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INDUSTRY
INSIGHTS

Construction Skills Network
Forecasts 2016–2020

East of England 2016–2020

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CSN EXPLAINED

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SUMMARY – EAST OF ENGLAND

2.3%

Construction output in the East of England is projected to grow at an annual average rate of 2.3% between 2016 and 2020, slightly below the UK average of 2.5%. Growth in new work is likely to outpace that of repair and maintenance (R&M) over the same period with respective rates of 3.1% and 1.3%. Total construction employment should increase in line with the UK average rate, at 1.1% per annum. The region's annual recruitment requirement (ARR) of 3,910 represents 1.6% of base 2016 employment, comparable to the UK average of 1.7%.

Key Findings

Total construction output in the region is estimated to have fallen by 3% in 2014. It is expected it to return to growth over the forecast period at a projected annual average rate of 2.3%.

The infrastructure and commercial sectors should lead the way with respective annual average growth rates of 4.9% and 4.5% between 2016 and 2020. The former should benefit from projects such as a new dual carriageway between the A14 in Ellington and Milton junction on the Cambridge bypass, as well as a new renewable energy park in Fengate, Peterborough. The latter is expected to build on its position as the largest sector with a number of new retail and office developments, although inflationary headwinds may act to constrain growth in the retail sub-sector towards the end of the forecast period as consumer demand becomes less buoyant as a consequence.

Industrial activity should be next in line with a 3.4% annual average growth projection, buoyed by a swathe of medium-sized projects in the warehouses sub-sector. There is also significant headroom in the forecast towards 2020 if the expected improvement in demand from the eurozone comes to fruition.

Both the private housing and public non-housing sectors ought to post growth over the forecast period at respective annual average rates of 0.7% and 1.6%. Expansion in the latter should be supported by work on the £500m Cambridge University framework. In contrast, public housing is the only sector set to contract over the same period, following on from a period of significant expansion without clear underlying drivers.

Employment growth is expected to average 1.1% over the forecast period, which is in line with the equivalent UK rate. Of the 28 occupational aggregates 23 are predicted to grow with construction trade supervisors (3.3%), construction project managers (2.9%), logistics (2.8%), and other construction process managers set for the strongest growth. In contrast floorers, roofers, glaziers and wood trades and interior fit-out are expected to contract over the same period.

The region's annual recruitment requirement (ARR) of 3,910 represents 1.6% of base 2016 employment, slightly below the UK average of 1.7%. Electrical trades and installation has the highest requirement at 690.

ANNUAL AVERAGE CONSTRUCTION OUTPUT GROWTH 2016–2020 – EAST OF ENGLAND

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

REGIONAL COMPARISON 2016–2020

	Annual average % change in output	Change in total employment	Total ARR
North East	1.5%	3,260	3,160
Yorkshire and Humber	2.4%	8,360	3,230
East Midlands	1.0%	1,210	3,110
East of England	2.3%	13,950	3,910
Greater London	3.5%	42,670	3,650
South East	0.9%	2,110	1,730
South West	4.4%	25,850	6,480
Wales	7.1%	17,490	5,440
West Midlands	1.7%	10,200	3,030
Northern Ireland	3.0%	4,660	1,760
North West	2.6%	22,430	6,650
Scotland	0.5%	-7,360	4,270
UK	**2.5%**	**144,830**	**46,420**

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

"Construction output in the East of England is projected to grow at an annual average rate of 2.3% between 2016 and 2020."

THE OUTLOOK FOR CONSTRUCTION IN THE EAST OF ENGLAND

2.1 Construction output in the East of England – overview

Construction output in 2014 had fallen 2.8% year-on-year to £12.4bn in 2012 prices.

Performance was mixed at the sector level. Public housing saw the largest upswing, as activity rose 77% on an annual basis to £350m. This was its highest total since achieving its record peak in 2010.

The infrastructure and industrial sectors both managed growth on the same measure with respective increases of 4% and 7%. The former reached its highest level on record in the process.

The public non-housing sector saw the sharpest fall in 2014, with a 17% annual decline to £891m. Private housing and commercial output also fell, albeit to a lesser extent.

2.2 Industry structure

The diagram, Construction Industry structure 2014 – UK vs. East of England, illustrates the sector breakdown of construction in the East of England, compared to that in the UK. Effectively, the percentages for each sector illustrate what proportion of total output each sector accounts for.

The stand-out factor is the much larger share of output the (R&M) sector accounts for in the East of England compared with the UK as a whole. In 2014 it made up 49% of output in the former compared with 38% in the latter, with larger shares for both housing and non-housing R&M.

Consequently, most of the new work sectors take smaller shares of total output in the region compared with the UK as a whole, with the most dramatic differences for private housing (13% vs 17%) and commercial construction (14% vs 19%).

2.3 Economic overview

The expected performance of a regional or national economy over the forecast period (2016– 2020) provides an indication of the construction sectors in which demand is likely to be strongest.

2.4 Economic structure

The East of England's gross value added (GVA) totalled £130bn in 2012 prices in 2014, after increasing 3.2% year-on-year.

The region's economy continued to be weighted towards public services and professional and other private services in 2014. The former's proportion of total GVA has remained quite stable over the last five years, while the latter has posted consecutive annual increases. The manufacturing sector remains a prominent feature of the local economy, and its share of GVA has been quite steady in the medium term at approximately 11%. The same is true for the wholesale and retail sector, although it was slightly more prominent in 2014, making up 13% of regional GVA.

2.5 Forward looking economic indicators

The East of England's economy is estimated to have grown by 2.7% in 2015, with growth in the information and communication (6.3%) and wholesale and retail (4.7%) sectors the strongest.

GVA is predicted to expand at an annual average rate of 2.5% between 2016 and 2020, in line with the UK average (2.4%).

