2007-2011 Construction Skills Network
Labour Market Intelligence

North West

Construction Skills Network

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1. Headlines

1. Headlines

1.1 The North West Economy

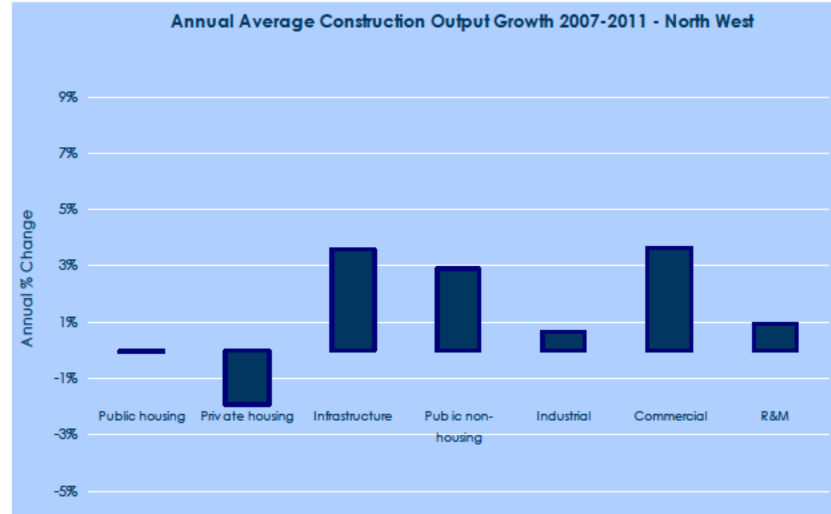
- In 2005 the North West economy was worth £102bn or around 10% of the total UK economy. This is forecast to increase by an average of 2.4% each year between 2007 and 2011, compared to 3% for the UK.
- Financial & Business Services accounts for a lower proportion of total output in the region than across the UK. This means that the Public Sector is the largest sector in the North West. Manufacturing also makes up a greater percentage of total output in the North West than nationally.
- Transport & Communications is expected to be the fastest growing sector over the forecast period, at an average rate of 5% each year.

1.2 Construction Output in the North West

- In 2005 construction output in the North West was worth £8.4bn, 2.8% lower than in 2004.
- Output is forecast to grow at an annual average rate of 1.4% between 2007 and 2011. With the exception of the North East this is the lowest growth rate of any UK region.
- The infrastructure and commercial sectors are expected to record the largest increases in output over this period.

1.3 Construction Employment in the North West

- Total construction employment in the North West is forecast to stand at 309,060 in 2011, 38,750 or 17% higher than in 2005.
- After taking account of those entering and leaving the industry, the North West requires an average of 8,820 extra workers each year to meet this demand.
- Construction Professionals & Technical Staff has by far the largest average annual requirement of any occupational group in the North West, at 1,870.



Source: Experian

Regional Comparison 2007-2011	Annual Average % Change in Output	Growth in Total Employment	Total Average Annual Requirement
North East	1.3%	4,380	3,300
Yorkshire and Humber	1.9%	16,110	6,090
East Midlands	1.9%	13,340	5,210
East of England	3.5%	36,360	10,160
Greater London	4.5%	42,350	12,880
South East	3.2%	41,390	13,560
South West	1.9%	16,350	6,360
Wales	2.5%	9,080	5,090
West Midlands	1.6%	16,070	6,340
Northern Ireland	4.3%	8,790	2,940
North West	1.4%	19,260	8,830
Scotland	1.5%	17,800	6,830
UK	2.6%	241,280	87,590

Source: CSN, Experian
Footnote: 2 (See Appendix III)

2. The Outlook for Construction in the North West

2. The Outlook for Construction in the North West

2.1 Construction Output in the North West – Overview

After recording strong output growth in 2002 and 2003, growth slowed in 2004 and output actually fell slightly in 2005. As a result construction output in the North West increased by an annual average rate of 3% between 2001 and 2005, ending the period at £8.4bn, in 2000 prices (see chart below).

R&M work was the main impetus behind this growth, increasing by 4.1% on average each year between 2001 and 2005, almost double the 2.2% annual average growth recorded by the new work sector.

Within new work the public sectors stand out as the best performing. Public non-housing saw the greatest growth of any new work sector, increasing by an average of 8.4% each year between 2001 and 2005. The public housing sector wasn't far behind with annual average growth of 7%.

Away from the public sectors only private housing recorded noticeable growth, with output increasing, on average, 5.4% each year over the same period.

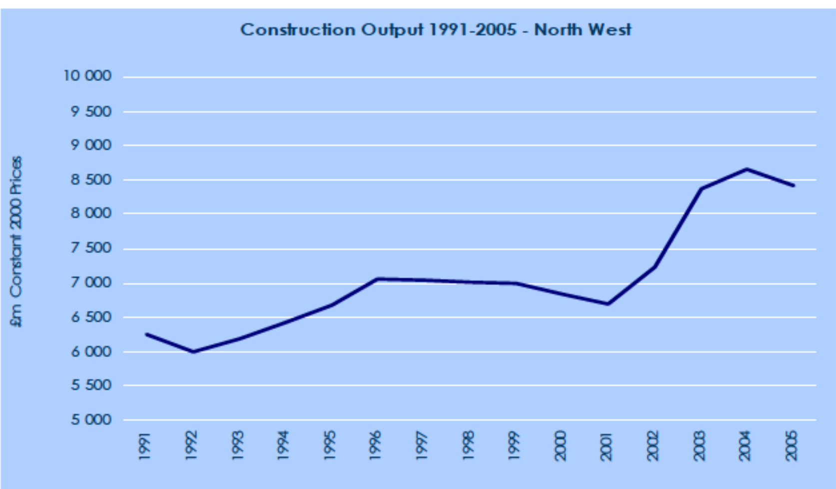
Infrastructure was the only sector to see output decline between 2001 and 2005, falling by an average of 3.1% each year. During the same period output growth stalled in both the industrial and commercial sectors.

Both the trends for R&M work to drive output growth and for public non-housing to outperform the other new work sectors are in line with that witnessed across the UK.

