

Construction Skills Network

South East 2013-2017

Labour Market Intelligence





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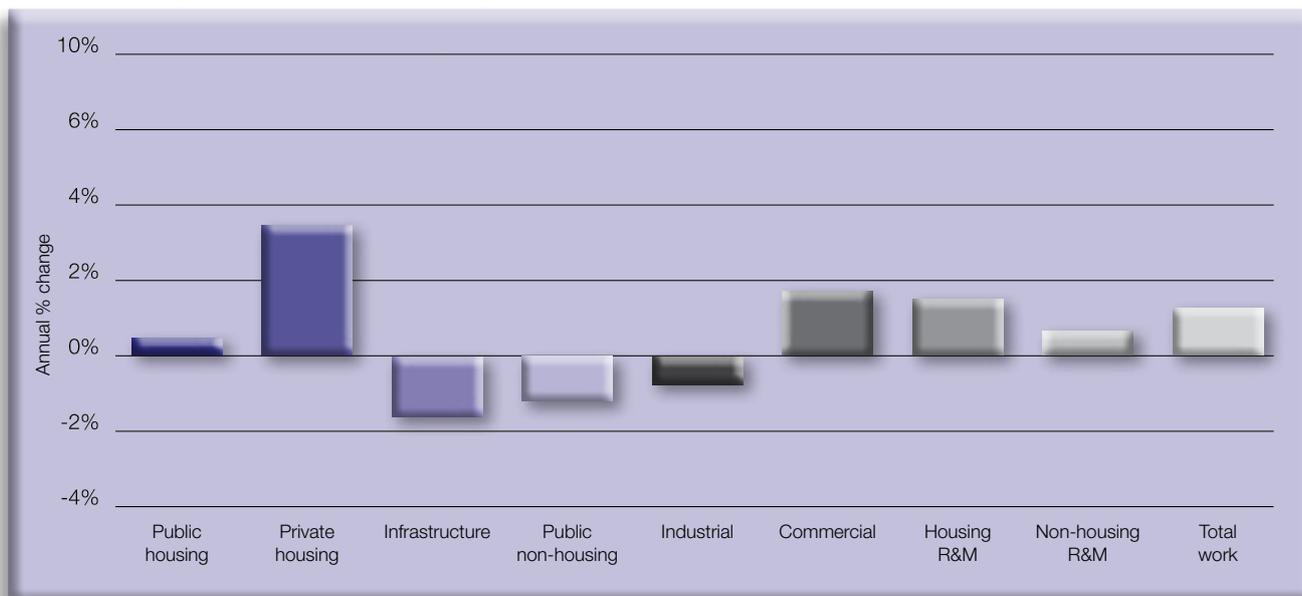
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1. Summary – the South East

Construction output in the South East is forecast to rise at an average annual rate of 1.1% over the five years to 2017, above the UK rate of 0.8% per year. Growth is expected to average 1.1% per year in both new work and repair and maintenance (R&M) activity. The private housing sector will be the best performing over the forecast period, driven by recovering economic conditions and the strong demographics in the South East. The region is expected to see construction employment decline at an average rate of 0.7% over the forecast period, a sharper decline than the UK figure of 0.8%. The ARR for the South East is 4,570, the second largest in absolute terms across all the regions and devolved nations.

Annual average construction output growth 2013-2017 – the South East



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



Key findings

A weak outlook is expected for the commercial sector in the short term, as investment continues to be hampered by poor economic conditions and heavily negative business and consumer sentiment. However, these are expected to improve over the next couple of years, stimulating some development, and there are a number of mixed-use schemes planned in the region which should get underway in the next couple of years. Average annual growth of 1.7% is expected for the sector over the five years to 2017.

Average annual growth of 3.3% is forecast for the private housing sector, with output expected to rise in each year of the period to 2017. Current muted demand will improve, once economic conditions pick up and concerns over unemployment start to abate. The region's strong demographics will also provide the stimulus for housing developments.

Prospects for the infrastructure sector are weak over the forecast period, with output expected to decline by 1.7% per year on average. Work was completed in 2012 on the M25 widening work, which had provided a substantial boost to output in the sector over the previous few years. There are a number of ongoing schemes in the region, including the Reading Station upgrade and other various other road projects. This includes the managed motorway work on the M25, but these are not of a similar size to the M25 widening work and therefore output will fall from its recent peak over the forecast period.

Industrial construction output is expected to decline by a weak 0.6% each year on average over the forecast period. The current poor prospects for the manufacturing sector provide little incentive for investment in new facilities and there are few major distribution and logistics developments planned in the region at present.

Construction employment in the South East is expected to reach 374,710 in 2017, 2% below its projected 2013 level and 15% lower than its peak in 2008. However, employment is expected to stabilise in 2016 and return to growth in 2017, albeit only weakly. The annual average increase of 1.1% in output over the forecast period is not enough to drive strong employment growth in the region.

The strongest increase in employment in the region is expected for plant mechanics/fitters (19%), while architects are forecast to see employment increase by 8% over the five years to 2017.

The South East's annual recruitment requirement (ARR) is 4,570, which is equivalent to 1.2% of base 2013 employment. This is in line with the UK average. In absolute terms, the largest requirements are expected to be for construction managers and wood trades and interior fit-out, but as a proportion of base 2013 employment, plant operatives, glaziers and floorers are forecast to be most in demand.

