

Construction Skills Network

Yorkshire and the Humber 2013-2017

Labour Market Intelligence





CITB-ConstructionSkills is tasked by Government to ensure the UK's largest industry has the skilled workforce it requires. Working with Government, training providers and employers, it is responsible for ensuring that the industry has enough qualified new entrants and that the existing workforce is fully skilled and qualified, as well as for improving the performance of the industry and the companies within it.

These materials together with all of the intellectual property rights contained within them belong to the Construction Industry Training Board (CITB-ConstructionSkills). Copyright 2005 ("CITB-ConstructionSkills") and should not be copied, reproduced nor passed to a third party without CITB-ConstructionSkills prior written agreement. These materials are created using data and information provided to CITB-ConstructionSkills and/or EXPERIAN Limited ("Experian") by third parties of which EXPERIAN or CITB-ConstructionSkills are not able to control or verify the accuracy. Accordingly neither EXPERIAN nor CITB-ConstructionSkills give any warranty about the accuracy or fitness for any particular purpose of these materials. Furthermore, these materials do not constitute advice and should not be used as the sole basis for any business decision and as such neither EXPERIAN nor CITB-ConstructionSkills shall be liable for any decisions taken on the basis of the same. You acknowledge that materials which use empirical data and/or statistical data and/or data modelling and/or forecasting techniques to provide indicative and/or predictive data cannot be taken as a guarantee of any particular result or outcome.

Contents

1	Summary and key findings	4
2	The outlook for construction in Yorkshire and the Humber	6
3	Construction employment forecasts for Yorkshire and the Humber	12
4	Comparisons across the UK	14

Tables and Charts

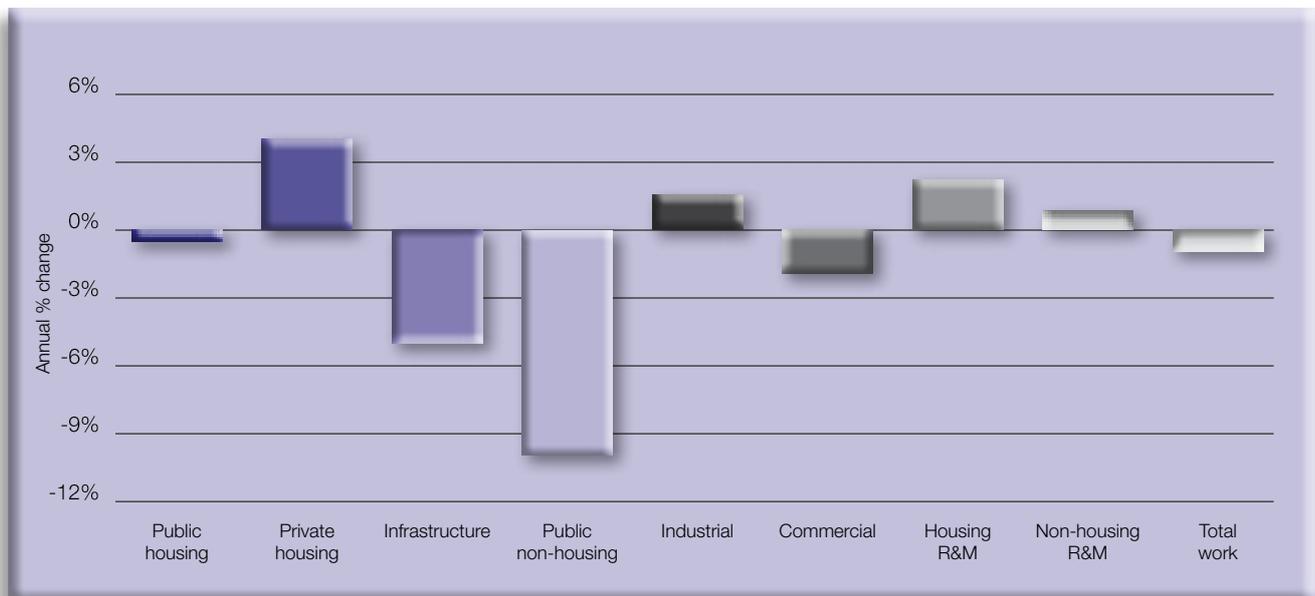
1	Annual average construction output growth 2013–2017	4
2	Regional comparisons 2013–2017	5
3	Construction output 1995–2011	6
4	Construction industry structure 2011	6
5	Economic structure	7
6	Economic indicators	7
7	New construction orders growth 1995–2011	8
8	New work construction orders	8
9	Annual average construction output growth 2013–2014	9
10	Construction output 2013–2014	10
11	Annual average construction output growth 2013–2017	11
12	Construction output 2013–2017	11
13	Total employment by occupation	12
14	Annual recruitment requirement by occupation	13
15	Annual average output growth by region	15
16	Annual recruitment requirement by region	15

CSN Explained	16
----------------------	----

Summary – Yorkshire and the Humber

Yorkshire and the Humber is predicted to see a decline in construction activity in the five years to 2017 with average annual output falls of 0.9%, performing worse than the UK as a whole, where annual average growth of 0.8% is expected. Construction employment is predicted to be 188,440 in 2017, 5% lower than in 2013. The region accounts for 6.6% of the total UK annual recruitment requirement (ARR) and it represents 1% of total projected base 2013 employment in Yorkshire and the Humber, just below that of the UK as a whole (1.2%).

Annual average construction output growth 2013-2017 – Yorkshire and the Humber



Source: CSN, Experian ref. CSN Explained, Section 3, Note 2

Yorkshire and the Humber is predicted to see a decline in construction activity, with average annual output falls of 0.9%



Key findings

The public non-housing sector is projected to experience the greatest drop in output, of 10% per year over the five year period to 2017. This is much stronger than the UK decline of 5.8% per year on average. The sector's output is expected to fall for six consecutive years before a marginal rise of 2% is seen in 2017.

The infrastructure sector is also projected to perform poorly, with annual average falls of 5.1% over the forecast period, the largest contraction of all English regions and devolved nations. Completion of the A1 upgrade in the first half of 2012 is likely to lead to a double digit decline for the sector this year due to the lack of large projects in the pipeline. Over the longer term, announcements made in the Autumn Statement 2012 may lead to the sector stabilising earlier than initially predicted.

A moderate annual average rise of 3.8% per year is projected over the next five years for the private housing sector. House builders will benefit from the upturn in the UK economy which should materialise in 2014. As real incomes and confidence increase, the private housing market should see growth in new project starts.

The annual average output fall of 0.9% predicted for the region is projected to lead to a 1.6% per year decline in employment on average in the region over the forecast period. The largest drop in employment is projected for this year (3.2%) with stabilisation in the final year of the forecast period.

The logistics occupation is forecast to see the largest employment fall over the five year period to 2017 as annual average declines of 4% are predicted. Roofers (-3.5%) and scaffolders (-3.1%) are also projected to see heavy declines over the same timeframe. There are only a few occupations expected to see growth, with civil engineers due to experience the greatest annual average employment rise of 1.3% taking its share of total employment from 2% in 2013 to 3% in 2017.

The latest mobility report from CITB-ConstructionSkills provides some good indications of geographic flows for the construction industry. According to the survey, 80% of the construction workforce in Yorkshire and the Humber originated there, which is much higher than the average UK figure of 65.8%. The second biggest contribution to the region's construction workforce was from the North West at 6.5%.

The region's ARR, at 1,910, represents 1% of total projected base 2013 employment, just below the UK as a whole (1.2%). The largest absolute requirement is for wood trades and interior fit-out (380), but, as a share of 2013 base employment, with an ARR of 6.1%, plant operatives will be the most sought after.