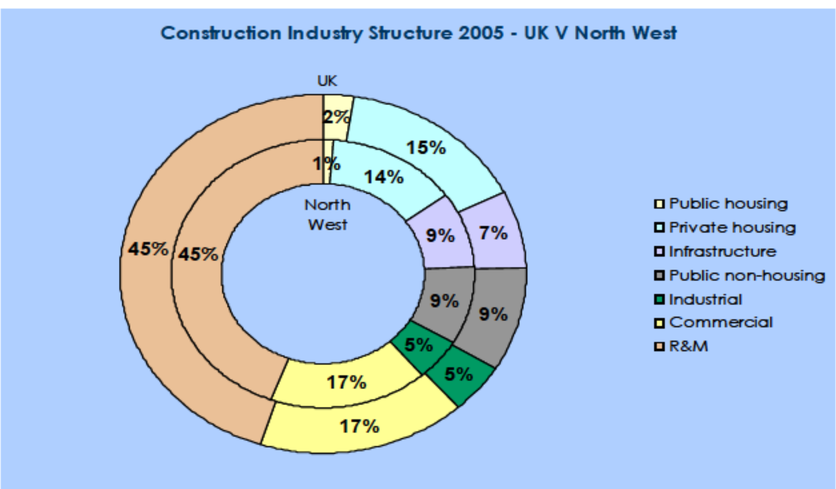
2.2 Industry Structure

The structure of the construction industry can differ from that of the UK far more in some regions than others (see chart below). However, the industry in the North West shows less deviation from the UK structure than almost any other region. Infrastructure work accounts for slightly more of all construction in the North West while public housing and private housing makes up a marginally smaller proportion of all work.

While interesting the chart below presents just a snapshot and the structure of the industry inevitably changes over time.



Source: Experian
Footnote: 1 (See Appendix III)



Source: DTI, DFP

2. The Outlook for Construction in the North West

2.3 Economic Overview

The expected performance of a regional or national economy over the forecast period (2007-2011) provides an indication of the construction sectors in which demand is likely to be strongest.

2.4 Economic Structure

In 2005 the North West economy was worth £102bn, in constant 2003 prices, an increase of just 1.2% from the previous year (see table below).

Public Services was the largest component of Gross Value Added (GVA), accounting for 24% of the total in 2005. Public Services was also the largest component of GVA across the rest of the north of England and Scotland.

Financial Services took the second largest share, but at 22% this is still a considerably smaller proportion of GVA than the sector accounts for nationally. In contrast the manufacturing sector is of much greater importance in the region than across the UK as a whole.

Over the forecast period (2007-2011) GVA in the North West is forecast to grow by 10%. The main drivers of this growth will be Transport & Communications and Financial & Business Services, with expected increases in output of 25% and 18% respectively over the period.

2.5 Forward Looking Economic Indicators

The rate of economic growth in the North West is forecast to be slightly below that for the UK. The outlook is healthy for both real household disposable income and household spending in the region, each expected to be 14% higher in 2011 than in 2005 (see table below). In both cases this is only slightly below the growth expected for the UK. The region's debt to income ratio is currently below that for the UK and is set to remain there for the duration of the forecast period.

The Department for Communities and Local Government (DCLG) reported that average house prices in the North West reached £146,000 in 2005, £38,000 below prices across the UK. House price rises in the region are expected to be slightly less pronounced than across the UK in the years to 2011.

Economic Structure - North West (£ billion, 2003 prices)

Selected Sectors	Actual 2005	Forecast Annual % Change, Real Terms 2006	2007	2008	2009	2010	2011
Public Services	25	*1.5*	*0.5*	*1.0*	*1.3*	*1.3*	*1.7*
Financial & Business Services	23	*6.2*	*4.7*	*4.3*	*4.5*	*4.2*	*4.0*
Transport & Communications	9	*3.3*	*4.5*	*6.0*	*6.0*	*5.7*	*5.3*
Manufacturing	2	*0.6*	*1.3*	*0.6*	*1.3*	*1.4*	*1.3*
Distribution, Hotels & Catering	17	2.7	2.3	2.5	2.8	2.7	2.5
Total Gross Value Added (GVA)	102	*1.8*	*2.0*	*2.1*	*2.6*	*2.6*	*2.6*

Source: Experian
Footnote: 3 (See Appendix III)

Economic Indicators - North West (£ billion, 2003 prices - unless otherwise stated)

	Actual 2005	Forecast Annual % Change, Real Terms 2006	2007	2008	2009	2010	2011
Real Household Disposable Income	81	*1.4*	*2.3*	*2.5*	*2.4*	*2.3*	*2.2*
Household Spending	78	*1.9*	*1.9*	*2.0*	*2.7*	*2.6*	*2.3*
Debt:Income Ratio	1.3	1.3	1.4	1.4	1.4	1.5	1.5
House Prices (£'000, current prices)	146	*5.8*	*3.4*	*2.9*	*3.5*	*3.9*	*3.5*
LFS Unemployment (millions)	0.20	*10.2*	*-5.7*	*-1.4*	*-3.3*	*-2.0*	*0.2*

Source: ONS, DCLG, Experian

2. The Outlook for Construction in the North West

New orders statistics are based on the Department of Trade and Industry's (DTI) monthly survey of construction contractors. The time taken for new orders to feed into output differs from sector to sector and from project to project. As a general rule, industrial orders tend to be converted into output relatively quickly and infrastructure orders relatively slowly, due to project scale and complexity.

2.6 New Construction Orders – Overview

Since 2000, with the exception of 2004, the performance of construction orders from year to year has been strong in the region. This can be seen in the chart and table below. 2003 stands out as the year when orders increased most, with growth of 29%. Over the period as a whole orders in the North West have increased by 87% (see chart and table below).

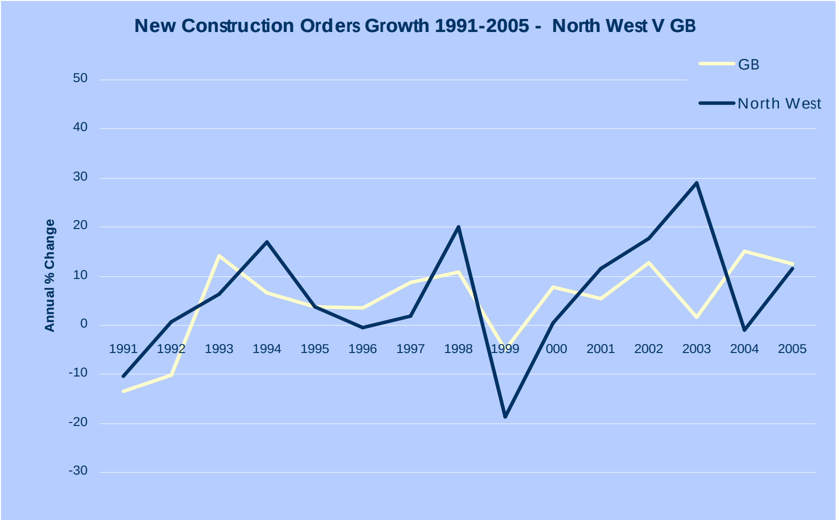
Only public housing orders fell between 2000 and 2005, while the private housing and public non-housing sectors saw orders more than double over this period.

