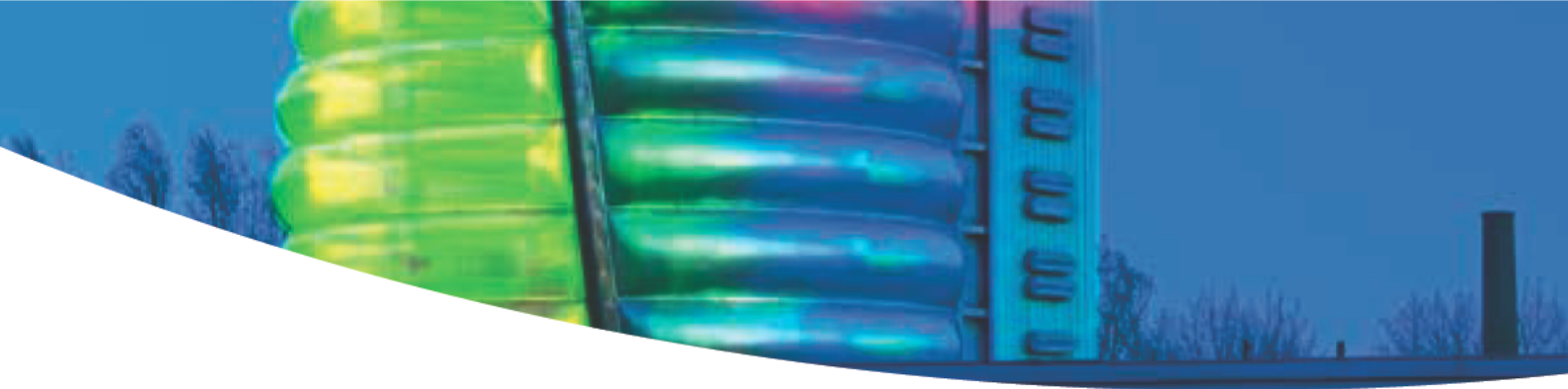


# Construction Skills Network

East Midlands 2013-2017

Labour Market Intelligence





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

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

# Contents

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

## Tables and Charts

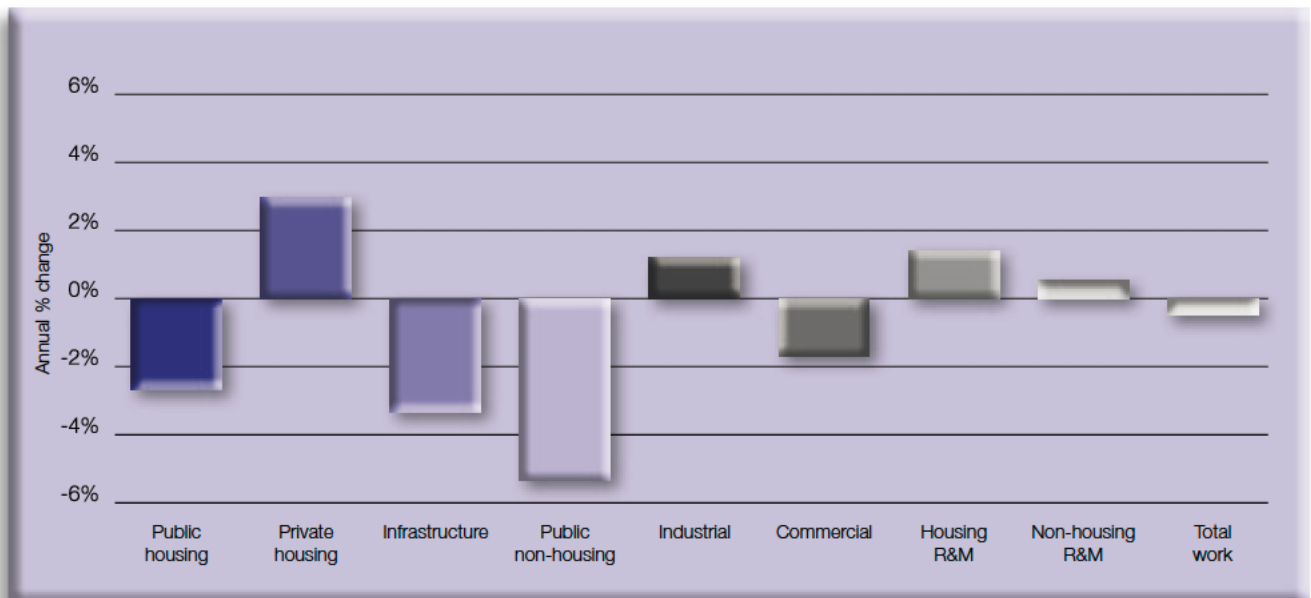
1	Annual average construction output growth 2013-2017	4
2	Regional comparisons 2013-2017	5
3	Construction output 1995-2011	6
4	Construction industry structure 2011	6
5	Economic structure	7
6	Economic indicators	7
7	New construction orders growth 1995-2011	8
8	New work construction orders	8
9	Annual average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

<b>CSN Explained</b>	16
----------------------	----

# 1. Summary – East Midlands

The East Midlands is predicted to see a marginal decline in construction output over the five years to 2017 with an average annual fall of 0.4%, performing worse than the UK as a whole, where annual average growth of 0.8% is projected. Repair and maintenance (R&M) output is expected to grow by 0.9% per year on average, a better performance than new work, with an average annual decline of 1.2%. Construction employment is estimated to be 144,900 in 2017, 25% below its peak 2008 level. The East Midlands' annual recruitment requirement (ARR) is 1,860, which represents 1.2% of total projected base 2013 employment in the region, in line with the national average.

**Annual average construction output growth 2013-2017 – East Midlands**



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

GVA in the East Midlands is projected to grow at an annual average rate of 1.7% between 2013 and 2017

## Key findings

An estimated decline of 11% in construction output in 2012 is expected to be followed by two further years of contraction, albeit more modest, before the East Midlands construction sector returns to growth in 2015. Although the region was not one of the main beneficiaries of the Building Schools for the Future (BSF) programme, no region or devolved nation will be immune from the public spending cuts which will impact on the public housing and non-housing construction sectors. The marked funding cut for the public housing sector will lead to substantial falls in output, certainly in the shorter term.

