentrated. A funding and performance management system that supports this goal by shifting the focus from inputs and targets to outcomes, will support and incentivise providers, working with LEPs, to respond to local economic and social needs, support economic growth and drive forward social inclusion.

The foregoing analysis demonstrates the need for intervention to release latent demand, stimulate demand for higher level skills, anticipate demand from emerging sectors and promote individual progression. An effective outcome approach will balance these priorities and accelerate the pace of progress and ensure that the collective efforts of employers, individuals and the state are maximised in pursuit of the key outcomes of growth and social inclusion.

A 'shared outcome based approach' to education, employment and skills activity, in which providers exercising their new flexibilities and autonomy are able to effectively align provision to employer and learner demand and investment, would provide a powerful framework for providers to maximise their contribution to North East economic growth and demonstrate impact.

Feature Two – Targetry Framework and Funding Methodology which reflect and appropriately support the 'outcome based approach'

A targetry framework and funding methodology that weights the system towards the strategic outcomes of delivering economic growth and social mobility, and takes cognisance of acute market failures which exist within regions such as the North East, would provide a powerful mechanism to address the imbalances between individuals and those localities and regions where disadvantaged individuals are concentrated.

A post-19 funding methodology based on historic learner numbers raises the risk that providers in areas where historic expressed demand is below the levels required to support future growth may lack the financial capacity to invest in infrastructure and provision 'ahead of the curve'. An approach is required which recognises and weights appropriately efforts to rebalance the economy would support North East Learning providers to move the North East from its low base position.

Feature Three – A functioning market which supports employers and individuals to invest in skills development and training

The North East recognises the need to better target and direct reducing public investment and to stimulate employer and individual investment. This requires the creation of effective market conditions in which the purchasers of learning are informed consumers able to identify and articulate their requirements and purchase appropriate provision, including:

- Empowerment of employers and individuals of all ages through the provision of accurate high quality and economically relevant impartial information, advice and guidance, highlighting the employment opportunities and linkages between learning and employment.
- The provision of accurate and high quality 'market intelligence' to better inform providers of future needs within the North East economy.
- Providing the necessary resources to encourage providers and employers to work together to align activity to economic priorities (where this is sectoral, spatial demand or work to respond to 'economic shock' such as redundancy or large scale growth).
- Flexible provision which meets employer/learner demand.
- Supporting greater levels of employer engagement with pre 19 providers to raise the expectation, aspiration and attainment levels of young people in the North East.

Feature Four – Flexible funding arrangements to incentivise employer and individual financial contributions to education and skills development at Level 3 and above.

The North East Economic Model demonstrates that continued emphasis on the pursuit of full qualifications below Level 3 would adversely impact upon the North East and result in:

- Reduced ability to build critical mass within those sectors which will contribute towards increasing productivity levels in the North East.
- Reduced levels of access from mature entrants looking to re-skill, providing fewer young people with the opportunity to work and learn at the same time.
- Fewer opportunities for business start-ups.
- Reduced ability to attract inward investment and key companies to the region.

An effective skills system would shift the focus of activity towards Level 3 and 4 through a mixed model of investment between the state, employers and individuals. This would bring the region's qualifications profile more in line with that of England and drive up skills levels in key sectors. This requires an approach which:

- Provides the flexibility to shift funding towards Level 3+ qualifications (and units towards) to ensure greater employer and individual contributions.

- Takes forward the Professional Technician Apprenticeship approach which supports:
  - Individual progression and continuation – aimed at individuals who have already completed a Level 3 apprenticeship or equivalent qualification and who are in or about to enter post Level 3 employment.
  - The acceleration through apprenticeship programmes of people already in possession of a Level 3 qualification.
- Encourages more employers to invest in the development of higher level skills, and:
  - Refocus Train to Gain funding to create a match funding pot for SMEs. This will enable employers to access a contribution to match that of the employee's fees. A public contribution cap of 33% of the overall fee would apply in a similar way to that of the recent government Alumni match–funding scheme.
  - Shift the focus of funding towards effective ladders of progression between and within qualifications. This should include an emphasis on bite sized learning, and multiple entry and exit points to enable roll on, roll off qualifications.
  - Focus on the long term benefits to the economy from increased numbers of higher skilled individuals by incentivising employers to invest in higher education.