2.7 New Construction Orders – Current Situation

Orders in the North West were 11% higher in 2005 than in the previous year. This growth continued into 2006 with total construction orders in the first three quarters, up 9.4% from their level in the first three quarters of 2005.

Performance across the sectors though was very mixed. In the first three quarters of 2006 orders in the public non-housing, private housing and industrial sectors were all marginally down from the first three quarters of 2005. Infrastructure orders, which had increased by 25% in 2005, saw a much more dramatic decline over the same period, down by nearly 50%.

These falls were offset by a 44% rise in commercial orders and a massive 200% increase in public housing orders between the first nine months of 2005 and the same period of 2006. However in both cases this growth comes on the back of falls in orders in 2005.



Source: DTI
Footnote: 4 (See Appendix III)

New Work Construction Orders - North West (£ million, current prices)

	Actual	Annual % Change				
	2005	2001	2002	2003	2004	2005
Public housing	89	*30.9*	*-36.6*	*65.4*	*-7.0*	*-25.8*
Private housing	1544	*18.3*	*5.4*	*26.5*	*13.9*	*34.0*
Infrastructure	660	*27.0*	*74.6*	*-1.1*	*-32.4*	*25.2*
Public non-housing	811	*6.6*	*23.6*	*59.1*	*-3.4*	*9.4*
Industrial	379	*-10.8*	*-21.5*	*52.4*	*-17.4*	*19.6*
Commercial	1347	*9.4*	*17.8*	*32.0*	*13.4*	*-8.9*
Total New Work	4830	*11.6*	*17.6*	*29.0*	*-0.9*	*11.4*

Source: DTI
Footnote: 4 (See Appendix III)

2. The Outlook for Construction in the North West

2.8 Construction Output – Short-term Forecasts (2006-2008)

Total construction output, in current prices, in the North West was just 1% higher in the first half of 2006 than the first half of 2005. Regional DTI output statistics are published in current prices, and thus are inclusive of any inflationary effect. At the time of writing DTI output statistics for the first half of 2006 are available.

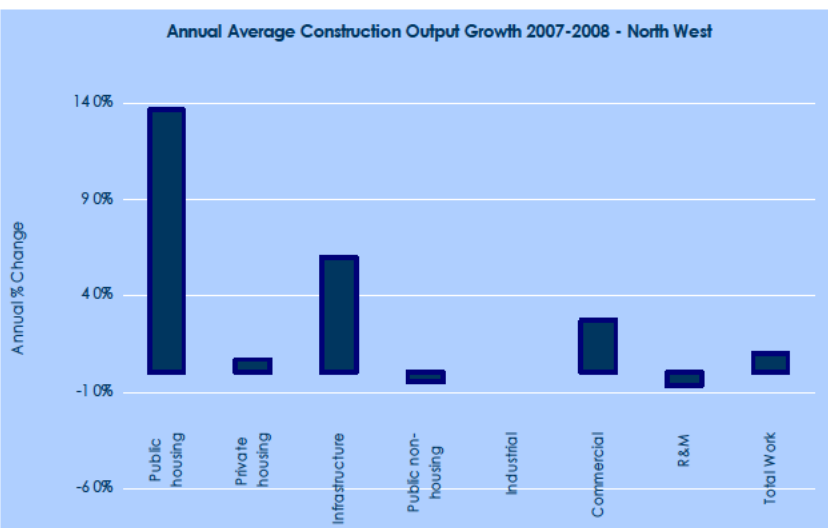
Construction output in the North West is forecast to witness a decline of 2% in 2006, before recording growth in 2007 and 2008, albeit at just 1% in each year (see chart and table below).

Within this total the outlook for new work is much more positive than that for R&M. R&M output is expected to fall in both 2006 and 2007 and then remain unchanged in 2008, whereas new work output is set to grow in all three years. Looking at growth over the 2007-2008 period, new work is expected to rise on average 2.2% per annum while R&M records a drop of 0.7% each year.

Over the 2007-2008 period the public housing sector is forecast to see far greater growth than any other sector, with output increasing at an annual average rate of 13.6%. However, the effect this has on total construction output is minimal because the sector makes up only a small proportion of the industry as a whole.

The infrastructure, commercial and private housing sectors are also expected to see output rise by varying amounts over this period. Infrastructure output, after an estimated drop of 10% in 2006, is set to grow by an annual average rate of 6%, with commercial output up 2.7% each year and private housing only showing growth of less than 1% a year.

Output in the industrial sector is forecast to end the period at the same level as it began it. However, it will show fluctuations over this time, expected to increase by 5% in 2007 before falling by the same amount in 2008. Only the public non-housing sector is set to see output fall over the 2007-2008 period, but this will only be by 0.4% on average each year.



Source: Experian
Footnote: 2 (See Appendix III)

Construction Output - North West (£ million, 2000 prices)

	Actual 2005	Forecast Annual % Change 2006	2007	2008	Annual Average 2007-2008
Public housing	102	30%	18%	10%	13.6%
Private housing	1,166	5%	2%	0%	0.7%
Infrastructure	775	-10%	3%	9%	6.0%
Public non-housing	787	1%	-1%	0%	-0.4%
Industrial	426	8%	5%	-5%	0.0%
Commercial	1,418	3%	3%	3%	2.7%
New Work	4,675	2%	3%	2%	2.2%
R&M	3,740	-8%	-2%	0%	-0.7%
Total Work	8,415	-2%	1%	1%	1.0%

Source: DTI, Experian
Footnote: 1 & 2 (See Appendix III)

2. The Outlook for Construction in the North West

2.9 Construction Output – Long-term Forecasts (2007-2011)

Looking beyond 2008 growth is expected to accelerate, although it will still not be dramatic. Over the 2007-2011 forecast period as a whole output is expected to rise at an annual average rate of 1.4% (see chart and table below).

Within this, the rate of new work growth is expected to slow very slightly over the longer term, while R&M output returns to growth having declined over the 2007-2008 period. Despite these changes new work is still expected to be the main driver of growth, as in the shorter term forecasts.