Construction output in the South East is expected to grow by an average of 1.7% per year until 2017

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 the South East

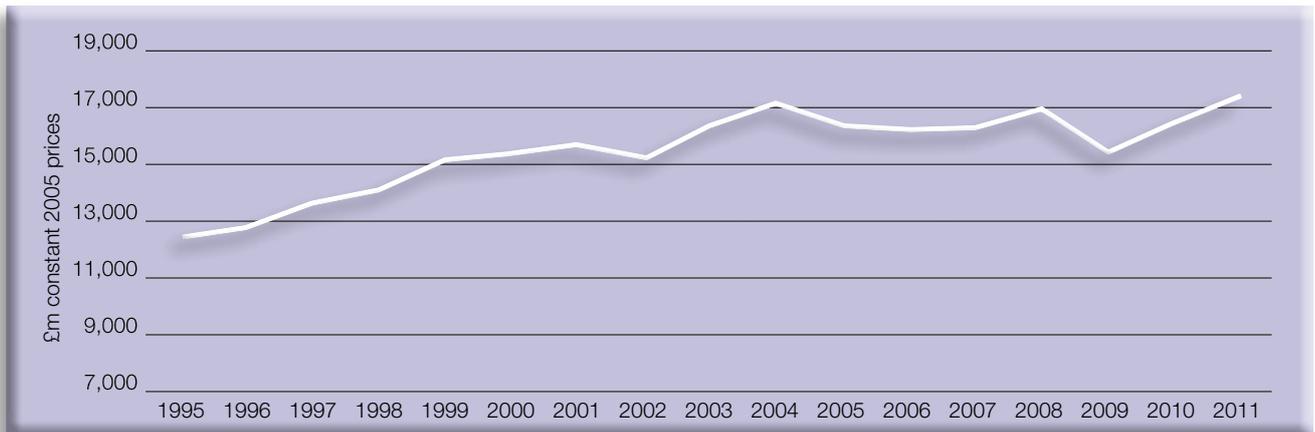
2.1 Construction output in the South East – overview

Following growth of 7% in 2010, construction output in the South East rose by 5% in 2011 to £17.3bn in 2005 prices. This was the highest annual outturn in the region since 1990. There were differing trends between the new work sector, where output rose by 8%, and the repair and maintenance (R&M) sector, where output was broadly unchanged from the previous year.

The strongest performance was from the infrastructure sector, with growth of 23%, as work on the latest tranche of

M25 widening work continued. It was a third year of double-digit growth in the sector and took output to its highest level since 1993, when the Channel Tunnel was under construction. The public housing sector saw marked growth of 21% with activity getting underway on the remaining projects that received funding under the 2008-2011 National Affordable Housing programme, whilst the private housing sector posted an increase of 9% in output during the year. The commercial construction sector in the region saw output rise by 3% as did the public non-housing sector. In contrast, the only new work sector to see a decline in output was the industrial one, as output fell by 8%, a fifth successive year of contraction.

Construction output 1995-2011 – South East



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

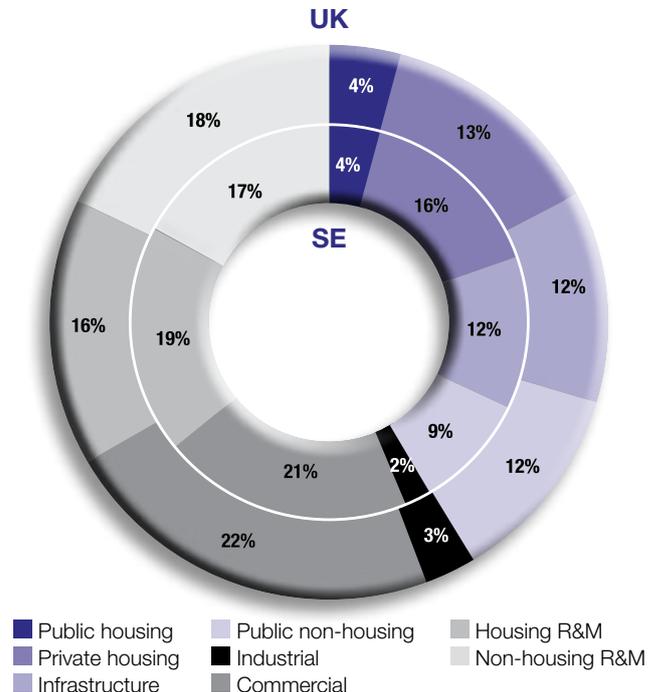
2.2 Industry structure

The diagram, construction industry structure 2011 – UK vs. South East, illustrates the sector breakdown of construction in the South East compared to that in the UK. Effectively, the percentages for each sector illustrate what proportion of total output each sector accounts for.

The new work sector in the South East accounted for 64% of total construction output in 2011, slightly below the national average of 66%. However, the new work sector's share of output has been rising in recent years and it increased from 62% in 2010.

The public non-housing sector in the South East took a 9% share of total construction in 2011, lower than the national figure of 12%. The private housing sector, on the other hand, is relatively more important in the region than at a UK level, with shares of 16% and 13%, respectively. Whilst the housing R&M sector took a larger share in the region (19%) than nationally (16%), the non-housing R&M sector was slightly smaller in the South East (17%) than at a UK level (18%). The infrastructure (12%) and public housing (4%) sectors in the region are in line with the national averages.

Construction industry structure 2011 – UK vs. South East



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, the South East's economy expanded by 2.3%, a second successive year of growth, with the pace substantially stronger than at a UK level (1.1%). Totalling £190bn in 2009 prices, the region's economy accounted for 15% of UK output, largely unchanged from the previous year.

The largest sector in the South East in 2011 remained the professional and other private services sector which took a 25% share of output. The sector was relatively more important in the region than nationally, where it accounted for 23% of output. The public services sector was again the second largest in the region, accounting for 16% of output in 2011, whilst the third largest was wholesale and retail with

a 12.6% share of output. Manufacturing and information and communication were the next largest sectors, each accounting for around 10% of the region's output in 2011.

