In association with

INDUSTRY INSIGHTS

Construction Skills Network Forecasts 2016–2020

South East 2016–2020

CONTENTS

1 SUMMARY AND KEY FINDINGS 4
2 THE OUTLOOK FOR CONSTRUCTION IN THE SOUTH EAST 6
3 CONSTRUCTION EMPLOYMENT FORECASTS FOR THE SOUTH EAST 14
4 COMPARISONS ACROSS THE UK 18

TABLES AND CHARTS

1 ANNUAL AVERAGE CONSTRUCTION OUTPUT GROWTH 2016–2020 5
2 REGIONAL COMPARISON 2016–2020 5
3 CONSTRUCTION OUTPUT 1998–2014 7
4 CONSTRUCTION INDUSTRY STRUCTURE 2014 7
5 ECONOMIC STRUCTURE 7
6 ECONOMIC INDICATORS 9
7 NEW CONSTRUCTION ORDERS GROWTH 1998–2014 9
8 NEW WORK CONSTRUCTION ORDERS 9
9 CONSTRUCTION OUTPUT 2016–2017 11
10 ANNUAL AVERAGE CONSTRUCTION OUTPUT GROWTH 2016–2017 11
11 CONSTRUCTION OUTPUT 2016–2020 13
12 ANNUAL AVERAGE CONSTRUCTION OUTPUT GROWTH 2016–2020 13
13 TOTAL EMPLOYMENT BY OCCUPATION 15
14 ANNUAL RECRUITMENT REQUIREMENT BY OCCUPATION 17
15 ANNUAL AVERAGE OUTPUT GROWTH BY REGION 19
16 ANNUAL RECRUITMENT REQUIREMENT BY REGION 19

CSN EXPLAINED

1 CSN METHODOLOGY 21
2 GLOSSARY OF TERMS 23
3 NOTES AND FOOTPRINTS 24
4 DEFINITIONS: TYPES AND EXAMPLES OF CONSTRUCTION WORK 26
5 OCCUPATIONAL GROUPS 28
6 CSN WEBSITE AND CONTACT DETAILS 31

SECTION 1

SUMMARY – SOUTH EAST

0.9%

The region's construction output is expected to expand at an annual average rate of 0.9% between 2016 and 2020, well behind the equivalent UK rate of 2.5%. Growth in new work is projected to lag that of repair and maintenance (R&M) over the same period, at respective rates of 0.6% and 1.4%. Employment growth is also predicted to lag the national average at 0.1% vs 1.1% on the same measures.
The annual average recruitment requirement (ARR) of 1,730 represents 0.5% of base 2016 employment, notably below the UK average of 1.7%.

Key Findings

Total construction output increased by 3% in 2014. It's predicted to achieve further growth over the forecast period, at an annual average rate of 0.9%.

The industrial and public non-housing sectors are set to achieve the strongest expansions in terms of output growth, at respective annual average rates of 3.8% and 3.5%. The former should be buoyed in the short-term by the start of work on the £140m warehouse and distribution facility in Kingsnorth as well as GlaxoSmithKline's new £100m pharmaceutical facility in Worthing. Towards 2020 strengthening global demand could act to boost exports and subsequently benefit the factories sub-sector. This may offset the expected reduction in consumer spending as inflationary and interest rate pressures curb growth. The latter ought to receive strong support from the education sub-sector, from both schools and universities.

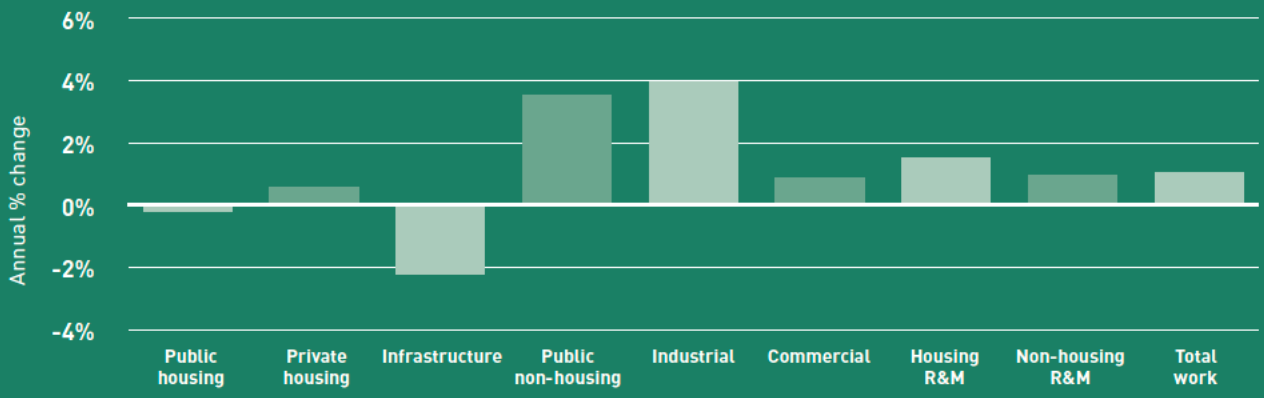
Commercial and private housing activity should also expand, albeit at much slower annual average rates of 0.8% and 0.5% respectively. The former performed well in 2014 but going forwards we expect growth to be on a more uneven footing, especially in the latter half of the forecast period when expected increases in inflation could impact retail sales growth, consequently tapering demand for new retail facilities.