Regional comparisons 2013-2017

	Annual average % change in output	Change in total employment	Total ARR
North East	1.7%	-7,950	690
Yorkshire and Humber	-0.9%	-16,110	1,910
East Midlands	-0.4%	-8,590	1,860
East of England	1.2%	6,550	5,820
Greater London	1.9%	10,060	1,180
South East	1.1%	-12,780	4,570
South West	1.3%	-12,400	2,910
Wales	2.7%	-7,080	2,950
West Midlands	-1.4%	-23,210	830
Northern Ireland	1.7%	-5,040	660
North West	-0.4%	-14,500	2,870
Scotland	1.1%	-10,690	2,800
UK	0.8%	-101,740	29,050

Source: CSN, Experian
ref. CSN Explained, Section 3, Note 2

2. The outlook for construction in Yorkshire and the Humber

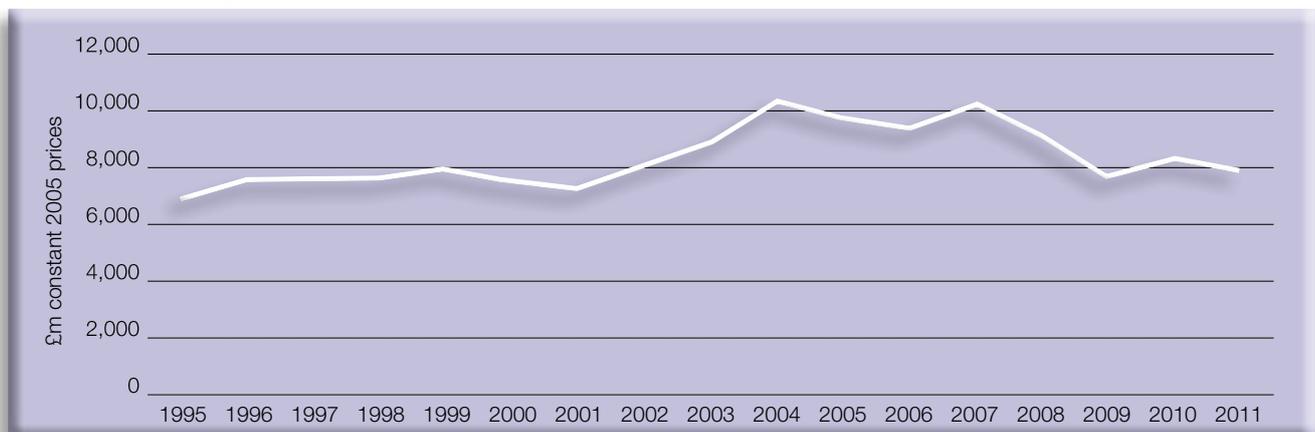
2.1 Construction output in Yorkshire and the Humber – overview

After seeing growth of 8% in 2010, the region saw a decline in its output by 5% to £7.9bn in 2011 – which is 23% below peak levels experienced in 2004. The new work sector edged down by 1% to £5.2bn whilst the repair and maintenance (R&M) sector plunged by 11% to £2.7bn.

Of the new work sectors, the greatest fall in output was seen in infrastructure, which dropped by 22% to £842m in 2011. In comparison, the industrial and public non-housing sectors

saw relatively smaller declines of 15% to £286m and 13% to £1.2bn respectively. Under the current 2011-2015 Affordable Housing Programme (AHP) the funding for the North East and Yorkshire and the Humber have been combined with a total allocation of £181m, which is a large reduction when compared to the 2008-2011 AHP for the region. During 2011, Yorkshire and the Humber's public housing sector saw the second largest rise, only behind Northern Ireland, as output increased by 35% to £284m.

Construction output 1995-2011 – Yorkshire and the Humber



Source: ONS
ref. CSN Explained, Section 3, Note: 1

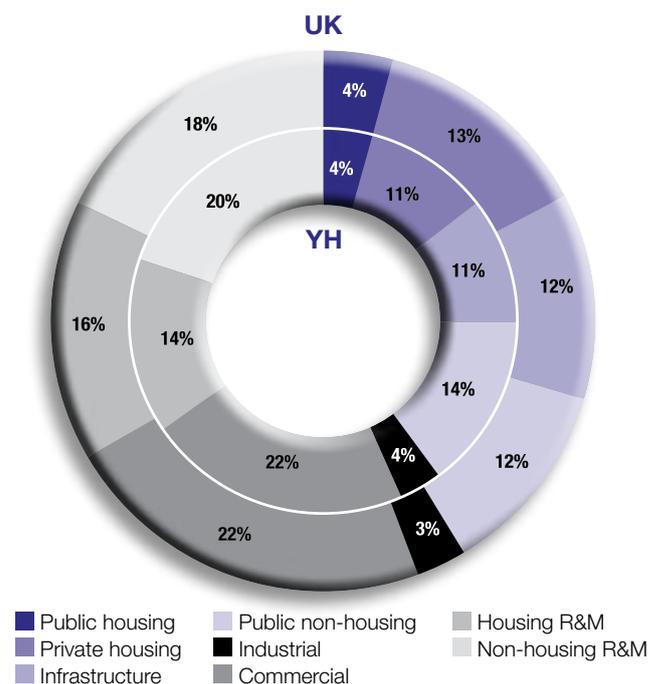
2.2 Industry structure

The diagram, construction industry structure 2011 – UK vs. Yorkshire and the Humber, illustrates the sector breakdown of construction in Yorkshire and the Humber compared to that in the UK as a whole. The percentages for each sector illustrate what proportion of total output each sector accounts for. It should be noted that the Office for National Statistics (ONS) has revised its economic sector disaggregation since 2011, therefore data on economic structure in previous Labour Market Intelligence reports is not directly comparable with data in this one.

The new work sector in Yorkshire and the Humber is slightly smaller than in the UK as a whole, taking a 66% share of total output in the region compared with a national figure of 66%.

Overall, the structure of the Yorkshire and the Humber construction industry is very similar to that of the UK as a whole, with the largest differentials in shares no more than 2% for each sector.

Construction industry structure 2011 – UK vs. Yorkshire and the Humber



Source: ONS, Experian

2.3 Economic overview

The expected performance of a regional or national economy over the forecast period (2013–2017) provides an indication of the construction sectors in which demand is likely to be strongest.

2.4 Economic structure

In 2011 Yorkshire and the Humber saw its second year of consecutive growth as Gross Value Added (GVA) edged up by 0.5% to £87.9bn in 2009 prices. As a share of the UK, the region accounted for 6.8% of GVA.

Public services accounted for the lion's share of Yorkshire and the Humber's GVA at 21.4%, whilst professional and other private services came in second at 18.9%. The manufacturing sector accounted for 16.4% of GVA, taking third place, making it much more important when compared to the UK's corresponding figure of 10.9%. The wholesale and retail, and finance and insurance sectors accounted for 11.9% and 6% of the region's GVA in 2011, taking fourth and fifth place respectively. Of the top five industries, only professional and other private services (3.2%) and the manufacturing (2.3%) sectors saw growth in 2011.

Economic structure – Yorkshire and the Humber (£ billion, 2009 prices)

Selected sectors	Actual 2011	Forecast <i>Annual % change, real terms</i>					
		2012	2013	2014	2015	2016	2017
Public services	18.8	0.9	-0.3	0.2	0.3	0.6	1.0
Professional and Other Private Services	16.6	1.4	0.5	1.4	1.9	2.2	2.4
Manufacturing	14.4	-1.6	1.4	1.8	1.3	1.0	0.8
Wholesale and Retail	10.4	-0.9	1.0	2.1	2.5	2.5	2.4
Finance and Insurance	5.2	-1.0	0.4	1.0	2.6	3.5	3.8
Total Gross Value Added (GVA)	87.9	-0.6	0.4	1.4	1.7	1.9	2.0

Note: Top 5 sectors, excluding construction
Source: Experian
ref. CSN Explained, Section 3, Note 3

2.5 Forward looking economic indicators

GVA in Yorkshire and the Humber is projected to grow at an annual average rate of 1.5% over the five years to 2017, lower than the UK average of 1.9%.

Of the top five industries mentioned above, the greatest annual average growth rates of 2.3% in the five years to 2017 have been projected for finance and insurance, the fifth largest sector in the region. Negligible growth of 0.4% is predicted for the sector by the end of 2013, with GVA growth accelerating to 3.8% by 2017. The smallest annual average growth rate of 0.3% per year over our forecast period is expected in the public services sector.

High levels of inflation and small wage growth led to the region's real household disposable incomes (RHDI) falling by 2.3% in 2011. This fall is higher than that of the UK as a whole where RHDI declined by 1.6%. Inflation will ease over the forecast period and wages will begin to rise, with

Yorkshire and the Humber's wage increases in line with that of the UK. With favourable inflation and wage growth, RHDI is predicted to see steady growth. This subsequently leads to household spending also seeing an upward trend, with growth of 2.3% a year forecast from 2015 onwards.

In 2011, unemployment in the region was 250,000, equivalent to an unemployment rate of 9.4%, which was significantly higher than the UK figure of 8.1%.

Unemployment levels are expected to rise in 2013, but as the UK economy begins to see more of a sustained recovery, unemployment begins to decline from 2014 onwards.