The best performing sector in 2011 was accommodation, food services and recreation, where output rose by 7.4%, followed by the region's largest sector, the professional and other private services sector, with growth of 4.8%. The second biggest sector in the region, public services, saw output increase by 1.5% and wholesale and retail posted growth of 1.4%.

Aside from the relative importance of the professional and other private services sector in the South East compared with nationally, there are a number of other differences in the structure of the region's economy. The wholesale and retail sector accounted for 13% of output in the South East in 2011, but only 11% at a UK level, whilst the public services sector took a 19% share of output nationally but accounted for 16% of regional output in 2011.

Economic structure – South East (£ billion, 2009 prices)

Selected sectors	Actual 2011	Forecast <i>Annual % change, real terms</i>					
		2012	2013	2014	2015	2016	2017
Professional and other private services	48.2	1.5	1.3	2.1	2.5	2.7	2.7
Public services	31.0	1.2	0.4	0.7	0.7	0.9	1.2
Wholesale and retail	23.9	-0.1	2.0	2.7	2.9	2.8	2.7
Manufacturing	18.4	-0.7	2.2	2.7	2.2	1.7	1.4
Information and communication	18.2	3.3	1.4	2.8	3.5	3.9	3.7
Total Gross Value Added (GVA)	190.3	0.2	1.3	2.2	2.6	2.7	2.7

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

2.5 Forward looking economic indicators

The South East's economy is expected to see growth in each year of the forecast period to 2017, following a weak increase of 0.2% in 2012. An average increase of 2.3% per year is forecast for GVA in the region between 2013 and 2017, above the UK average of 1.9%.

The largest sector in the region, professional and other private services, is expected to see output rise by 2.3% per year on average over the period to 2017, whilst growth in public services, the next largest in the region, is forecast to be a much more modest 0.8%. Wholesale and retail, the third biggest sector in the South East, is expected to average 2.6% per year. The strongest performances are forecast to be from accommodation, food services and recreation, finance and

insurance and information and communication, with each seeing average growth of around 3% per year.

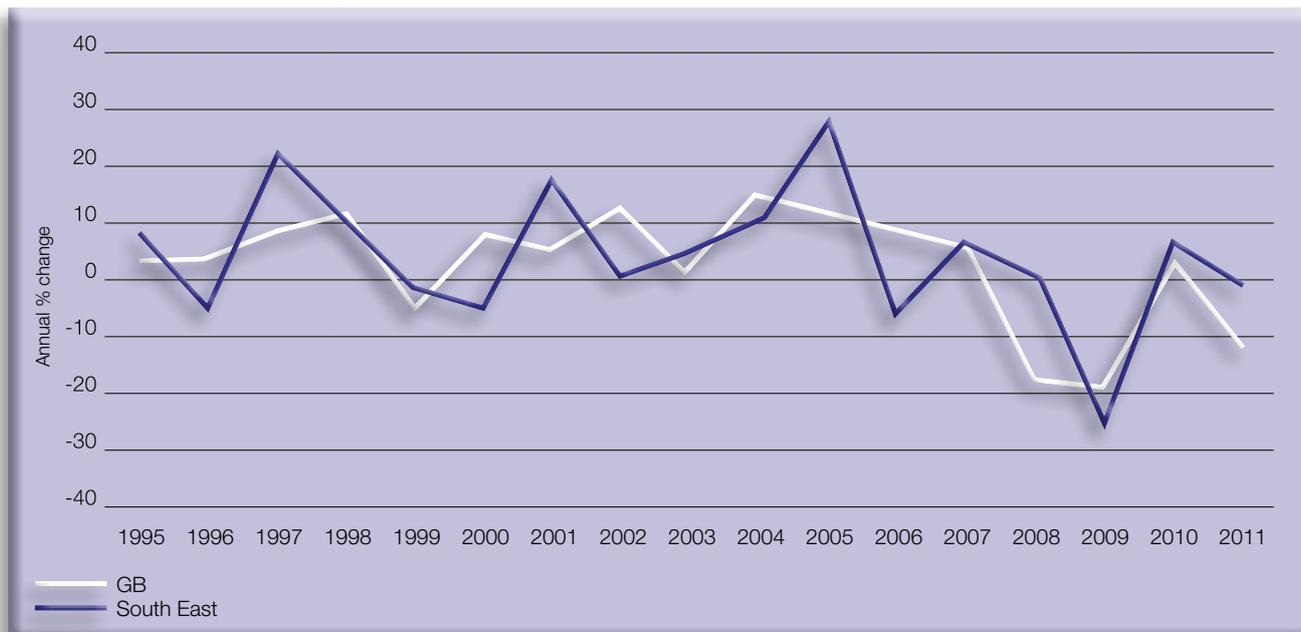
In the South East, household spending fell by a marginal 0.1% in 2011, a much better performance than in the UK as a whole, where it declined by 0.9% during the year. Elevated inflation and muted wage growth provided little incentive for spending, as real disposable incomes fell by 1% in 2011. The prospects for households are better over the forecast period to 2017, with inflation expected to edge down to reach the Bank of England's 2% target over the next year or so. Real household disposable incomes are expected to have returned to growth in 2012 and are forecast to rise at an average rate of 2.1% per year over the period to 2017, only slightly weaker than the average annual 2.6% growth

Economic indicators – South East (£ 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	144	1.4	1.2	2.0	2.1	2.2	2.8
Household spending	137	1.6	1.9	2.3	2.8	2.9	2.8
Working age population (000s and as % of all)	5,187	60.3%	60.5%	60.8%	61.1%	61.3%	61.4%
House prices (£)	272,643	1.7	1.0	2.0	2.7	2.9	3.2
LFS unemployment (millions)	0.27	8.38	3.55	-6.99	-7.56	-4.42	-7.03

Source: ONS, DCLG, Experian

New construction orders growth 1995-2011 – South East vs. GB



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

seen over the decade to 2007. These brighter prospects for incomes will provide some boost to consumer spending which is expected to rise at an average annual rate of 2.5% over the five years to 2017.