This would not require additional public funding, but a realignment of current investment, reducing non-essential repeat Level 2s and 3s and changes to the funding arrangements relating to the accreditation of prior learning. This refocus could provide for an estimated £8m of the estimated £13.5m cost of providing additional Level 3 and above qualifications, leaving an annual shortfall to be made up by co funding of higher level qualifications by employers and individuals of around £5.5m[22].

Feature Five – A Re-balanced economy

Achieving economic growth, jobs and opportunities and raising the skills profile of the region will require a 'push-pull' approach. Detailed scenario work indicates that without intervention to stimulate the North East economy, the number of people employed will fall by approximately 2% between 2010 and 2020.

Our collective regional ambition to drive economic growth and increase social mobility will be delivered through a combination of both supply (a more qualified workforce) ***and*** demand (growth within the economy). An effective skills system will work in tandem with targeted interventions to accelerate the growth of knowledge intensive industries, such as pharmaceuticals, engineering, financial services and IT, and high growth emerging sectors. In the context of limited resources a principle of the skills system going forward, particular regarding incentives to alter behaviour, should, be strategically aligned to economic priorities and economic growth.

This strategic investment in skills will, where appropriate, share the risk of developing the provision of skills qualifications in areas of new market opportunities and emerging industries. This will accelerate the pace of progression and ensure that the collective efforts of employers, individuals and the state are maximised. Catalytic investment will encourage substantial employer and individual investment and lever provider investment in infrastructure and capacity. Examples include:

- Promotion of productivity, enterprise and business growth through developing innovation and exploiting research and development capabilities.
- The development of sectors strategically important to the UK and the North East, such as low carbon vehicle, offshore wind, chemicals and process industries.
- New investment for both existing business and inward investors, with the development of new approaches to financing and supporting business growth.

North East - Strengths, Weaknesses, Opportunities and Threats

Strengths

- The North East is a small but cohesive region with a history of strong partnership working.
- The development of skills in the North East at Level 2 has shown rapid improvement in recent years, closing the gap with the rest of the UK[13, 15].
- Demonstrable success in supporting economic restructure, resulting in an increasingly diverse and resilient economy, with key strengths in manufacturing, innovation and engineering.
- Relatively low, but improving, levels of economic performance.
- Five globally acclaimed universities with a strong record of creating new businesses, with over 100 graduate start-ups in 2007/8 and the greatest number of longstanding companies set up by university staff of any English region outside of the South East[54].
- Buoyant college sector with a focus on excellence and collaborative practice. The further education sector is committed to information exchange, partnership working and maximising the offer to businesses and individuals.
- Levels of employer engagement and investment in workforce development which are higher than the English average[39].
- The North East provides a strong vocational route for young people. In 2008/9, some 19.1% of participation by 16-18 year olds was via apprenticeships compared to 13.6% nationally[26].

Weaknesses

- The North East still lags behind other English regions, with the lowest GVA per capita[20].
- Whilst the NE closed the gap with the UK in terms of Level 2 achievement, the gap closed only slightly at Level 3 and Level 4+[26].
- The low skills equilibrium means that current demand for, and acquisition of, higher level skills lags behind national levels.
- Participation and economic inactivity remains a significant challenge for the North East. Levels of employment are still 3.7% lower than the UK average[13]. Of all the English regions, the North East has the highest proportion of its working age population, 20%, in receipt of benefits[28].
- In terms of skill levels, participation in education and training, economic activity rates and earnings, there are significant imbalances between localities which need to be addressed[28]. These are a product of the differentiated impact of economic restructuring and the geographic concentration of deprivation.
- Limited understanding amongst individuals and employers of the scale of North East opportunities, the pace of economic change and what this means in terms of choices, skills, qualifications and jobs.
- The region has a relatively small private sector business base. VAT registered stocks and new start-ups stood at around 60% of the national rate in 2007[28].

Opportunities

- Capitalising on the North East's strong vocational route by providing clear access routes into, through and between all forms of education and training, including clear pathways for progression.
- Seven 'innovation connectors' with the dual aims of stimulating innovation in their respective fields and catalysing regeneration in their surrounding areas. The Innovation Connectors are: Newcastle Science City, National Renewable Energy Centre (NaREC), Digital City, Sunderland Software City, Wilton Centre, NETPark and the Northern Design Centre.
- From a low base position, rates of business start-ups and stocks have increased faster than the national average. This evidence of an increasing enterprise culture provides the impetus to close the enterprise gap with the rest of the country.