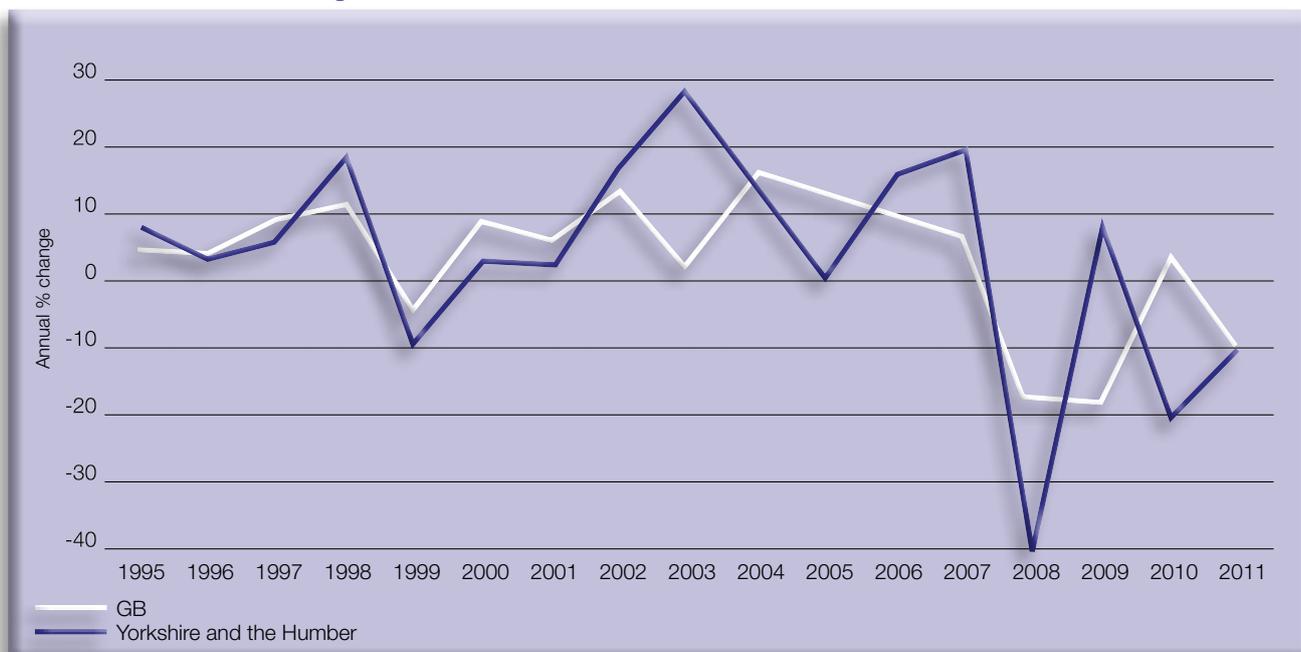
The working age population stood at 3.306m in 2011 and is predicted to rise as a share of total population over the forecast period. House prices in the region dropped by 3.5% in 2011 but small increases are expected over the five years to 2017.

Economic indicators – Yorkshire and the Humber (£ billion, 2009 prices – unless otherwise stated)

	Actual 2011	Forecast <i>Annual % change, real terms</i>					
		2012	2013	2014	2015	2016	2017
Real household disposable income	68	1.0	0.9	1.5	1.7	1.8	2.2
Household spending	66	0.1	0.8	1.9	2.3	2.3	2.3
Working age population (000s and as % of all)	3,306	61.9%	62.2%	62.5%	62.8%	62.9%	63.0%
House prices (£)	153,093	0.7	0.2	0.6	1.3	1.5	1.8
LFS unemployment (millions)	0.25	5.51	4.73	-6.53	-6.75	-4.58	-6.43

Source: ONS, DCLG, Experian

New construction orders growth 1995-2011 – Yorkshire and the Humber vs. GB



Source: ONS
ref. CSN Explained, Section 4, Note 4

2.6 New construction orders – overview

New construction orders declined by 11% in 2011 to £3.1bn in current prices, their lowest level since 2002. Orders were also 56% below peak levels seen in 2007. However three sectors actually experienced increases. Infrastructure orders saw the greatest rise, of 16% to £377m, whilst orders for public and private housing increased by 13% to £228m and 6% to £649m respectively. The biggest drop in orders was seen in the public non-housing sector as orders tumbled by 33% to £815m. Industrial orders saw the next largest fall at 28% to £148m, whilst commercial orders saw a marginal decrease of 3% to £919m.

2.7 New construction orders – current situation

In the first half of last year new work orders for the region went up by 38% to £2.4bn when compared to the first six months of 2011, following a particularly strong first quarter of 2012. The outturn of £1.5bn in the three months to March last year was the strongest since the fourth quarter of 2009. However the first half of the figures have been distorted by the placing of a 10-year water and sewerage framework contract for the region, from which output will be spread over a decade. This pushed infrastructure new orders up

to six times their level in the first half of 2011. Removing the estimated value of the framework contract would leave new construction orders in the region in the first half of 2012 largely flat compared with the same period of 2011.

2.8 Construction output – short-term forecasts (2013-2014)

Office for National Statistics (ONS) output statistics are published in current prices and are therefore inclusive of any inflationary effect. At the time of writing, ONS construction output statistics at a regional level were only available for the first two quarters of 2012.

During the first half of 2012, total construction output in the region declined by 6%, year-on-year, to £2.6bn. The strongest contraction was in the public non-housing sector at 28%. In contrast, industrial construction output jumped by 59%, albeit from a very low base.

Over the next two years, construction output in the region is predicted to see annual average declines of 4.1%. The new work sector is forecast to go down by an average of 6.8% per year whilst negligible annual average growth of 0.3% is projected for the R&M sector.

New work construction orders – Yorkshire and the Humber (£ million, current prices)

	Actual 2011	Annual % change				
		2007	2008	2009	2010	2011
Public housing	228	73.6	-28.4	-13.9	38.9	13.0
Private housing	649	12.9	-61.1	-31.6	41.2	5.9
Infrastructure	377	-25.1	-48.0	252.4	-68.1	15.9
Public non-housing	815	19.2	-0.7	64.5	-29.1	-33.5
Industrial	148	-30.0	-15.9	-39.3	-34.5	-27.6
Commercial	919	59.0	-49.8	-44.7	12.5	-2.7
Total new work	3,136	18.9	-41.4	7.3	-21.6	-10.8

Source: ONS
ref. CSN Explained, Section 3, Note 4

Annual average falls of 20.3% per year in 2013 and 2014 are estimated for the public non-housing sector, making it the worst performing one. The region benefitted heavily from the early waves of the Building Schools for the Future (BSF) programme and therefore output in the sector has further to fall to return to more 'normal' levels.

The current lack of government spending is also affecting the public housing sector as annual average falls of 6.2% per year over the next two years have been predicted. The region received funding of £425m under the 2008-11 AHP but under the 2011-2015 programme the North East and Yorkshire and the Humber have seen their funding combined. The area is due to receive £181m of funding, of which £94.5m has already been allocated to Yorkshire and the Humber.

The infrastructure sector is expected to see the second biggest annual average decrease, of 11.5% over the 2013-2014 period. Output is projected to fall heavily in 2013 as the A1 upgrade completed in the first half of last year. Works are underway on a number of roads projects, such as improvements to the A6182 and on the M62 between J25 to J30, however these schemes are not large enough to replace the completion of the A1 upgrade.

Weak prospects for the commercial sector mean that over the short term annual average decreases of 7.2% per year have been forecast. It remains the case that many developments across the region are still on hold as poor economic conditions provide little incentive to either restart mothballed developments or to start new projects. The much delayed Trinity Leeds shopping centre is due to open in spring of this year. The £350m scheme will provide new leisure and retail outlets, including the first Everyman cinema outside London.

It has recently been confirmed that the Westfield Bradford Project, worth £260m, will be sold on to Meyer Bergman once completed, although the transaction is dependent on work starting on 550,000 sq ft site in the second half of this

year. Westfield has submitted a revised planning permission application and has secured Marks & Spencer as one of its anchor stores.

Private housing is only one of two sectors in Yorkshire and the Humber that is projected to see growth over the short term, with an annual average rise of 6.3%, the other being industrial, with marginal growth of 0.5% a year.

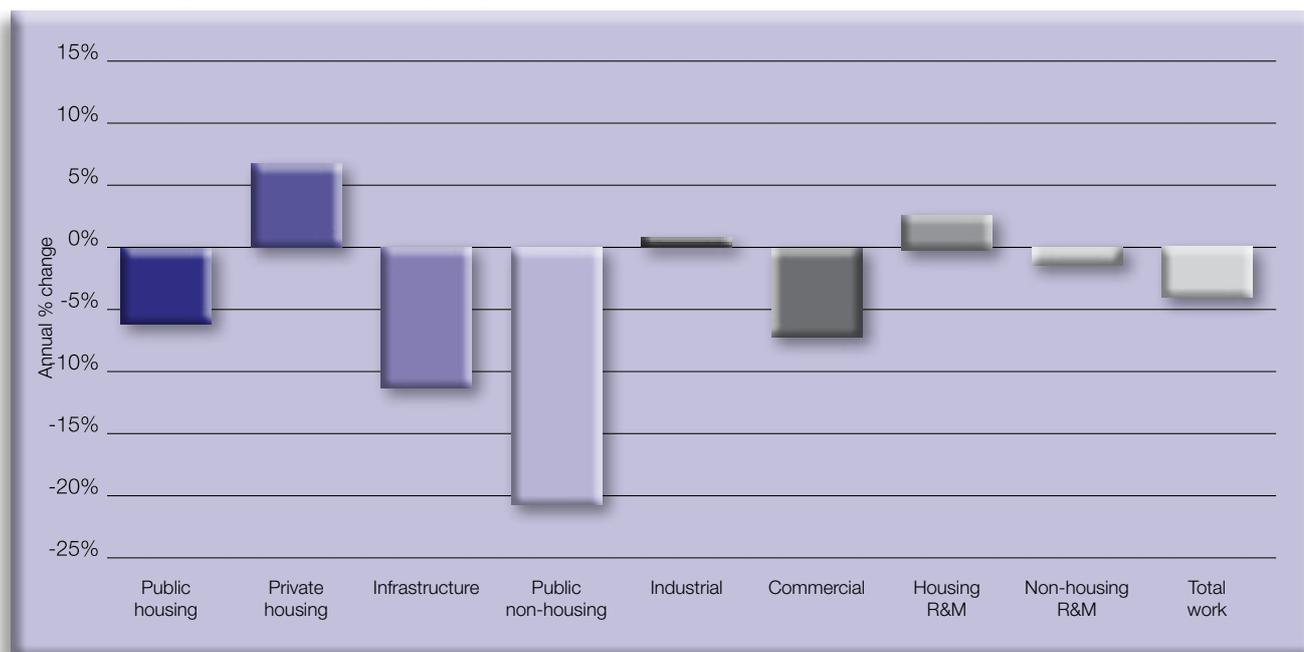
2.9 Construction output – long-term forecasts (2013–2017)