Professional and other private services are expected to strengthen their position as the largest sub-sector over that period, with an annual average growth expectation of 3.1%.

The manufacturing and wholesale and retail sectors should also experience solid expansion with respective annual average growth projections of 2.1% and 2.5%.

CONSTRUCTION OUTPUT 1998-2014 — EAST OF ENGLAND

£m, constant 2012 prices

16,000 · 14,000 · 12,000 · 10,000 · 8,000 · 6,000

1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014

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

CONSTRUCTION INDUSTRY STRUCTURE 2014 — UK VS EAST OF ENGLAND

UK: 4%, 3%, 19%, 24%, 19%, 25%, 14%, 19%

EAST OF ENGLAND: 17%, 13%, 12%, 11%, 7%, 2%, 8%, 3%

Legend:
- Public housing
- Private housing
- Infrastructure
- Public non-housing
- Industrial
- Commercial
- Housing R&M
- Non-housing R&M

Source: ONS, Experian
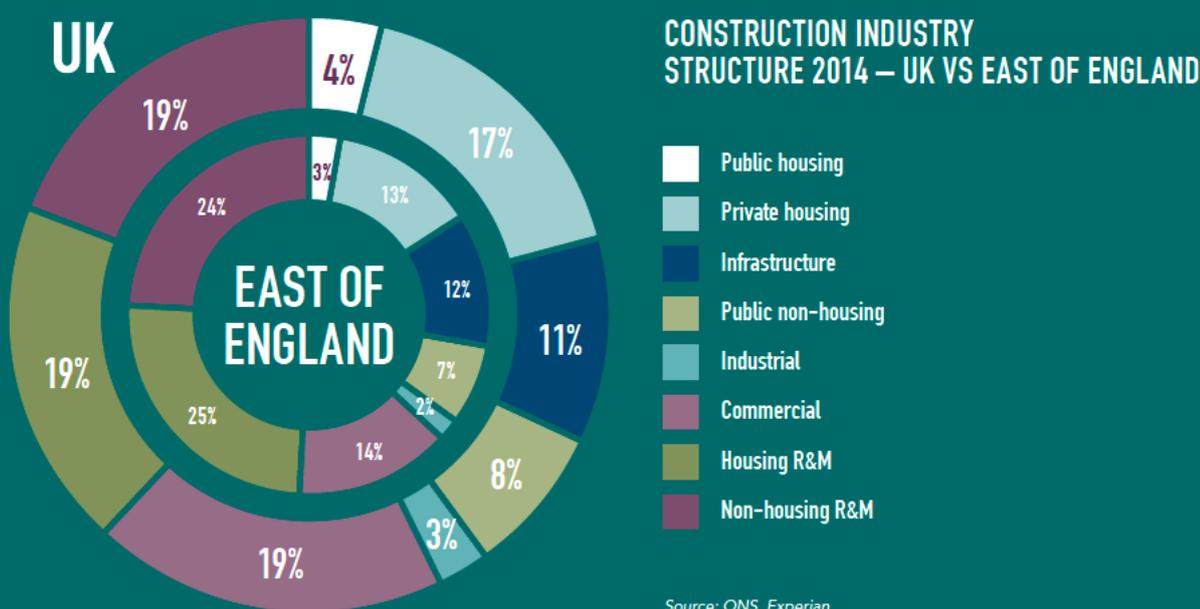
ECONOMIC STRUCTURE — EAST OF ENGLAND (£ BILLION, 2012 PRICES)

Selected sectors	Actual	Forecast Annual % change, real terms					
	2014	2015	2016	2017	2018	2019	2020
Professional and other private services	38.1	3.6	3.4	3.2	3.3	2.9	2.8
Public services	22.8	0.7	0.0	-0.1	0.7	1.3	2.2
Manufacturing	17.0	4.7	2.7	2.4	2.6	2.5	2.6
Wholesale and retail	14.5	0.3	1.4	2.9	3.1	1.8	1.5
Finance and insurance	6.6	6.3	4.8	3.6	3.5	3.1	2.9
Total Gross Value Added (GVA)	**130.0**	**2.7**	**2.4**	**2.5**	**2.7**	**2.4**	**2.5**

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

Of the major sub-sectors public services is set for the weakest expansion at a rate of 0.8% over the five years to 2020.

Real household disposable income is estimated to have increased by a modest 0.9% in 2014, but growth should have accelerated to over 3.5% last year. We expect it to make further gains over the forecast period, albeit at progressively weaker rates. This comes on the back of increasing upwards pressure on inflation in the medium-term.

House prices in the East of England rose to £277,000 in 2014, as reported by the Office for National Statistic's mix-adjusted house price series. In the third quarter of 2015 prices were up 4% on the previous three months, and 7.4% on the corresponding period of 2014.

The unemployment rate on the Labour Force Survey (LFS) measure is estimated have fallen for the third successive year in 2015 to 4.4%. It is set to decline further to 4.1% in 2016 before remaining close to that percentage for the remainder of the forecast period.

2.6 New construction orders – overview

Total construction orders for the East of England fell for the second successive year in 2014 to £4.3bn in current prices, a 4.6% decline.

Only orders in the private housing and industrial sectors managed to post any growth in 2014. Those for the former rose 3.2% to £1.1bn, while the latter's increased for the fourth successive year by 0.4% to £265m. The industrial sector has seen the most consistent growth in new orders in the medium-term when compared to the other new work sectors.

The public housing and public non-housing sectors saw the sharpest falls on an annual basis in 2014. The former fell 35% to £148m, and the latter 14% to £765m.