Looking across the sectors, infrastructure and commercial output are set to show the strongest growth over the 2007-2011 period, at an annual average rate of 3.6%. This represents a slowdown in infrastructure growth after 2008, but in the case of commercial output shows that a slight acceleration is expected. The £1bn of landmark culture projects planned for the Lake District and major office schemes in Liverpool and Salford will boost the commercial sector throughout the period.

The only other sector forecast to record an annual average rate of growth above that for total construction is public non-housing, where output is set to increase by an average of 2.9% each year. This stems from growth forecast to occur in 2009, 2010 and 2011. A major factor behind this growth will be education construction. For example, an agreed Building Schools for the Future programme in Liverpool, not to be delivered by the PFI route, rebuilding or refurbishing more than ten different schools.

In stark contrast to this the public housing sector, set to record excellent growth over the shorter term, will see output fall back in 2009 and 2010. Being the smallest sector public housing output is always susceptible to large fluctuations.

The industrial sector will see output increase by just 0.6% on average each year, while private housing is the only sector expected to record a drop in output over the period, falling at an annual average rate of 1.9%. This will not be helped by the fact that house prices rises in the region are expected to lag behind the national average until 2011.

Source: Experian
Footnote: 2 (See Appendix III)

Construction Output - North West (£ million, 2000 prices)

	Estimate 2006	Forecast Annual % Change 2007	2008	2009	2010	2011	Annual Average 2007-2011
Public housing	132	18%	10%	-5%	-5%	1%	0.0%
Private housing	1 226	2%	0%	-3%	-3%	-1%	-1.9%
Infrastructure	698	3%	9%	5%	2%	-1%	3.6%
Public non-housing	794	-1%	0%	4%	5%	3%	2.9%
Industrial	462	5%	-5%	3%	3%	1%	0.6%
Commercial	1 463	3%	3%	2%	4%	6%	3.6%
New Work	4 777	3%	2%	1%	2%	2%	1.8%
R&M	3 440	-2%	0%	2%	0%	1%	1.0%
Total Work	8 217	1%	1%	2%	1%	2%	1.4%

Source: Experian
Footnote: 2 (See Appendix III)

3. Construction Employment Forecasts for the North West

3. Construction Employment Forecasts for the North West

3.1 Total Construction Employment Forecasts by Occupation

The table, right, presents actual construction employment (SIC 45 and 74.2, see Appendix III) in the North West for 2005 and the forecast total employment in 25 occupations and in the industry as a whole between 2007 to 2011. By the end of this period total construction employment is forecast to stand at around 309,060 which equates to 14% more people being employed in the industry than in 2005. 269,530 people will be classified as working in SIC 45 in 2011, with the remaining 39,530 falling in SIC 74.2

The largest occupational group is forecast to be Construction Professionals & Technical Staff, employing nearly 40,000 in 2011. The second and third largest groups are expected to be Wood Trades & Interior Fit-out and Non-construction operatives with employment of around 34,130 and 29,220.

Non-construction operatives is the only group forecast to see employment fall between 2005 and 2011, although the expected fall is only very marginal. The greatest proportional rises in employment over the same period are set to come from Bricklayers and Building Envelope specialists, both increasing nearly 30%.

Occupational groupings have been improved following the 2006-2010 model run to incorporate new research and to reflect feedback from Observatory members and other stakeholders. A full breakdown of the 25 occupations is provided in Appendix IV.

The most significant change is that research into the contents of the Construction Trades nec category has enabled the publication of numbers for Building Envelope Specialists, which includes activities like cladding. Wood Trades has become Wood Trades & Interior Fit-out and Architects & Professionals is now based on a more appropriate group of SOC codes and has been renamed Construction Professionals & Technical Staff.

Total Employment by Occupation - North West

	Actual	Forecast	
	2005	2007	2011
Senior & Executive Managers	520	560	610
Business Process Managers	4,790	4,990	5,420
Construction Managers	19,530	20,340	22,080
Office-based Staff (excl. Managers)	21,620	22,520	24,080
Other Professionals/Technical Staff & IT	5,220	5,430	6,040
Wood Trades & Interior Fit-out	28,920	30,620	34,130
Bricklayers	9,050	10,630	11,670
Building Envelope Specialists	9,810	11,520	12,650
Painters & Decorators	13,560	14,470	16,340
Plasterers & Dry Liners	6,800	7,110	7,700
Roofers	3,200	3,450	3,820
Floorers	4,690	4,890	5,400
Glaziers	6,830	6,970	7,360
Specialist Building Operatives nec	3,070	3,250	3,560
Scaffolders	980	1,050	1,160
Plant Operatives	2,680	2,750	3,050
Plant Mechanics/Fitters	4,200	4,220	4,270
Steel Erectors/Structural	3,290	3,470	3,720
Labourers nec	10,640	11,320	12,240
Electrical Trades & Installation	20,700	21,950	23,960
Plumbing & HVAC Trades	15,850	17,290	18,970
Logistics	4,000	4,440	4,860
Civil Engineering Operatives nec	5,970	6,590	7,220
Non-construction Operatives	29,700	34,130	29,220
Construction Professionals & Technical Staff	34,690	35,860	39,530
Total (SIC 45)	**235,620**	**253,960**	**269,530**
Total (SIC 45 & 74.2)	**270,310**	**289,820**	**309,060**

Source: ONS, CSN, Experian
Footnote: 5 & 6 (See Appendix III)

3. Construction Employment Forecasts for the North West

3.2 Construction Average Annual Requirements by Occupation

The table, right, outlines the Average Annual Requirement for 25 occupations within the North West's construction industry between 2007 to 2011. The Average Annual Requirement represents the number of extra workers that are required each year to enable the industry to meet the forecast change in construction output after taking into account those entering and leaving the industry.

It is estimated that 8,820 additional workers will be required in the North West each year between 2007 and 2011, if the forecast demand for construction workers is to be met.

As you might expect, the largest average annual requirements occur in the largest occupational groups, the biggest of which being Construction Professionals & Technical Staff requiring an average of 1,870 additional workers each year over the forecast period. Proportionally, Scaffolders also have a large requirement, needing an extra 7% of the 2007 workforce on average each year to meet forecast demand.

Please note that all of the Average Annual Requirements presented in this section are employment requirements and not necessarily training requirements. Recruiting from other industries with a similar skills base or employing skilled migrant labour could mean the actual training requirement is lower.