Yorkshire and the Humber is expected to see annual average declines of 0.9% in construction output over the next five years. The new work sector is projected to see output fall by 2.2% per year whilst the R&M one is predicted to experience growth of 1.3%.

Public non-housing continues to be the weakest performing sector over the medium term, with a projected drop in output of 10.0% per year over the five year period to 2017. When compared to other English regions and devolved nations, this is the third highest annual average fall for the sector, only after the North West (12.3%) and West Midlands (10.9%). Yorkshire and the Humber benefitted from six schemes totalling 91 schools in Wave 1 to 4 of the BSF programme, worth approximately £1.5bn, and as the tail-end of projects complete, large falls for the sector are expected.

YORcivil, a £384m four-year framework agreement, has been set up for civil projects, where work will be carried out in a number of areas such as general public services, environment and health. According to Glenigan, three different framework agreements have been set up to carry out work on publicly owned buildings such as schools and housing. The West sub-region, the South region and the East and Humber sub-regions will all benefit, with all three contracts valued at £325m. Work started at the beginning of last year and will end in 2016 for the first two regions, whilst the latter one saw works commence in 2011 with the framework being finished in 2015.

Annual average construction output growth 2013-2014 – Yorkshire and the Humber



Source: CSNI, Experian
ref. CSNI Explained, Section 3, Note 2

Construction output – Yorkshire and the Humber (£ million, 2005 prices)

	Actual	Forecast annual % change			Annual average
	2011	2012	2013	2014	2013-14
Public housing	284	-30%	-14%	2%	-6.2%
Private housing	855	0%	4%	8%	6.3%
Infrastructure	842	-2%	-19%	-3%	-11.5%
Public non-housing	1,154	-24%	-26%	-15%	-20.3%
Industrial	286	50%	4%	-3%	0.5%
Commercial	1,785	-21%	-5%	-9%	-7.2%
New work	5,206	-12%	-9%	-4%	-6.8%
Housing R&M	1,143	-8%	1%	4%	2.4%
Non-housing R&M	1,562	3%	-5%	3%	-1.1%
Total R&M	2,705	-2%	-2%	3%	0.3%
Total work	7,912	-8%	-7%	-1%	-4.1%

Source: Experian
ref. CSN Explained, Section 3, Notes 1 and 2

The infrastructure sector is projected to see average falls of 5.1% per year over the next five years. Output in the sector is expected to stabilise from 2016 onwards, but on a positive note the capital announcements made in the 2012 Autumn Statement may lead to this happening sooner than initially thought. New funds worth £314m for further upgrades to the A1, between Leeming to Barton, have been set aside, a project which was originally cancelled in 2010. Additional new finance will also go towards the dualling of the A160/180 and the Super-Connected Cities scheme in York which incorporates the roll-out of superfast broadband.

Over the next five years the commercial sector is predicted to experience annual average falls of 2.0%. Growth is expected to return to the sector from 2015 onwards as the economic recovery gathers pace; however it is possible that a significant proportion of the projects abandoned during the financial crisis in 2008/09 may never come to fruition.

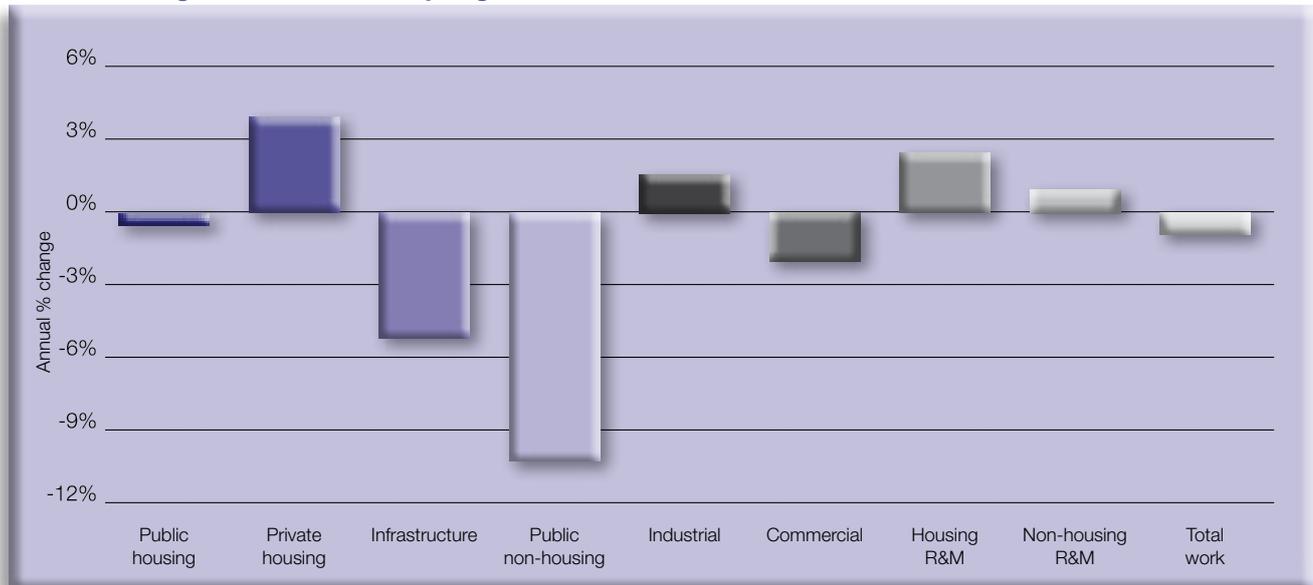
In the housing sectors, public housing is predicted to see a small decline over the whole of the forecast period, of about 0.3% a year on average. Inevitably the lower levels of funding from the current AHP will lead to falls in output for the sector; however, as the economy recovers and social housing providers become more adept in sourcing finance from other sources, we expect the sector to start growing again from 2014. As part of the Housing Stimulus Package announced in September 2012, £300m of extra funding will be provided for the 2011-2015 AHP. English regions will wait with interest to find out how this will be shared out.

A moderate annual average rise of 3.8% per year is projected over the next five years for the private housing sector, the highest growth for any sector. House builders will benefit from the strengthening UK economy from 2014, and output should rise above £1bn in 2005 prices in 2015, for the first time since 2008.



Construction employment is predicted to be 188,440 in 2017, 5% lower than in 2013

Annual average construction output growth 2013-2017 – Yorkshire and the Humber



Source: CSN, Experian

Construction output – Yorkshire and the Humber (£ million, 2005 prices)

	Estimate	Forecast annual % change					Annual average 2013-17
		2012	2013	2014	2015	2016	
Public housing	200	-14%	2%	7%	3%	2%	-0.3%
Private housing	858	4%	8%	5%	3%	-1%	3.8%
Infrastructure	827	-19%	-3%	-2%	0%	1%	-5.1%
Public non-housing	875	-26%	-15%	-5%	-4%	2%	-10.0%
Industrial	430	4%	-3%	4%	1%	2%	1.5%
Commercial	1,415	-5%	-9%	1%	1%	3%	-2.0%
New work	4,605	-9%	-4%	1%	1%	1%	-2.2%
Housing R&M	1,049	1%	4%	3%	2%	0%	2.1%
Non-housing R&M	1,608	-5%	3%	2%	2%	2%	0.7%
R&M	2,657	-2%	3%	2%	2%	1%	1.3%
Total work	7,262	-7%	-1%	2%	1%	1%	-0.9%

Source: Experian, CSN
ref. CSN Explained, Section 3, Note 2

2.10 Beyond 2017

Last year the Department for Transport (DfT) approved Leeds city's trolleybus scheme, worth £250m, which was first discussed in 2007. The project is due to commence in 2016 and will be up and running by 2018. The scheme, dubbed New Generation Transport, will connect the city centre with park-and-ride sites in the north and south of Leeds. DfT will contribute £173m towards the development, with the residual being funded by local authorities.