The medium term outlook for the region's construction sector is better, with growth expected to return in 2015, although the pace of increase will be only muted. Ongoing weakness in the macro-economy and poor business and consumer confidence is impacting on the private construction sectors, with little incentive for investment in new retail and leisure developments while consumer spending remains downbeat. A more sustained economic recovery is expected by 2014 and with concerns over unemployment abating, this should boost demand in the private housing market and drive some investment in new commercial developments.

The private housing and industrial sectors are the only two expected to see average annual output growth over the forecast period, with the industrial construction sector continuing to recover from its recent low. In contrast, infrastructure construction output will see an average annual decline of 3.3%, with short-term prospects for the sector particularly weak. Overall construction employment in the East Midlands is forecast to decline at an average rate of

1.1% per year over the forecast period. Employment is projected to fall in the majority of occupations over the five years to 2017 with steel erectors/structural expected to see the strongest annual average decline of 3.8%. However, employment in a number of occupations is projected to rise, with architects predicted to see the largest annual average employment increase of 2.9% over the same period.

The region's ARR at 1,860 represents 1.2% of total projected base 2013 employment, which is in line to the UK average. The largest absolute requirement is for wood trades and interior fit-out (390), but as a share of 2013 base employment, at 6.7%, plant operatives will be the most sought after.



## Regional comparisons 2013-2017

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

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

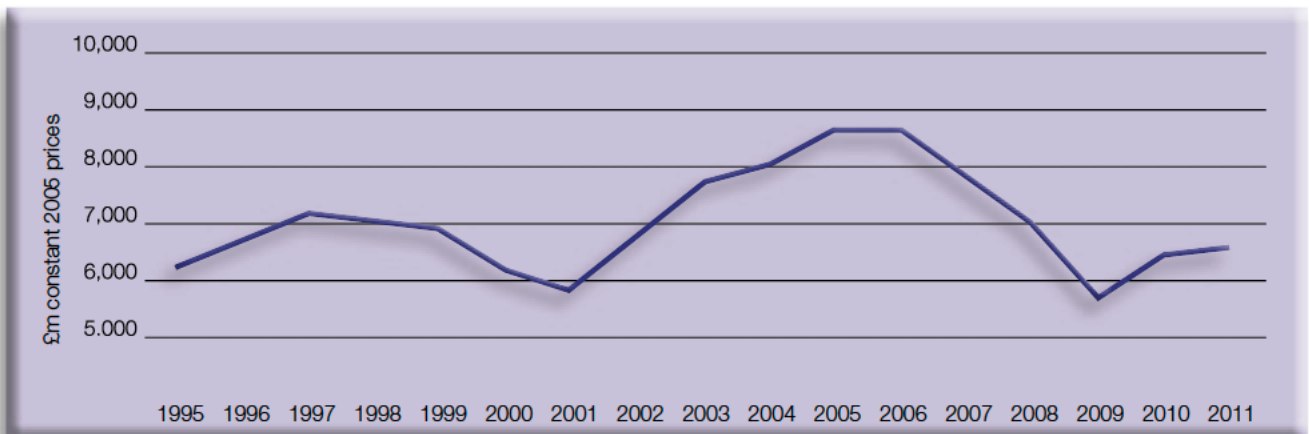
# 2. The outlook for construction in the East Midlands

## 2.1 Construction output in the East Midlands – overview

Construction output in the East Midlands began to decline prior to the 2008/09 recession, edging down marginally in 2006 and falling by 9% in 2007. The pace of contraction picked up in 2008 and 2009 with contractions of 11% and 18% respectively. The construction industry returned to growth in 2010 and saw a further increase in 2011, although output was still 23% down on its peak 2005 level in 2011.

There were divergent performances from the R&M and new work sectors in 2011, with growth of 8% in the former whilst the latter saw no change in output. Of the new work sectors, public housing fared the worst, with output dropping by 18%, although this is not particularly surprising considering the cutbacks in public expenditure. In contrast, output in the public non-housing sector rose by 3%, the East Midlands being one of the few regions and devolved nations to see growth in this sector during 2011. The private housing sector fared best with a rise of 12%, and infrastructure construction output in the region grew by 10%.

### Construction output 1995-2011 – East Midlands



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

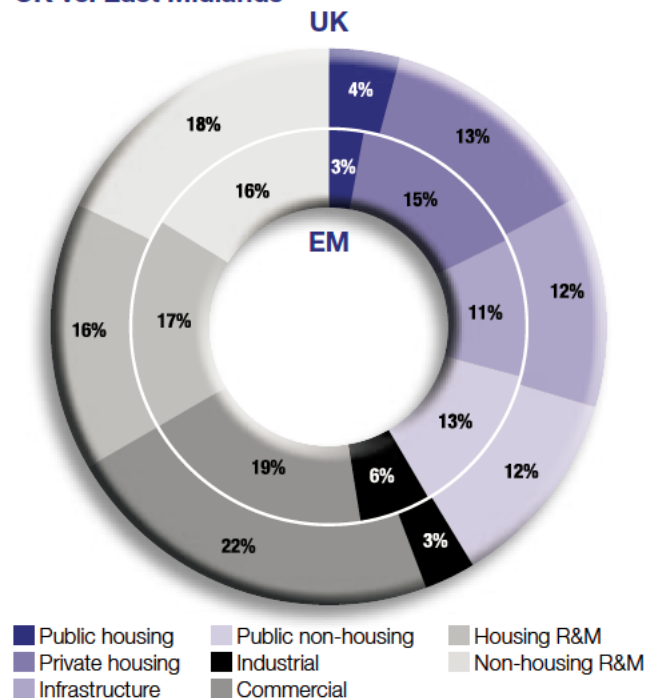
## 2.2 Industry structure

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

The new work sector in the East Midlands accounted for 67% of total construction output in 2011, slightly above the national average of 66%.

