

Construction Skills Network South West 2014-2018

Labour Market Intelligence



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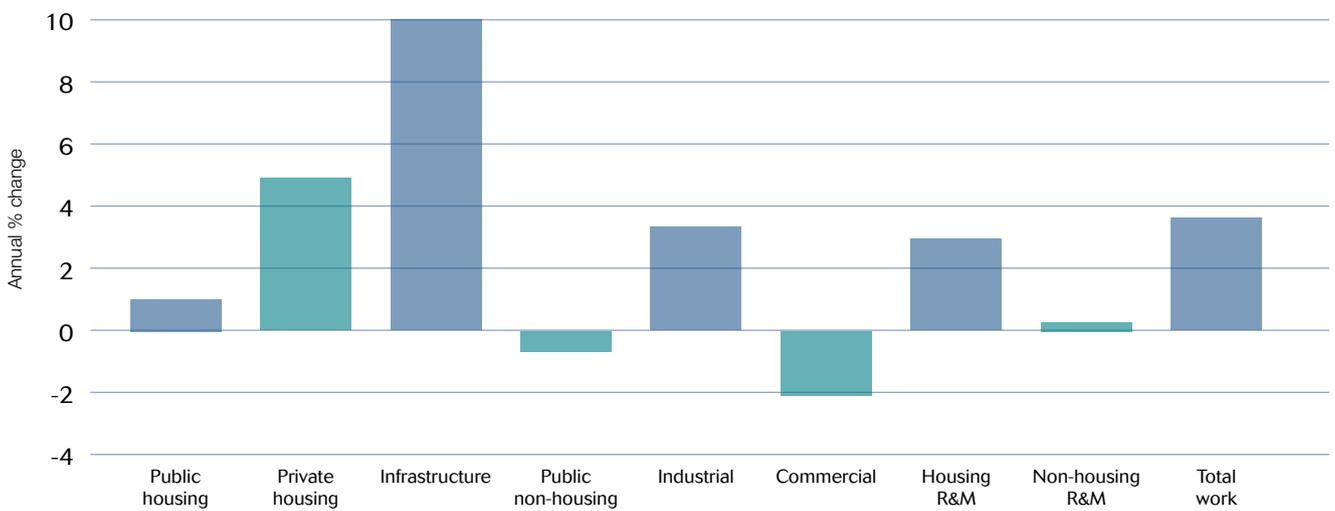
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1 Summary – South West

Construction output in the South West is forecast to rise at an average rate of 3.5% per year between 2014 and 2018. The new work sector is expected to fare significantly better than repair and maintenance (R&M), with annual average growth of 4.4% in the former compared with 1.7% in the latter. Infrastructure remains the best performing sector as work on the new Hinkley Point C nuclear power station finally starts in 2014. Average annual employment growth is a more modest 1.5%, partly due to the fact that infrastructure projects are traditionally less labour intensive than those in other sectors and partly due to productivity gains expected across the industry over the next five years.

Annual average construction output growth 2014-2018 – South West



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



1.1 Key findings

Strong growth in construction output in the South West will be driven by an annual average expansion of 21% in the infrastructure sector as work on Hinkley Point gathers pace. Growth in infrastructure activity should peak in 2017 and continue into 2018. However, the recent cancellation of the Atlantic Array wind farm off the North Devon coast is a disappointment to the sector.

Private housing should be the strongest sector after infrastructure, with annual average output growth of 5.1%. House prices, new orders, starts and output are all rising. These are boosted, at least in part, by the Help to Buy scheme, particularly its mortgage guarantee component, which includes £12bn of Government guarantees to lenders. However, uncertainty surrounds the impact on the sector when these guarantees end.

As pressure on public finances continues, public non-housing activity is expected to further decline in 2014 and 2015, but at a much more moderate rate than in the recent past. However, there are some bright spots, particularly in the universities sub-sector, where a number of schemes are being taken forward in Bristol, Bournemouth and Exeter. The region should also benefit from expenditure by the Defence Infrastructure Organisation as it plans accommodation for troops returning from Germany over the next five years.

Employment growth is projected to average 1.5% a year in the 2014 to 2018 period, above the UK average of 1.2% but below what would normally be expected, given output growth of 3.5%. However, a significant proportion of this output growth will be driven by infrastructure work which, as with infrastructure in general, has a lesser labour requirement than other sectors.

The majority of occupational categories should see growth in employment over the forecast period. Civil engineering operatives not elsewhere classified (nec) is expected to be the occupational category with the strongest growth rate in the five years to 2018, at an annual average of 4.5%; no real surprise given that they will be in demand at Hinkley Point.

The South West's annual recruitment requirement (ARR) is 6,370, which is equivalent to 3% of base 2014 employment, double the UK average of 1.5%. In absolute terms, the trade sector with the largest requirement is electrical trades and installation at 530. However, in terms of base 2014 employment, logistics personnel are expected to be most in demand.

Regional comparison 2014-2018

	Annual average % change in output	Change in total employment	Total ARR
North East	2.4%	2,660	2,680
Yorkshire and Humber	2.2%	8,590	3,170
East Midlands	1.1%	5,910	1,980
East of England	3.0%	24,220	5,150
Greater London	2.0%	27,490	1,290
South East	2.9%	28,900	1,600
South West	3.5%	16,700	6,370
Wales	3.4%	9,490	3,570
West Midlands	0.8%	-2,090	380
Northern Ireland	2.3%	3,400	1,280
North West	1.3%	10,300	2,970
Scotland	2.0%	12,240	5,960
UK	2.2%	147,810	36,400

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

2 The outlook for construction in the South West

2.1 Construction output in the South West – overview

After two years of modest growth, construction output in the South West fell by 9% in real terms in 2012, to £7.9bn at 2005 prices. However, the South West’s construction market has weathered the past few years better than most, with output in 2012 only 20% below its peak in 2004, compared, for example, with a decline of 35% in the North East.

There were falls in activity across the board, with only the private housing (no change) and the non-housing R&M (+2%) sectors avoiding declines. The weakness of the public sectors was expected, given expenditure constraints, the surprise being that the fall was a relatively moderate 9% in the public non-housing

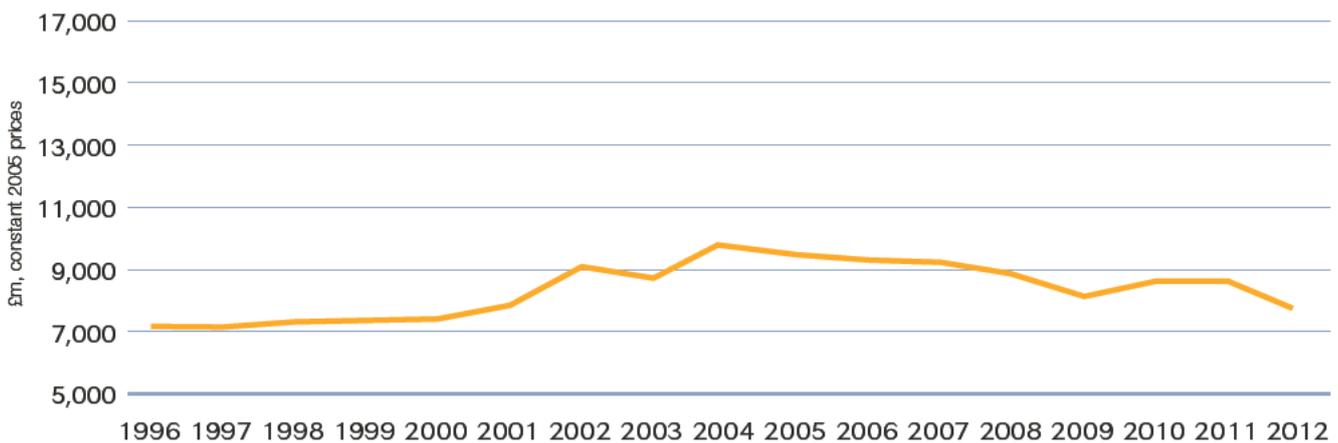
sector. However, the South West did not significantly benefit from the Building Schools for the Future programme; therefore activity in the sector did not have as far to fall as those that saw a lot of school building activity under the programme.