Non-construction Operatives is a diverse occupational group including all of the activities under the SIC45 and 74.2 umbrella that cannot be classified elsewhere, such as Cleaners, Elementary Security Occupations nec and Routine Inspectors & Testers. The skills required in these occupations are highly transferable to other industries and forecasting such movement is hazardous given the lack of robust supportive data. Therefore the Average Annual Requirement for Non-construction Operatives is not published.

Average Annual Requirement by Occupation - North West

	2007-2011
Senior & Executive Managers	<50
Business Process Managers	160
Construction Managers	560
Office-based Staff (excl. Managers)	590
Other Professionals/Technical Staff & IT	60
Wood Trades & Interior Fit-out	1,110
Bricklayers	590
Building Envelope Specialists	640
Painters & Decorators	400
Plasterers & Dry Liners	210
Roofers	150
Floorers	80
Glaziers	140
Specialist Building Operatives nec	100
Scaffolders	70
Plant Operatives	70
Plant Mechanics/Fitters	190
Steel Erectors/Structural	100
Labourers nec	140
Electrical Trades & Installation	930
Plumbing & HVAC Trades	380
Logistics	60
Civil Engineering Operatives nec	200
Construction Professionals & Technical Staff	1,870
Total (SIC 45)	**6,950**
Total (SIC 45 & 74.2)	**8,820**

Source: CSN, Experian
Footnote: 5 & 6 (See Appendix III)

4. Regional Comparisons

4. Regional Comparisons

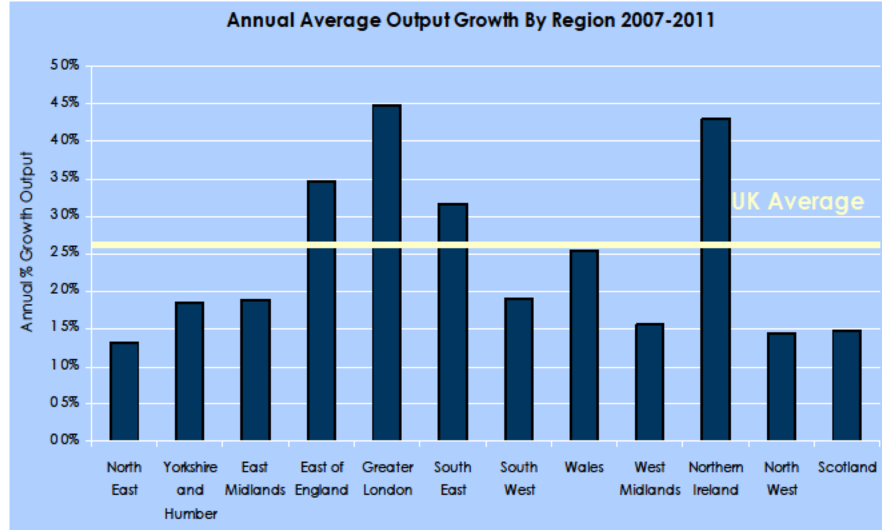
Construction output in Greater London is forecast to see strong year-on-year growth throughout the forecast period as infrastructure recovers and housing and commercial sectors continue to thrive. Prospects are also good for Northern Ireland, the East of England and the South East.

In the early part of this decade the northern half of the UK enjoyed something of a construction boom, with the North West, Yorkshire and Humber and the East Midlands faring especially well. Slower construction output growth is forecast in these regions going forward, although it is important to stress that all English regions, Wales, Northern Ireland and Scotland, are expected to see real output growth between 2007 and 2011.

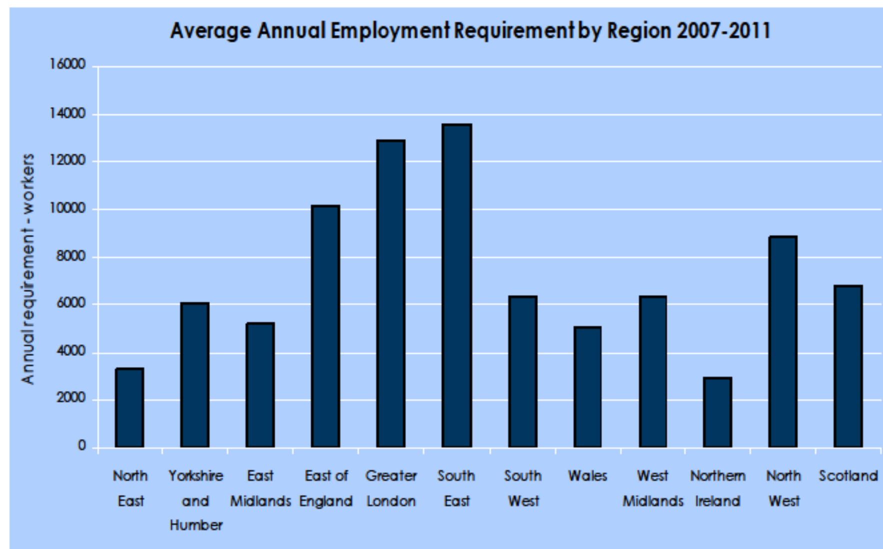
Over the past few years increased activity in the private housing and public non-housing sectors has driven construction output growth across the UK as a whole. While these sectors are expected to grow further over the forecast period (2007-2011), the outlook is much more subdued. The infrastructure and commercial sectors are expected to take the lead in driving the industry forward over the coming years.

Focusing on employment, the south has the greatest need for skilled construction workers between 2007 and 2011. Inward migration into Greater London is expected to be stronger than in the South East, lowering the average annual additional requirement slightly. Nevertheless the average annual requirement in this region still reaches 12,880. The annual average requirements of the South East and East of England both exceed 10,000.

Given that the construction industry of Northern Ireland is relatively small, it is forecast to have the smallest employment requirement each year. However, it is still estimated that total employment will need to rise by an average of 2,940 in order to meet demand.



Source: Experian
Footnote: 2 (See Appendix III)



Source: CSN, Experian

Appendix I - Methodology

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Background

The **Construction Skills Network (CSN)**, launched in 2005, represents a radical change in the way that ConstructionSkills collect and produce information on the future employment and training needs of the industry. CITB-ConstructionSkills, the Construction Industry Council (CIC) and CITB Northern Ireland work in partnership as the Sector Skills Council (SSC) for Construction to produce robust Labour Market Intelligence to provide a foundation on which to plan for future skills needs and to target investment.

The CSN functions at both the national and regional level. It comprises of a National Group, 12 Observatory groups, a forecasting model for each of the regions and countries, and a Technical Reference Group. An Observatory group currently operates in each of the nine English regions and also in Wales, Scotland and Northern Ireland.