Orders in the commercial sector fell for the second consecutive year in 2014 to £1bn. Despite this they remained in line with their post-2008 average, but still well below their 2004 peak. Infrastructure orders also edged downwards, but their overall level was still quite high.

2.7 New construction orders – current situation

New orders growth was particularly strong in the first half of 2015, up by 50% half-year on half-year and 55% on the corresponding period of 2014, to £3.3bn in current prices. On a four-quarter moving total basis new orders ticked up quite sharply in each of the most recent two quarters.

All but two of the new work sectors saw orders increase in the first six months of 2015 against both half-year periods of 2014. The exceptions were the public housing and the public non-housing sectors, with the latter experiencing declines against both halves of 2014. Infrastructure orders exceeded £1.1bn in the first half of 2015, with a particularly strong second quarter that exceeded the total for 2014 as a whole. The commercial sector was also very strong with £909m of new orders, over 50% up on the previous half-year and more than double their level in the corresponding period of 2014.

2.8 Construction output – short-term forecasts (2016–2017)

Regional 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, regional ONS construction output statistics were only available for the first two quarters of 2015.

Construction output in the East of England totalled £6.8bn in the first half of 2015, 1% above the previous half year and 7% higher than in the same period of 2014. On a four-quarter moving total basis output fell marginally during most of 2014, but it turned slightly positive in the first quarter of 2015 and the upward movement strengthened in the second.

The infrastructure sector has been one of the most buoyant in the East of England in the first half of 2015 with output reaching £1.01bn, 18% up on the previous half-year and 26% higher than in the corresponding period of 2014. Output has now been expanding for 11 consecutive quarters on a four-quarter moving total basis, at a rate of nearly 3% per quarter.

Commercial construction output broke the £1bn barrier in the first half of 2015 for the first time since the second half of 2008. At £1.05bn it was 13% up on the previous half-year and 10% above its level in the corresponding period of 2014. On a four-quarter moving total basis a generally poor 2014 has been followed by two quarters of growth in the first half of this one.

ECONOMIC INDICATORS — EAST OF ENGLAND
(£ BILLION, CURRENT PRICES — UNLESS OTHERWISE STATED)

Selected sectors	Actual	Forecast Annual % change, real terms					
	2014	2015	2016	2017	2018	2019	2020
Real household disposable income	107.3	3.6	2.2	2.4	2.3	1.6	2.1
Household spending	105.5	3.1	2.5	2.5	2.3	2.2	2.3
Working age population (000s and as % of all)	3,642	60.8%	61.0%	60.8%	60.7%	60.7%	61.1%
House prices (£)	277,000	7.7	4.9	4.4	3.1	3.1	3.9
LFS unemployment (millions)	0.18	-12.5	-7.0	-0.7	0.7	1.1	0.2

Source: ONS, DCLG, Experian

NEW CONSTRUCTION ORDERS GROWTH 1998–2014
— EAST OF ENGLAND VS. GB

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

NEW WORK CONSTRUCTION ORDERS — EAST OF ENGLAND
(£ MILLION, CURRENT PRICES)

	Actual	Annual % change				
	2014	2010	2011	2012	2013	2014
Public housing	148	-12.2	-33.6	-35.7	93.2	-34.5
Private housing	1,093	76.4	-16.7	21.2	-9.3	3.2
Infrastructure	1,013	-61.1	20.6	76.6	-19.4	-0.5
Public non-housing	765	-16.4	-29.6	30.0	-4.6	-13.9
Industrial	265	-28.2	18.0	15.8	28.8	0.4
Commercial	1,035	20.7	-11.7	15.8	-3.4	-3.5
Total new work	**4,319**	**-11.2**	**-13.2**	**-29.1**	**-5.6**	**-4.6**

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

Activity in the public housing sector reached £206m in the first half of 2015, up 1% on the previous half-year, and 29% higher than in the corresponding period of 2014. On a four-quarter moving total basis output has been rising for the past seven quarters, with double-digit growth across 2014, but expansion has slowed markedly in the first two quarters of 2015.

Industrial output has been relatively stable in recent quarters and the half-year total of £137m was 7% down on the second half of 2014 but 3% up on the same period of 2014. The four-quarter moving total has generally been on an upward path for the past six quarters, although apart from in the second quarter of 2014 the rate of growth has been modest.

In contrast the public non-housing sector performed poorly in the first half of 2015, with output of £398m, 16% down on the previous half-year and 18% below its level in the same period of 2014. The four-quarter moving total has been on a downward trend for the past five quarters.

The overall prognosis for 2015 is for modest growth of around 1% in real terms.

Output growth is predicted to accelerate in 2016 and 2017 to 3% and 4% respectively.

On an annual average basis over that period infrastructure output is estimated to see the strongest expansion at 6.5%, driven by a large number of projects in the roads and electricity sub-sectors.

The commercial and industrial sectors should be next in line with increases of 5.2% and 4.2% respectively. The latter has seen a boost in requirement for distribution facilities buoyed by strong household consumption, weak inflation and rising real disposable incomes. This has offset the fall in requirement for new factories as export demand from the eurozone and now also further afield continues to ease.

The private housing and public non-housing ones should also post growth, albeit at weaker rates. The latter should benefit from a number of significant projects in the universities sub-sector.

Public housing is the only sector that is set to decline in the short-term with an annual average contraction of 4%, as work under the 2011-2015 Affordable Housing Programme (AHP) winds down but allocations under the 2015-2018 AHP are yet to translate into activity on the ground.

2.9 Construction output – long-term forecasts (2016–2020)

Construction output in the East of England should expand at an annual average rate of 2.3% between 2016 and 2020, slightly slower than the UK average of 2.5%.