In 2011, the working age population in the South East stood at 60.4% of the region's total population, lower than the UK level of 61.8%. However, whilst the working population in the South East is expected to rise by 1.1% on average per year, higher than the 0.7% average for the total population, the average annual increase in the working population at a UK level is 1%, in line with the total population. Therefore, the working population in the South East is expected to increase to 61.4% of the total population by 2017.

2.6 New construction orders – overview

After rising by 6% in 2010, construction new orders in the South East edged down by 1.4% in 2011 to total £7.3bn in current prices.

Although new orders in the region fell overall, there were divergent performances from the sectors. The most marked growth was in industrial construction new orders which rose

by 58% during 2011. However, this followed two years of strong declines and, at just £285m, new orders in the sector were only 36% of their 2006 peak. Private housing new orders also fared well, rising by 22.5% to a four-year high of £2.2bn (current prices), whilst commercial orders increased by 14%.

In contrast, infrastructure new orders dropped by 37%, albeit from the 23-year high level seen in 2010. The outturn of £1.1bn in 2011 was still one of the highest on record. Public housing new orders declined by 21.5% in 2011, not unexpectedly considering that the funding available under the 2011-2015 Affordable Housing Programme is around half that of the previous (2008-2011) one. Public non-housing new orders fell for a third successive year, declining by 7.5% during 2011.

2.7 New construction orders – current situation

Construction new orders in the South East totalled £3.1bn in current prices in the six months to June 2012, 19% lower than in the corresponding period of 2011. New orders in the industrial sector jumped by 65% from a year earlier, although the sector is relatively small and any changes are magnified

New work construction orders – South East (£ million, current prices)

	Actual 2011	Annual % change				
		2007	2008	2009	2010	2011
Public housing	366	13.6	-28.6	-7.9	28.5	-21.5
Private housing	2173	5.5	-36.2	-18.4	45.2	22.5
Infrastructure	1088	63.3	-33.6	146.2	31.7	-37.2
Public non-housing	1391	11.8	18.4	-11.0	-2.7	-7.5
Industrial	285	-32.3	18.9	-41.6	-51.5	57.8
Commercial	2038	4.8	25.9	-52.1	-18.7	14.0
Total new work	7,340	6.4	0.4	-25.3	6.1	-1.4

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

in percentage terms. The infrastructure sector was the only other one to see an increase in new orders, which rose by 7.5% from a year earlier.

At the other end of the scale, public non-housing orders declined by 36%, which was not surprising considering the scope of the public expenditure cuts. Commercial construction new orders fell by 31% from a year earlier whilst new public housing orders were 26% lower than in the corresponding period of 2011. The fall in private housing orders was more modest but still a double-digit decline at 13%.

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.

In the six months to June 2012, construction output in the South East totalled £9.1bn in current prices, 5% lower than in the corresponding period of 2011. It was also 13% down on the second half of 2011. New work output fared slightly worse than R&M, with declines of 6% and 4%, respectively. The strongest growth was in the industrial sector, where output increased by 26%, whilst the private housing sector saw growth of 6% and commercial construction output rose by 3%. In contrast, infrastructure output contracted by 29% and public housing by 19% from the corresponding period of 2011.

The outlook for the construction sector in the South East is weak in the short term, with output forecast to contract by 1.3% per year on average in 2013 and 2014, following an estimated decline of 11% in 2012. A drop of 3% in 2013 is forecast to be followed by a weak rise of 1% in 2014. New work is expected to fare worse than R&M, with average annual falls of 1.8% and 0.5%, respectively, over the 2013-2014 period.

The public sectors, both housing and non-housing, are expected to fare the worst in the short term, with average contractions of 6.7% and 7.4%, respectively, for the 2013-2014 period. This reflects Government funding cuts continuing to filter through into construction. For public housing, the South East received £1.5bn of funding under