Observatory groups currently meet bi-annually and consist of key regional stakeholders invited from industry, Government, education and other SSCs who can contribute local knowledge of the industry and views on training, skills, recruitment, qualifications and policy.

The National Group also includes representatives from industry, Government, education and other SSCs. This group (which will convene twice in 2007) sets the national scene, effectively forming a backdrop for the Observatories.

At the heart of the CSN is a forecasting model which generates forecasts of employment requirements within the industry for a range of trades.

The model was designed and is managed by Experian under the independent guidance of the Technical Reference Group, comprised of statisticians and modelling experts. It is envisaged that the model will evolve over time as new research is published and modelling techniques improve. Future changes to the model will only be made after consultation with the Technical Reference Group.

The Model Approach

The model approach relies on a combination of primary research and views from the CSN to facilitate it. National data is used as the basis for the assumptions that augment the model, which is then adjusted with the assistance of the Observatories and National Group. Each English region, Wales, Scotland and Northern Ireland has a separate model (although all models are inter-related due to labour movements) and, in addition, there is one national UK model that acts as a constraint to the individual models and enables best use to be made of the most robust data (which is available at the national level). The models work by forecasting demand and supply of skilled workers separately. The difference between demand and supply forms the employment requirement.

The forecast **total employment** levels are derived from expectations about construction output and productivity. Essentially this is based upon the question "How many people will be needed to produce forecast output, given the assumptions made about productivity?".

The **Average Annual Requirement** is a gross requirement that takes into account the dynamic factors influencing all of the flows into and out of construction employment**,** such as movement to and from other industries, migration, sickness, and retirement. Young trainees are not included in the flows. Therefore, the Average Annual Requirement provides an indication of the number of new employees that would need to be recruited into construction each year in order to realise forecast output.

Appendix I - Methodology

Demand is based upon the results of discussion groups comprising industry experts, a view of construction output and a set of integrated models relating to wider national and regional economic performance. The model is dynamic and reflects the general UK economic climate at any point in time. To generate the labour demand, the model makes use of a set of specific statistics for each major type of work (labour coefficients) that determine the employment, by trade, needed to produce the predicted levels of construction output. The labour supply for each type of trade or profession is based upon the previous years' supply (the total stock of employment) combined with flows into and out of the labour market.

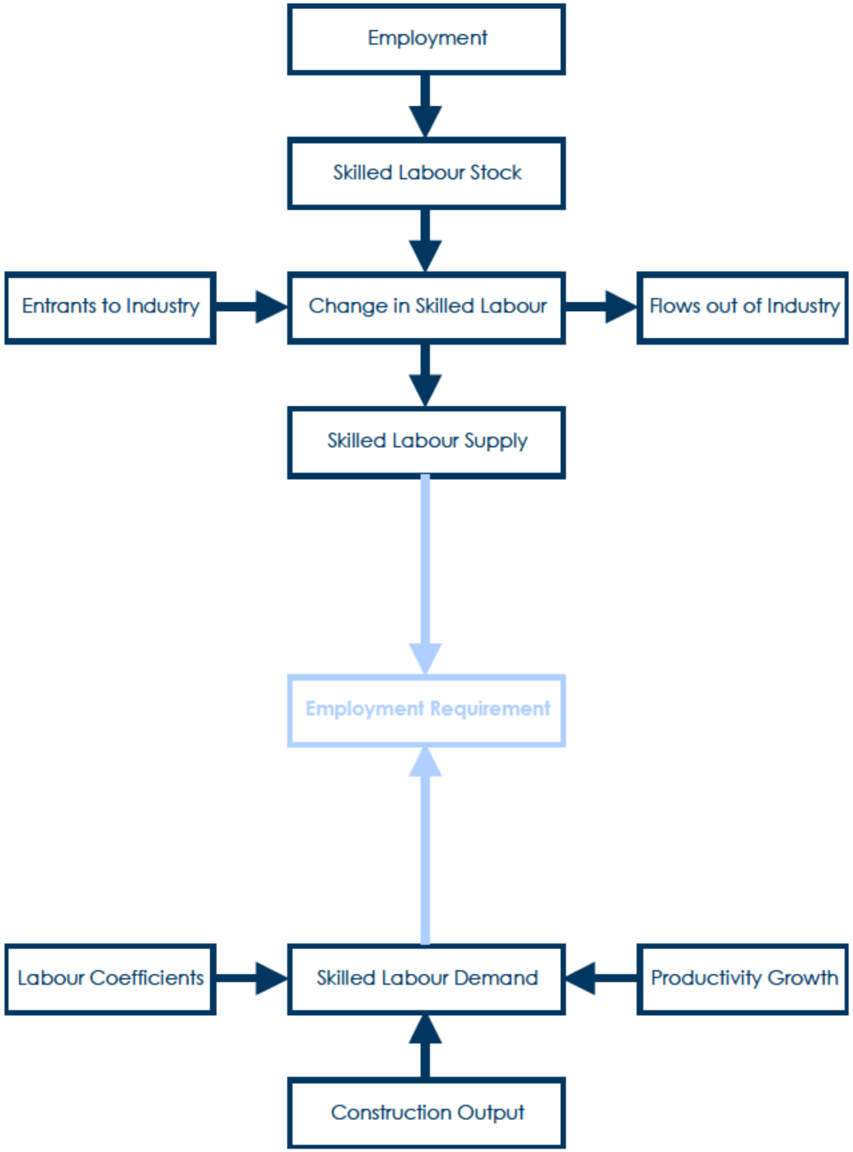
The key leakages (outflows) that need to be considered are:

- transfers to other industries
- international/domestic OUT migration
- permanent retirements (including permanently sick)
- outflow to temporarily sick and home duties.

The main reason for outflow is likely to be transfer to other industries. Flows into the labour market include:

- transfers in from other industries
- international/domestic IN migration
- inflow from temporarily sick and home duties.

New entrants (e.g. young trainees attached to formal training programmes) are not included in the flows of the labour market but are derived from the forecasted Average Annual Requirement for employment. The most significant inflow is likely to be from other industries. A summary of the model is shown in the Flow Chart.



Source: Experian

Appendix II – Glossary of Terms

Appendix II – Glossary of Terms

- **Demand** – construction **output,** vacancies, and a set of **labour coefficients** to translate demand for workers to labour requirements by trade. Demand is calculated using Department of Trade and Industry (DTI) and the Department of Finance and Personnel Northern Ireland (DFP) output data. Vacancy data are usually taken from the National Employers Skills Survey from the Department for Education and Skills.