According to Glenigan, a regeneration programme worth £1.5bn is to begin in 2015 between Shipley town centre and Bradford city centre. Homes, offices and retail space as well as infrastructure projects will be delivered with the possibility of the reinstatement of the Bradford Canal.

The project has been shortlisted for Get Britain Building funding for phase 1. A revised masterplan will be submitted in March of this year. This is a long-term regeneration project, with works likely to extend over the best part of a decade.

A £2bn Private Finance Initiative (PFI) contract has been won by Amey, which will see Sheffield's infrastructure transformed over the next 25 years. The project is thought to have started in August last year and includes improving and maintaining the city's 1,900km of road, 500 traffic signals, 68,000 street lights, 3,300km of footway, 36,000 highway trees, 12,700 street name plates and over 18,000 items of street furniture. The contract will also cover landscape maintenance, winter gritting and street cleaning.

3. Construction employment forecasts for Yorkshire and the Humber

3.1 Total construction employment forecasts by occupation

The table presents actual construction employment (SICs 41-43, 71.1, and 74.9) in Yorkshire and the Humber for 2011, the forecast total employment in 26 occupations and in the industry as a whole between 2013 and 2017. A full breakdown of occupational groups is provided in Section 5 of CSN Explained.

The annual average output decline of 0.9% is projected to lead to employment falls of 1.6% a year on average over the five-year forecast period. Output is expected to start to grow again from 2015 but construction employment will only stabilise by 2017. We believe the reason for this is a high level of underemployment in the region, creating excess capacity which will need to be taken up before new employment is generated. This is elongating the usual lag one would expect to see between output and employment growth.

Indicative evidence for this comes from the output/employment 'gap' seen in recent years. In the five years to 2012, output in Yorkshire and the Humber is estimated to have declined by 29% but employment only fell by 12% over the same

timeframe. This suggests that there could be a significant level of underemployment in the region i.e. excess capacity present where employees are working less than their full hours.

The size of this 'gap' seems to be larger in the northern English regions and the devolved nations and much smaller in the greater south east, and the reason for this seems to be in part due to differences in employment structure. Regions in the greater south east are much more reliant on a self-employed or labour-only sub-contract (LOSC) workforce, while elsewhere direct employment is much more prevalent. According to the latest Workforce Mobility and Skills in the UK Construction Sector 2012 report commissioned by CITB-ConstructionSkills, Yorkshire and the Humber directly employed 65% of its workforce, the second highest proportion of all English regions and devolved nations.

In 2011, of the construction specific occupations, wood trades and interior fit-out, and plumbing and heating ventilation and air conditioning (HVAC) trades represented the largest share of the total workforce, both at 11% a piece, although employment in the former is expected to grow slightly over the forecast period but fall in the latter.

Total employment by occupation – Yorkshire and the Humber

	Actual 2011	Forecast	
		2013	2017
Senior, executive, and business process managers	6,410	5,930	5,390
Construction managers	17,600	16,270	14,790
Non-construction professional, technical, IT, and other office-based staff	27,740	26,030	24,490
Wood trades and interior fit-out	20,900	20,620	21,000
Bricklayers	8,530	8,410	8,370
Building envelope specialists	6,110	5,660	5,250
Painters and decorators	9,050	8,300	7,730
Plasterers and dry liners	3,770	3,660	3,620
Roofers	3,680	3,280	2,920
Floorers	4,240	4,150	4,230
Glaziers	2,680	2,470	2,250
Specialist building operatives nec*	2,570	2,530	2,320
Scaffolders	3,120	2,810	2,540
Plant operatives	3,280	3,120	3,070
Plant mechanics/fitters	6,300	6,030	5,640
Steel erectors/structural	3,310	3,370	3,380
Labourers nec*	7,890	7,740	7,840
Electrical trades and installation	16,950	15,780	14,570
Plumbing and HVAC trades	21,190	18,710	17,380
Logistics	2,170	2,050	1,750
Civil engineering operatives nec*	6,120	5,550	5,130
Non-construction operatives	3,990	3,790	3,460
Civil engineers	4,510	4,670	4,950
Other construction professionals and technical staff	12,810	12,110	11,740
Architects	1,520	1,440	1,450
Surveyors	3,770	3,490	3,180
Total (SIC 41-43)	187,600	176,260	167,120
Total (SIC 41-43, 71.1, 74.9)	210,210	197,970	188,440

Source: ONS, CSN, Experian
ref. CSN Explained, Section 3, Notes 5 and 6
* Not elsewhere classified

The logistics occupation is forecast to see the largest employment fall over the five year period to 2017 as annual average declines of 4% are predicted. Roofers (-3.5%) and scaffolders (-3.1%) are also projected to see heavy declines over the same timeframe. There is only a handful of occupations expected to see growth, with civil engineers due to experience the greatest annual average employment rise of 1.3%.

3.2 Annual recruitment requirements (ARR) by occupation

The ARR is a gross requirement that takes into account workforce flows into and out of construction, due to factors such as movements between industries, migration, sickness, and retirement. However, these flows do not include movements into the industry from training, due to the inconsistency and coverage of supply data. Therefore, the annual recruitment requirement provides an indication of the number of new employees that need to be recruited into construction each year in order to realise forecast output.

The ARR for the 26 occupations within Yorkshire and the Humber's construction industry is illustrated in the table. The figure of 1,910 is indicative of the average requirements per year for the industry, as based on the output forecasts for the region. This takes into account 'churn' i.e. the flows into and out of the industry, excluding training flows.

The region accounts for 6.6% of the total UK ARR and its requirement represents 1% of total projected base 2013 employment, a little lower than the UK figure of 1.2%.

The largest absolute requirement is for wood trades and interior fit-out (380), but, as a share of 2013 base employment, at 6.1%, plant operatives will be the most sought after.

The latest mobility report from CITB-ConstructionSkills provides some good indications of geographic flows for the construction industry. According to the survey, 80% of the construction workforce in Yorkshire and the Humber originated there, which is substantially higher than the UK figure of 65.8%. The second biggest contribution to the region's construction workforce was from the North West at 6.5%.

Please note that all of the ARR's presented in this section are employment requirements and not necessarily training requirements. This is because some new entrants to the construction industry, such as skilled migrants or those from other industries where similar skills are already used will be able to work in the industry without the need for significant retraining.

Non-construction operatives is a diverse occupational group including all of the activities under the SICs 41-43, 71.1, and 74.9 umbrella that cannot be classified elsewhere, such as cleaners, elementary security occupations nec. and routine inspectors and 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 ARR for non-construction operatives is not published.

Finally, for certain occupations there will be no appreciable requirement over the forecast period, partly due to the recession creating a 'pool' of excess labour.

Annual recruitment requirement by occupation – Yorkshire and the Humber

	2013-2017
Senior, executive, and business process managers	-
Construction managers	140
Non-construction professional, technical, IT, and other office-based staff	-
Wood trades and interior fit-out	380
Bricklayers	370
Building envelope specialists	-
Painters and decorators	-
Plasterers and dry liners	50
Roofers	-
Floorers	210
Glaziers	<50
Specialist building operatives nec*	<50
Scaffolders	-
Plant operatives	190
Plant mechanics/fitters	-
Steel erectors/structural	<50
Labourers nec*	270
Electrical trades and installation	-
Plumbing and HVAC trades	-
Logistics	60
Civil engineering operatives nec*	<50
Non-construction operatives	-
Civil engineers	150
Other construction professionals and technical staff	-
Architects	-
Surveyors	-
Total (SIC 41-43)	1,760
Total (SIC 41-43, 71.1, 74.9)	1,910

4. Comparisons across the UK

Interestingly, the profile of output growth at regional and devolved nation level over the 2013-17 period is not as south-east centric as we might have expected, with Wales forecast to have the strongest average annual growth. However, Wales' growth is almost entirely due to the new nuclear power station planned at Wylfa in Anglesey, with average annual growth of just 0.6% if the project is removed from the forecast period. Although Hitachi's technology, the Advanced Boiling Water Reactor (ABWR) will need to go through a generic design assessment, construction is still expected to start during the current forecast period.

The North East is coming back up from a very low base – the region saw the worst fall of all the English regions between 2007 and 2012, with output declining by 30% over the period – hence the relatively stronger outlook for the region over the forecast period. In comparison, Scotland's decline over the same period was just 17%. To demonstrate how the greater south-east has weathered the last five years better than elsewhere, the best three performing regions were Greater London (+13%), the South East (-1%) and the East of England (-7%). Northern Ireland, in contrast, is coming back from an even lower base – output declined by 36% between 2007 and 2012. This, combined with the fact that it saw a fall off in public sector work a year before the other regions and devolved nations (2010 compared with 2011) meaning smaller declines going forward, indicates that the outlook for Northern Ireland may be a little better than the UK average.