- Opportunities are emerging in new sectors and industries (section 2.7 on Emerging Sectors refers), requiring an increasingly flexible and highly skilled workforce. Colleges and providers are reporting increasing demand for skills development in these new areas.
- Renewable and new industries will benefit from existing North East industrial legacy skills in manufacturing, energy and offshore.
- The 2008 UK Research Assessment Exercise recognised elements of all five universities research profile as being of world learning quality, with the research institutions at Durham and Newcastle being specifically recognised as amongst the UK's finest. The North East has research strengths across a wide range of areas, but is particularly strong in sciences and engineering, including the fields of Ageing & Health and Energy & Sustainability.

Threats

- The policy and investment focus on Level 2 funding entitlement has distorted the learning and skills market. The future economy of the North East requires a greater proportion of Level 3+ skills.
- An ageing workforce in key sectors, compounded by highest percentage decrease (-19%) in the UK of numbers of young people entering the labour market up to 2020[18].
- A lack of employer confidence that future skills needs can be met[2].
- Significant public sector employment, accounting for 23% of employment against a UK average of 20%[15]. The high proportion of public sector employment has been, in part, a consequence of a relatively small private sector.
- The significance of public sector employment makes the North East vulnerable to the employment and broader economic impacts of measures to reduce the national budget deficit.
- Scenario modelling indicates that without stimulation to the North East economy, there will be a 2% fall in employment between 2010 and 2020, with employment opportunities drawn from replacement demand[25].
- Eight out of nine priority sectors and all three of the pillars (Energy, Health Sciences and Process Technologies) require significant STEM knowledge and skills for their long term survival. The North East needs to further develop, at an accelerated pace, its STEM capability and capacity to underpin this anticipated growth.

Northumberland

Northumberland's ambitions are to become a low carbon economy, support conditions for sustainable growth, develop resilient and diverse sectors and enable an inclusive and enterprising economy. It has made some headway in achieving these objectives - Northumberland has a broader-based economy now compared to the final decades of the twentieth century.

Although Northumberland is the sub-region with the lowest overall claimant rate, unemployment remains broadly consistent with the national level. However, this masks significant disparity between areas within Northumberland. There are concentrations of working age residents claiming out of work benefits, principally in the former coalfield areas of south east Northumberland. In priority areas, the proportion claiming out of work benefits is as high as 33.8%[79]. The number of NEETs is high, particularly in the former district of Blyth (12.4% of 16-18 year old), whilst the percentage of JSA claimants aged between 18-24 year olds was 31%[79]. For those who are employed, their disposable income levels are lower than both the regional and national equivalents[79].

In developing a skilled workforce, there is a major challenge in increasing accessibility to high quality skills and learning provision, including through Northumberland College and links with higher education institutions outside the county. Northumberland is a big and sparsely populated county and distances to travel to learning and training can be considerable, and therefore the time and cost of travel can be prohibitive to participation. To take advantage of the economic and employment opportunities presented by becoming a low carbon economy, Northumberland needs to develop key skills which will require a considerable shift in GCSE English and maths attainment and participation in STEM learning. Customer service skills in the tourism sector and hospitality trade are perceived skill requirements.

Northumberland has identified a need to focus on skills needs and issues for small and micro businesses which predominate in Northumberland.

The National Renewable Energy Centre (NaREC) is based in Blyth in Northumberland and is at the forefront of the North East's leading position on renewable energy.

Tyne & Wear City Region

The Tyne and Wear City Region is based around Tyneside, Wearside and Durham City. It includes the urban centres of Newcastle, Gateshead, Sunderland, North Tyneside, South Tyneside and Durham City. These areas are highly interdependent, with intense commuting flows in multiple directions. The city region also includes parts of the neighbouring counties of Northumberland and County Durham.

The City Region's ambition is to move towards a greater knowledge based economy by building on its advanced manufacturing strengths and growth in financial and other business services and the potential offered in relation to the development of the energy and renewables sector, including the development of low carbon vehicles. Key to this is ensuring that a greater number of job opportunities are created to close the existing 'jobs gap' through the promotion of an entrepreneurial culture and new start businesses, business expansion and inward investment.