- **GDP** – Gross Domestic Product – total market value of all final goods and services produced. A measure of national income. GDP=**GVA** plus taxes on products minus subsidies on products

- **GVA** – Gross Value Added – total output minus the value of inputs used in the production process. GVA measures the contribution of the economy as a difference between gross output and intermediate outputs.

- **Labour coefficients** – the labour inputs required for various types of construction activity. The number of workers of each occupation/trade to produce £1m of output in each sub-sector.

- **LFS** – Labour Force Survey – a UK household sample survey which collects information on employment, unemployment, flows between sectors and training, from around 53,000 households each quarter (>100,000 people).

- **LMI** – Labour Market Information – data that are quantitative (numerical) or qualitative (insights and perceptions) on workers, employers, wages, conditions of work, etc.

- **Macroeconomics** – the study of an economy on a national level, including total employment, investment, imports, exports, production and consumption.

- **ONS** – Office for National Statistics – official statistics on economy, population and society at national UK and local level.

- **Output** – total value of all goods and services produced in an economy.

- **Productivity** – output per employee

- **SIC Codes** – Standard Industrial Classification Codes – from the UK Standard Industrial Classification of Economic Activities produced by the **ONS**.

- ConstructionSkills is responsible for SIC 45 Construction and part of SIC 74.2 Architectural and Engineering activities and related technical consultancy.

- ConstructionSkills shares an interest with SummitSkills in SIC 45.31 Installation of wiring and fittings and SIC 45.33 Plumbing. AssetSkills has a peripheral interest in SIC 74.2.

- **SOC Codes** – Standard Occupational Classification Codes

- **Supply** – the total stock of employment in a period of time plus the flows into and out of the labour market. Supply is usually calculated from **LFS** data.

Appendix III – Footnotes & Footprints

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Footnotes

1. Except for Northern Ireland, output data for the English regions, Wales and Scotland are supplied by the Department of Trade and Industry (DTI) on a current price basis. Thus national deflators produced by the DTI have been used to deflate to a 2000 constant price basis, i.e. the effects of inflation have been stripped out.

2. The annual average growth rate of output is a Compound Average Growth Rate, i.e. the rate at which output would grow each year if it increased steadily year-on-year over the forecast period.

3. Only selected components of Gross Value Added (GVA) are shown in this table and so do not sum to the total.

4. For New Construction orders comparison is made with GB rather than the UK, owing to the fact that there are no orders data series for Northern Ireland.

5. Employment numbers are rounded to the nearest 10.

6. The tables include data relating to Plumbers and Electricians. As part of SIC 45, Plumbers and Electricians working in contracting are an integral part of the construction process. However, it is recognised by ConstructionSkills that SummitSkills has responsibility for these occupations across a range of SIC codes, including SIC 45.31 and 45.33.

Footprints for Built Environment SSCs

The table summarises the SIC codes covered by ConstructionSkills.

	SIC Code	Description
ConstructionSkills	45.1	Site preparation
	45 2	Building of complete construction or parts civil engineering
	45 3	Building installations (except 45.31 and 45.33 which are covered by SummitSkills)
	45.4	Building completion
	45 5	Renting of construction or demolition equipment with operator
	74.2*	Architectural and engineering activities and related technical consultancy

* AssetSkills has a peripheral interest in SIC 74 2

The sector footprints for the other SSCs covering the Built Environment:

SummitSkills
Footprint – Plumbing, Heating, Ventilation, Air Conditioning, Refrigeration and Electrotechnical.
Coverage – Building Services Engineering.

AssetSkills
Footprint – Property Services, Housing, Facilities Management, Cleaning
Coverage – Property, Housing and Land Managers, Chartered Surveyors, Estimators, Valuers, Home Inspectors, Estate Agents and Auctioneers (property and chattels), Caretakers, Mobile and Machine Operatives, Window Cleaners, Road Sweepers, Cleaners, Domestics, Facilities Managers.

Energy & Utility Skills
Footprint – Electricity, Gas (including gas installers), Water and Waste Management
Coverage – Electricity generation and distribution; Gas transmission, distribution and appliance installation and maintenance; Water collection, purification and distribution; Waste water collection and processing; Waste Management.

Appendix IV – Occupational Groups (SOC codes)

Appendix IV – Occupational Groups

Bricklayers & Building Envelope Specialists
Bricklayers, masons 5312
Construction trades nec (50%) 5319
Labourers in building & woodworking trades (5%) 9121

Roofers
Roofers, roof tilers & slaters 5313

Plumbing & HVAC Trades
Plumbers, heating & ventilating engineers 5314
Pipe fitters 5216
Labourers in building & woodworking trades (6%) 9121
Construction trades nec (5%) 5319

Electrical Trades & Installation
Electricians, electrical fitters 5241
Electrical/electronic engineers nec 5249
Telecommunications engineers 5242
Lines repairers & cable jointers 5243

Civil Engineering Operatives nec
Road construction operatives 8142
Rail construction & maintenance operatives 8143
Quarry workers & related operatives 8123
Construction operatives nec (20%) 8149
Labourers in other construction trades nec 9129

Plant Operatives
Crane Drivers 8221
Plant & machine operatives nec 8129
Transport operatives nec 8219
Fork-lift truck drivers 8222
Mobile machine drivers & operatives nec 8229

Scaffolders
Scaffolders, stagers, riggers 8141

Wood Trades & Interior Fit-out
Carpenters & joiners 5315
Pattern makers 5493
Paper & wood machine operatives 8121
Furniture makers, other craft woodworkers 5492
Labourers in building & woodworking trades (9%) 9121
Construction trades nec (25%) 5319

Steel Erectors/Structural
Steel erectors 5311
Welding trades 5215
Sheet metal workers 5213
Metal plate workers, shipwrights & riveters 5214
Construction trades nec (5%) 5319

Labourers nec
Labourers in building & woodworking trades (80%) 9121

Logistics
Heavy goods vehicle drivers 8211
Van drivers 8212
Packers, bottlers, canners, fillers 9134
Other goods handling & storage occupations nec 9149
Buyers & purchasing officers (50%) 3541
Transport & distribution clerks 4134
Security guards & related occupations 9241

Plant Mechanics/Fitters
Metal working production & maintenance fitters 5223
Precision instrument makers & repairers 5224
Motor mechanics, auto engineers 5231
Labourers in process & plant operations nec 9139