However, there are a number of differences at the sectoral level. The private housing sector accounted for 15% of construction output in the region compared with 13% in the UK as a whole, whilst the industrial sector for the East Midlands was also larger at 6% vs. the national average of 3%. Conversely, both the commercial and non-housing R&M sectors were smaller, taking a 19% vs. 22% and 16% vs. 18% share of activity respectively when compared to the UK.

### Construction industry structure 2011 – UK vs. East Midlands



Source: ONS, Experian

## 2.3 Economic overview

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

## 2.4 Economic structure

It should be noted that the Office for National Statistics (ONS) has revised its economic sector disaggregation since 2011, therefore data on economic structure in previous Labour Market Intelligence reports is not directly comparable with data in this one.

In 2011 the East Midlands saw its second consecutive year of growth as Gross Value Added (GVA) rose by

2.8% to £83.02bn in 2009 prices. As a share of the UK, the region accounted for just 6.4% of GVA, broadly unchanged from 2010.

The public services sector was the largest in the region, taking a 19.4% share of GVA, whilst professional and other private services was the second at 18.9%. The manufacturing sector accounted for 16.7% of the region's GVA taking third place, making it much more important when compared to the UK's corresponding figure of 10.9%. The wholesale and retail and transport and storage sectors accounted for 14.1% and 4.6% of the region's GVA respectively. The latter sector saw the strongest fall in 2011 of 6.3%.

### Economic structure – East Midlands (£ billion, 2009 prices)

Selected sectors	Actual 2011	Forecast <i>Annual % change, real terms</i>					
		2012	2013	2014	2015	2016	2017
Public services	16	1.2	-0.1	0.3	0.5	0.8	1.2
Professional and other private services	16	1.7	0.6	1.6	2.1	2.4	2.6
Manufacturing	14	-0.8	1.5	2.1	1.7	1.4	1.2
Wholesale and retail	12	-0.1	1.3	2.2	2.5	2.6	2.6
Transport and storage	4	-2.0	0.6	1.6	2.2	2.6	2.6
<b>Total Gross Value Added (GVA)</b>	<b>83</b>	<b>-0.4</b>	<b>0.6</b>	<b>1.6</b>	<b>2.0</b>	<b>2.1</b>	<b>2.2</b>

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

## 2.5 Forward looking economic indicators

GVA in the East Midlands is projected to grow at an annual average rate of 1.7% between 2013 and 2017, slightly lower than the UK average of 1.9%.

Over the five years to 2017 the strongest annual average growth rate of 2.2% is expected for the wholesale and retail market, the fourth largest sector in the region, with activity expected to rise in each year of the forecast period. The weakest annual average growth of 0.5% per year is forecast for the public services sector.

High levels of inflation led to real household disposable incomes (RHDI) in the East Midlands falling by 1.2% in 2011, although this is slightly better than for the UK as whole, where RHDI declined by 1.6%. Between 2013 and 2017 inflation is expected to ease and wage growth will return, boosting RHDI which is forecast to rise in each year of the

forecast period to 2017. This better performance for RHDI drives growth in household spending, with the pace of increase picking up to 2.4% towards the end of the forecast period.

In 2011, unemployment was 180,000 in the region, equivalent to an unemployment rate of 7.4%, which was lower than the UK figure of 8.1%. Unemployment levels are expected to rise during 2013, although a more sustained improvement in the economy should cause unemployment to decline from 2014 onwards.

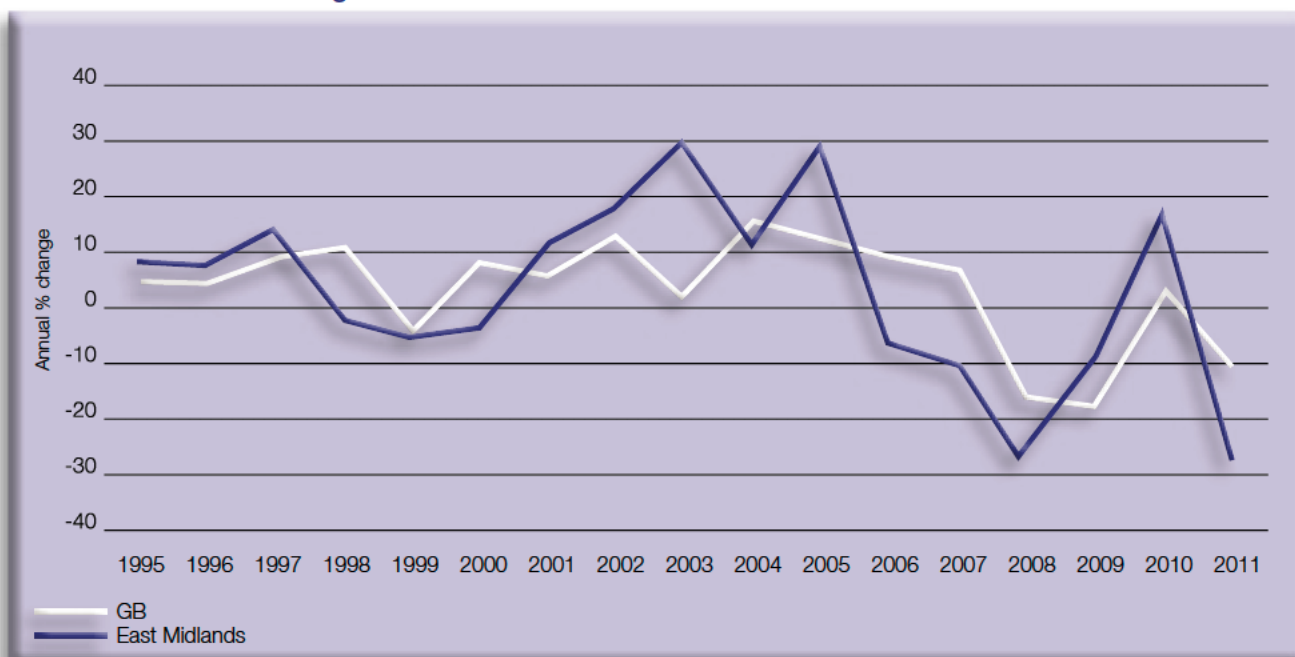
The working age population stood at 2.764m in 2011 and is predicted to see a small rise as a share of total population over the forecast period. House prices in the region edged down in 2011, but marginal increases are expected to be seen in the short term, with annual house price inflation accelerating to 2.6% by 2017.