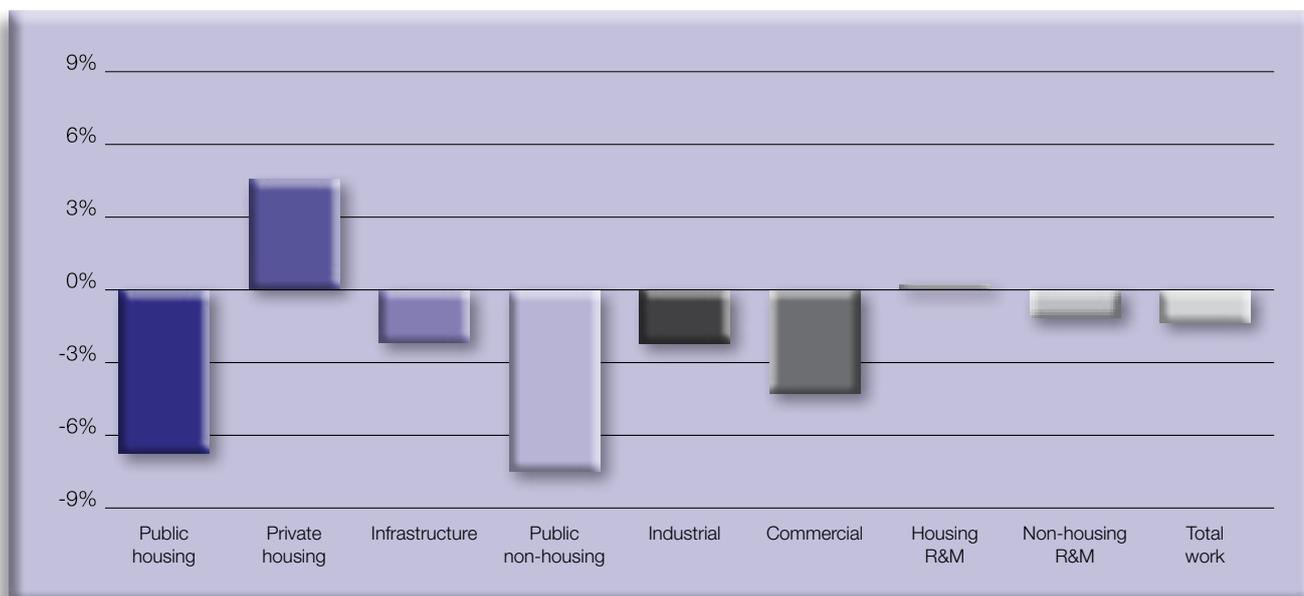
the 2008-2011 National Affordable Housing Programme for the delivery of 30,300 units but is set to see just under £200m of funding for the 2011-2015 period for 13,179 units. This marked decline in funding will inevitably impact on output in the sector.

With the ongoing weakness in the economy, it makes it difficult for developers to know when to bring new space online, and poor consumer spending growth is providing little impetus for investment in the retail and leisure sectors. Commercial construction output dropped by an estimated 11% in 2012, and is expected to fall by 5% in 2013 and by 4% in 2014.

The region's infrastructure sector has fared exceptionally well in recent years, rising by 157% between 2008 and 2011. This was largely due to the widening of a number of sections of the M25 motorway which took output to its highest level since 1993 when the Channel Tunnel was being built. This widening work completed in the first half of 2012, prior to the Olympics, and output in the sector is estimated to have declined by 33% in 2012 as a whole, reflecting the completion of this work and the lack of similar sized projects to replace it. That is not to say that there are no substantial infrastructure projects ongoing in the region – work is continuing on the Reading Station improvement scheme and various road projects – it is just that these will not replace the value of output from the M25 widening scheme and therefore activity is expected to decline in the short term, with an average annual contraction of 2.2% in 2013 and 2014. However, this masks a return to growth for the sector in 2014, with an increase of 3% expected that year.

The private housing sector is the only one in the region forecast to see output rise in the short term, with average growth of 4.6% per year. An estimated increase of just 1% in 2012 is forecast to be followed by increases of 2% and 7% in 2013 and 2014, respectively. Demand is currently being constrained by ongoing worries over job security and the impact of the continued weakness in the wider economy on consumer confidence, but demand should pick up once economic conditions improve and concerns over unemployment ease. The strong demographics in the South East also provide some impetus for private housing development.

Annual average construction output growth 2013-2014 – South East



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

Construction output – South East (£ million, 2005 prices)

	Actual	Forecast annual % change			Annual average
	2011	2012	2013	2014	2013-14
Public housing	644	-24%	-15%	2%	-6.7%
Private housing	2,729	1%	2%	7%	4.6%
Infrastructure	2,173	-33%	-7%	3%	-2.2%
Public non-housing	1,592	-16%	-11%	-4%	-7.4%
Industrial	376	27%	-4%	0%	-2.1%
Commercial	3,593	-11%	-5%	-4%	-4.3%
New work	11,107	-13%	-4%	1%	-1.8%
Housing R&M	3,225	-8%	-1%	1%	0.0%
Non-housing R&M	2,941	-8%	-2%	0%	-1.0%
Total R&M	6,166	-8%	-1%	0%	-0.5%
Total work	17,273	-11%	-3%	1%	-1.3%

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

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

Prospects for the region's construction sector are better over the long term, with annual growth expected to be 1.1% on average, outperforming the UK as whole (0.8%). Over the five years to 2017, the pace of increase in R&M activity in the South East is expected to match that for new work, with both forecast to see growth of 1.1% on average each year.

The weakest sector over the period to 2017 is expected to be the infrastructure one, with an average decline of 1.7% per year. The first phases of work on the M25 were motorway widening work which has a relatively high construction cost, but subsequent schemes for M25 improvements are being taken forward, such as hard shoulder running, for which the construction element is much less. Nevertheless, output in the sector is forecast to return to growth in 2014 as activity on a number of schemes gets underway. Work is continuing on the improvements at Reading Station, with the first of the new platforms having opened in 2012 and the new footbridge moved into place. The enhanced station is on track to open in spring 2013, with a new depot to follow in the autumn. The project is expected to complete by the end of 2015 when the new viaduct and track works are complete. Therefore the forecast is for a further decline in output in 2016 with stabilisation in 2017, as work on the station completes.