Infrastructure activity is expected to see the largest contraction over the forecast period, at an annual average rate of 2.1%. This is after strong expansion in 2015 as work got underway on a number of projects in the road and energy sub-sectors. Nevertheless, beyond that the pipeline of new work does not provide enough evidence to suggest that this level of output can be sustained in the long-run, hence the negative growth prediction. The public housing sector is also forecast to see an annual average contraction, of 0.2%. Sources such as the government's construction pipeline continue to suggest a lack of investment between 2016 and 2020, although all allocations under the 2015–2018 Affordable Housing Programme (AHP) are yet to be announced.

Employment growth is projected to average 0.1% over the forecast period, well below the equivalent UK rate of 1.1%. Of the 28 occupational aggregates only 16 are forecast to expand between 2016 and 2020; of those logistics (3.2%), plant operatives (2.4%) and scaffolders (1.6%) are set for the most robust increases.

The region's ARR of 1,730 represents 0.5% of base 2016 employment; well below the UK average of 1.7%. Surveyors have the highest requirement at 600.

ANNUAL AVERAGE CONSTRUCTION OUTPUT GROWTH 2016-2020 – SOUTH EAST



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

> By 2020 construction employment is forecast to reach over 379,000 in the South East.

SECTION 2

THE OUTLOOK FOR CONSTRUCTION IN THE SOUTH EAST

2.1 Construction output in the South East – overview

Construction output increased 3% in 2014 to £17.8bn in 2012 prices.

Growth varied across the new work sectors. The industrial and commercial sectors saw the largest expansions, with activity in the former rising by 5% to £414, and the latter by 4% to £3.1bn. Activity in public non-housing ticked up by 1% to £1.2bn in 2014, after a pair of heavy successive yearly declines.

In contrast the public housing and infrastructure sectors endured the sharpest contractions. It was the latter's third consecutive annual decline, leaving activity at its lowest level since 2009. Private housing activity ticked down by 1% to £2.9bn in 2014, leaving the total at its lowest level in five years.

2.2 Industry structure

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

The housing repair and maintenance sector (R&M) sector is more important at the regional level, with a 25% share of output, versus 19% for the UK as a whole. The non-housing (R&M) sector is also overrepresented, but to a lesser extent (20% vs 19%). Consequently, R&M accounts for 45% of activity in the South East, notably above the UK proportion of 38%.

In turn most of the new work sectors were less prominent in the region. The biggest divergence was for infrastructure, which accounted for 9% of the South East's construction output, below the UK proportion of 11%.

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 South East's gross value added (GVA) reached £228bn in 2012 prices in 2014, after a 3.5% annual increase.

The South East's economy is characterised by its diverse sectoral base. In contrast to London, where the financial and business service sector generates about two-thirds of its output, the South East has a more balanced mix of professional services, high-end manufacturing, such as pharmaceuticals and aerospace, and consumer services. The largest sector is professional services, which enjoyed a degree of resilience during the recession. It is expected to hold its position as the region's primary activity driver in the long-term. The information and communication sector has posted solid growth in recent years, underpinned by the uptake of new technologies. This trend will only strengthen in the coming years. Consumer services in the South East benefit from higher household incomes relative to the national average; this is in addition to a strong tourism sector.

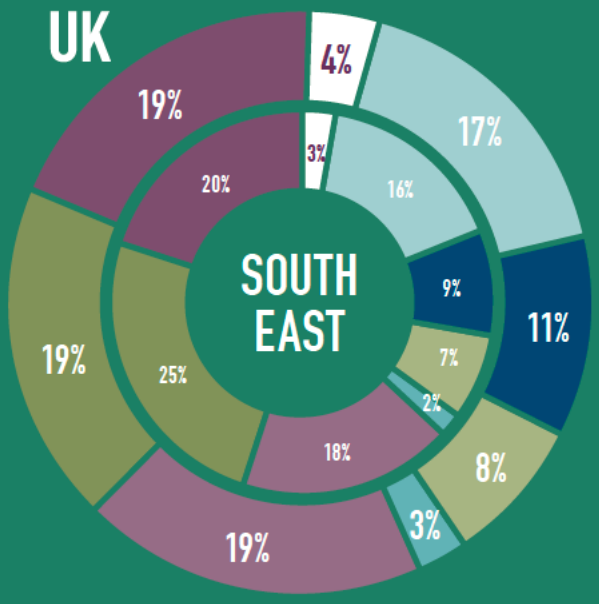
2.5 Forward looking economic indicators

GVA in the South East is projected to have increased by 2.7% in 2015. Of the major sectors, information and communication (5.8%), professional and other private services (3.5%) and wholesale and retail (4.4%) are estimated to have achieved the strongest increases.