### Economic indicators – East Midlands (£ billion, 2009 prices – unless otherwise stated)

	Actual 2011	Forecast <i>Annual % change, real terms</i>					
		2012	2013	2014	2015	2016	2017
Real household disposable income	61	0.9	0.8	1.7	1.8	1.9	2.4
Household spending	61	-0.2	0.5	1.6	2.2	2.4	2.4
Working age population (000s and as % of all)	2,764	61.0%	61.3%	61.6%	61.9%	62.1%	62.2%
House prices (£)	162,463	0.2	0.3	1.4	2.1	2.3	2.6
LFS unemployment (millions)	0.18	6.02	5.13	-6.63	-6.92	-4.34	-6.41

Source: ONS, DCLG, Experian

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



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

### 2.6 New construction orders – overview

After reaching a three-year high in 2010, new construction orders in the East Midlands dropped by 28% to just £2.6bn (current prices) in 2011. This is the lowest annual total since 2000. The most marked contraction was for infrastructure new orders which dropped by 64% after reaching a record high in 2010 as contracts for the Nottingham Express Transit system were let. Private housing new orders fell by almost 27% after more than doubling in 2010. Nevertheless this growth came after orders fell to a record low in 2009 and in 2011 they were just 34% of their 2006 peak.

In contrast, new industrial construction orders rose by 40%, albeit from a historically low level, but it was the only sector in the region to see any growth in orders.

### 2.7 New construction orders – current situation

In the first half of 2012, new orders totalled £1.6bn, up 9% on the corresponding period of 2011, following a particularly strong first quarter of the year. Growth was strongest in infrastructure new orders, which rose by 160%, year-on-year, to £577m in the six months to June 2012. Private housing orders were up by 34%, year-on-year, and public housing new orders increased by 18% over the same period. In contrast, new orders for the public non-housing sector dropped by 56% and new orders for the industrial sector fell by 42%. Commercial construction orders in the region declined by a more moderate 4% from the corresponding period of 2011.

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

	Actual 2011	Annual % change				
		2007	2008	2009	2010	2011
Public housing	119	-16.7	-18.9	5.5	-19.4	-9.7
Private housing	567	-9.2	-58.5	-41.5	108.9	-26.6
Infrastructure	352	114.3	-16.8	56.2	52.4	-64.3
Public non-housing	654	3.7	23.6	12.9	-22.2	-13.0
Industrial	294	5.0	-46.1	-29.1	-19.4	40.1
Commercial	631	-37.2	-11.7	-28.6	6.1	-22.2
<b>Total new work</b>	<b>2,616</b>	<b>-10.9</b>	<b>-27.1</b>	<b>-9.3</b>	<b>15.5</b>	<b>-28.5</b>

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



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

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

In the six months to June 2012, construction output in the region totalled £3.4bn in current prices. This was 7% lower than the corresponding period of the previous years and 11% down on the second half of 2011. On a sectoral basis, industrial construction was the only new work sector to see growth, as output rose by 29% on an annual basis. Infrastructure output remained unchanged, whilst the strongest declines were in the private housing (-16%) and commercial (-15%) sectors.

Following an estimated decline of 11% in 2012, construction output in the East Midlands is forecast to continue to contract in the short term with average annual falls of 2.6% expected in 2013 and 2014. There are contrasting fortunes for the new work and R&M sectors with the former forecast to see output drop by 4.1% per year on average, whilst the latter will see output remain broadly unchanged over the same period.

The public non-housing sector is expected to see the most marked decrease in output of 13% per year on average in 2013 and 2014. This is not particularly surprising given the lack of major projects in the sector as Government spending cuts continue to impact on construction. Although it is the worst performing sector in the region, the pace of contraction the East Midlands' public non-housing sector is much weaker than for a number of the other English regions, in particular those that benefitted the most from the Building Schools for the Future (BSF) programme.

Output in the public housing sector is forecast to decline at an average annual rate of 7.3% in the short term. The East Midlands received £406m under the 2008-2011 National Affordable Housing programme, but has been allocated just £68m from the 2011-2015 funding programme, out of £286m for the Midlands as a whole.

The commercial construction sector is also expected to fare badly in 2013 and 2014, with average annual declines of 6.2% for output. The ongoing weakness in the macro economy is providing little incentive for investment in retail and leisure facilities, especially considering that households have seen falling incomes over the past few years. However, the £40m mixed-use Southreef project in Nottingham, which has been on hold since 2010, was purchased by a Middle East investor and work is expected to restart in 2013. Nevertheless, there are few other projects planned in the region at present.

In 2013 and 2014, the infrastructure sector is expected to see output fall at an average annual rate of 5.3%. There are a number of road projects planned for the region, including the widening of the A453 between the M1 and Nottingham, which has a cost range of between £141m and £194m, and the £185m to £273m M1 Junction 19 improvement scheme. However, these are not enough to keep output in the sector at its recent record high.

The private housing and industrial sectors are the only ones forecast to see growth in the shorter term, with annual average increases of 4% and 1.8% per year, respectively, expected in 2013 and 2014.