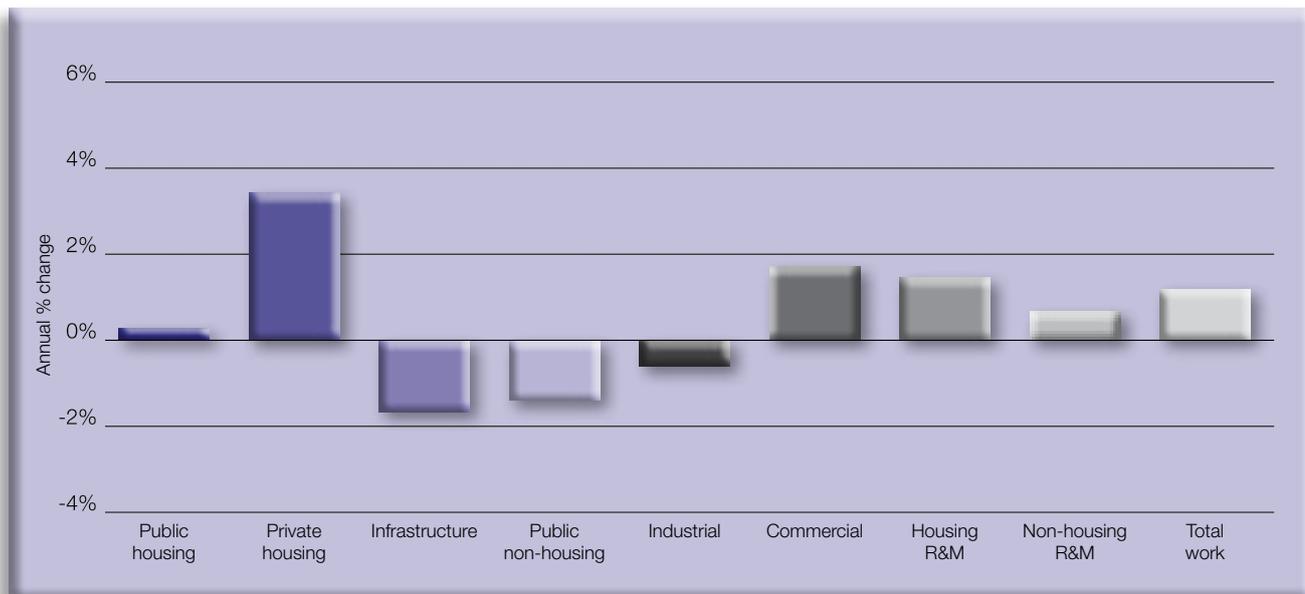
Public non-housing output rose to a record high in 2011, boosted by capital spending on education and defence work, but although the short term prospects for the sector are weak, it is expected to return to growth in 2015 and see moderate increases in output over the remaining years of the forecast period. The annual average decline of 1.3% over the five years to 2017 is weaker than the UK average of 5.8% and is a substantially better performance than a number of other regions and devolved nations over the same period.

Public housing output is expected to see negligible growth of 0.3% per year on average over the five years to 2017. However, this average performance masks a very bleak short term outlook and better prospects for the sector in the remaining years of the forecast period. With the substantial cuts in public funding, registered providers of homes for affordable rent will have to look to different sources to raise funding for the development of homes. As economic conditions continue to improve over the next couple of years, this should lead to a further easing of credit conditions, which will facilitate the raising of funds from private sources.

Commercial construction output in the South East is forecast to see an average increase of 1.7% over the five years to 2017. Growth is expected to return to the sector in 2015, as a general improvement in economic conditions stimulates investment. There are a number of mixed-use developments planned in the region, including a £650m scheme at Chatham Docks in Kent and the £450m Royal Pier Waterfront in Southampton, with construction on both expected to start in 2013. In addition, there are plans for a £2bn theme park on the Swanscombe Peninsula in North Kent, with Paramount film studios signing an exclusive licensing agreement with the consortium behind the scheme. The completion and opening of the proposed park is expected to be in 2018.

The private housing sector is forecast to grow an average 3.3% per year with output expected to rise each year of the forecast period

Annual average construction output growth 2013-2017 – South East



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

Construction output – South East (£ million, 2005 prices)

	Estimate	Forecast annual % change					Annual average 2013-17
		2012	2013	2014	2015	2016	
Public housing	492	-15%	2%	8%	4%	4%	0.3%
Private housing	2,747	2%	7%	4%	2%	2%	3.3%
Infrastructure	1,446	-7%	3%	5%	-8%	0%	-1.7%
Public non-housing	1,335	-11%	-4%	4%	3%	2%	-1.3%
Industrial	478	-4%	0%	2%	0%	0%	-0.6%
Commercial	3,181	-5%	-4%	6%	6%	6%	1.7%
New work	9,679	-4%	1%	5%	2%	3%	1.1%
Housing R&M	2,966	-1%	1%	3%	2%	1%	1.4%
Non-housing R&M	2,706	-2%	0%	2%	2%	2%	0.7%
R&M	5,672	-1%	0%	2%	2%	2%	1.1%
Total work	15,351	-3%	1%	4%	2%	2%	1.1%

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

2.10 Beyond 2017

The government has given the go-ahead to a £500m new rail link between Heathrow Airport and South Wales, the West of England and the Thames Valley. A new stretch of track will be built from the Great Western mainline near Slough to Heathrow, with the route expected to be operational by 2020.

As is the case across the UK as a whole, the retrofitting agenda could provide a substantial boost to construction output. A large number of dwellings which could benefit from energy efficiency improvement work, and the growing interest in microgeneration measures could provide a significant stream of work in the R&M sectors.

3. Construction employment forecasts for the South East

3.1 Total construction employment forecasts by occupation

The table presents actual construction employment (SICs 41-43, 71.1, and 74.9) in the South East 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.