The infrastructure sector should lead the way with forecast annual average growth of 4.9%. Prominent projects include a new dual carriageway between the A14 in Ellington and Milton Junction on the Cambridge bypass. The £1.5bn project is also going to include a number of smaller widening schemes. Work should also begin in the near-term on a renewable energy park in Fengate, Peterborough. The site will include two three-storey buildings that will house waste and combustion chambers. The £450m development ought to be completed in late 2018. Growth towards the end of the forecast period should be supported by a number of sizeable projects in the electricity and roads sub-sectors.

The commercial sector should be next in line with a forecast annual average expansion of 4.5% over the period. Growth should peak in 2018 as work gathers momentum on the new business park near Southend Airport and also the expansion to Lakeside Shopping Centre. We expect investment in new retail centres to ease towards the end of the forecast period as increases in real wages fail to keep up with inflation and both consumer confidence and spending begin to ease from their current levels. This is reflected in our moderating growth expectations for the second half of the forecast period. Also in the pipeline is a new technology park on the site of a former RAF base near Downham market. However, the £300m project is only in the early planning stage and therefore has not been included in these forecasts.

The industrial and public non-housing sectors are also set to expand between 2016 and 2020. The former is likely to achieve annual average growth of 3.4%, buoyed by large

CONSTRUCTION OUTPUT — EAST OF ENGLAND (£ MILLION, 2012 PRICES)

	Actual	Forecast annual % change			Annual average
	2014	2015	2016	2017	2016-2017
Public housing	350	-14%	-13%	6%	-4.0%
Private housing	1,598	0%	4%	2%	3.2%
Infrastructure	1,528	7%	0%	14%	6.5%
Public non-housing	891	-14%	-1%	3%	1.3%
Industrial	266	-8%	4%	4%	4.2%
Commercial	1,723	18%	6%	4%	5.2%
Total new work	**6,356**	**3%**	**2%**	**6%**	**4.2%**
Housing R&M	3,105	0%	3%	0%	1.4%
Non-housing R&M	2,918	-4%	2%	2%	2.1%
Total R&M	**6,023**	**-2%**	**3%**	**1%**	**1.8%**
Total work	**12,378**	**1%**	**3%**	**4%**	**3.0%**

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

ANNUAL AVERAGE CONSTRUCTION OUTPUT GROWTH 2016-2017 — EAST OF ENGLAND
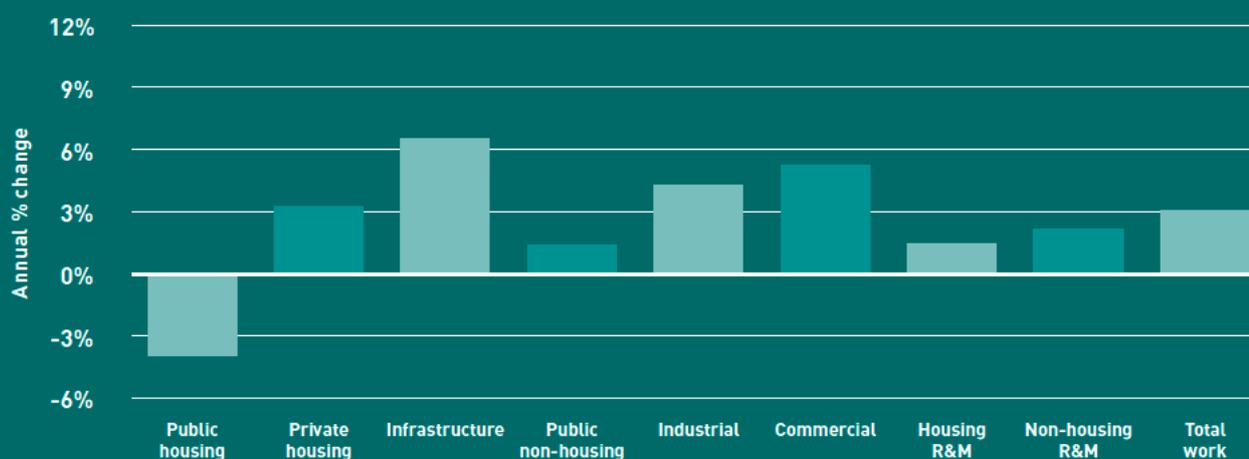
Source: Experian. Ref: CSN Explained, Section 3, Note 2

> Output in the East will grow fastest in the infrastructure and commercial sectors between 2016 and 2020.

projects like the £140m distribution complex in Alwalton Hill, Peterborough. At the sub-sector level most of the new work will be for warehouses, as opposed to factories. This trend is also apparent at the national level. Towards the end of the forecast period we could see an increase in the demand for manufacturing facilities if the expected recovery in the eurozone comes to fruition. The public non-housing sector should grow at an annual average rate of 1.6% over the same period. The University of Cambridge has outlined plans for a five-year construction framework that could be worth up to £500m. The plans will include a number of new laboratories and other academic facilities. The works will be split out into various value bands ranging from £250,000 up to £30m and over. An exact start date has not been provided as of yet, but the evidence points towards commencement within the current forecast period.

Public housing is the only sector that is set to decline in the long-term, with a negative annual average growth prediction of 1.9%. Activity has performed well recently although the bearish divergence between output and orders suggests that it has significant downside potential between 2016 and 2020. This is backed up in the near-term by data from the Homes and Communities Agency, which indicates that the number of affordable units started on site between April 2014 and March 2015 in the East and South East stood at 4,285 units, down from 8,751 units in the previous 12 months.

2.10 Beyond 2020

The long-term pipeline for the East of England remains weighted towards new infrastructure projects, with an emphasis on the energy and transport sub-sectors. Sizewell C remains the largest project in the long-term pipeline. A number of road schemes are due to begin after 2020, among the most significant is the £203m widening of the A120 from Braintree to Marks Tey in Colchester, which should be completed by 2024.