Employment and skills priorities in support of this ambition are centred on supporting people into work by a business led focus, through the Tyne and Wear Employment and Skills Board, on employability actions, improving the skills of those in work and improving the availability of, and access to, higher-level skill opportunities and provision for business.

A key challenge for the City Region will be addressing the proportion of people who work in the public sector which is relatively high (with Sunderland and Newcastle displaying some of the highest proportions in the UK). One in three jobs overall, and over 45% of highly skilled roles in the City Region are in the public sector[53].

It will be important that skills development actions are aligned to the demands arising from the progression of key new major regeneration schemes and development opportunities generated by the Newcastle-Gateshead NG1 Plan including Science Central, the Sunderland City Masterplan, River Tyne and South East Northumberland (NaREC) offshore renewables and energy developments and the low carbon economic area for automotive industry related to Nissan / Smiths Vehicles.

Durham

County Durham is an area of economic, cultural and environmental contrasts. Stretching from the remote rural North Pennine Area of Outstanding Natural Beauty in the west to the more densely populated East Durham Heritage Coastline, the county encompasses a diverse spatial geography and rich economic history. The county has a population of 504,000 - 20% of the regional total[78]. Located in the heart of the county and strategically positioned connecting the two City Regions, Durham City is a hub of economic and cultural activity. A recent business survey concludes that the County offers a number of locational advantages relating to its proximity to other markets in the region (including labour markets), low congestion, and a high quality of life. Many of the traditional industries have been declining since the 1930s and County Durham has made headway towards a more diverse knowledge driven economy with some world class knowledge assets such as Durham University and NETPark. Creating a highly skilled workforce, raising employer demand for higher level skills along with moving economically inactive individuals towards or into the labour market are the most important priorities to achieve the aim of 'Competitive People'. The role of the County Durham Employment and Skills Group is integral to providing a demand led approach from employers, especially the private sector, ensuring residents are provided with Information, Advice and Guidance to achieve and raise their aspirations. It is important that we continue to build on the good work and achievements in tackling deprivation, health and education issues, and continue to promote the opportunities and strengths to potential employers and visitors.

Within County Durham there are 63% of the working age population which hold an NVQ Level 3 or equivalent qualification. However, there are still 21.4% that have no NVQ Level skills qualification. Furthermore, almost three quarters (73%) of those with no qualifications are very unlikely to go on to training or further learning. 23.8% of the working age population are qualified to Level 4 or above[78].

County Durham previously experienced a lower rate of unemployment than the regional average; however, it saw the largest percentage increases early in the recession whilst other areas where hit later. In May 2010, although 4.0% of the working age population were claiming JSA, 17.5% of the working age population where claiming key out of work benefits[78].

Whilst the County Durham claimant count is reducing there are still a significant number of residents registered as unemployed. It remains important to ensure support is maintained to enable people to access and participate in the labour market at the earliest opportunity. This needs to be matched with more employment opportunities, and better access to them, within the County and in other parts of the region.

Tees Valley

Tees Valley is seeking to move from a high value, high carbon economy to a high value, low carbon economy, focused on renewable energy, new technologies, biological feedstocks and the reduction of the carbon footprint of existing industries. A more diverse and inclusive economy, that builds on the strengths of Tees Valley allowing all to realise their potential is a key priority.

The sub-region does face some significant challenges. Production industries and the public sector dominate the economy, making up half of the GVA and employment; both are vulnerable in the current economic climate. Production industries have already felt significant pressures, and the recent mothballing of Teesside Cast Products blast furnace has hit Tees Valley production industries hard. The proposed cuts to public sector expenditure will also have a significant impact on jobs.

The sub-region has been looking to build on its existing economic assets e.g. its world class petrochemicals industry, port, potential for renewable energy industry, advanced engineering industry and the potential digital / multi-media cluster. The sub-region has also emphasised the need for 'growth from within' – increasing the numbers of SMEs and self-employed people who are unlikely to leave the local area in times of recession and are much more embedded into the community. Recent growth in the number of new enterprises offers encouragement for the future.