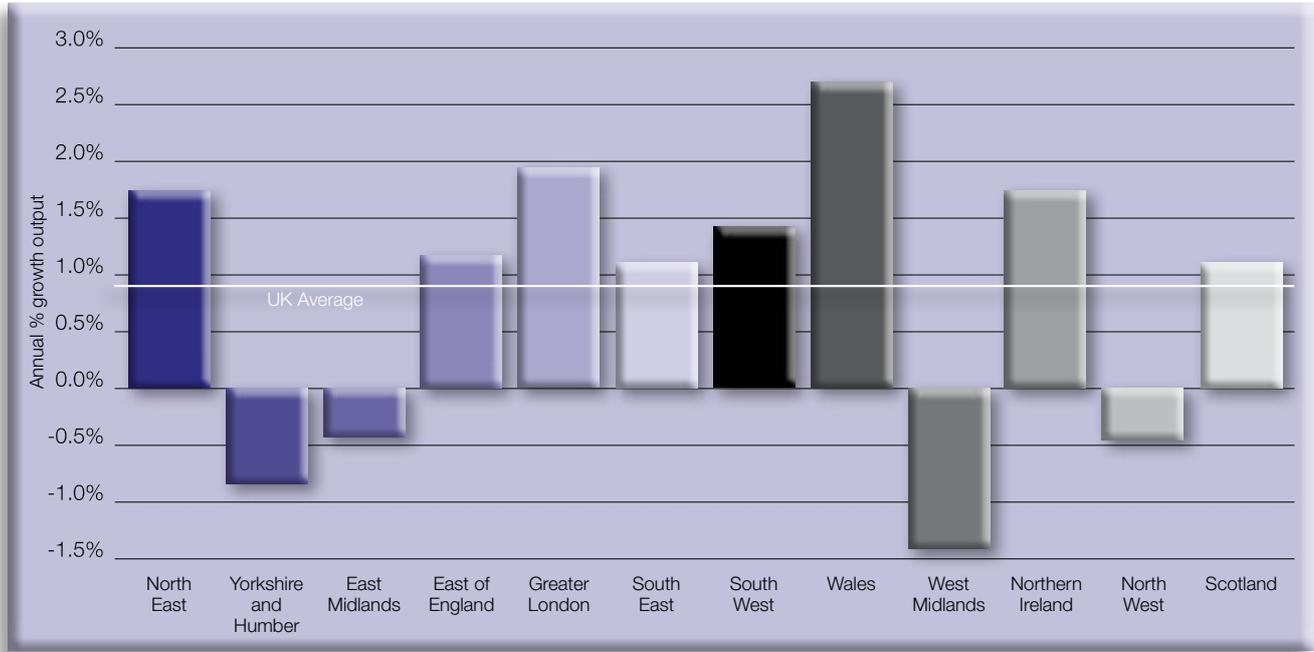
The profile of employment changes across the regions and devolved nations is different to that of output over the period to 2017. The relationship between overall output and employment is not straightforward given that some sectors are much more labour-intensive than others, and the relative performances of the sectors within overall output impacts on the prospects for employment across the UK. For example, Wales' output growth is largely predicated on the new nuclear power station at Wylfa and new nuclear build is one of the least labour intensive areas of the construction industry. Greater London and the East of England are the only two regions predicted to see employment growth over the forecast period, and even here it is very weak.

There is also the issue of underemployment in the industry coming to the fore, which will impact on the speed with which construction employment in a particular region and devolved nation returns to growth. For example, the North West saw output fall by an estimated 29% between 2007 and 2012 in real terms, whilst employment declined by just 11% over the same period. This substantial output and employment 'gap' suggests that firms in the region have not been shedding staff at the same rate as activity has been dropping. Job shedding is likely to continue in the region for some time after output starts to improve. A similar profile of output and employment declines has been seen across a number of regions and devolved nations to various degrees, with the 'gap' widening outside of the greater south east. It appears to be the case that parts of the UK with more directly-employed labour have seen this effect more than those with a more labour-only sub-contractor focus in terms of construction employment.



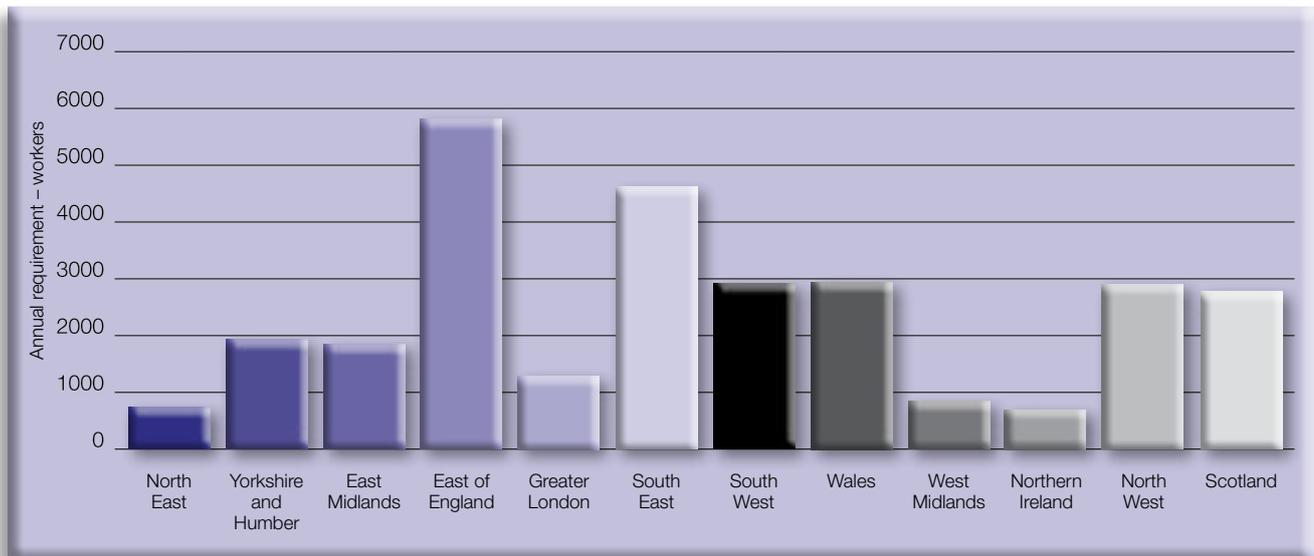
A moderate annual average rise of 3.8% per year is projected over the next five years for the private housing sector

Annual average output growth by region 2013-2017



Source: CSN, Experian
ref. CSN Explained, Section 3, Note 2

Annual recruitment requirement (ARR) by region 2013-2017



Source: CSN, Experian



CSN Explained

This appendix provides further details and clarification of some of the points covered in the report.

Section 1 gives an overview of the underpinning methods that are used by the CSN, working in partnership with Experian, to produce the suite of reports at a UK, national and regional level.

Section 2 provides a glossary to clarify some of the terms that are used in the reports, while Section 3 has some further notes that relate to the data sources that are used for the various charts and tables. Section 3 also outlines what is meant by the term footprint, when talking about the areas of responsibility that lie with a Sector Skills Council.

Section 4 explains the sector definitions used within the report and provides examples of what is covered in each.

Section 5 gives a detailed breakdown of the 26 occupational groups into the individual standard occupational classification (SOC) codes that are aggregated to provide the employment and recruitment requirement.

Section 6 then concludes by giving details about the range of LMI reports, the advantages of being a CSN member and the contact details should people be interested in joining.



1. CSN Methodology

Background

The **Construction Skills Network** has been evolving since its conception in 2005 acting as vehicle for CITB-ConstructionSkills to collect and produce information on the future employment and training needs of the industry. CITB-ConstructionSkills, CIC and CITB Northern Ireland are working as ConstructionSkills, the Sector Skills Council 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 a 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, all of whom contribute local industry knowledge and views on training, skills, recruitment, qualifications and policy. The National Group also includes representatives from industry, Government, education and other SSCs. This Group convenes twice a year and sets the national scene, effectively forming a backdrop for the Observatories.

At the heart of the CSN are a number of forecasting models which generate forecasts of employment requirements within the industry for a range of occupational groups. The models are designed and managed by Experian under the independent guidance and validation of the Technical Reference Group, comprised of statisticians and modelling experts. The Models have been, and will continue to be, evolved over time to ensure that they account for new research as it is published as well as new and improved modelling techniques. 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 models, which are 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 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 **annual recruitment requirement (ARR)** is a gross requirement that takes into account workforce flows into and out of construction, due to such factors as movements between industries, migration, sickness, and retirement. However, these flows do not include movements into industry from training, due to the inconsistent currency and coverage of supply data. Therefore, the annual recruitment 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.

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 models are dynamic and reflect the general UK economic climate at any point in time. To generate the labour demand, the models make use of a set of specific statistics for each major type of work 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 year's 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.