According to the 2015 Autumn Statement the government has pledged over £100bn nationally for long-term investment for infrastructure projects, further funding for schools and protection of funding for arts, national museums and galleries. These pledges could have a positive effect on the East of England's infrastructure and public non-housing sectors.

CONSTRUCTION OUTPUT — EAST OF ENGLAND (£ MILLION, 2012 PRICES)

	Estimate	Forecast annual % change					Annual average
	2015	2016	2017	2018	2019	2020	2016-2020
Public housing	300	-13%	6%	9%	2%	-11%	-1.9%
Private housing	1,601	4%	2%	-4%	0%	1%	0.7%
Infrastructure	1,639	0%	14%	5%	2%	5%	4.9%
Public non-housing	767	-1%	3%	3%	-2%	4%	1.6%
Industrial	245	4%	4%	6%	2%	1%	3.4%
Commercial	2,025	6%	4%	7%	5%	0%	4.5%
Total new work	**6,577**	**2%**	**6%**	**4%**	**2%**	**2%**	**3.1%**
Housing R&M	3,106	3%	0%	-3%	1%	1%	0.3%
Non-housing R&M	2,806	2%	2%	2%	3%	3%	2.3%
Total R&M	**5,912**	**3%**	**1%**	**-1%**	**2%**	**2%**	**1.3%**
Total work	**12,489**	**3%**	**4%**	**2%**	**2%**	**2%**	**2.3%**

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

ANNUAL AVERAGE CONSTRUCTION OUTPUT GROWTH 2016-2020 — EAST OF ENGLAND
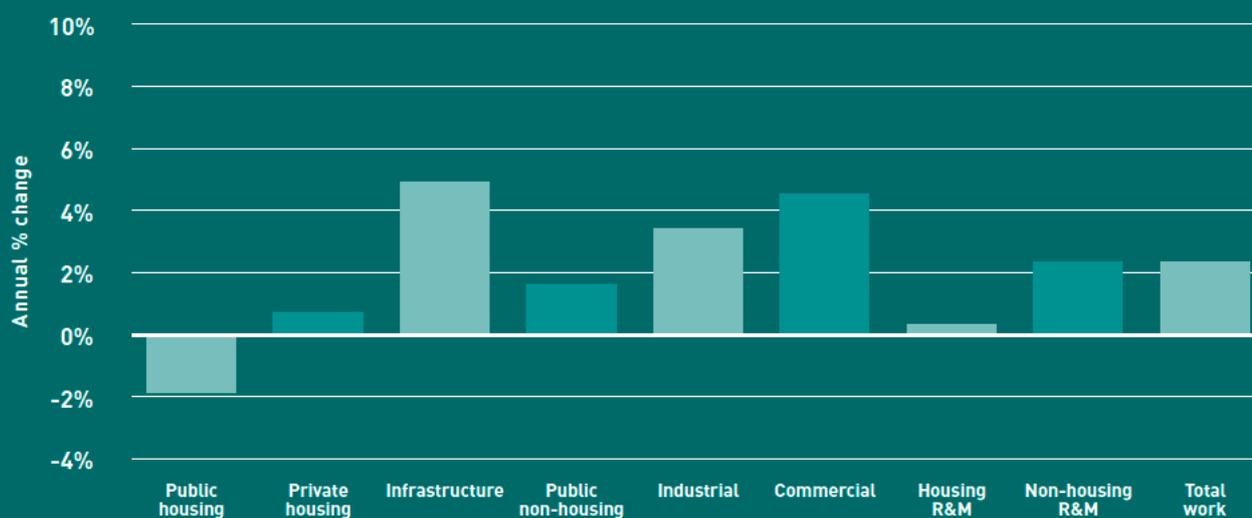
Source: Experian. Ref: CSN Explained, Section 3, Note 2

CONSTRUCTION EMPLOYMENT FORECASTS FOR THE EAST OF ENGLAND

3.1 Total construction employment forecasts by occupation

The table presents actual construction employment (SICs 41-43, 71.1, and 74.9) in the East of England for 2014, the estimated total employment across 28 occupational categories in 2015 and forecasts for the industry for 2016 to 2020. A full breakdown of occupational groups is provided in Section 5 of CSN Explained.

Construction employment in the East of England is forecast to expand in line with the UK average rate of 1.1% between 2016 and 2020. However, growth is likely to be strongest in the near-term.

In numbers terms, employment in the region is projected to rise by nearly 14,000 over the five years to 2020 from an estimated level of 237,720 in 2015 to 251,660 in 2020. However, the projected total for 2020 is likely to still be approximately 4% below its 2008 peak.

Of the 28 occupational aggregates 23 are predicted to expand over the forecast period. Construction trade supervisors (3.3%), construction project managers (2.9%), logistics (2.8%), and other construction process managers (2.7%) are set for the strongest growth. In contrast floorers, roofers, glaziers and wood trades and interior fit-out are expected to contract over the same period.