Construction employment in the South East is forecast to decline by 0.7% over the five years to 2017, in line with the UK average of 0.8%. Employment is not expected to return to growth until the end of the forecast period, again a similar pattern to the UK as a whole. Whilst output in the South East declined by 1% between 2007 and 2012, the fall was 6% for employment. It is expected that these recent implied productivity gains will continue in the region and the average annual growth of 1.1% in output over the five years to 2017 is not enough to drive strong employment growth.

The relationship between construction output and employment is not straightforward given that some sectors are more labour-intensive than others.

The largest construction-specific occupation in the South East is construction managers, which accounted for 11% of total construction employment in the region in 2011. This is in contrast to most of the UK, where the largest occupation is wood trades and interior fit-out. It is expected to remain the largest construction-specific occupation in 2017, retaining its 11% share.

The strongest growth in employment is expected for plant mechanics/fitters (19%), architects (8%) and wood trades and interior fit-out (6%). Architects are likely to be involved in earlier stages of construction projects and will therefore benefit earlier from the recovery in the construction sector. In contrast, logistics personnel (-16%) and electrical trades and installation (-12%) are forecast to see the most marked declines in employment over the five years to 2017.

Total employment by occupation – South East

	Actual 2011	Forecast	
		2013	2017
Senior, executive, and business process managers	25,860	24,640	23,150
Construction managers	44,720	42,210	40,490
Non-construction professional, technical, IT, and other office-based staff	52,600	50,420	48,250
Wood trades and interior fit-out	37,560	36,890	38,610
Bricklayers	13,990	12,960	12,200
Building envelope specialists	16,300	15,920	15,760
Painters and decorators	18,430	18,260	18,490
Plasterers and dry liners	6,990	6,810	6,790
Roofers	5,430	4,850	4,520
Floorers	6,390	6,030	5,890
Glaziers	6,820	6,800	6,680
Specialist building operatives nec*	9,980	9,090	8,430
Scaffolders	2,220	2,190	2,240
Plant operatives	6,830	6,620	6,560
Plant mechanics/fitters	3,900	4,410	4,990
Steel erectors/structural	3,120	3,070	2,960
Labourers nec*	15,880	14,200	13,650
Electrical trades and installation	25,950	22,740	20,770
Plumbing and HVAC trades	24,240	23,370	23,150
Logistics	7,000	6,190	5,520
Civil engineering operatives nec*	10,300	9,840	9,680
Non-construction operatives	2,980	2,620	2,500
Civil engineers	7,420	7,630	7,890
Other construction professionals and technical staff	26,310	26,820	27,790
Architects	5,770	6,130	6,570
Surveyors	11,470	11,220	11,180
Total (SIC 41-43)	347,490	330,130	321,280
(SIC 41-43, 71.1, 74.9)	398,460	381,930	374,710

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

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 would need to be recruited into construction each year in order to realise forecast output.

The ARR for the 26 occupations within the South East's construction industry is illustrated in the table. The figure of 4,570 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.

In absolute terms, the largest requirement is for construction managers (740) and wood trades and interior fit-out (730). However, as a proportion of base 2013 employment, plant operatives (6.6%), glaziers (4.6%) and floorers (4.5%) are expected to be most in demand. The overall ARR of 4,570 is equivalent to 1.2% of base 2013 employment, in line with the UK average.

The latest mobility report from CITB-ConstructionSkills provides some useful figures on geographical migration of the construction workforce. According to the report, only 52% of the construction workforce in the South East originated there, one of the lowest proportions across the UK. The second biggest contribution was from Greater London (12%), with a further 10% from outside the UK. This was the second highest proportion of construction workers

from outside the UK across any region or devolved nation, with only Greater London higher at 16%.

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, 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.

The South East annual recruitment requirement is 4,570, with the largest requirement expected for construction managers, wood trades and interior fit-out

Annual recruitment requirement by occupation – South East

	2013-2017
Senior, executive, and business process managers	-
Construction managers	740
Non-construction professional, technical, IT, and other office-based staff	-
Wood trades and interior fit-out	730
Bricklayers	230
Building envelope specialists	<50
Painters and decorators	320
Plasterers and dry liners	60
Roofers	50
Floorers	270
Glaziers	310
Specialist building operatives nec*	70
Scaffolders	60
Plant operatives	440
Plant mechanics/fitters	120
Steel erectors/structural	<50
Labourers nec*	360
Electrical trades and installation	-
Plumbing and HVAC trades	-
Logistics	260
Civil engineering operatives nec*	180
Non-construction operatives	-
Civil engineers	220
Other construction professionals and technical staff	-
Architects	120
Surveyors	-
Total (SIC 41-43)	4,200
Total (SIC 41-43, 71.1, 74.9)	4,570

4. Comparisons across the UK

Interestingly, the profile of output growth at regional and devolved nation level over the 2013-2017 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.