Economic inactivity remains consistently above the national average despite the gap narrowing in recent years, although Tees Valley has made significant progress in upskilling its workforce. However, it remains well below the national average for Level 4+ qualifications, with an extra 25,000 people needed to be qualified to this level to reach the national average. A key challenge for Tees Valley will be the retention of economically valuable skills to support the long term economic recovery of the sub-region[52].

The growth of the low carbon economy requires the existing skills of current workers in the manufacturing industry. However, the relatively older age structure of this workforce will undoubtedly lead many to seek early retirement in the light of company closures, especially when the future jobs requiring their skills are unlikely to be available for a few more years.

Tees Valley has excellent specialist providers including 2 top class universities and further education colleges with a history of engaging with local employers. It also boasts the Institute of Digital Innovation and the Wilton Centre, which is now the largest private research concentration in the UK, with one of the most significant science and engineering communities in UK industry.

Annex 3
North East Skills Priorities Statement 2011-2012
Background

Over the period April – July 2010, One North East led an extensive process of collaboration and consultation in the development of the 2011/12 Regional Skills Priorities Statement. The consultative process was designed around three principles:

1. That key players in the employment and skills landscape could collaborate in identifying North East priorities
2. The process is an iterative multi-stage discussion rather than a single call for input
3. Discussions and feedback to focus on the practical and highlight possible levers in the skills system that would support progress.

Consultation groups included:

Employers – Private Sector

Alcan
Barratt Development plc
Call Centre Employers Network (Sunderland) – including BT and NPower
Caterpillar Peterlee Ltd
Clipper Windpower Europe
CBI – Confederation of British Industry
Corus Group
CPI – Centre for Process Innovation
Doosan Babcock
Eaga
EEF – Engineering Employers Federation
Food and Drink Group
FSB – Federation for Small Business
NaREC – New and Renewable Energy Centre
Northern Business Forum
NEBIC – North East Business and Innovation Centre
North East Employer Coalition
NEPIC – North East Process Industries Cluster
North East Chamber of Commerce
North East Marine Cluster
North East NHS
Northern Film & Media
NSAPI – National Skills Academy for Process Industries
Nissan
Northumbrian Water
PeTEC
SABIC UK Petrochemical
Sage plc
Siemens Energy Service Fossil
TEDCO

Employers – Public Sector

Arts Council
Area Tourism Partnerships
Centre of Excellence Life Sciences
Codeworks
Entrust

Design Council
Design Network North
Northumberland National Park
All Sector Skills Council (represented throughout the consultation by AssetSkills)

Providers of Learning

Association of Learning Providers
Association of Colleges
College Principals
Schools North East
Higher Education Funding Council for England
Universities for the North East
University Pro-vice chancellors

Local Authorities

All North East Local Authorities
Durham Employment & Skills Executive
Durham Employment and Skills Group
Northumberland Thematic Partnership
Tees Valley Employment and Skills Board
Tees Valley Unlimited
Tyne & Wear Employment and Skills Group
Tyne & Wear City Region

Strategic Agencies Funders and other partners

Skills Funding Agency
YPLA – Young Peoples Learning Agency
Higher Education Funding Council for England
North East 14-19 Commission
Regional Executive - Education Employment & Skills Board
Equality and Diversity Board
Higher Level Skills Board
Mature & Working Lives Group
Public Health North East and Strategic Health Authority
Regional Employability Framework Chairs
Regional Employability Framework Strategy Board
Pre-19 Regional Planning Group
Pre-19 Regional Planning Officer Group
Skills and Employment Response Group (SERG)
North East STEM Board
South Tyneside Manufacturing Forum
Third Sector Employability
Regional Refugee Forum North East
VONNE

Annex 4

North East Education Employment and Skills Priorities 2011-2016
Evidence Base and Reference List

Underpinning this statement is a detailed set of data and information on the take up of skills training by industry sector (by both the sector qualification and SIC footprints) in the region, produced by the Data Service from Skills Funding Agency learner data. This sectoral analysis is not currently available as part of the Government's published Statistical First Release, and therefore cannot be referenced or included within the Statement. For further regional information from the Statistical First Release, please visit http://www.thedataservice.org.uk/statistics/statisticalfirstrelease/

To note: Supplementary Technical Annexes are available on request which provide all the underpinning data and evidence base supporting the development of the North East Skills Priorities Statement 2011/12.

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