TOTAL EMPLOYMENT BY OCCUPATION — EAST OF ENGLAND

	Actual 2014	Estimate 2015	Forecast	
			2016	2020
Senior, executive, and business process managers	13,880	13,840	14,090	14,220
Construction project managers	4,550	4,570	4,780	5,260
Other construction process managers	15,350	15,980	16,660	18,230
Non-construction professional, technical, IT and other office-based staff	34,600	34,660	35,600	36,520
Construction trades supervisors	4,740	4,930	5,190	5,810
Wood trades and interior fit-out	23,500	24,450	25,000	23,970
Bricklayers	8,240	8,020	8,250	8,030
Building envelope specialists	9,310	9,690	9,950	9,660
Painters and decorators	9,770	10,110	10,590	11,090
Plasterers	5,600	5,470	5,750	6,000
Roofers	4,270	4,020	4,110	3,930
Floorers	4,040	3,800	3,850	3,670
Glaziers	2,570	2,670	2,720	2,600
Specialist building operatives nec*	4,220	4,010	4,210	4,410
Scaffolders	2,440	2,530	2,600	2,730
Plant operatives	3,110	3,240	3,350	3,570
Plant mechanics/fitters	2,370	2,450	2,560	2,710
Steel erectors/structural fabrication	2,010	1,900	1,970	1,990
Labourers nec*	10,380	10,770	11,090	11,550
Electrical trades and installation	17,650	18,350	18,940	19,020
Plumbing and HVAC Trades	16,030	15,720	16,410	16,640
Logistics	2,590	2,700	2,820	3,100
Civil engineering operatives nec*	1,050	1,090	1,090	1,040
Non-construction operatives	1,630	1,610	1,660	1,750
Civil engineers	6,540	6,790	6,970	7,280
Other construction professionals and technical staff	14,470	15,060	15,520	16,520
Architects	4,590	4,780	4,970	5,390
Surveyors	4,330	4,510	4,660	4,970
Total (SIC 41-43)	**203,900**	**206,580**	**213,240**	**217,500**
Total (SIC 41-43, 71.1, 74.9)	**233,830**	**237,720**	**245,360**	**251,660**

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 ARR 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 East of England's projected ARR for 2016-2020 is 3,910, representing 1.6% of base 2016 employment, slightly below the UK average (1.7%). Of the 28 occupational aggregates electrical trades and installation have the highest absolute requirement (690), although in terms of ratios of base 2016 employment, the requirement is highest for logistics personnel (9.9%), plant mechanics/fitters (8.6%), specialist building operatives (5.2%) and scaffolders (5%).

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

Non-construction operatives is a diverse occupational group including all of the activities under the SICs 41-43, 71.1, and 74.9 umbrella that cannot be classified elsewhere, such as cleaners, elementary security occupations nec and routine inspectors and testers. The skills required in these occupations are highly transferable to other industries and forecasting such movement is hazardous given the lack of robust supportive data. Therefore, the ARR for non-construction operatives is not published.

ANNUAL RECRUITMENT REQUIREMENT BY OCCUPATION – EAST OF ENGLAND

	2016-2020
Senior, executive, and business process managers	110
Construction project managers	100
Other construction process managers	-
Non-construction professional, technical, IT and other office-based staff	-
Construction trades supervisors	-
Wood trades and interior fit-out	-
Bricklayers	240
Building envelope specialists	-
Painters and decorators	420
Plasterers	-
Roofers	130
Floorers	-
Glaziers	60
Specialist building operatives nec*	220
Scaffolders	130
Plant operatives	-
Plant mechanics/fitters	220
Steel erectors/structural fabrication	<50
Labourers nec*	510
Electrical trades and installation	690
Plumbing and HVAC Trades	360
Logistics	280
Civil engineering operatives nec*	-
Civil engineers	200
Other construction professionals and technical staff	230
Architects	-
Surveyors	-
Total (SIC 41-43)	
Total (SIC 41-43, 71.1, 74.9)	**3,910**

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

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2.5%

The overall UK forecast of an annual average rise in output of 2.5% over the 2016 to 2020 period is a little higher than the 2.1% seen in the last growth period for construction between 1995 and 2007. However, it disguises some quite different regional/devolved nation performances, from expected expansion of over 7% in Wales to just 0.5% in Scotland.

Wales and the South West are top of the growth rankings and have remained so for some time, but their strong performance is heavily predicated on nuclear new build projects at Hinkley Point and Wylfa. Greater London is also projected to have a strong infrastructure sector, with the work starting on the Northern Line extension and Thames Tideway and High Speed 2 in the pipeline. These projects should more than offset completion of the Crossrail and Thameslink schemes.

While growth in London and the East of England is expected to be robust, the forecast for the South East is relatively poor with a dearth of major projects in the pipeline, the £2bn Paramount Park scheme excepted. Therefore, the forecasts are less South East England centric than they sometimes can be.

Northern Ireland is likely to be one of the faster growing regions in the five years to 2020, although construction output will be coming back from a very low base and there are concerns that current political uncertainties could delay the start of public projects.

Scotland is seeing an exceptionally high level of investment in infrastructure at present, with output in 2014 around twice its previous 10 year average and due to increase even further in 2015. Thereafter projects, such as the current spate of motorway upgrades, begin to complete and activity in the sector is likely to fall sharply, bringing the overall Scottish construction growth rate down to only about half a per cent a year on average.

Employment growth across the regions and devolved nations tends to mirror that of output, but at a lower level to take account of expected productivity gains and with some minor adjustments depending on whether output growth is in high or low labour intensive sectors. Annual employment growth across the UK as a whole is projected to average 1.1% over the 2016 to 2020 period, with a high of 2.9% in Wales and a low of a 0.7% a year decline in Scotland. Despite the fact that nuclear new build is not particularly labour intensive, Wylfa is a very big project in a small market, therefore it will add nearly 2% to construction employment in Wales in 2020. The impact is smaller in the South West, which has a bigger construction market, but even there it will help to drive good employment growth of over 2% a year on average. In Scotland the converse is true and a sharp fall in infrastructure output, despite its relatively low labour input, is likely to lead to a drop in construction employment north of the border post 2016.

The pattern of ARR can look significantly different from the profile of output and employment, as some regions and devolved nations have historically strong net inflows and some suffer from large net outflows. The most extreme examples of this trend tend to be Greater London and Wales. London has a relatively low ARR despite strong projected employment growth (2% a year) as it acts as a natural magnet for construction workers throughout the UK and beyond, therefore its ARR ratio to base 2016 employment is low at 0.9%. At the other end of the scale Wales tends to suffer strong net outflows, in particular to the North West and South West of England and this, combined with a buoyant output and employment growth forecast, means its ARR ratio to base 2016 employment is a high 4.7%.