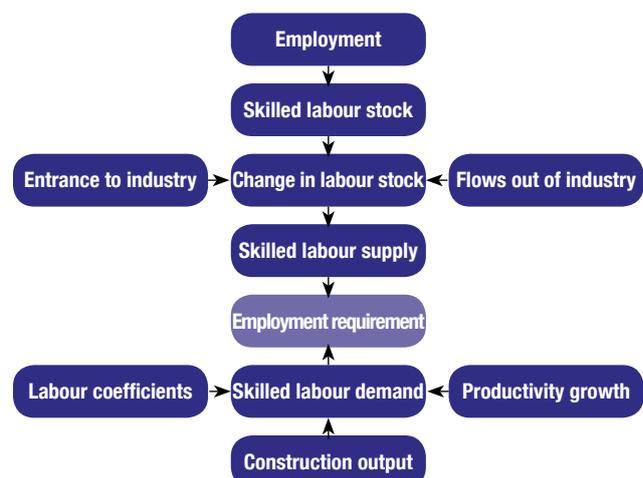
The main reason for outflow is likely to be transfer to other industries.

Flows into the labour market include:

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

The most significant inflow is likely to be from other industries.

A summary of the model is shown in the flow chart.



2. Glossary of Terms

- **Building envelope specialists** – any trade involved with the external cladding of the building other than bricklaying, e.g. curtain walling.
- **Demand** – demand is calculated using construction output data from the Office for National Statistics (ONS) and the Department of Finance and Personnel Northern Ireland (DFP), along with vacancy data from the National Employers Skills Survey, from the Department for Education and Skills. These data sets are translated into labour requirements by trade by using a series of coefficients to produce the labour demand that relates to the forecasted output levels.
- **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.
- **Coefficients** – To generate the labour demand, the model makes use of a set of specific statistics for each major type of work to determine employment, by trade or profession, based upon the previous year's supply. In essence this is the number of workers in each occupation/ trade to produce £1m of output across 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 Intelligence)** – 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.
- **Nec** – not elsewhere classified, used as a reference in LFS data.
- **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.
- **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.



3. Notes and Footprints

Notes

- 1 Except for Northern Ireland, output data for the English regions, Scotland and Wales are supplied by the Office for National Statistics (ONS) on a current price basis. Therefore national deflators produced by the ONS have been used to deflate to a 2005 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 Great Britain 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 43, plumbers and electricians working in contracting are an integral part of the construction process. However, it is recognised by CITB-ConstructionSkills that SummitSkills has responsibility for these occupations across a range of SIC codes, including SIC 43.2.
- 7 The employment and ARR tables show separate totals for SIC 41-43 and SIC 41-43, 71.1 and 74.9. The total for SIC 41-43 covers the first 22 occupational groups on the relevant tables and excludes civil engineers, other construction professionals and technical staff, architects and surveyors. The total for SIC 41-43, 71.1 and 74.9 includes all occupations.

Footprints for Built Environment SSCs

CITB-ConstructionSkills is responsible for SIC 41 Construction of Buildings, SIC 42 Civil Engineering, SIC 43 Specialised Construction Activities and SIC 71.1 Architectural and engineering activities; Technical Testing and Analysis.

The table summarises the SIC codes (2007) covered by CITB-ConstructionSkills:

CITB-ConstructionSkills	
SIC Code	Description
41.1	Development of building projects
41.2	Construction of residential and non-residential buildings
42.1	Construction of roads and railways
42.2	Construction of utility projects
42.9	Construction of other civil engineering projects
43.1	Demolition and site preparation
43.3	Building completion and finishing
43.9	Other specialised construction activities nec
71.1*	Architectural and engineering activities and related technical consultancy

* AssetSkills has a peripheral interest in SIC 71.1

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.

CITB-ConstructionSkills shares an interest with SummitSkills in SIC 43.21 Electrical Installation and SIC 43.22 Plumbing, heat and air-conditioning installation. CITB-ConstructionSkills recognises the responsibility of Summit Skills across Standard Industrial Classifications (SIC) 43.21 and 43.22, therefore data relating to the Building Services Engineering sector is included here primarily for completeness.

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, Domestic, Facilities Managers.

AssetSkills has a peripheral interest SIC 71.1 Architectural and engineering activities and related technical consultancy.

Energy and 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.

4. Definitions: types and examples of construction work

Public sector housing – local authorities and housing associations, new towns and government departments

Housing schemes, old people's homes and the provision within housing sites of roads and services for gas, water, electricity, sewage and drainage.

Private sector housing

All privately owned buildings for residential use, such as houses, flats and maisonettes, bungalows, cottages and the provision of services to new developments.

Infrastructure – public and private

Water

Reservoirs, purification plants, dams, water works, pumping stations, water mains, hydraulic works etc.

Sewerage

Sewage disposal works, laying of sewers and surface drains.

Electricity

Building and civil engineering work for electrical undertakings such as power stations, dams and other works on hydroelectric schemes, onshore wind farms and decommissioning of nuclear power stations.

Gas, communications, air transport

Gas works, gas mains and gas storage; post offices, sorting offices, telephone exchanges, switching centres etc.; air terminals, runways, hangars, reception halls, radar installations.

Railways

Permanent way, tunnels, bridges, cuttings, stations, engine sheds etc., signalling and other control systems and electrification of both surface and underground railways.

Harbours

All works and buildings directly connected with harbours, wharves, docks, piers, jetties, canals and waterways, sea walls, embankments and water defences.

Roads

Roads, pavements, bridges, footpaths, lighting, tunnels, flyovers, fencing etc.

Public non-residential construction¹

Factories and warehouses

Publicly owned factories, warehouses, skill centres.

Oil, steel, coal

Now restricted to remedial works for public sector residual bodies.

Schools, colleges, universities

State schools and colleges (including technical colleges and institutes of agriculture); universities including halls of residence, research establishments etc.

Health

Hospitals including medical schools, clinics, welfare centres, adult training centres.

Offices

Local and central Government offices, including town halls, offices for all public bodies except the armed services, police headquarters.

Entertainment

Theatres, restaurants, public swimming baths, caravan sites at holiday resorts, works and buildings at sports grounds, stadiums, racecourses etc. owned by local authorities or other public bodies.

Garages

Buildings for storage, repair and maintenance of road vehicles, transport workshops, bus depots, road goods transport depots and car parks.

Shops

Municipal shopping developments for which the contract has been let by a Local Authority.

Agriculture

Buildings and work on publicly financed horticultural establishments; fen drainage and agricultural drainage; veterinary clinics.

Miscellaneous

All work not clearly covered by any other headings, such as fire stations, police stations, prisons, reformatories, remand homes, civil defence work, UK Atomic Energy Authority work, council depots, museums, libraries.

Private industrial work

Factories, warehouses, wholesale depots, all other works and buildings for the purpose of industrial production or processing, oil refineries, pipelines and terminals, concrete fixed leg oil production platforms (not rigs); private steel work; all new coal mine construction such as sinking shafts, tunnelling, etc.

¹ Where contracts for the construction or improvement of non-residential buildings used for public service provision, such as hospitals, are awarded by private sector holders of contracts awarded under the Private Finance Initiative, the work is classified as 'private commercial'.

Private commercial work²

Schools and universities

Schools and colleges in the private sector, financed wholly from private funds.

Health

Private hospitals, nursing homes, clinics.

Offices

Office buildings, banks.

Entertainment

Privately owned theatres, concert halls, cinemas, hotels, public houses, restaurants, cafés, holiday camps, swimming pools, works and buildings at sports grounds, stadiums and other places of sport or recreation, youth hostels.

Garages

Repair garages, petrol filling stations, bus depots, goods transport depots and any other works or buildings for the storage, repair or maintenance of road vehicles, car parks.

Shops

All buildings for retail distribution such as shops, department stores, retail markets, showrooms, etc.

Agriculture

All buildings and work on farms, horticultural establishments.

Miscellaneous

All work not clearly covered by any other heading, e.g. exhibitions, caravan sites, churches, church halls.

New work

New housing

Construction of new houses, flats, bungalows only.

All other types of work

All new construction work and all work that can be referred to as improvement, renovation or refurbishment and which adds to the value of the property³.

Repair and maintenance Housing

Any conversion of, or extension to, any existing dwelling and all other work such as improvement, renovation, refurbishment, planned maintenance and any other type of expenditure on repairs or maintenance.

All other sectors

Repair and maintenance work of all types including planned and contractual maintenance⁴.



² Where contracts for the construction or improvement of non-residential buildings used for public service provision, such as hospitals, are awarded by private sector holders of contracts awarded under the Private Finance Initiative, the work is classified as 'private commercial'.

³ Contractors reporting work may not always be aware of the distinction between improvement or renovation work and repair and maintenance work in the non-residential sectors.

⁴ Except where stated, mixed development schemes are classified to whichever sector provides the majority (i.e. over 50%) of finance.

5. Occupational Groups

Occupational group

Description, SOC (2000) reference.