GVA is predicted to grow at an annual average rate of 2.6% over the forecast period, stronger than the UK average rate of 2.4%.

CONSTRUCTION OUTPUT 1998–2014 – SOUTH EAST

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



CONSTRUCTION INDUSTRY STRUCTURE 2014 – UK VS SOUTH EAST

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

Source: ONS, Experian

ECONOMIC STRUCTURE – SOUTH EAST (£ BILLION, 2012 PRICES)

Selected sectors	Actual	Forecast Annual % change, real terms					
	2014	2015	2016	2017	2018	2019	2020
Professional and other private services	64.9	3.5	3.3	3.2	3.3	3.1	2.9
Public services	38.0	0.1	-0.2	-0.2	0.6	1.4	2.3
Wholesale and retail	32.3	4.4	2.7	2.6	2.7	2.7	2.7
Manufacturing	18.1	-0.1	1.4	2.9	3.0	2.0	1.6
Transport and storage	8.9	1.9	2.5	3.3	3.3	2.8	2.8
Total Gross Value Added (GVA)	**227.5**	**2.7**	**2.5**	**2.6**	**2.8**	**2.6**	**2.6**

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

The region's information and communication sector is expected to carry on its rapid expansion between 2016 and 2020, with the strongest projected average growth rate of 3.4%. The professional and other private services sectors ought to be next in line, with expected expansion of 3.2% on the same measure. It should strengthen its position as the largest sector by 2020, with an estimated 32% share of total GVA, up from 30% a decade earlier.

The wholesale and retail, and manufacturing sectors should be next in line with respective annual average growth rates of 2.7% and 2.2%.

As is the case at the UK level, public services growth is likely to be moderate over the forecast period with an average expansion of 0.8% in each year to 2020.

Real household disposable income is estimated to have increased by 1.1% in 2014, after stagnating in the previous year. It should have strengthened significantly in 2015, with an annual expansion of 3.6%. It's likely to carry on rising throughout the forecast period, but at progressively weaker rates. This fits in with the prediction that both inflation and interest rates will be on an upward trend by the second half of 2016, applying pressure to household budgets from increased debt payments and a rising cost of living.

According to the Office for National Statistic's mix-adjusted series, house prices in the South East increased for the fifth successive year to £327,000 in 2014. Prices made further gains in the three months to September 2015, up 3.9% on the previous quarter and 7.1% on the same period of a year earlier.

The unemployment rate on the Labour Force Survey (LFS) measure fell for the second successive year in 2014 to 4.4%. We expected it to decline further in the near-term, before flattening out at approximately 3.6% for the remainder of the forecast period.

2.6 New construction orders – overview

Total construction orders increased for the second successive year in 2014 to £7.2bn in current prices.

At the sector level, orders in public non-housing and industrial made the strongest gains in 2014. The former rose 26% to £1.3bn, while that latter saw its fourth successive double-digit increase, rising 20% to £480m.

The private housing and commercial sectors also achieved solid growth in 2014. Orders for the former rose 7% to £2.1bn, while the latter's were up 15% to £2bn.

In contrast those for the public housing and infrastructure sectors saw contractions. At £174m the former fell 55% year-on-year to its lowest level since 2001 in 2014. Despite falling 16% to £1bn, orders for the latter remained quite strong when compared to the level averaged over the preceding 10 years.

2.7 New construction orders – current situation

Total construction orders in the South East stood at £4.2bn in the first half of 2015. They were up 7% on a half-yearly basis and they were also 32% above their level for the same six months a year earlier. On a four-quarter moving total basis in the second quarter of 2015 orders reached their highest level since the final three months of 2008.

The industrial and infrastructure sectors were the only ones to experience growth on both a half-year on half-year and annual basis. At £371m orders in the former rose 31% on the previous six months' total and they were also 89% higher than their level for the corresponding two quarters of 2014. Infrastructure on the other hand experienced exponential growth to its new orders series in the second quarter of 2015. The reason behind this leap in orders is unclear. In contrast the commercial and private housing sectors saw a drop in new orders on both measures.