2.2 Industry structure

The diagram, Construction industry structure 2012 – UK vs. South West, illustrates the sector breakdown of construction in the South West compared with that in the UK as a whole. Effectively, the percentages for each sector illustrate the proportion of total output that each sector accounts for.

As has been the case in a number of regions and across Great Britain as a whole, new work’s share of total construction output fell in the South West in

Construction output – South West 1996-2012



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

2012, from 67.5% to 65% in real terms. There are significant differences in the structure of the South West’s construction industry compared with the Great Britain total, in particular a proportionally much larger private housing sector in the region (19% vs. 14%) and a much smaller infrastructure sector (7% vs. 12%). The main gain in the South West last year was in the private housing sector, whose share of total construction rose by 1.7% compared with 2011.

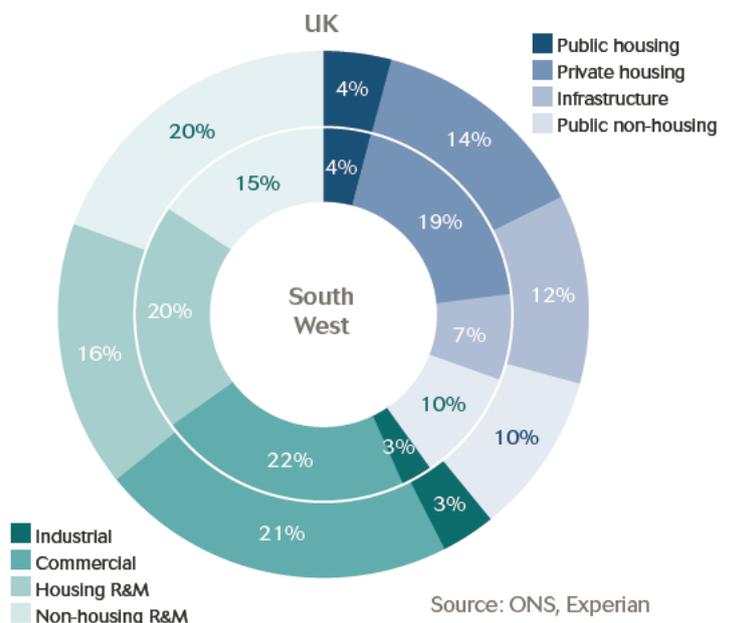
2.3 Economic overview

The expected performance of a regional or national economy over the forecast period (2014–2018) provides an indication of the construction sectors in which demand is likely to be strongest.

2.4 Economic structure

In 2012, Gross Value Added (GVA) in the South West totalled £100.5bn in 2010 prices, an increase of 0.7% on the previous year. However, GVA in the region remains nearly 2% below its 2007 peak in real terms. The South West increased its share of UK GVA slightly from 7.4% in 2011 to 7.5% in 2012.

Construction Industry structure 2012 UK vs. South West



Source: ONS, Experian

The professional and other private services sector continues to be the most important for the South West economy, accounting for 26% of output in 2012, 2% up on the previous year and 5% higher than in 2000. In 2012, public services output totalled just under £20bn in 2010 prices, making it the second largest sector in the South West. Its share of the regional economy has remained relatively stable at 20% over the past four years, despite the financial constraints under which the public sector has been working. Manufacturing accounted for 12% of the South West's economy in 2012, the same as in the previous year, but down from 15% in 2000.

The economic structure of the South West is similar to that of the UK as a whole, although it does have a

slightly larger manufacturing sector (12.2% vs. 10.3%) but a slightly smaller finance and business services sector (32.9% vs. 33.5%).

The professional and other private services sector was by far the most buoyant one in 2012, with output rising by over 6% after increases in excess of 5% and 3% in 2011 and 2010 respectively, hence the sector's fast growing share of the South West's economy. The information and communication sector expanded by over 3% and public services by nearly 2%, but manufacturing contracted slightly and finance and insurance output fell by over 3%. Therefore it was something of a mixed performance across the sectors in 2012.

Economic structure – South West (£ billion, 2010 prices)

Selected sectors	Actual	Forecast					
		Annual % change, real terms					
	2012	2013	2014	2015	2016	2017	2018
Professional and other private services	26	-4.0	2.4	2.2	2.4	2.3	2.3
Public services	20	3.5	0.3	0.6	0.8	1.1	1.5
Manufacturing	12	2.0	2.0	1.3	1.3	1.1	0.9
Wholesale and retail	11	3.0	2.3	2.3	2.4	2.2	2.2
Finance and insurance	7	2.2	0.6	1.5	2.2	2.2	2.1
Total Gross Value Added (GVA)	102	1.0	1.6	1.7	2.0	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

The South West's economy is estimated to have expanded by 1% in 2013, which is a slightly stronger growth rate than the previous year. Over the 2014–2018 period GVA growth in the South West is expected to be similar to the UK average (1.9% a year vs. 2% a year).

Of the dominant sectors in the region, professional and other private services is expected to fare best in the five years to 2018, with annual average growth of 2.3%, further increasing its share of the South West economy. Ongoing financial constraints will limit growth in the public services sector to around 0.8% a year on average. The up and coming sector across the UK is the information and communication one. The South West is not immune to this trend, with the sector forecast to see average annual growth of 2.8% over the five years to 2018. This would take the sector's share of economic activity in the South West to nearly 6% in 2018, compared with under 4% in 2000.