### Annual average construction output growth 2013-2014 – East Midlands



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

## Construction output – East Midlands (£ million, 2005 prices)

	Actual	Forecast annual % change			Annual average
	2011	2012	2013	2014	2013-14
Public housing	178	-8%	-10%	-5%	-7.3%
Private housing	999	-17%	3%	5%	4.0%
Infrastructure	744	-6%	-9%	-1%	-5.3%
Public non-housing	829	-21%	-16%	-10%	-13.0%
Industrial	370	2%	3%	1%	1.8%
Commercial	1,274	-18%	-7%	-5%	-6.2%
<b>New work</b>	<b>4,394</b>	<b>-14%</b>	<b>-6%</b>	<b>-2%</b>	<b>-4.1%</b>
Housing R&M	1,127	-4%	1%	1%	1.0%
Non-housing R&M	1,061	-8%	-1%	-1%	-1.0%
<b>Total R&amp;M</b>	<b>2,188</b>	<b>-6%</b>	<b>0%</b>	<b>0%</b>	<b>0.0%</b>
<b>Total work</b>	<b>6,582</b>	<b>-11%</b>	<b>-4%</b>	<b>-1%</b>	<b>-2.6%</b>

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

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

Over the five years to 2017, the East Midlands' construction sector is projected to decline at an average annual rate of 0.4%, in contrast to weak average growth of 0.8% in the UK as a whole. Whilst the R&M sector is predicted to grow by 0.9% per year on average, the new work one will see average declines of 1.2%.

The public non-housing sector is expected to see the largest annual average decline between 2013 and 2017, with output falling by 5.3% per year on average. However, following double-digit declines in the short term, output in the sector is expected to stabilise in 2015 and remain broadly unchanged over the remaining years of the forecast period. By 2017, output in the sector is expected to have fallen by 40% from its peak 2011 level. There is around £125m of work lined up in the East Midlands over the next four years under ProCure 21+, the largest projects of which are a programme of work for Nottinghamshire Healthcare NHS Trust and city campus hospital works for Nottingham University Hospitals NHS Trust.

An average annual decline of 3.3% is forecast for the infrastructure sector over the five years to 2017. However, it is expected to return to growth at the end of the forecast period, although the capital announcements made in the Autumn Statement 2012 may lead to this happening sooner than initially thought. Additional funds are to be made available for the M1 Junction 28 to 31 accelerated delivery pilot scheme and there is also the Super-Connected Cities scheme in Derby which incorporates the roll-out of superfast broadband.

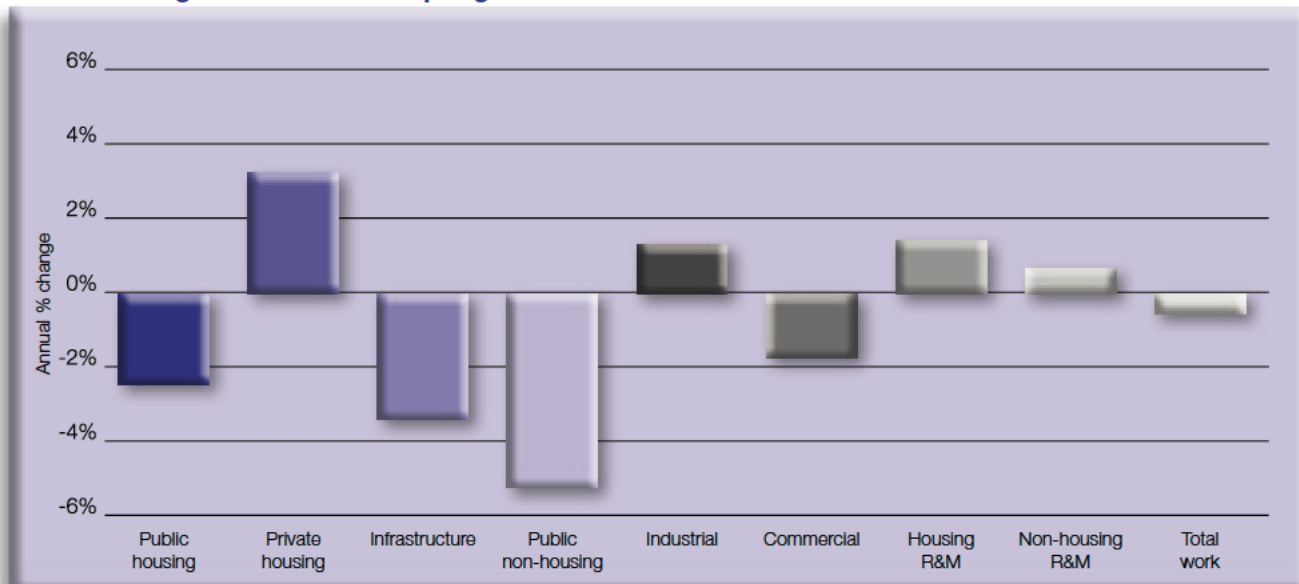
The public housing sector is expected to see output contract by 2.5% on average per year over the five years to 2017. Inevitably the lower levels of funding from the current

Affordable Housing Programme will lead to falls in output for the sector. However, as the economy recovers and social housing providers become more adept in sourcing finance, we expect the sector to stabilise in 2015 before moderate growth is seen in 2017. As part of the Housing Stimulus Package, announced in September 2012, an additional £300m of funding has been provided for the overall current Affordable Housing Programme, although no allocations have yet been made. Depending on the availability of this finance, the public housing market could stabilise before 2015.

The commercial construction sector is forecast to see an annual average decline of 1.7% between 2013 and 2017, although this reflects output falling in the short term, with growth expected to return in 2015, albeit only modest. There are two shopping centre redevelopments in the pipeline in Nottingham, both owned by Capital Shopping Centres. Work on the Victoria Centre could start towards the end of 2013, while improvements to the Broadmarsh Shopping Centre are not due to start until 2014 at the earliest. Despite modest growth towards the end of the forecast period, output in the sector is expected to be 58% lower than peak 2006 levels.