Specialist Building Operatives nec
Construction operatives nec (80%) 8149
Construction trades nec (5%) 5319
Industrial cleaning process occupations 9132

Appendix IV – Occupational Groups

Non-construction Operatives
Metal making & treating process operatives 8117
Process operatives nec 8119
Metal working machine operatives 8125
Water & sewerage plant operatives 8126
Assemblers (vehicle & metal goods) 8132
Routine inspectors & testers 8133
Assemblers & routine operatives nec 8139
Stevedores, dockers & slingers 9141
Hand craft occupations nec 5499
Elementary security occupations nec 9249
Cleaners, domestics 9233
Road sweepers 9232
Gardeners & groundsmen 5113
Caretakers 6232

Construction Professionals & Technical Staff
Civil engineers 2121
Mechanical engineers 2122
Electrical engineers 2123
Chemical engineers 2125
Design & development engineers 2126
Production & process engineers 2127
Planning & quality control engineers 2128
Engineering professional nec 2129
Electrical/electronic technicians 3112
Engineering technicians 3113
Building & civil engineering technicians 3114
Science & engineering technicians nec 3119
Architectural technologists & town planning technicians 3121
Draughtspersons 3122
Quality assurance technicians 3115
Architects 2431
Town planners 2432
Quantity surveyors 2433
Chartered surveyors (not Quantity surveyors) 2434
Electronics engineers 2124
Building inspectors 3123

Painters & Decorators
Painters & decorators 5323
Construction trades nec (5%) 5319

Plasterers & Dry Liners
Plasterers 5321

Glaziers
Glaziers, window fabricators & fitters 5316
Construction trades nec (5%) 5319

Construction Managers
Production, works & maintenance managers 1121
Managers in construction 1122
Quality assurance managers 1141
Transport & distribution managers 1161
Recycling & refuse disposal managers 1235
Managers in mining & energy 1123
Occupational hygienists & safety officers (H&S) 3567
Conservation & environmental protection officers 3551

Other Professionals/Technical Staff & IT
IT operations technicians 3131
IT user support technicians 3132
Estimators, valuers & assessors 3531
Finance & investment analysts/advisers 3534
Taxation experts 3535
Financial & accounting technicians 3537
Vocational & industrial trainers & instructors 3563
Business & related associate professionals nec 3539
Legal associate professionals 3520
Inspectors of factories, utilities & trading standards 3565
Software professionals 2132
IT strategy & planning professionals 2131

Appendix IV – Occupational Groups

Estate agents, auctioneers 3544
Solicitors & lawyers, judges & coroners 2411
Legal professionals nec 2419
Chartered & certified accountants 2421
Management Accountants 2422
Management consultants, actuaries, economists & statisticians 2423

Senior & Executive Managers
Directors & chief executives of major organisations 1112
Senior officials in local government 1113

Business Process Managers
Financial managers & chartered secretaries 1131
Marketing & sales managers 1132
Purchasing managers 1133
Advertising & public relations managers 1134
Personnel, training & industrial relations managers 1135
Office managers 1152
Civil Service executive officers 4111
Property, housing & land managers 1231
Information & communication technology managers 1136
Research & development managers 1137
Customer care managers 1142
Storage & warehouse managers 1162
Security managers 1174
Natural environment & conservation managers 1212
Managers & proprietors in other services nec 1239

Office-based Staff (excl. Managers)
Receptionists 4216
Typists 4217
Sales representatives 3542
Civil Service administrative officers & assistants 4112
Local government clerical officers & assistants 4113
Accounts & wages clerks, book-keepers, other financial clerks 4122
Filing & other records assistants/clerks 4131
Stock control clerks 4133
Database assistants/clerks 4136
Telephonists 4141
Communication operators 4142
General office assistants/clerks 4150
Personal assistants & other secretaries 4215
Sales & retail assistants 7111
Telephone salespersons 7113
Buyers & purchasing officers (50%) 3541
Marketing associate professionals 3543
Personnel & industrial relations officers 3562
Credit controllers 4121
Market research interviewers 4137
Company secretaries (excluding qualified chartered secretaries) 4214
Sales related occupations nec 7129
Call centre agents/operators 7211
Customer care occupations 7212
Elementary office occupations nec 9219

Floorers
Floorers and wall tilers 5322

Appendix V – CSN Website

Appendix V – CSN Website & Contact Details

The CSN Website

The CSN website functions as a gateway into the construction industry.

Co-ordinated by ConstructionSkills, the CSN benefits from the technical expertise of Davis Langdon Management Consulting and Experian. It collates the knowledge and experience of Government; Sector Skills Councils; construction companies; education and training providers; regional agencies; and customers across the UK. In short, it provides a single, clear understanding of the industry's current skills position.

This unique collaboration means the CSN offers, as near as possible, a consensus view of the current and future skills and training needs of the industry.

The Network gives us an authoritative basis on which to plan for recruitment strategies, education and training requirements and funding delivery. The Network forecasts are based on a series of assumptions and trends, to provide a picture of how the industry could look in five years time.

The Network gives construction clients insight into what type of buildings are likely to be constructed, when and where, as well as how to invest training budgets. For contractors and consultants the data can inform the type of building they should design and how best to avoid regional or occupational skills shortages and high labour costs.

Employees and prospective new recruits can use these insights to discover where in the country they are likely to find consistent work, or what trade or profession offers the best career prospects.

The new CSN Website is found here at
http://www.constructionskills.net

The Members' area offers access to a wealth of documentation produced by the CSN Observatories. The CSN Members, wider group members and industry stakeholders can use this area to stay up to date with what is happening within the CSN Workshop cycle.

All the tables in this regional document, and the other regional and national documents, can be found on the website.

ConstructionSkills and partners produce a number of reports which have been based on evidence from various datasets. The Data Store, from the Research section, has been set up to give the CSN Members access to this resource so that they may carry out their own research utilising on this primary data.

For more information about us as a Sector Skills Council visit:
http://www.constructionskills.net

Workshop Essentials allows Members to stay in touch with CSN developments with their diary of upcoming events. This area also includes all feedback documentation from the current round of workshops, giving members all the relevant information they need in one place.

Contact Details

For enquiries relating to the work of the CSN please contact Sandra Lilley, CSN Manager, at
sandra.lilley@citb.co.uk

For further information about the CSN website, or to register your interest in joining the CSN please contact Sally Riley, Researcher, at
sally.riley@citb.co.uk