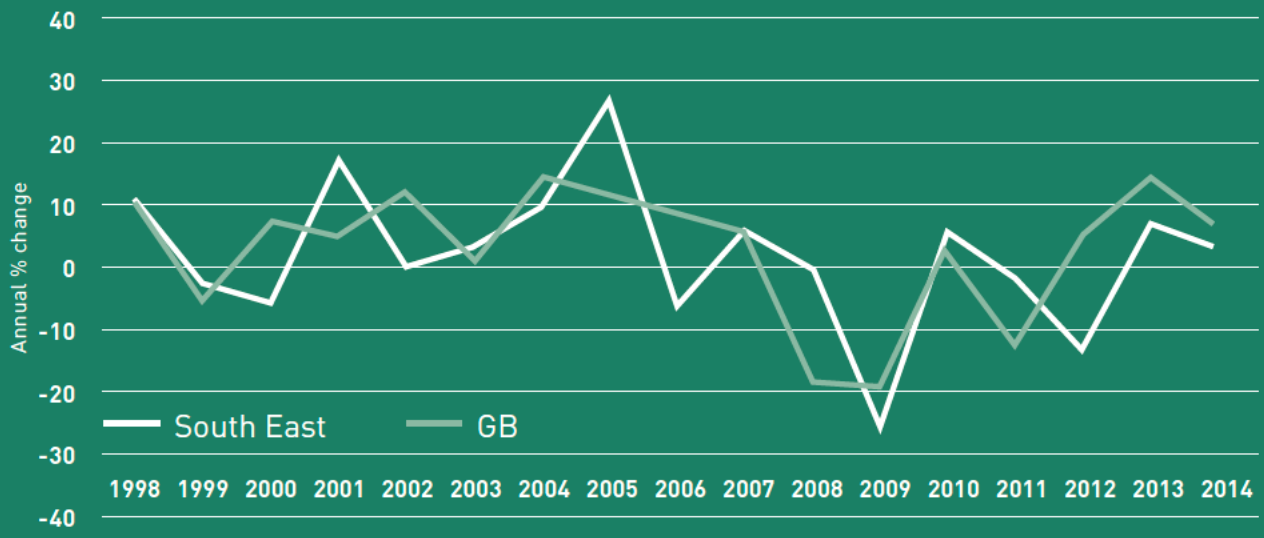
Performance was mixed for the public housing and public non-housing sectors. The former was up half-year on half-year but down on an annual basis. The reverse is true for the latter.

ECONOMIC INDICATORS – SOUTH EAST (£ 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	171.2	3.6	2.4	2.5	2.4	1.7	2.2
Household spending	174.2	3.4	2.7	2.6	2.4	2.3	2.4
Working age population (000s and as % of all)	5,405	125.5%	101.8%	61.2%	54.9%	80.8%	135.1%
House prices (£)	327,105	6.4	4.9	4.5	3.6	3.5	4.2
LFS unemployment (millions)	0.25	-10.5	-9.3	-2.0	-1.7	0.1	-0.1

Source: ONS, DCLG, Experian

NEW CONSTRUCTION ORDERS GROWTH 1998–2014 – SOUTH EAST VS. GB



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

NEW WORK CONSTRUCTION ORDERS – SOUTH EAST (£ MILLION, CURRENT PRICES)

	Actual	Annual % change				
	2014	2010	2011	2012	2013	2014
Public housing	174	28.4	-21.7	-1.4	8.9	-55.6
Private housing	2,133	45.1	22.5	-16.1	9.7	6.7
Infrastructure	1,083	31.6	-37.3	16.4	-2.1	-16.2
Public non-housing	1,324	-2.7	-7.5	-26.9	2.9	26.5
Industrial	480	-51.6	58.3	17.5	19.7	19.7
Commercial	2,012	-18.7	14.0	-22.4	11.1	14.5
Total new work	**7,161**	**6.1**	**-1.4**	**-13.1**	**7.1**	**4.8**

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

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.

Industrial output made strong gains on a half-yearly and annual basis to reach £281m in the first half of 2015. Output was 22% above its total for the last six months of 2014, and also 37% higher than its level for the corresponding two quarters of 2014.

Infrastructure output was robust in the first half of the year. At £1.1bn it had made strong gains on both a half-yearly and annual basis, with respective increases of 18% and 32%. On a four-quarter moving total basis output rose to its highest level since the second quarter of 2012 in the three months to June 2015.

Public non-housing output reached £671m in the first six months of 2015. It fell 4% on a quarterly basis, yet managed to better its total for the same two quarters of 2014 by 18%. On a four-quarter moving total basis output rose for its fifth consecutive quarter in three months to June 2015.

Output in the private housing sector stood at £1.6bn in the first half of 2015, down by 4% on a half-yearly basis, although it remained 4% above its level for the same two quarters of 2014. On a four-quarter moving total basis output ticked up for its fourth successive quarter in the three months to June 2015.

Commercial output stood at £1.4bn in the first two quarters of 2015. It fell sharply on both a half-year and annual basis, with respective declines of 19% and 14%. On a four-quarter moving total basis output reached a short-term peak in the final three months of 2014. However, it proceeded to fall in subsequent quarters.

Public housing output in the first half of the year totalled £218m. It was down 19% half-year on half-year, and it was also 26% below its level for the same six months of 2014. On a four-quarter moving total basis output fell for its fifth consecutive quarter in the three months to June 2015.

Total construction output is projected to remain unchanged in 2015, before growth of around 2% in each of the following two years.

On an annual average basis in the short-term, we expect the public non-housing and industrial sectors to achieve the largest expansions in output at respective rates of 4.8% and 3.6%. The former should be boosted from a number of projects predominantly in the education sub-sector. The latter ought to benefit from the start of work on GlaxoSmithKline's £100m pharmaceutical plant at its Worthing base. Work on the new manufacturing facility will begin in 2016 and it is projected to be completed a year later.