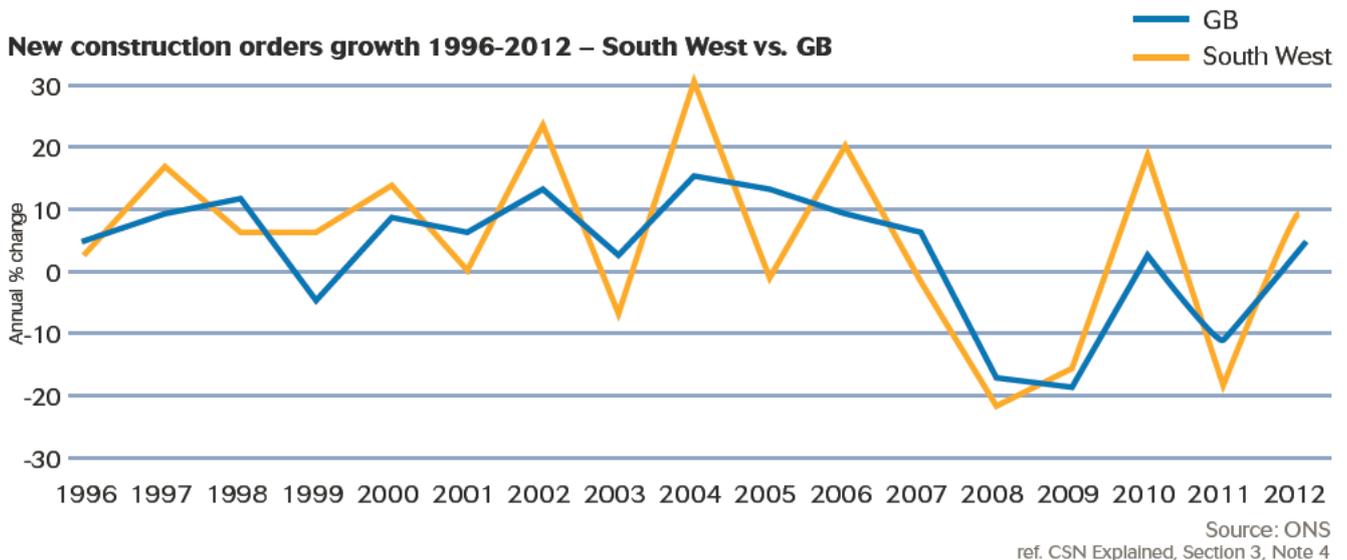
Real household disposable income (RHDI) is estimated to have fallen by nearly 0.5% in 2013, the second year of decline out of the past three. UK households generally have continued to be under pressure from weak wage growth lagging inflation. This profile has kept consumer spending growth well under 2% in the recent past. However, as inflation eases and improving economic conditions provide a platform for stronger wage growth, the picture is expected to improve. RHDI is predicted to return to growth in 2014 and rise by an average of 1.8% a year to 2018, while consumer spending should expand at about 2.1% a year.

Employment in the South West on the Workforce Jobs measure is estimated at just over 2.8 million in 2013 and is projected to expand at an annual average rate of 0.6% to 2018. The estimated unemployment rate for the region in 2013, at 6.2%, is significantly below the UK average (7.8%) and is forecast to fall to 4.7% by 2018.

Economic Indicators – South West (£ billion, 2010 prices – unless otherwise stated)

	Actual	Forecast					
		Annual % change, real terms					
	2012	2013	2014	2015	2016	2017	2018
Real household disposable income	85	-0.4	1.3	1.6	1.9	2.1	2.3
Household spending	89	1.8	1.8	1.8	2.3	2.4	2.4
Working age population (000s and as % of all)	3,147	59.2%	59.5%	59.8%	60.0%	60.1%	60.1%
House prices (£)	224,332	0.4	1.6	2.5	2.6	2.8	3.2
LFS unemployment (millions)	0.16	6.54	-1.44	-8.17	-4.71	-4.29	-5.73

Source: ONS, DCLG, Experian



2.6 New construction orders – overview

New construction orders in the South West rose by 9% to just over £4bn in 2012. However, they remain well below their peak of over £6bn in 2006. There were marked differences in sector performance in new orders terms with the biggest surprise, given the pressure on public finances, being that the public non-housing sector was most buoyant, with its level up by 50% compared with the previous year.

New orders for infrastructure work were up by 37%, those for the industrial sector by 23% and private housing by a much more moderate 9%. In contrast, public housing new orders fell by 15% and those for the commercial sector were down by 18%. On a four-quarter moving total basis, all new orders fell in the first quarter of the year but then rose in the following three quarters.

2.7 New construction orders – current situation

The rise in orders experienced in 2012 has continued and strengthened during the first half of 2013 with their level, at £2.41bn in current prices, up 22% compared with the previous half-year, and 19% above the corresponding period of 2012. On a four-quarter moving total basis, they started rising again

in the second quarter of 2012 and the growth rate accelerated sharply in the second quarter of 2013.

Growth in new orders was particularly strong in the infrastructure sector in the first half of 2013, with their level nearly triple that of the previous period and double their level in the first half of 2012. New orders for private housing were also up substantially, but those for the commercial sector were largely flat and their level fell in both the public housing and public non-housing sectors in the first half of 2013.

2.8 Construction output – short-term forecasts (2014–2015)

Regional Office for National Statistics (ONS) output statistics are published in current prices and are thus inclusive of any inflationary effect. At the time of writing, regional ONS construction output statistics were only available for the first two quarters of 2013.

Construction output in the South West totalled £4.58bn in current prices in the first half of 2013, 5% down on the second half of 2012, but 1% higher than in the corresponding period of that year. On a four-quarter moving total basis, output rose by 1% in the second quarter of 2013 after five quarters of decline.

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

	Actual	Annual % change				
		2012	2008	2009	2010	2011
Public housing	202	43.9	16.0	9.3	-11.5	-15.5
Private housing	1,363	-43.1	-22.4	58.1	6.6	9.5
Infrastructure	485	-9.2	-3.4	29.5	-13.5	37.4
Public non-housing	879	49.5	10.6	18.6	-57.4	50.0
Industrial	177	-36.5	-22.3	-1.2	-43.5	22.9
Commercial	902	-30.5	-34.1	-4.1	0.6	-18.0
Total new work	4,008	-22.0	-16.2	18.5	-19.7	9.2

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

Construction output 2014-2015 – South West (£ million, 2005 prices)

	Actual	Forecast			Annual average
		Annual % change			
	2012	2013	2014	2015	2014-15
Public housing	336	-16%	-4%	1%	-1.5%
Private housing	1,515	4%	6%	6%	6.0%
Infrastructure	589	-2%	1%	11%	6.1%
Public non-housing	772	5%	-3%	-4%	-3.5%
Industrial	218	22%	8%	7%	7.6%
Commercial	1,708	-8%	-12%	-2%	-6.7%
New work	5,139	-1%	-2%	3%	0.4%
Housing R&M	1,545	1%	1%	5%	3.1%
Non-housing R&M	1,219	-3%	-1%	1%	0.1%
Total R&M	2,764	0%	0%	3%	1.8%
Total work	7,903	-1%	-1%	3%	0.9%