The private housing sector is forecast to see average annual growth of 4% in 2013 and 2014

## Annual average construction output growth 2013-2017 – East Midlands



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

## Construction output – East Midlands (£ million, 2005 prices)

	Estimate 2012	Forecast annual % change					Annual average 2013-17
		2013	2014	2015	2016	2017	
Public housing	164	-10%	-5%	0%	0%	3%	-2.5%
Private housing	830	3%	5%	5%	3%	0%	3.0%
Infrastructure	701	-9%	-1%	-3%	-8%	6%	-3.3%
Public non-housing	657	-16%	-10%	0%	1%	0%	-5.3%
Industrial	376	3%	1%	3%	0%	0%	1.2%
Commercial	1,045	-7%	-5%	2%	2%	0%	-1.7%
New work	3,772	-6%	-2%	1%	0%	1%	-1.2%
Housing R&M	1,085	1%	1%	2%	3%	-1%	1.3%
Non-housing R&M	973	-1%	-1%	2%	2%	1%	0.5%
R&M	2,058	0%	0%	2%	2%	0%	0.9%
Total work	5,830	-4%	-1%	2%	1%	1%	-0.4%

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

An annual average rise of 3% per year over the forecast period is predicted for the private housing sector. Improving economic conditions will boost consumer confidence and contribute to abating unemployment concerns, stimulating demand.

The industrial sector is forecast for annual average output growth of 1.2% over the five years to 2017. However, output in the sector has dropped markedly since 2007 and despite average annual growth, it is estimated to be just 55% of peak 2005 levels in 2017.

### 2.10 Beyond 2017

There are a number of offshore wind farms planned in the East Midlands, including one at Triton Knoll. RWE npower will be holding a consultation early this year on the electrical system onshore options that allow the offshore wind farm to connect to the National Grid. It is thought the £2bn project will start in 2017.

MIRA, the international vehicle and test business, will invest £300m over the next ten years at its headquarters in Hinckley, re-developing 850 acres. The firm is planning its own state-of-the-art engineering centre comprising approximately 464,000 sq ft. This will be part of a hub of a 1,700,000 sq ft campus including advance facilities and a new technology park complementing the existing one. The new technology park will include amenities for employees and visitors, incorporating restaurant/café, retail and a hotel.

# 3. Construction employment forecasts for the East Midlands

## 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 Midlands for 2011, the forecast total employment in 26 occupations and in the industry as a whole between 2013 and 2017. A full breakdown of occupational groups is provided in Section 5 of CSN Explained.

The weak performance for construction output in the East Midlands provides little stimulus for employment growth in the region, and construction employment is expected to fall by 1.1% a year on average over the five-year forecast period. This is worse than the UK average of a 0.8% decline each year. Although output is expected to return to growth in 2015, construction employment in the region is forecast to decline in each year to 2016 before stabilising in 2017. The lagged effect between output and employment means that job shedding is likely to continue in the East Midlands for some time after output starts to improve.

In 2011, the largest construction-specific occupations in the region were wood trades and interior fit-out which accounted for 11% of the total workforce, and electrical trades and installations (8%). Plumbing and heating, ventilation and air conditioning (HVAC) trades and bricklayers followed closely behind as they both accounted for a 7% share.

The majority of the occupations are forecast to see employment fall over the five years to 2017 with steel erectors/structural workers experiencing the most marked annual average decline of 3.8%. Nevertheless, there are some occupations which are expected to see employment rise over the forecast period, with the strongest growth of 2.9% on average per year projected for architects. Employment among civil engineers is forecast to rise by 1.4% per year on average over the five years to 2017.

### Total employment by occupation – East Midlands

	Actual 2011	Forecast	
		2013	2017
Senior, executive, and business process managers	3,910	3,790	3,550
Construction managers	10,840	10,090	9,350
Non-construction professional, technical, IT, and other office-based staff	18,640	18,310	17,710
Wood trades and interior fit-out	17,980	16,360	16,450
Bricklayers	11,010	9,920	9,280
Building envelope specialists	5,140	4,730	4,540
Painters and decorators	10,160	8,780	8,010
Plasterers and dry liners	3,240	3,000	2,940
Roofers	2,390	2,120	1,970
Floorers	2,460	2,350	2,440
Glaziers	3,630	3,410	3,180
Specialist building operatives nec*	3,880	3,510	3,170
Scaffolders	700	660	670
Plant operatives	2,860	2,670	2,660
Plant mechanics/fitters	2,600	2,410	2,280
Steel erectors/structural	3,450	2,980	2,610
Labourers nec*	6,830	6,100	5,860
Electrical trades and installation	12,210	11,670	11,210
Plumbing and HVAC trades	11,620	10,740	10,410
Logistics	2,390	2,270	2,090
Civil engineering operatives nec*	4,710	4,460	4,350
Non-construction operatives	2,910	2,780	2,680
Civil engineers	3,090	3,190	3,370
Other construction professionals and technical staff	9,270	9,060	8,990
Architects	1,780	1,940	2,150
Surveyors	3,590	3,270	2,980
<b>Total (SIC 41-43)</b>	<b>143,560</b>	<b>133,110</b>	<b>127,410</b>
<b>Total (SIC 41-43, 71.1, 74.9)</b>	<b>161,290</b>	<b>150,570</b>	<b>144,900</b>

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

### 3.2 Annual recruitment requirements (ARR) by occupation

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

The ARR for the 26 occupations within the East Midlands' construction industry is illustrated in the table. The figure of 1,860 is indicative of the average requirements per year for the industry, as based on the output forecasts for the region. This takes into account 'churn' i.e. the flows into and out of the industry, excluding training flows.

The region accounts for 6.4% of total UK annual recruitment requirement (ARR) and it is 1.2% of total projected base 2013 employment, equivalent to in the UK as a whole.

The largest absolute requirements are for wood trades and interior fit-out (390) and bricklayers (260) but as a share of 2013 base employment, their ARR are just 2.4% and 2.6%, respectively. As a percentage of base 2013 employment, plant operatives (6.7%) and floorers (6.4%) are expected to be most in demand.

The latest mobility report from CITB-ConstructionSkills provides some good indications of geographic flows for the construction industry. According to the survey, 63% of the construction workforce in the East Midlands originated there, which is slightly lower than the UK average figure of 66%. The second biggest contributions to the region's construction workforce were from the West Midlands and Yorkshire and the Humber which each accounted for 10% of the workforce.