The private housing and commercial sectors are also forecast to expand over the same period, but at a much slower annual average rate of 1.3% apiece. Given the lack of inflationary pressure in the short-term the likelihood of interest rates rising to a level that would negatively affect demand and affordability in the private housing sector remain low. Activity in the latter should be boosted by a new retail complex near Market Square, Woking. The site will contain approximately 10,967 square metres of retail floor space at an estimated cost of £150m. Work is scheduled to begin in the second half of next year and be completed within 12 months.

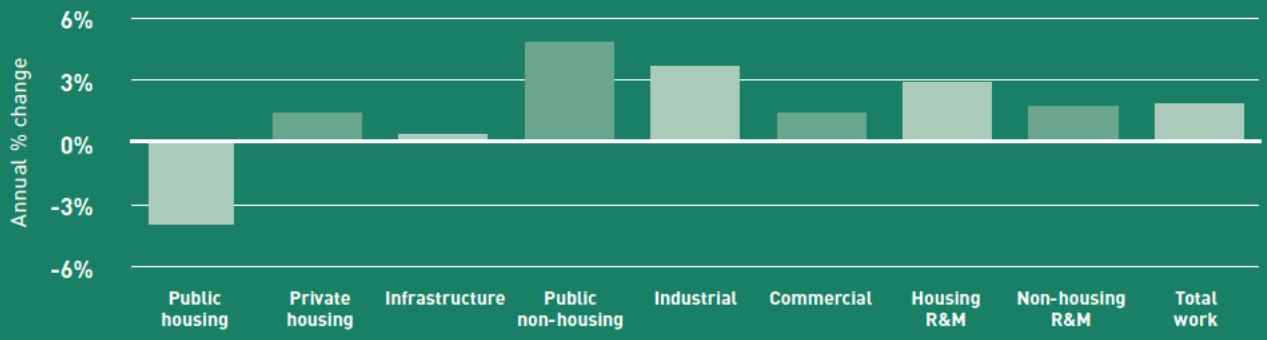
As is the case in many other regions, only public housing activity is likely to decline between 2016 and 2017, at an annual average rate of 4%.

CONSTRUCTION OUTPUT – SOUTH EAST (£ MILLION, 2012 PRICES)

	Actual	Forecast annual % change			Annual average
	2014	2010	2011	2012	2016-2017
Public housing	548	-25%	-13%	6%	-4%
Private housing	2,911	1%	2%	0%	1.3%
Infrastructure	1,661	17%	-4%	5%	0.3%
Public non-housing	1,177	-1%	6%	3%	4.8%
Industrial	414	11%	8%	-1%	3.6%
Commercial	3,097	-5%	1%	2%	1.3%
Total new work	**9,809**	**1%**	**1%**	**2%**	**1.4%**
Housing R&M	4,505	0%	4%	2%	2.9%
Non-housing R&M	3,464	-3%	2%	1%	1.6%
Total R&M	**7,969**	**-1%**	**3%**	**1%**	**2.4%**
Total work	**17,778**	**0%**	**2%**	**2%**	**1.8%**

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

ANNUAL AVERAGE CONSTRUCTION OUTPUT GROWTH 2016-2017 – SOUTH EAST



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

> The sector forecast for strongest growth in the South East is industrial increasing each year on average by 3.8%.

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

Construction output in the South East should increase at an annual average rate of 0.9% per annum between 2016 and 2020, well below the UK average rate of 2.5%.

The industrial sector is predicted to lead the way in terms of expansion with anticipated annual average growth of 3.8%. Much of the short-term upswing in output and orders can be attributed to the start of work on the £140m warehouse and distribution facility in Kingsnorth. The effect of this project is more marked as the sector is recovering from a low base level of activity. Growth is likely to slow down towards the middle of the forecast period as work winds down on GlaxoSmithKline's new pharmaceutical facility in Worthing. Beyond that there are a number of distribution facilities in the pipeline that should drive the upturn towards 2020. An improving global outlook is likely to play a key role in this, given that many of the UK's largest trade partners are expected to regain their appetite for UK exports.

The public non-housing sector should also see good growth with a long-term annual average increase of 3.5%. Despite recent falls new orders are still at a high level. The universities and schools sub-sectors are expected to be the primary drivers of the upturn. Notable projects include the University of Sussex's new life sciences building in Falmer, Brighton. Work on the £60m education facility is expected to have begun before the end of 2015, and it ought to be completed by early 2017. Also, according to the latest government construction pipeline (August 2015) an estimated £356m is to be allocated to the devolved budgets for schools throughout the South East between 2017 and 2020. This should provide further support to the education sub-sector in the medium-term.

The private housing and commercial sectors are expected to achieve modest gains on the same measures with respective annual average growth of 0.5% and 0.8%. The former will be building on its already high level of activity. One of the largest drivers should be the 200-unit development on King Street in Maidenhead. Work on the £250m project is expected to begin in the first half of 2016 and run on until the end of 2019. The upturn in activity is likely to ease towards 2018 as rising interest rates and less accommodatory monetary policy act to curtail both demand and financing liquidity in the sector. Despite the latter's expectedly positive performance output towards 2020 it is estimated to remain well below its 2008 peak level. Although this could be a dramatically different story if the proposed theme park development in north Kent does go ahead. At a projected value of £2bn it would no doubt drive activity towards its previous peak. However, the project currently remains in the preplanning stage.