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

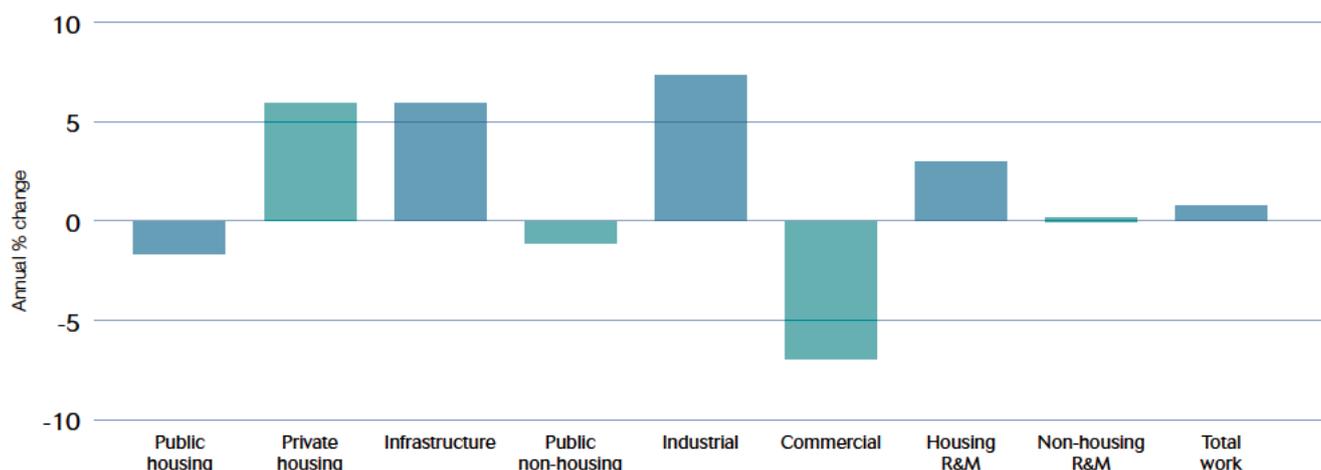
Public housing activity continued to contract but public non-housing construction has recovered slightly over the past four quarters. Infrastructure output in the first half of 2013 fell by 6% and 7% compared with the first and second halves of 2012 respectively, reflecting the ongoing uncertainty around new nuclear build, which was only recently resolved. Commercial construction activity was also weak in the first half of the year, but private housing saw growth.

The South West's construction industry is estimated to have contracted slightly in 2013, by 1%, largely due to weakness in the public housing and private commercial markets. Output in the region is projected to rise at an annual average rate of 0.9% in the short term (2014–2015), with the private housing, infrastructure and industrial sectors the main engines of growth.

The private housing sector is expected to see growth averaging 6% a year over the next two years as the sector starts to bounce back from its current low base. Despite some growth in output in 2013, it remains nearly a third down on its 2006 peak in output terms. Private housing starts in the region totalled a little over 10,800 in 2012, 3% down on the previous year but

well above their 2009 nadir of around 8,500. In the first three quarters of 2013 they were 13% up on the same period of 2012 and on a rising trend. There is little doubt that the Help to Buy scheme is boosting the market and, in turn, new house building, although there is concern about what will happen when the £12bn of Government mortgage guarantees runs out.

Last year the expectation was that work on Hinkley Point C would begin in mid-2013. In fact, it took a lot longer for the Government and EDF Energy to agree a 'strike' price for the electricity generated from the new power station. It is thought that work will now start on the main civil engineering aspects of the project in the first half of 2014. However, the deal between the two parties still has to be ratified by the European Commission as adhering to State Aid rules, and early signs indicate that the EC may insist on a full inquiry into its provisions, which could delay the project further. Elsewhere in the infrastructure sector, the managed motorway improvements to the M4 and M5 are nearing completion, and work should start on the redevelopment of St Mary's Airport on the Scilly Isles in the first half of 2014.

Annual average construction output growth 2014-2015 – South West

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

While public non-housing output is predicted to continue to fall in 2014 and 2015, the declines will be relatively moderate compared to 2011 and 2012, and a number of projects have either just started or are close to commencing, particularly in the Universities sub-sector. The biggest of these is the £150m redevelopment and extension of the University of the West of England's Frenchay campus, work on which has just begun. Other schemes in the sub-sector include a £50m redevelopment of Bournemouth's Art College, due to start imminently, and a new research building at the University of Exeter, work on which should start in the first half of 2014 and be worth around £30m.

2.9 Construction output – long-term forecasts (2014–2018)

The South West is projected to see annual average construction output growth of 3.5% between 2014 and 2018, the strongest of any region or devolved nation and well ahead of the UK average of 2.2%. New work is predicted to expand by 4.4% a year on average, while R&M should grow at a more modest 1.7% a year.

The reasons for this strong growth rate are the general improvement in economic conditions boosting the private sectors, the slowing down of the effect of public expenditure cuts on construction, and the boost that the start of new nuclear build at Hinkley Point C will give to the infrastructure sector, which is projected to see annual average growth of 21% over the five years to 2018.

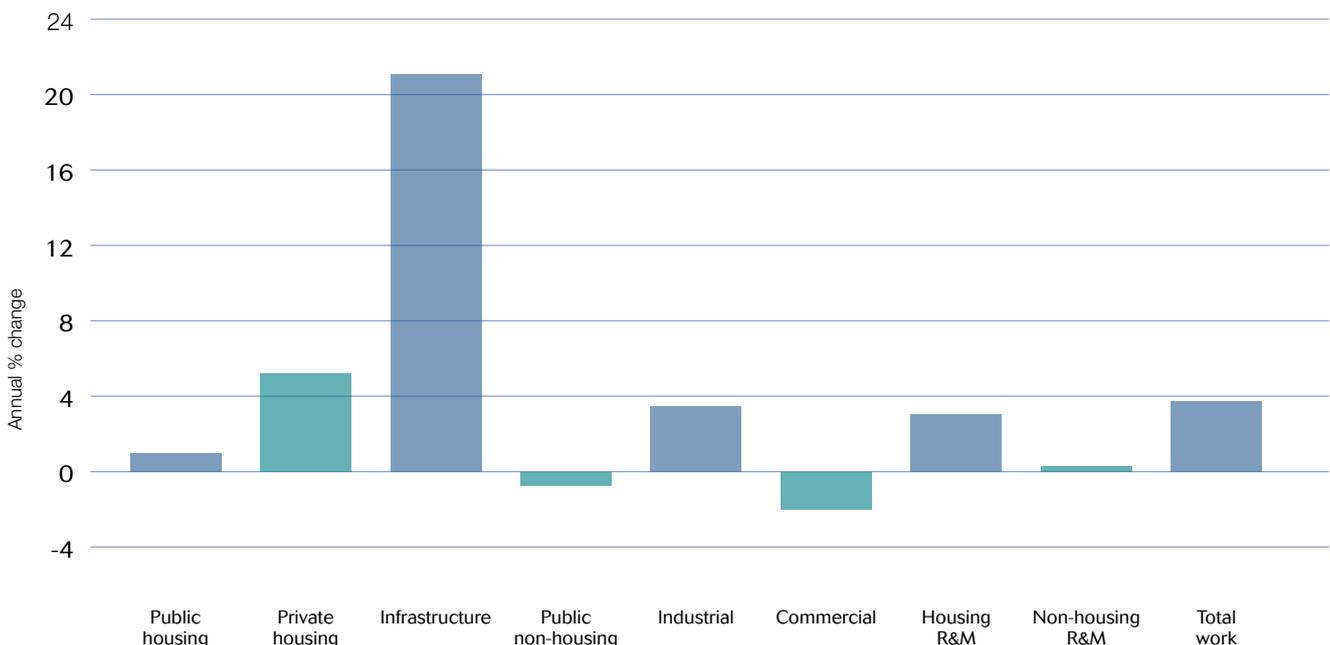
According to the timeline of the Hinkley Point project, a start on site of main civil engineering works in mid-2014 should give a profile of the strongest growth in output in 2016 and 2017, before activity on the project winds down to completion in early 2021. Elsewhere in the infrastructure sector, the £150m revamp of Bristol Airport should continue into 2017. However, the future for wind farm projects has recently become a lot more uncertain, with developer RWE shelving plans to develop the Atlantic Array off the North Devon coast.