Senior, executive and business process managers

Directors and chief executives of major organisations, 1112
Senior officials in local government, 1113
Financial managers and chartered secretaries, 1131
Marketing and sales managers, 1132
Purchasing managers, 1133
Advertising and public relations managers, 1134
Personnel, training and industrial relations managers, 1135
Office managers, 1152
Civil service executive officers, 4111
Property, housing and land managers, 1231
Information and communication technology managers, 1136
Research and development managers, 1137
Customer care managers, 1142
Storage and warehouse managers, 1162
Security managers, 1174
Natural environment and conservation managers, 1212
Managers and proprietors in other services nec*, 1239

Construction managers

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

Non-construction professional, technical, IT, and other office-based staff (excl. managers)

IT operations technicians, 3131
IT user support technicians, 3132
Estimators, valuers and assessors, 3531
Finance and investment analysts/advisers, 3534
Taxation experts, 3535
Financial and accounting technicians, 3537
Vocational and Industrial trainers and instructors, 3563
Business and related associate professionals nec*, 3539
Legal associate professionals, 3520
Inspectors of factories, utilities and trading standards, 3565
Software professionals, 2132
IT strategy and planning professionals, 2131
Estate agents, auctioneers, 3544
Solicitors and lawyers, judges and coroners, 2411
Legal professionals nec*, 2419
Chartered and certified accountants, 2421
Management accountants, 2422
Management consultants, actuaries, economists and statisticians, 2423
Receptionists, 4216
Typists, 4217
Sales representatives, 3542
Civil Service administrative officers and assistants, 4112

Local government clerical officers and assistants, 4113
Accounts and wages clerks, book-keepers, other financial clerks, 4122
Filing and 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 and other secretaries, 4215
Sales and retail assistants, 7111
Telephone salespersons, 7113
Buyers and purchasing officers (50%), 3541
Marketing associate professionals, 3543
Personnel and 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

Wood trades and interior fit-out

Carpenters and joiners, 5315
Pattern makers, 5493
Paper and wood machine operatives, 8121
Furniture makers, other craft woodworkers, 5492
Labourers in building and woodworking trades (9%), 9121
Construction trades nec* (25%), 5319

Bricklayers

Bricklayers, masons, 5312

Building envelope specialists

Construction trades nec* (50%), 5319
Labourers in building and woodworking trades (5%), 9121

Painters and decorators

Painters and decorators, 5323
Construction trades nec* (5%), 5319

Plasterers and dry liners

Plasterers, 5321

Roofers

Roofers, roof tilers and slaters, 5313

Floorers

Floorers and wall tilers, 5322

Glaziers

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

Specialist building operatives nec*

Construction operatives nec* (80%), 8149
Construction trades nec* (5%), 5319
Industrial cleaning process occupations, 9132

Scaffolders

Scaffolders, staggers, riggers, 8141

Plant operatives

Crane drivers, 8221

Plant and machine operatives nec*, 8129

Transport operatives nec*, 8219

Fork-lift truck drivers, 8222

Mobile machine drivers and operatives nec*, 8229

Agricultural machinery drivers, 8223

Plant mechanics/fitters

Metal working production and maintenance fitters, 5223

Motor mechanics, auto engineers, 5231

Labourers in process and plant operations nec*, 9139

Tool makers, tool fitters and markers-out, 5222

Vehicle body builders and repairers, 5232

Auto electricians, 5233

Vehicle spray painters, 5234

Tyre, exhaust and windscreen fitters, 8135

Steel erectors/structural

Steel erectors, 5311

Welding trades, 5215

Sheet metal workers, 5213

Metal plate workers, shipwrights and riveters, 5214

Construction trades nec* (5%), 5319

Smiths and forge workers, 5211

Moulders, core makers, die casters, 5212

Metal machining setters and setter-operators, 5221

Labourers nec*

Labourers in building and woodworking trades (80%), 9121

Electrical trades and installation

Electricians, electrical fitters, 5241

Electrical/electronic engineers nec*, 5249

Telecommunications engineers, 5242

Lines repairers and cable jointers, 5243

TV, video and audio engineers, 5244

Computer engineers, installation and maintenance, 5245

**Plumbing and heating, ventilation,
and air conditioning trades**

Plumbers and HVAC trades, 5314

Pipe fitters, 5216

Labourers in building and woodworking trades (6%), 9121

Construction trades nec* (5%), 5319

Logistics

Heavy goods vehicle drivers, 8211

Van drivers, 8212

Packers, bottlers, canners, fillers, 9134

Other goods handling and storage occupations nec*, 9149

Buyers and purchasing officers (50%), 3541

Transport and distribution clerks, 4134

Security guards and related occupations, 9241

Civil engineering operatives nec*

Road construction operatives, 8142

Rail construction and maintenance operatives, 8143

Quarry workers and related operatives, 8123

Construction operatives nec* (20%), 8149

Labourers in other construction trades nec*, 9129

Non-construction operatives

Metal making and treating process operatives, 8117

Process operatives nec*, 8119

Metal working machine operatives, 8125

Water and sewerage plant operatives, 8126

Assemblers (vehicle and metal goods), 8132

Routine inspectors and testers, 8133

Assemblers and routine operatives nec*, 8139

Stevedores, dockers and slingers, 9141

Hand craft occupations nec*, 5499

Elementary security occupations nec*, 9249

Cleaners, domestics, 9233

Road sweepers, 9232

Gardeners and groundsmen, 5113

Caretakers, 6232

Civil engineers

Civil engineers, 2121

**Other construction professionals
and technical staff**

Mechanical engineers, 2122

Electrical engineers, 2123

Chemical engineers, 2125

Design and development engineers, 2126

Production and process engineers, 2127

Planning and quality control engineers, 2128

Engineering professional nec*, 2129

Electrical/electronic technicians, 3112

Engineering technicians, 3113

Building and civil engineering technicians, 3114

Science and engineering technicians nec*, 3119

Architectural technologists and town planning technicians, 3121

Draughtspersons, 3122

Quality assurance technicians, 3115

Town planners, 2432

Electronics engineers, 2124

Building inspectors, 3123

Scientific researchers, 2321

Architects

Architects, 2431

Surveyors

Quantity surveyors, 2433

Chartered surveyors (not Quantity surveyors), 2434

* not elsewhere classified

6. CSN website and contact details

The CSN website – www.cskills.org/csn

The CSN website functions as a public gateway for people wishing to access the range of Labour Market Intelligence (LMI) reports and research material regularly produced by the CSN.

The main UK report, along with the twelve LMI reports (one for Northern Ireland, Scotland, Wales and each of the nine English regions) can be downloaded from the site, while other CITB-ConstructionSkills research reports are also freely available on our website.

Having access to this range of labour market intelligence and trend insight allows industry, Government, regional agencies and key stakeholders to:

- pinpoint the associated, specific, skills that will be needed year by year
- identify the sectors which are likely to be the strongest drivers of output growth in each region and devolved nation
- track the macro economy
- understand how economic events impact on regional and devolved nations' economic performance
- highlight trends across the industry such as national and regional shifts in demand
- plan ahead and address the skills needs of a traditionally mobile workforce
- understand the levels of qualified and competent new entrants required into the workforce.

The website also contains further information about:

- how the CSN functions
- the CSN Model approach
- how the Model can be used to explore scenarios
- how to contact the CSN team
- related CITB-ConstructionSkills research
- how to become a member of the network.

The CSN website can be found at:

www.cskills.org/csn

CSN members area

While the public area of the CSN website is the gateway to the completed LMI and research reports, being a member of the CSN offers further benefits.

As a CSN member you will be linked to one of the Observatory groups, which play a vital role in being able to feed back observations, knowledge and insight on what is really happening on the ground in every UK region and nation. This feedback is used to fine tune the assumptions and data that go into the forecasting programme such as:

- details of specific projects
- demand within various types of work or sectors
- labour supply
- inflows and outflows across the regions and devolved nations.

CSN members therefore have:

- early access to forecasts
- the opportunity to influence and inform the data
- the ability to request scenarios that could address 'What would happen if...' types of questions using the Model.

Through the members' area of the CSN website, members can:

- access observatory-related material such as meeting dates, agendas, presentations and notes
- download additional research material
- comment/feedback to the CSN team.

As the Observatory groups highlight the real issues faced by the industry in the UK, we can more efficiently and effectively plan our response to skills needs. If you would like to contribute your industry observations, knowledge and insight to this process and become a member of the CSN, we would be delighted to hear from you.

Contact details

For further information about the CSN website, enquiries relating to the work of the CSN, or to register your interest in joining the CSN as a member, please contact us at:

csn@cskills.org



CONTENTS

SUMMARY AND KEY FINDINGS

THE OUTLOOK FOR CONSTRUCTION IN
YORKSHIRE AND THE HUMBER

CONSTRUCTION EMPLOYMENT
FORECASTS FOR YORKSHIRE AND
THE HUMBER

COMPARISONS ACROSS THE UK

CSNI EXPLAINED

For more information about the
Construction Skills Network, contact:

Ian Hill

Research and Development

Research Analyst

0344 994 4400

ian.hill@cskills.org

www.cskills.org