ANNUAL AVERAGE CONSTRUCTION OUTPUT GROWTH BY REGION 2016–2020
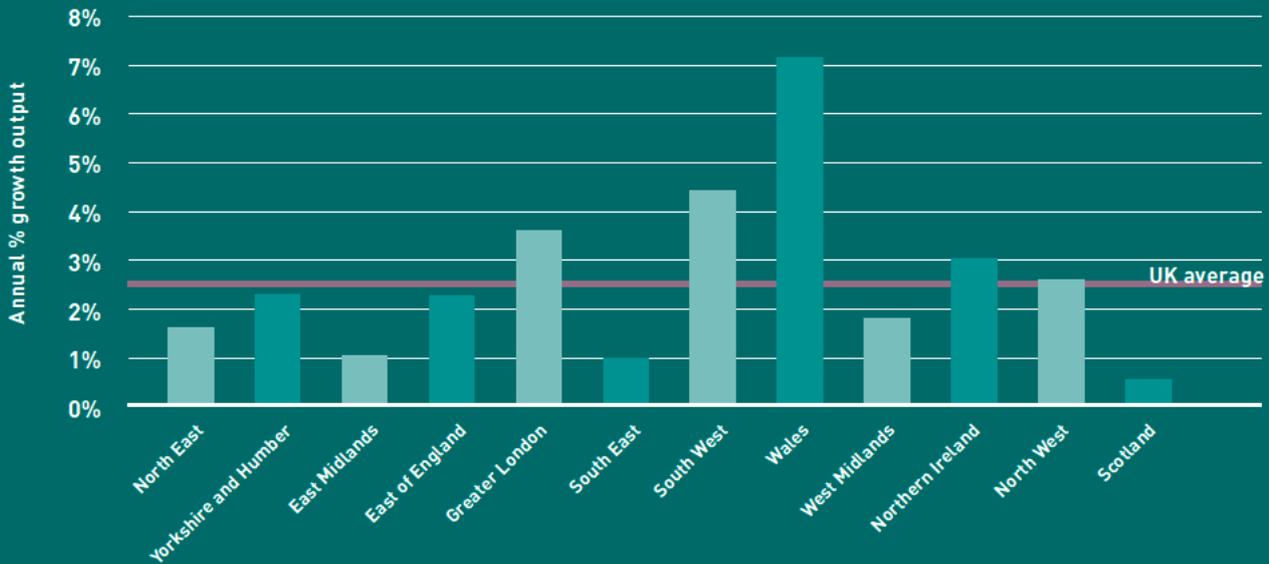
Source: Experian. Ref: CSN Explained, Section 3, Note 2

ANNUAL RECRUITMENT REQUIREMENT (ARR) BY REGION 2016–2020

Source: CSN, Experian

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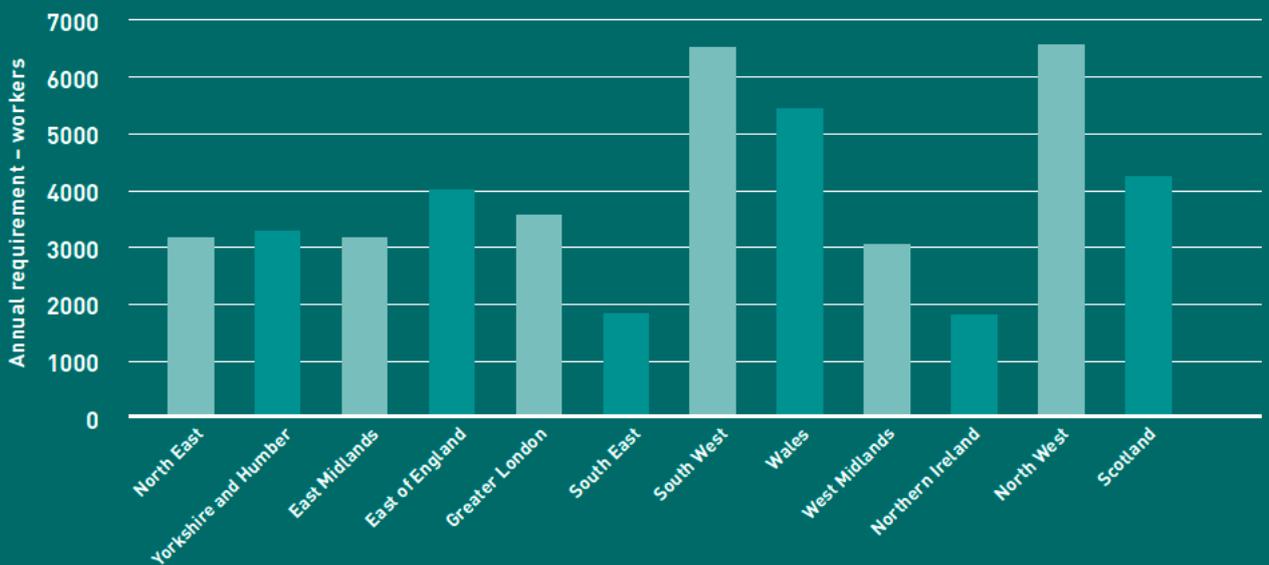
CSN EXPLAINED

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 (SSC) or Sector Bodies.

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.

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SECTION 1

CSN METHODOLOGY

Background

The Construction Skills Network has been evolving since its conception in 2005, acting as a vehicle for ConstructionSkills to collect and produce information on the future employment and training needs of the industry.