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

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

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

#### Annual recruitment requirement by occupation – East Midlands

	2013-2017
Senior, executive, and business process managers	<50
Construction managers	80
Non-construction professional, technical, IT, and other office-based staff	-
Wood trades and interior fit-out	390
Bricklayers	260
Building envelope specialists	-
Painters and decorators	-
Plasterers and dry liners	<50
Roofers	-
Floorers	150
Glaziers	110
Specialist building operatives nec*	<50
Scaffolders	<50
Plant operatives	180
Plant mechanics/fitters	-
Steel erectors/structural	-
Labourers nec*	210
Electrical trades and installation	<50
Plumbing and HVAC trades	-
Logistics	90
Civil engineering operatives nec*	70
Non-construction operatives	-
Civil engineers	110
Other construction professionals and technical staff	<50
Architects	50
Surveyors	-
<b>Total (SIC 41-43)</b>	<b>1,660</b>
<b>Total (SIC 41-43, 71.1, 74.9)</b>	<b>1,860</b>

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

## 4. Comparisons across the UK

Interestingly, the profile of output growth at regional and devolved nation level over the 2013-2017 period is not as south-east centric as we might have expected, with Wales forecast to have the strongest average annual growth. However, Wales' growth is almost entirely due to the new nuclear power station planned at Wylfa in Anglesey, with average annual growth of just 0.6% if the project is removed from the forecast period. Although Hitachi's technology, the Advanced Boiling Water Reactor (ABWR) will need to go through a generic design assessment, construction is still expected to start during the current forecast period.

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

The profile of employment changes across the regions and devolved nations is different to that of output over the period to 2017. The relationship between overall output and employment is not straightforward given that some sectors are much more labour-intensive than others, and the relative

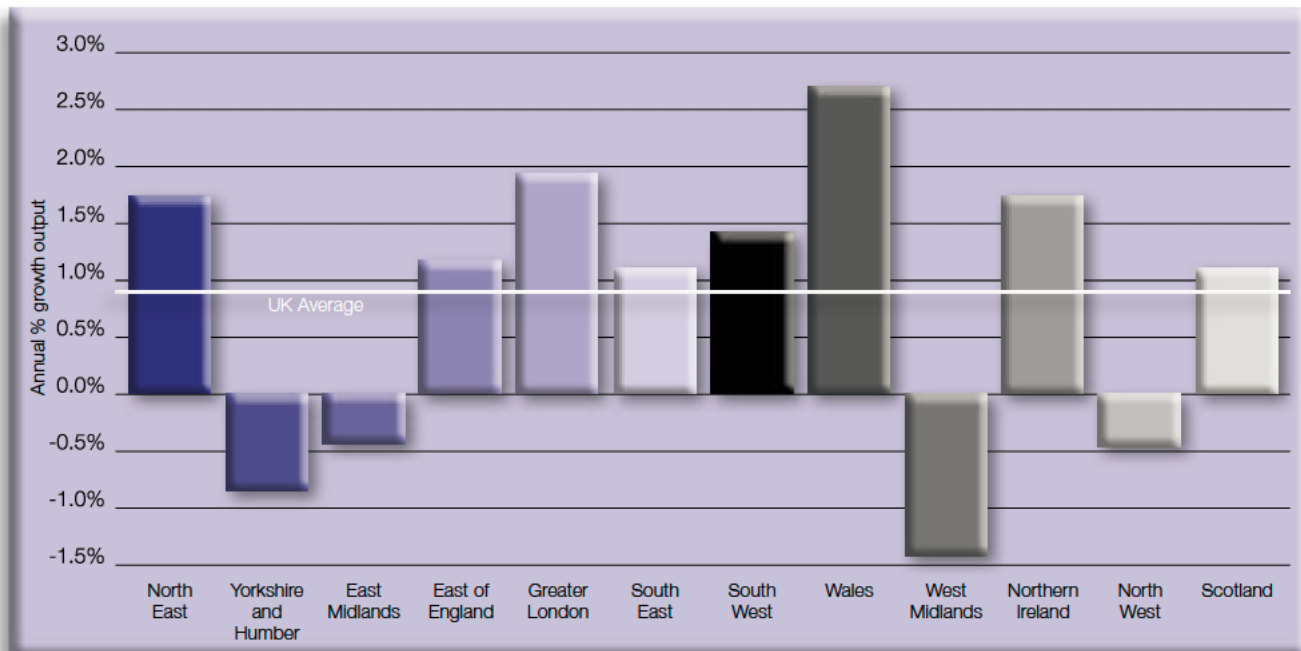
performances of the sectors within overall output impacts on the prospects for employment across the UK. For example, Wales' output growth is largely predicated on the new nuclear power station at Wylfa and new nuclear build is one of the least labour intensive areas of the construction industry. Greater London and the East of England are the only two regions predicted to see employment growth over the forecast period, and even here it is very weak.

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



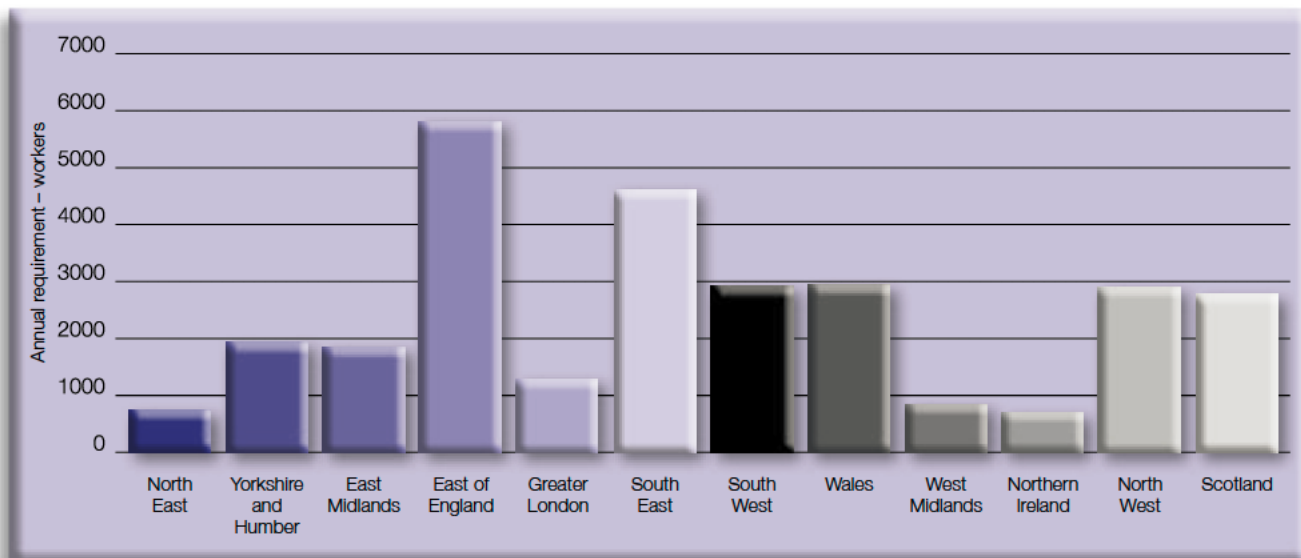
Architects represent the strongest projected growth in the region at 2.9% on average per year