Growth in private housing output is expected to be moderate in the second half of the forecast period, giving an annual average growth rate of 5.1% over the five years to 2018. House price growth is projected to average 2.5% a year over the next five years in the South West, an improvement on the 0.3% annual average decline seen in the 2008 to 2013 period, and demonstrating a healthier market than has been seen in recent years. The largest long-term residential project in the region remains the construction of a new market town, Sherford, on the outskirts of Plymouth, for which the Section 106 provisions were recently agreed between the developer and Plymouth and South Hams councils. Work should start in the first half of 2014. The Government has provided £32m for the project, which will eventually deliver 5,500 new homes.

Industrial construction activity is predicted to expand at an annual average rate of 3.1% as the prospects for manufacturers improve and the market for distribution and logistics facilities strengthens after its stagnation following its 2004 to 2007 boom. Manufacturing output is expected to grow at an annual average rate of 1.3% for the five years to 2018, much better than the 0.8% seen in the 2008 to 2013 period. Jones Lang LaSalle is reporting the return of speculative building in the South West's industrial and logistics market after five years of dormancy, with 300,000 square feet constructed in the six months to June 2013.

Construction is forecast to expand at an average rate of 3.5% in the South West, higher than the UK average of 2.2%

Annual average construction output growth 2014-2018 – South West



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

Construction output 2014-2018 – South West (£ million, 2005 prices)

	Estimate	Forecast Annual % change					Annual average
		2013	2014	2015	2016	2017	
Public housing	282	-4%	1%	1%	2%	5%	0.9%
Private housing	1,583	6%	6%	6%	3%	4%	5.1%
Infrastructure	575	1%	11%	19%	63%	19%	21.0%
Public non-housing	808	-3%	-4%	2%	0%	2%	-0.6%
Industrial	267	8%	7%	0%	1%	0%	3.1%
Commercial	1,572	-12%	-2%	2%	0%	1%	-2.2%
New work	5,086	-2%	3%	5%	10%	6%	4.4%
Housing R&M	1,563	1%	5%	2%	3%	2%	2.9%
Non-housing R&M	1,189	-1%	1%	1%	1%	-1%	0.2%
R&M	2,751	0%	3%	2%	2%	1%	1.7%
Total work	7,838	-1%	3%	4%	7%	4%	3.5%

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

In contrast, the prospects for commercial construction remain muted in the first part of the forecast period, leading to an overall negative forecast of 2.2% on average over the five years to 2018. However, activity is expected to pick up in the second half of the period. Significant office, retail and leisure development is due to take place as part of the £400m redevelopment of RAF Locking in North Somerset. Work on two new Hilton hotels is shortly to begin on the Terrace Mount site in Bournemouth, with an estimated value of £60m. There are also two football stadium projects in the pipeline, one of which has already started at Plymouth, while redevelopment of Ashton Gate, Bristol City's ground, should start some time in 2014.

Reasonable growth is also expected in the Housing R&M sector, linked less to any impetus from the Green Deal and more to the fact that increased household income growth should turn householders' minds to initiating more high value works on their properties after a period of restraint – housing R&M output fell by 18% between 2009 and 2012. That is not to say that the sustainability agenda will not drive growth in retrofitting measures, just that many households will not fund them using the Green Deal, although recent announcements of improvements to the programme may make it sufficiently attractive to push up its current low level of take up.

2.10 Beyond 2018

The programme of works at Hinkley Point will continue well beyond 2018, so will provide employment prospects for the South West's construction workforce past the forecast period.

The current timeline from the Nuclear Industrial Association (NIA) indicates that main works on the Oldbury nuclear power station should now start in mid-2020, a year later than previously estimated. This project will be taken forward by the Horizon Group, the same consortium that is developing the Wylfa nuclear plant in north Wales. The consortium will use a different technology to that at Hinkley Point; therefore the mix of skills required may be somewhat different. However, the scheduling of the two projects suggests that at least some of the workforce from Hinkley Point could move over to Oldbury as one winds down and the other cranks up.

Proposals for a Severn barrage to harness the tidal power of the Severn Estuary are ongoing, although the House of Commons' Energy and Climate Change Committee stated that the case for the most recent proposal (from Hafren Power) was 'unproven'.

Strong growth
is forecast for
infrastructure,
an annual average
rate of 21%
to 2018

3 Construction employment forecasts for the South West

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 West for 2012, the estimated total employment across 28 occupational categories in 2013 and forecasts for the industry for 2014 to 2018. A full breakdown of occupational groups is provided in Section 5 of CSN Explained.

Construction employment in the South West is projected to average growth of 1.5% a year over the 2014 to 2018 period, a slightly higher growth rate than the UK average of 1.2%. This is despite output growth in the South West being much higher than in the UK as a whole (3.5% vs. 2.2%). However, a significant proportion of the South West's higher output growth is due to the Hinkley Point new nuclear build project, which is not particularly labour intensive and does not provide the same boost to employment that it does to output.

Wood trades and interior fit-out remains by far the largest trade occupation in the South West, accounting for over 13% of total construction employment in the region in 2012, a higher share than across the UK as a whole (10%). This higher proportion of wood trades and interior fit-out trades in the South West could be due in part to a higher level of timber-frame house construction in the region. According to the NHBC, timber-frame housing accounted for 22% of registrations in the South West in 2012, compared with 15% across Great Britain as a whole.

The majority of occupations should see growth in employment over the forecast period, with the strongest increases in demand expected for civil engineering operatives nec (4.5% a year on average) and electrical trades and installation (4.1% a year on average). However, not all occupational categories will see growth. Plasterers are projected to see a decline of 1.1% a year on average in the five years to 2018 and steel erectors/structural fabricators will experience a 2.2% drop on the same measure.

Total employment by occupation – South West

	Actual	Estimate	Forecast	
	2012	2013	2014	2018
Senior, executive and business process managers	11,310	11,890	12,160	13,520
Construction project managers	2,590	2,830	2,920	3,270
Other construction process managers	10,020	10,530	10,890	12,290
Non-construction professional, technical, IT and other office-based staff	29,110	28,010	28,210	29,720
Construction trades supervisors	3,070	3,350	3,470	3,760
Wood trades and interior fit-out	27,310	28,140	28,350	29,750
Bricklayers	7,930	7,220	7,190	7,240
Building envelope specialists	10,620	10,650	10,770	11,350
Painters and decorators	11,510	10,940	11,050	11,690
Plasterers	4,910	4,390	4,310	4,150
Roofers	5,220	4,670	4,800	5,400
Floorers	1,210	1,080	1,080	1,120
Glaziers	2,900	3,020	3,020	3,060
Specialist building operatives nec*	4,330	3,870	3,860	3,910
Scaffolders	4,280	3,830	3,850	3,830
Plant operatives	3,890	4,250	4,280	4,440
Plant mechanics/fitters	2,500	2,230	2,270	2,500
Steel erectors/structural fabrication	2,610	2,480	2,400	2,220
Labourers nec*	7,410	6,620	6,590	6,570
Electrical trades and installation	14,980	13,380	14,000	16,370
Plumbing and HVAC Trades	18,430	20,010	20,130	21,080
Logistics	680	740	740	770
Civil engineering operatives nec*	2,080	2,280	2,360	2,840
Non-construction operatives	1,620	1,450	1,480	1,600
Civil engineers	2,300	2,320	2,310	2,290
Other construction professionals and technical staff	13,820	13,100	13,460	14,970
Architects	2,370	2,590	2,570	2,580
Surveyors	6,450	7,040	7,040	7,310
Total (SIC 41-43)	190,520	187,860	190,180	202,450
Total (SIC 41-43, 71.1, 74.9)	215,460	212,910	215,560	229,600

Source: ONS, CSN, Experlan. 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, due to the inconsistency and coverage of supply data, these flows do not include movements into the industry from training. 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 28 occupations within the South West's construction industry is illustrated in the table. The figure of 6,370 is indicative of the average requirements per year for the industry, 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 largest requirement in absolute terms for trade occupations is for electrical trades and installation, equivalent to 8% of the South West's total ARR. However, as a proportion of base 2014 employment, logistics personnel are likely to be most in demand (9.5%). The region's ARR of 6,370 is equivalent to 3% of base 2014 employment, significantly higher than the UK average (1.5%).