The prognosis for the infrastructure and public housing sectors is less positive. Both are set to contract on an annual average basis in the medium term, with respective declines of 2.1% and 0.2% a year on average. Despite the fall the former's level of output is expected to remain in line with its long-term average level. The energy sub-sector should be quite buoyant with work due to commence in 2016 on a £50m 50MW power plant on Edinburgh Avenue, Slough. Beyond that there are number of offshore wind farms in the pipeline, although their contribution to onshore construction activity remains unclear. Most of the contraction in public housing output ought to take place in the short-term following on from a near collapse in the level of new orders, which by the second quarter of last year were 73% below their third quarter of 2013 peak. Data from the Homes and Communities Agency (HCA) also shows a sharp decline, to 4,285 affordable units started on site between April 2014 and March 2015, from 8,571 units started in the same 12 months a year earlier. The latter half of the forecast period could stand to benefit from the upcoming allocation under the 2015–2018 AHP, but that remains to be seen.

2.10 Beyond 2020

The infrastructure sector ought to be particularly buoyant beyond 2020. Some of the largest projects currently in the long-term pipeline include up to £4bn worth of work on two new offshore wind farms, which should be completed around 2022. At that point in time work is set to be ongoing on the £250m flood protection scheme in Datchet, Berkshire. The project includes three new flood diversion channels between Datchet and Shepperton, as well as further developments downstream between Walton Bridge and Teddington. The commercial sector should also benefit after the forecast period as activity builds up on a £450m hotel scheme, taking place as part of the redevelopment of Royal Pier in Southampton and the surrounding areas. The project is expected to be completed in 2025.

According to the 2015 Autumn Statement and Spending Review the government has pledged over £100bn into long-term investment for infrastructure projects, further funding for schools and protection of funding for arts, national museums and galleries. While the review only covers the period up to 2020, large projects started towards the end of the period are likely to deliver output streams well into the 2020s. These pledges could have a positive effect on the South East's infrastructure and public non-housing sectors.

CONSTRUCTION OUTPUT – SOUTH EAST (£ MILLION, 2012 PRICES)

	Estimate	Forecast annual % change					Annual average
	2015	2016	2017	2018	2019	2020	2016-2020
Public housing	413	-13%	6%	13%	6%	-10%	-0.2%
Private housing	2,946	2%	0%	-4%	2%	2%	0.5%
Infrastructure	1,947	-4%	5%	-3%	-6%	-3%	-2.1%
Public non-housing	1,168	6%	3%	4%	-1%	5%	3.5%
Industrial	458	8%	-1%	7%	3%	2%	3.8%
Commercial	2,956	1%	2%	4%	2%	-5%	0.8%
Total new work	**9,888**	**1%**	**2%**	**1%**	**0%**	**-1%**	**0.6%**
Housing R&M	4,507	4%	2%	-2%	2%	2%	1.5%
Non-housing R&M	3,366	2%	1%	0%	1%	2%	1.1%
Total R&M	**7,874**	**3%**	**1%**	**-1%**	**2%**	**2%**	**1.4%**
Total work	**17,762**	**2%**	**2%**	**0%**	**1%**	**0%**	**0.9%**

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

ANNUAL AVERAGE CONSTRUCTION OUTPUT GROWTH 2016-2020 – SOUTH EAST

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

SECTION 3

CONSTRUCTION EMPLOYMENT FORECASTS FOR THE SOUTH EAST

3.1 Total construction employment forecasts by occupation

The table presents actual construction employment (SICs 41–43, 71.1, and 74.9) in South East 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 South East is predicted to expand at an average rate of 0.1% between 2016 and 2020, notably below the UK rate of 1.1%.

The region's total employment is projected to rise by approximately 2,100 in the five years to 2020, from an estimated level of 377,590 in 2015 to 379,700 in 2020. By the end of the forecast period total employment is projected to be around 8% below its peak 2008 level.

Of the 28 occupational aggregates only 16 are forecast to post an expansion between 2016 and 2020. Logistics (3.2%), plant operatives (2.4%) and scaffolders (1.6%) are set to achieve the strongest growth. In contrast, glaziers, plumbing and HVAC trades, plasterers and specialist building operatives are all in line for an annual average contraction over the same period.