ConstructionSkills is the Sector Skills Council for Construction and produces robust labour market intelligence that 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 and Sector Bodies, 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 and Sector Bodies. 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 that 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 ARR 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.

EMPLOYMENT

SKILLED LABOUR STOCK

ENTRANCE TO INDUSTRY → CHANGE IN LABOUR STOCK ← FLOWS OUT OF INDUSTRY

SKILLED LABOUR SUPPLY

EMPLOYMENT REQUIREMENT

LABOUR COEFFICIENTS → SKILLED LABOUR DEMAND ← PRODUCTIVITY GROWTH
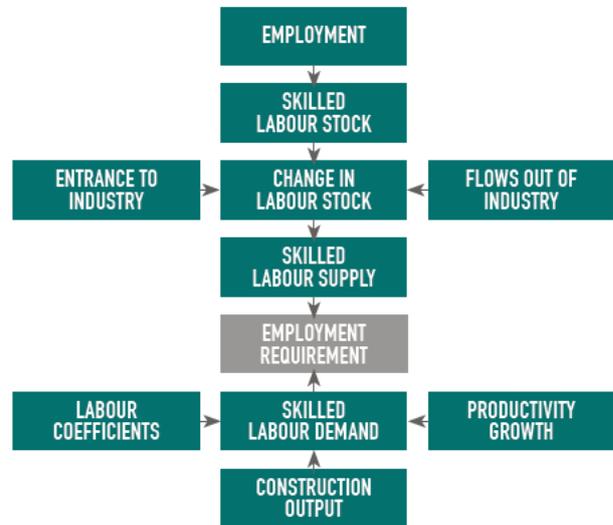
CONSTRUCTION OUTPUT

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 that 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.

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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 SIC41–43 and SIC41–43, 71.1 and 74.9. The total for SIC41–43 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 SIC41–43, 71.1 and 74.9 includes all occupations.

Footprints for Built Environment Sector Bodies

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 summarises the SIC codes (2007) covered by ConstructionSkills:

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

*The Building Futures Group has a peripheral interest in SIC 71.1.

The sector footprints for the other Sector Bodies 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 SIC 43.21 and SIC 43.22; thus data relating to the building services engineering sector is included here primarily for completeness.

The Building Futures Group

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.

The Building Futures Group 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.

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 construction[1]

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 work[1]

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.

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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 maanagers	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

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
Bookkeepers, 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
Sales supervisors	7130
Customer service managers and supervisors	7220
Office managers	4161

Construction trades supervisors

Skilled metal, electrical and electronic trades supervisors	5250
Construction and building trades supervisors	5330

Wood trades and interior fit-out

Carpenters and joiners	5315
Paper and wood machine operatives	8121
Furniture makers and other craft woodworkers	5442
Construction and building trades nec* (25%)	5319

Bricklayers

Bricklayers and masons	5312

Building envelope specialists

Construction and building trades nec* (50%)	5319

Painters and decorators

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

Plasterers

Plasterers	5321

Roofers

Roofers, roof tilers and slaters	5313

Floorers

Floorers and wall tilers	5322

Glaziers

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

Specialist building operatives not elsewhere classified (nec*)

Construction operatives nec* (100%)	8149
Construction and building trades nec* (5%)	5319
Industrial cleaning process occupations	9132
Other skilled trades nec*	5449

Scaffolders

Scaffolders, stagers and riggers	8141

Plant operatives

Crane drivers	8221
Plant and machine operatives nec*	8129
Fork-lift truck drivers	8222
Mobile machine drivers and operatives nec*	8229

Plant mechanics/fitters

Metalworking production and maintenance fitters	5223
Precision instrument makers and repairers	5224
Vehicle technicians, mechanics and electricians	5231
Elementary process plant occupations nec*	9139
Tool makers, tool fitters and markers-out	5222
Vehicle body builders and repairers	5232

Steel erectors/structural fabrication

Steel erectors	5311
Welding trades	5215
Metal plate workers and riveters	5214
Construction and building trades nec* (5%)	5319
Smiths and forge workers	5211
Metal machining setters and setter-operators	5221

Labourers nec*

Elementary construction occupations (100%)	9120

Electrical trades and installation

Electricians and electrical fitters	5241
Electrical and electronic trades nec*	5249
Telecommunications engineers	5242

Plumbing and heating, ventilation, and air conditioning trades

Plumbers and heating and ventilating engineers	5314
Pipe fitters	5216
Construction and building trades nec* (5%)	5319
Air-conditioning and refrigeration engineers	5225

*Not elsewhere classified

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Logistics

Large goods vehicle drivers	8211
Van drivers	8212
Elementary storage occupations	9260
Buyers and purchasing officers (50%)	3541
Transport and distribution clerks and assistants	4134

Civil engineering operatives not elsewhere classified (nec*)

Road construction operatives	8142
Rail construction and maintenance operatives	8143
Quarry workers and related operatives	8123

Non-construction operatives

Metal making and treating process operatives	8117
Process operatives nec*	8119
Metalworking machine operatives	8125
Water and sewerage plant operatives	8126
Assemblers (vehicles and metal goods)	8132
Routine inspectors and testers	8133
Assemblers and routine operatives nec*	8139
Elementary security occupations nec*	9249
Cleaners and domestics*	9233
Street cleaners	9232
Gardeners and landscape gardeners	5113
Caretakers	6232
Security guards and related occupations	9241
Protective service associate professionals nec*	3319

Civil engineers

Civil engineers	2121

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

Surveyors

Quantity surveyors	2433
Chartered surveyors	2434

*Not elsewhere classified

CSN WEBSITE AND CONTACT DETAILS

The CSN website
citb.co.uk/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 12 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 that 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

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

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