Analysis of the intra-regional mobility figures in CITB's 2012 Workforce Mobility and Skills report, and application to the Labour Force Survey data, suggest that nearly 36,000 construction operatives originating from the South West were working in other parts of the UK in 2012.

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 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.

Annual recruitment requirement by occupation – South West

	2014-2018
Senior, executive and business process managers	790
Construction project managers	-
Other construction process managers	280
Non-construction professional, technical, IT and other office-based staff	2,580
Construction trades supervisors	130
Wood trades and interior fit-out	-
Bricklayers	240
Building envelope specialists	180
Painters and decorators	240
Plasterers	240
Roofers	200
Floorers	60
Glaziers	150
Specialist building operatives nec*	60
Scaffolders	140
Plant operatives	-
Plant mechanics/fitters	60
Steel erectors/structural fabrication	-
Labourers nec*	300
Electrical trades and installation	530
Plumbing and HVAC Trades	-
Logistics	70
Civil engineering operatives nec*	-
Non-construction operatives	<50
Civil engineers	-
Other construction professionals and technical staff	90
Architects	-
Surveyors	-
Total (SIC 41-43)	6,280
Total (SIC 41-43, 71.1, 74.9)	6,370

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

4 Comparisons across the UK

The strongest growth in construction output is expected in the South West and Wales, as both will benefit from new nuclear build projects during the forecast period. Even though main construction works at Wylfa, Wales, are not due to start until mid-2017 at the earliest, this is a very large project in a relatively small market, making its impact on overall construction output similar to Hinkley Point in the South West, despite the latter starting three years earlier.

Once the South West and Wales are stripped away, the south east corner of England is again due to do rather better than the rest of the UK. The South East benefits disproportionately from growth in the private housing sector which takes a larger share of output in the region than the UK average (18% vs. 14%). This combined with a higher than average growth rate (5.7% vs. 4.6%) helps boost overall expansion in the South East's construction sector (with an annual average growth of 2.9% to 2018). The East of England has a slightly stronger average growth rate of 3% a year. The main reasons for the region's higher than average increase in construction output are good growth in private housing, combined with higher than average infrastructure

expansion when work starts on the site of the Sizewell C new nuclear project at the beginning of 2018. In addition, strong growth in industrial construction is linked to the development of distribution and logistics facilities around London Gateway Port.

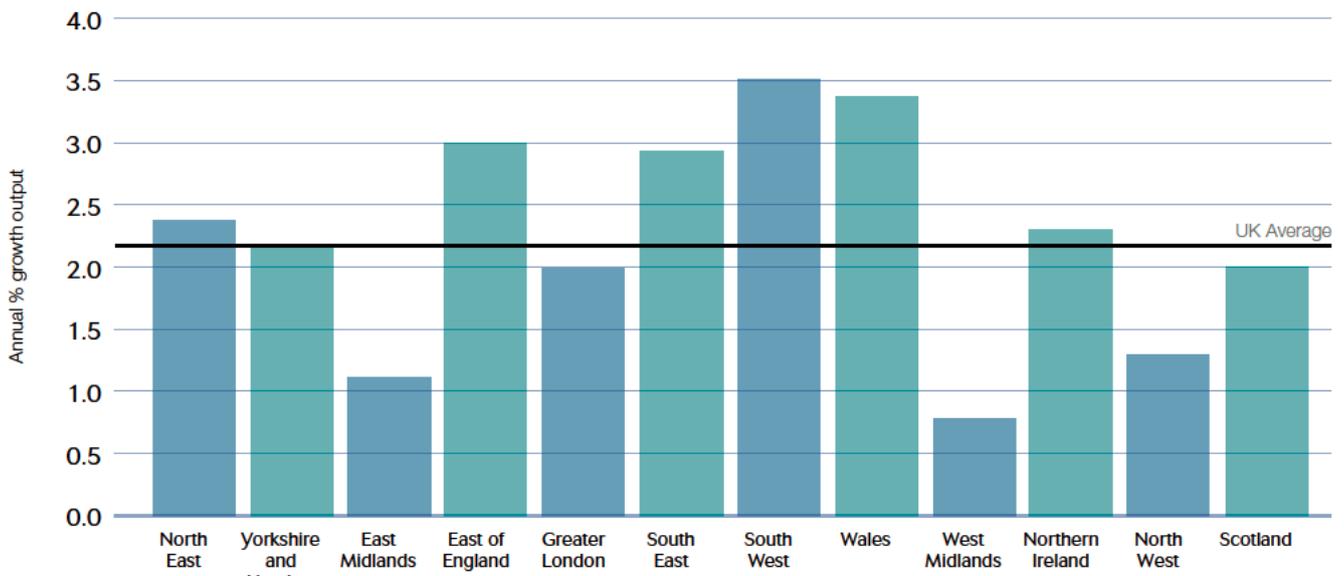
Interestingly however, Greater London's projected annual average output growth rate of 2% is slightly below the UK average (2.2%). Greater London is the only region to have experienced expansion in construction output in real terms over the five years to 2012, therefore activity in some sectors may be close to peaking. For example, infrastructure activity is projected to decline by an annual average of 2.4% in the five years to 2018, as projects such as Crossrail and Thameslink wind down in the second half of the forecast period.

Despite the South West and Wales being the strongest areas in output terms, they do not top the employment rankings. Infrastructure work has a smaller labour requirement than other sectors and so impacts employment much less than output. The East of England has the strongest employment growth rate, of 2% a year on average over the forecast period. This is due to two factors – a strong output growth rate and the region's higher than average share of the much more labour intensive R&M sectors compared with the UK as whole (45% vs. 36%). All regions are expected to see employment growth except the West Midlands, where output growth of just 0.8% a year on average is not enough to drive expansion of employment given anticipated productivity gains.

Concerns about prospective skills shortages have been increasing in some quarters recently, which may initially seem surprising given the industry's position in the recovery cycle. Construction output in 2013 is likely still to be 15% below its 2007 peak, and employment is likely to be 13% down on its 2008 peak. This would suggest that a substantial pool of construction workers is waiting to re-enter the industry. However, many of these workers may have taken jobs in other sectors, or retired. Questions remain about the number of workers who will come back into the industry as growth continues and, of these, how many will have been out of the industry for such a length of time that they will require some level of retraining.