TOTAL EMPLOYMENT BY OCCUPATION – SOUTH EAST

	Actual 2014	Estimate 2015	Forecast	
			2016	2020
Senior, executive, and business process managers	30,220	31,100	31,690	32,720
Construction project managers	7,230	7,690	7,790	7,530
Other construction process managers	26,750	27,050	27,440	26,990
Non-construction professional, technical, IT and other office-based staff	53,680	57,350	59,050	60,680
Construction trades supervisors	6,380	6,150	6,320	6,510
Wood trades and interior fit-out	36,600	35,290	35,910	34,100
Bricklayers	7,500	7,240	7,420	7,230
Building envelope specialists	16,440	15,890	16,290	15,770
Painters and decorators	20,200	19,470	19,860	18,740
Plasterers	4,830	5,140	5,190	4,760
Roofers	7,180	7,670	7,780	7,380
Floorers	4,100	4,380	4,480	4,320
Glaziers	3,610	3,850	3,840	3,340
Specialist building operatives nec*	8,180	7,890	8,000	7,470
Scaffolders	2,340	2,480	2,590	2,680
Plant operatives	5,560	5,950	6,240	6,700
Plant mechanics/fitters	4,110	4,390	4,530	4,490
Steel erectors/structural fabrication	2,810	2,970	3,110	3,190
Labourers nec*	18,210	19,430	19,750	19,490
Electrical trades and installation	22,920	24,430	24,950	23,600
Plumbing and HVAC Trades	22,490	21,650	21,820	20,110
Logistics	2,950	3,140	3,310	3,670
Civil engineering operatives nec*	1,970	1,900	1,920	1,860
Non-construction operatives	2,630	2,640	2,760	3,060
Civil engineers	5,190	5,540	5,580	5,290
Other construction professionals and technical staff	33,930	34,020	34,810	34,930
Architects	6,010	5,930	6,130	6,330
Surveyors	7,220	6,960	7,020	6,760
Total (SIC 41-43)	**318,890**	**325,140**	**332,280**	**326,390**
Total (SIC 41-43, 71.1, 74.9)	**371,240**	**377,590**	**385,820**	**379,700**

*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 South East's projected ARR for 2016-2020 is 1,730, representing 0.5% of base 2016 employment, well below the UK average (1.7%). Of the 28 occupational aggregates surveyors has the highest absolute requirement (600). In terms of ratios of base 2016 employment, the requirement is also highest for surveyors (8.5%), followed by plant mechanics/fitters (7.5%) and then steel erectors/structural fabrication (5.5%).

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 – SOUTH EAST

	2016-2020
Senior, executive, and business process managers	-
Construction project managers	-
Other construction process managers	-
Non-construction professional, technical, IT and other office-based staff	-
Construction trades supervisors	-
Wood trades and interior fit-out	-
Bricklayers	-
Building envelope specialists	-
Painters and decorators	-
Plasterers	-
Roofers	100
Floorers	200
Glaziers	100
Specialist building operatives nec*	-
Scaffolders	-
Plant operatives	-
Plant mechanics/fitters	340
Steel erectors/structural fabrication	170
Labourers nec*	-
Electrical trades and installation	-
Plumbing and HVAC Trades	-
Logistics	90
Civil engineering operatives nec*	-
Civil engineers	<50
Other construction professionals and technical staff	-
Architects	100
Surveyors	600
Total (SIC 41-43)	**1,000**
Total (SIC 41-43, 71.1, 74.9)	**1,730**

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

SECTION 4

COMPARISONS ACROSS THE UK

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.

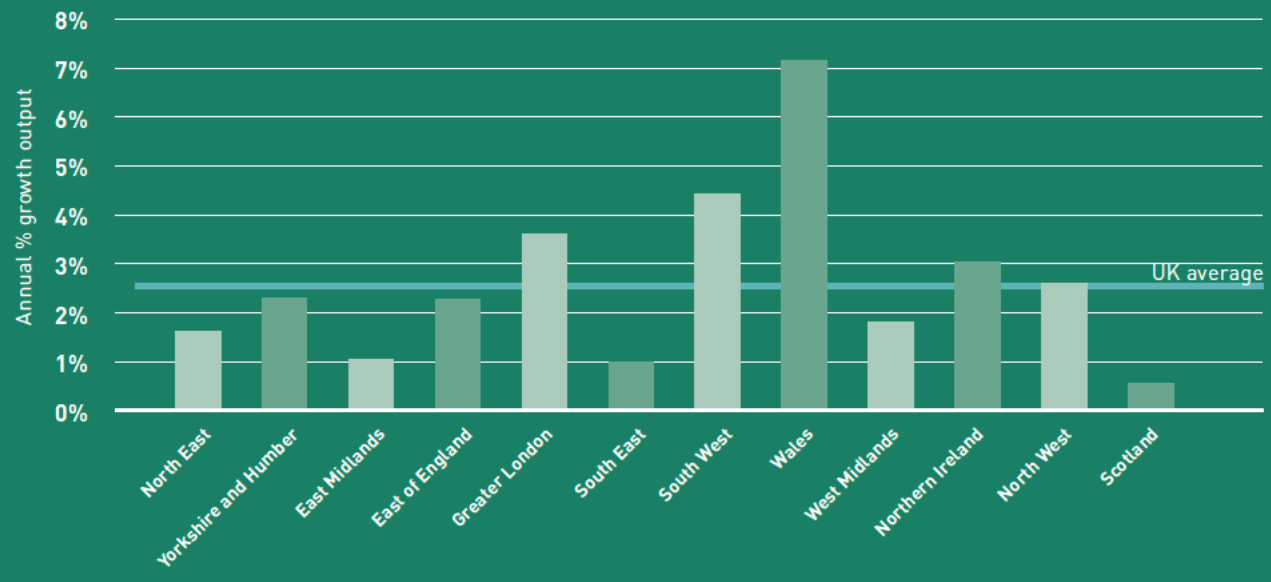
Northern Ireland is likely to be one of the faster growing regions in the five years to 2020, although construction output will be coming back from a very low base and there are concerns that current political uncertainties could delay the start of public projects.