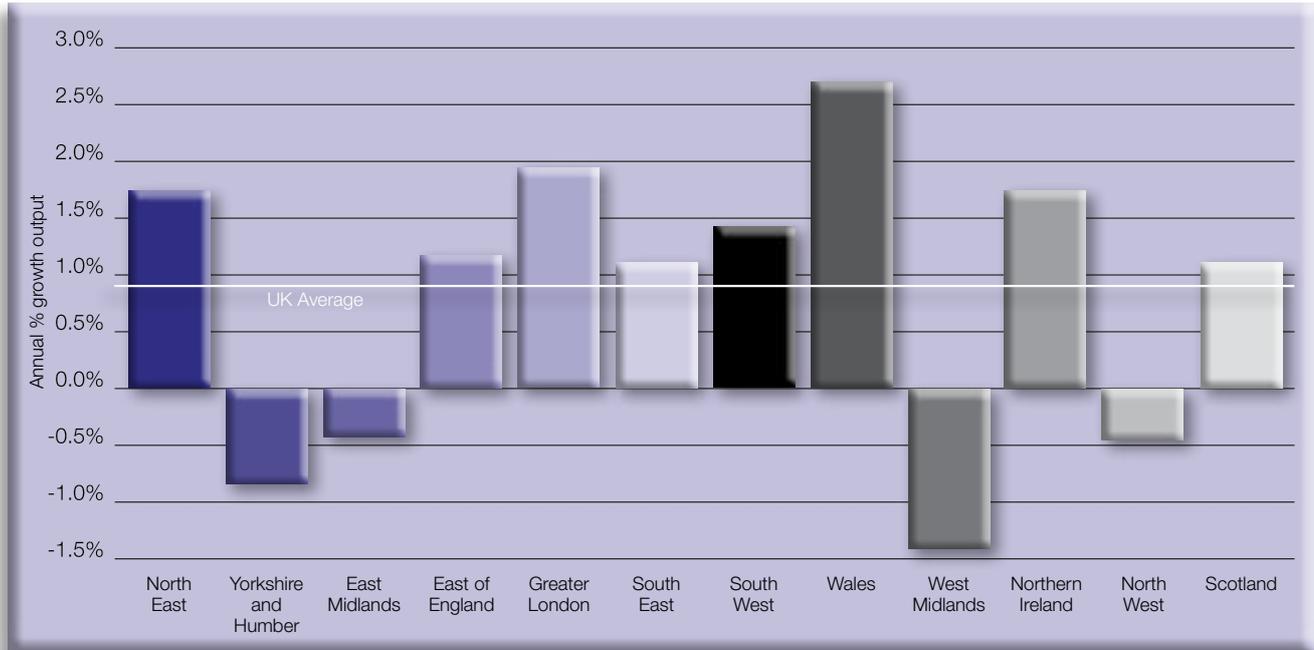
The North East is coming back up from a very low base – the region saw the worst fall of all the English regions between 2007 and 2012, with output declining by 30% over the period – hence the relatively stronger outlook for the region over the forecast period. In comparison, Scotland's decline over 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.

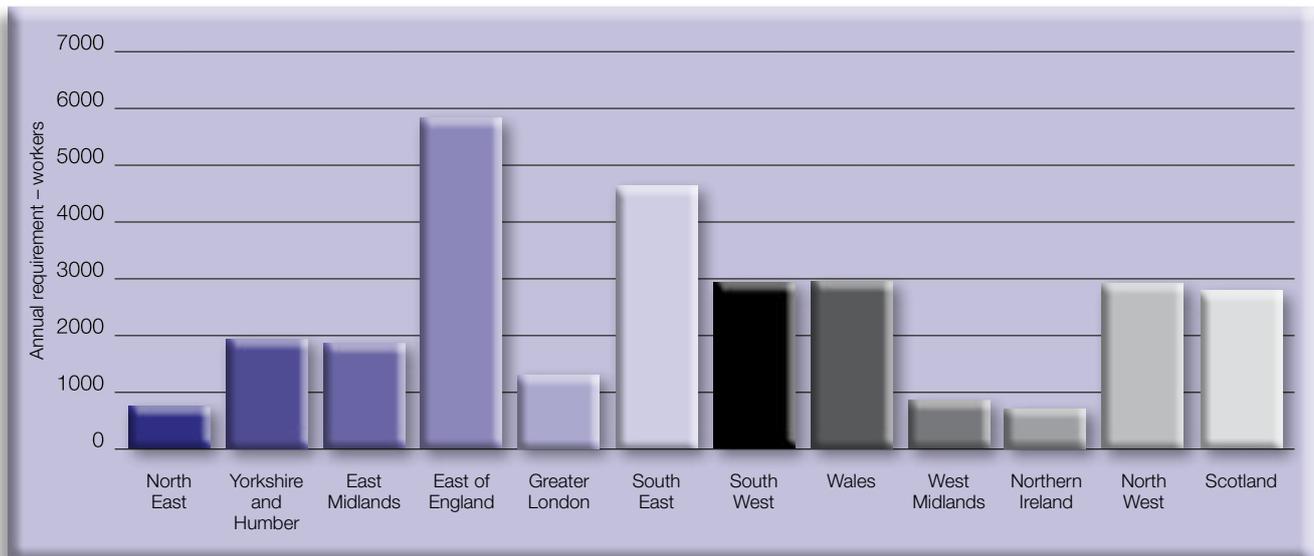


Annual average output growth by region 2013-2017



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.

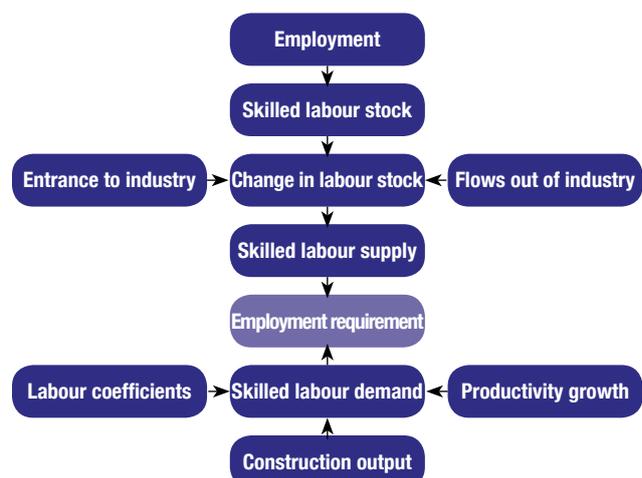
The main reason for outflow is likely to be transfer to other industries.

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
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* 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



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