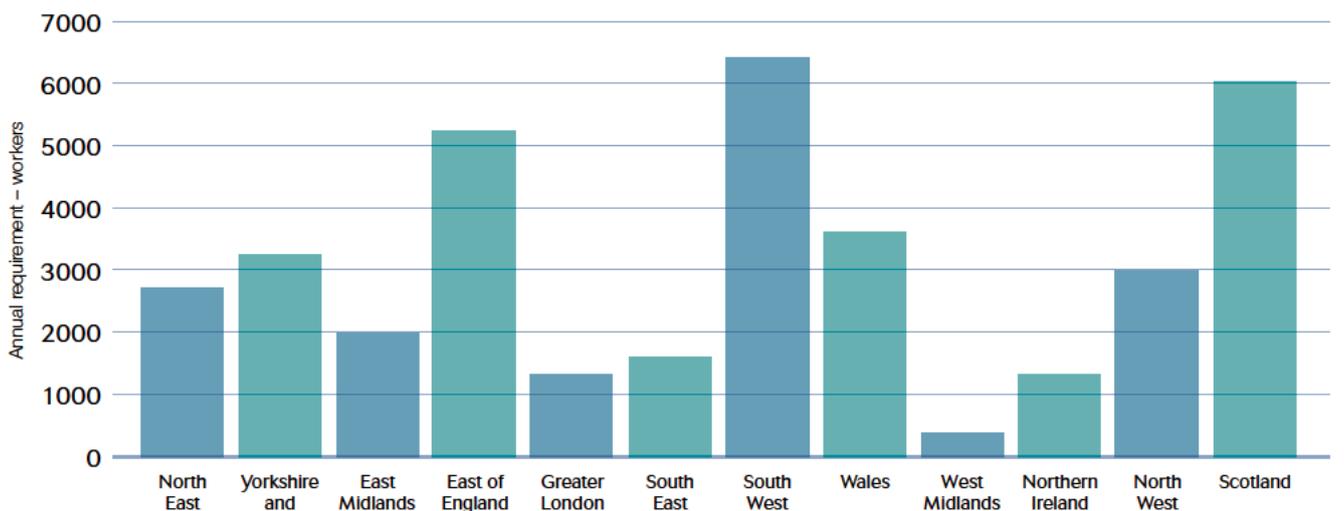


Annual average output growth by region 2014-2018



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

Annual recruitment requirement (ARR) by region 2014-2018



Source: CSN, Experian

Construction Employment in the South West is expected to rise by an average of 1.5% per year from 2014 to 2018 higher than the UK average of 1.2%



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.

Section 3 has some further notes relating to the data sources used for the various charts and tables. This section 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 28 occupational groups into the individual standard occupational classification (SOC) codes that are aggregated to provide the employment and recruitment requirement.

Section 6 concludes this appendix by giving details about the range of LMI reports, the advantages of being a CSN member and details of who to contact if readers are interested in joining.



1 CSN methodology

Background

The **Construction Skills Network** has been evolving since its conception in 2005, acting as vehicle for ConstructionSkills to collect and produce information on the future employment and training needs of the industry. CITB, CIC and CITB-ConstructionSkills Northern Ireland are working as ConstructionSkills, the Sector Skills Council for Construction, to produce robust labour market intelligence which provides 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 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 twice a year and consist of key regional stakeholders invited from industry, Government, education and other SSCs, all of whom contribute their 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 several 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, which is comprised of statisticians and modelling experts.

The models have evolved over time and will continue to do so, 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 interrelated 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 the industry from training, although robust data on training provision is being developed by CITB in partnership with public funding agencies, further education, higher education and employer representatives. Thus, 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. Estimates of demand are based upon the results of discussion groups comprising industry experts, a view of construction output and 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 use a set of specific statistics for each major type of work to 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:

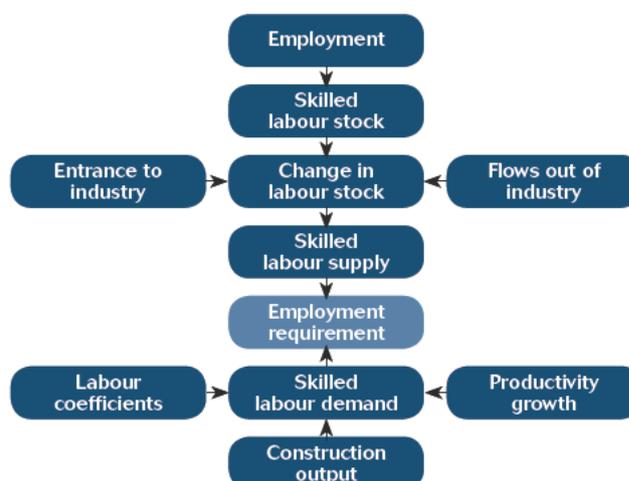
- Transfers to other industries
- International/domestic OUT migration
- Permanent retirements (including permanent sickness)
- Outflow to temporary sickness and home duties.

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

Flows into the labour market include:

- Transfers from other industries
- International/domestic immigration
- Inflow from temporary sickness 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 a building other than bricklaying, e.g. curtain walling.

Demand – this 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 Employer Skills Survey, produced by the Department for Education and Skills. These data sets are translated into labour requirements by trade using a series of coefficients to produce figures for labour demand that relate to forecast 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 of each occupation or trade needed 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. Information is collected from around 53,000 households each quarter (the sample totals more than 100,000 people).

LMI (labour market intelligence) – data that is quantitative (numerical) or qualitative (insights and perceptions) on workers, employers, wages, conditions of work, etc.

Macroeconomics – the study of an economy at 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) – organisation producing official statistics on the economy, population and society at both a national 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 United Kingdom Standard Industrial Classification of Economic Activities produced by the ONS.

SOC codes (Standard Occupational Classification codes) – from the United Kingdom Standard Occupational Classification produced by the ONS.

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 is supplied by the Office for National Statistics (ONS) on a current price basis. Thus, national deflators produced by the ONS have been used to deflate prices to a 2005 constant price basis, so that 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 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 ConstructionSkills that SummitSkills has responsibility for these occupations across a range of SIC codes, including SIC 43.2.
- 7 A reporting minimum of 50 is used for the annual recruitment requirement (ARR). As a result some region and devolved nation ARR forecasts do not sum to the total UK requirement.
- 8 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 24 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

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 and related technical consultancy.

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

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.

ConstructionSkills shares an interest with SummitSkills in SIC 43.21 Electrical installation and SIC 43.22 Plumbing, heat and air-conditioning installation. ConstructionSkills recognises the responsibility of SummitSkills across Standard Industrial Classifications (SIC) 43.21 and 43.22; thus 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, domestics, facilities managers.

AssetSkills has a peripheral interest in 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.

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

4 Definitions: types and examples of construction work

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

Housing schemes, care homes for the elderly 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.

Private commercial work¹

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 property.²

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 maintenance.³

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'.

2 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.

3 Except where stated, mixed development schemes are classified to whichever sector provides the largest share of finance.

5 Occupational groups

Occupational group

Description, SOC (2010) reference.