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.

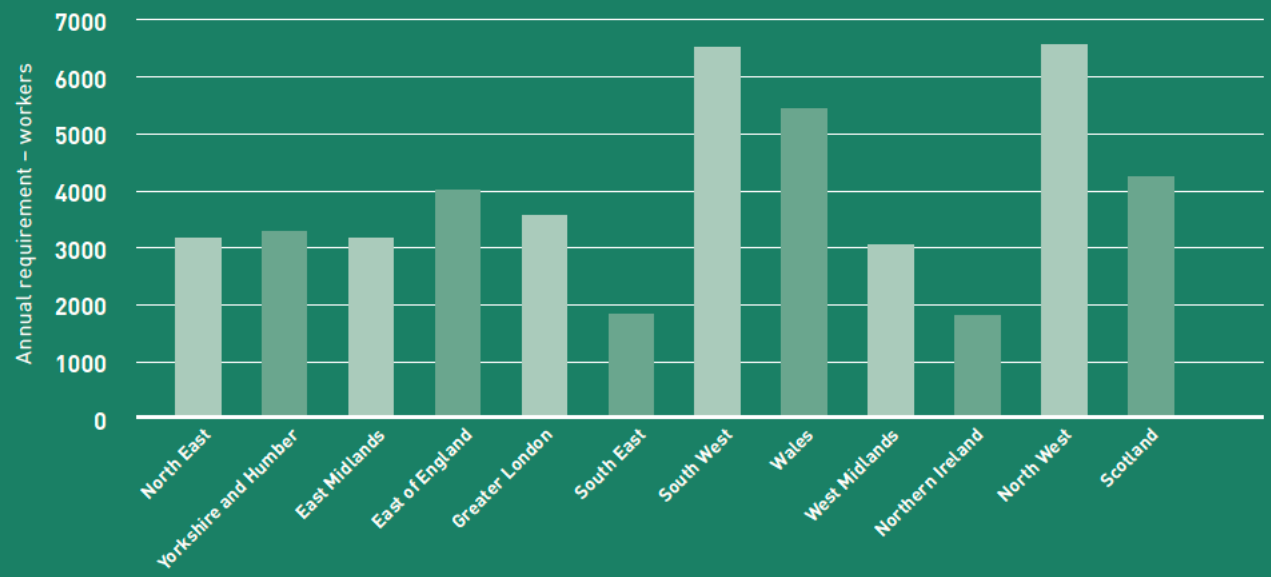
The pattern of ARR can look significantly different from the profile of output and employment, as some regions and devolved nations have historically strong net inflows and some suffer from large net outflows. The most extreme examples of this trend tend to be Greater London and Wales. London has a relatively 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 SOUTH EAST



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

ANNUAL RECRUITMENT REQUIREMENT (ARR) BY REGION 2016-2020



Source: CSN, Experian

> Construction output will rise on average 0.9% each year in the South East.

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.

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:

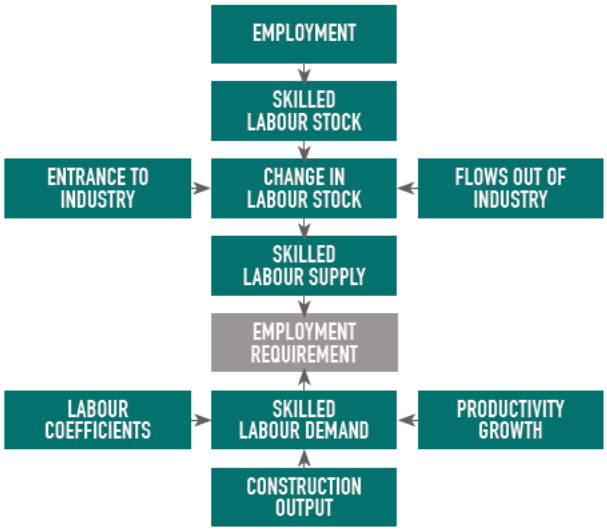
- Transfers to other industries
- International/domestic out migration
- Permanent retirements (including permanent sickness)
- Outflow to temporary sickness and home duties.

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.



SECTION 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 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.

SECTION 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 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.

SECTION 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 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.

SECTION 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 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

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*

SECTION 6

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**

For more information about the
Construction Skills Network, contact:
Karen Hazelden
Future Skills Researcher
Policy and Research
07730 802395
research.team@citb.co.uk

citb.co.uk

In association with

Experian