Senior, executive, and business process managers

Chief executives and senior officials	1115
Financial managers and directors	1131
Marketing and sales directors	1132
Purchasing managers and directors	1133
Human resource managers and directors	1135
Property, housing and estate managers	1251
Information technology and telecommunications directors	1136
Research and development managers	2150
Managers and directors in storage and warehousing	1162
Managers and proprietors in other services nec*	1259
Functional managers and directors nec*	1139
IT specialist managers	2133
IT project and programme managers	2134
Financial accounts managers	3538
Sales accounts and business development managers	3545

Construction project managers

Construction project managers and related professionals	2436
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Other construction process managers

Production managers and directors in manufacturing	1121
Production managers and directors in construction	1122
Managers and directors in transport and distribution	1161
Waste disposal and environmental services managers	1255
Health and safety officers	3567
Conservation and environmental associate professionals	3550

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

IT operations technicians	3131
IT user support technicians	3132
Finance and investment analysts and 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 standards and regulations	3565

Programmers and software development professionals	2136
Information technology and telecommunications professionals nec*	2139
Estate agents and auctioneers	3544
Solicitors	2413
Legal professionals nec*	2419
Chartered and certified accountants	2421
Business and financial project management professionals	2424
Management consultants and business analysts	2423
Receptionists	4216
Typists and related keyboard occupations	4217
Business sales executives	3542
Book-keepers, payroll managers and wages clerks	4122
Records clerks and assistants	4131
Stock control clerks and assistants	4133
Telephonists	7213
Communication operators	7214
Personal assistants and other secretaries	4215
Sales and retail assistants	7111
Telephone salespersons	7113
Buyers and procurement officers	3541
Human resources and industrial relations officers	3562
Credit controllers	4121
Company secretaries	4214
Sales related occupations nec*	7129
Call and contact centre occupations	7211
Customer service occupations nec*	7219
Elementary administration occupations nec*	9219
Chemical scientists	2111
Biological scientists and biochemists	2112
Physical scientists	2113
Laboratory technicians	3111
Graphic designers	3421
Environmental health professionals	2463
IT business analysts, architects and systems designers	2135
Conservation professionals	2141
Environment professionals	2142
Actuaries, economists and statisticians	2425
Business and related research professionals	2426
Finance officers	4124
Financial administrative occupations nec*	4129
Human resources administrative occupations	4138
Sales administrators	4151
Other administrative occupations nec*	4159
Office supervisors	4162

*Not elsewhere classified

Sales supervisors	7130	Tool makers, tool fitters and markers-out	5222
Customer service managers and supervisors	7220	Vehicle body builders and repairers	5232
Office managers	4161		
Construction trades supervisors		Steel erectors/structural fabrication	
Skilled metal, electrical and electronic trades supervisors	5250	Steel erectors	5311
Construction and building trades supervisors	5330	Welding trades	5215
Wood trades and interior fit-out		Metal plate workers and riveters	5214
Carpenters and joiners	5315	Construction and building trades nec* (5%)	5319
Paper and wood machine operatives	8121	Smiths and forge workers	5211
Furniture makers and other craft woodworkers	5442	Metal machining setters and setter-operators	5221
Construction and building trades nec* (25%)	5319		
Bricklayers		Labourers nec*	
Bricklayers and masons	5312	Elementary construction occupations (100%)	9120
Building envelope specialists		Electrical trades and installation	
Construction and building trades nec* (50%)	5319	Electricians and electrical fitters	5241
Painters and decorators		Electrical and electronic trades nec*	5249
Painters and decorators	5323	Telecommunications engineers	5242
Construction and building trades nec* (5%)	5319	Plumbing and heating, ventilation and air conditioning trades	
Plasterers		Plumbers and heating and ventilating engineers	5314
Plasterers	5321	Pipe fitters	5216
Roofers		Construction and building trades nec* (5%)	5319
Roofers, roof tilers and slaters	5313	Air-conditioning and refrigeration engineers	5225
Floorers		Logistics	
Floorers and wall tilers	5322	Large goods vehicle drivers	8211
Glaziers		Van drivers	8212
Glaziers, window fabricators and fitters	5316	Elementary storage occupations	9260
Construction and building trades nec* (5%)	5319	Buyers and purchasing officers (50%)	3541
Specialist building operatives nec*		Transport and distribution clerks and assistants	4134
Construction operatives nec* (100%)	8149	Civil engineering operatives nec*	
Construction and building trades nec* (5%)	5319	Road construction operatives	8142
Industrial cleaning process occupations	9132	Rail construction and maintenance operatives	8143
Other skilled trades nec*	5449	Quarry workers and related operatives	8123
Scaffolders		Non-construction operatives	
Scaffolders, staggers and riggers	8141	Metal making and treating process operatives,	8117
Plant operatives		Process operatives nec*	8119
Crane drivers	8221	Metal working machine operatives	8125
Plant and machine operatives nec*	8129	Water and sewerage plant operatives	8126
Fork-lift truck drivers	8222	Assemblers (vehicles and metal goods)	8132
Mobile machine drivers and operatives nec*	8229	Routine inspectors and testers	8133
Plant mechanics/fitters		Assemblers and routine operatives nec*	8139
Metal working production and maintenance fitters	5223	Elementary security occupations nec*	9249
Precision instrument makers and repairers	5224	Cleaners and domestics	9233
Vehicle technicians, mechanics and electricians	5231	Street cleaners	9232
Elementary process plant occupations nec*	9139	Gardeners and landscape gardeners	5113
		Caretakers	6232
		Security guards and related occupations	9241
		Protective service associate professionals nec*	3319
		Civil engineers	
		Civil engineers	2121

*Not elsewhere classified

Other construction professionals and technical staff

Mechanical engineers	2122
Electrical engineers	2123
Design and development engineers	2126
Production and process engineers	2127
Quality control and planning engineers	2461
Engineering professionals nec*	2129
Electrical and electronics technicians	3112
Engineering technicians	3113
Building and civil engineering technicians	3114
Science, engineering and production technicians nec*	3119
Architectural and town planning technicians	3121
Draughtspersons	3122
Quality assurance technicians	3115
Town planning officers	2432
Electronics engineers	2124
Chartered architectural technologists	2435
Estimators, valuers and assessors	3531
Planning, process and production technicians	3116

Architects

Architects	2431
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Surveyors

Quantity surveyors	2433
Chartered surveyors	2434

*Not elsewhere classified



6 CSN website and contact details

The CSN website

citb.co.uk/research/construction-skills-network

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 research reports are also freely available on the CITB 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 to enter the workforce.

The website also contains information about:

- How the CSN functions
- The CSN model approach
- How the model can be used to explore scenarios
- CSN team contact information
- Access to related CITB research
- Details for those interested in becoming members of the network.

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 that play a vital role in feeding back observations, knowledge and insight into 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 goes into the forecasting programme such as:

- Details of specific projects
- Demand within various types of work or sectors
- Labour supply issues
- 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 contact with the CITB research team CSN members can:

- Access observatory-related material such as meeting dates, agendas, presentations and notes
- Access additional research material
- Comment/feedback on the CSN process.

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 becoming a member of the CSN, please contact us at: csn@citb.co.uk

For more information about the
Construction Skills Network,
contact:

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citb.co.uk



CITB, CIC and CITB-ConstructionSkills Northern Ireland are working as ConstructionSkills, the Sector Skills Council for Construction.