### Annual average output growth by region 2013-2017



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

### Annual recruitment requirement (ARR) by region 2013-2017



Source: CSN, Experian



# CSN Explained

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

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

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

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

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

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





# 1. CSN Methodology

## Background

The **Construction Skills Network** has been evolving since its conception in 2005 acting as vehicle for CITB-ConstructionSkills to collect and produce information on the future employment and training needs of the industry. CITB-ConstructionSkills, CIC and CITB Northern Ireland are working as ConstructionSkills, the Sector Skills Council for Construction to produce robust Labour Market Intelligence to provide a foundation on which to plan for future skills needs and to target investment.

The CSN functions at both a national and regional level. It comprises of a National Group, 12 Observatory groups, a forecasting model for each of the regions and countries, and a Technical Reference Group. An Observatory group currently operates in each of the nine English regions and also in Wales, Scotland and Northern Ireland.

Observatory groups currently meet bi-annually and consist of key regional stakeholders invited from industry, Government, education and other SSCs, all of whom contribute local industry knowledge and views on training, skills, recruitment, qualifications and policy. The National Group also includes representatives from industry, Government, education and other SSCs. This Group convenes twice a year and sets the national scene, effectively forming a backdrop for the Observatories.

At the heart of the CSN are a number of forecasting models which generate forecasts of employment requirements within the industry for a range of occupational groups. The models are designed and managed by Experian under the independent guidance and validation of the Technical Reference Group, comprised of statisticians and modelling experts. The Models have been, and will continue to be, evolved over time to ensure that they account for new research as it is published as well as new and improved modelling techniques. Future changes to the model will only be made after consultation with the Technical Reference Group.

## The model approach

The model approach relies on a combination of primary research and views from the CSN to facilitate it. National data is used as the basis for the assumptions that augment the models, which are then adjusted with the assistance of the Observatories and National Group. Each English region, Wales, Scotland and Northern Ireland has a separate model (although all models are inter-related due to labour movements) and, in addition, there is one national model that acts as a constraint to the individual models and enables best use to be made of the most robust data (which is available at the national level). The models work by forecasting demand and supply of skilled workers separately. The difference between demand and supply forms the employment requirement.

The forecast total employment levels are derived from expectations about construction output and productivity. Essentially this is based upon the question 'How many people will be needed to produce forecast output, given the assumptions made about productivity?'

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

Demand is based upon the results of discussion groups comprising industry experts, a view of construction output and a set of integrated models relating to wider national and regional economic performance. The models are dynamic and reflect the general UK economic climate at any point in time. To generate the labour demand, the models make use of a set of specific statistics for each major type of work that determine the employment, by trade, needed to produce the predicted levels of construction output. The labour supply for each type of trade or profession is based upon the previous year's supply (the total stock of employment) combined with flows into and out of the labour market.

The key leakages (outflows) that need to be considered are:

- transfers to other industries
- international/domestic OUT migration
- permanent retirements (including permanently sick)
- outflow to temporarily sick and home duties.

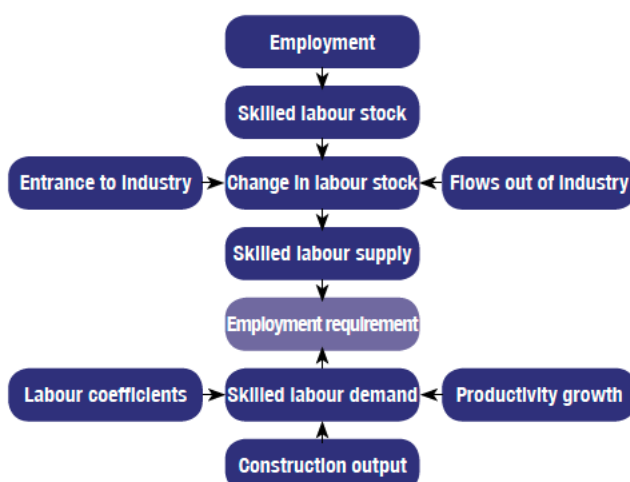
The main reason for outflow is likely to be transfer to other industries.

Flows into the labour market include:

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

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

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



## 2. Glossary of Terms

- **Building envelope specialists** – any trade involved with the external cladding of the building other than bricklaying, e.g. curtain walling.
- **Demand** – demand is calculated using construction output data from the Office for National Statistics (ONS) and the Department of Finance and Personnel Northern Ireland (DFP), along with vacancy data from the National Employers Skills Survey, from the Department for Education and Skills. These data sets are translated into labour requirements by trade by using a series of coefficients to produce the labour demand that relates to the forecasted output levels.
- **GDP** – Gross Domestic Product – total market value of all final goods and services produced. A measure of national income.  $GDP = GVA + \text{taxes on products} - \text{subsidies on products}$ .
- **GVA** – Gross Value Added – total output minus the value of inputs used in the production process. GVA measures the contribution of the economy as a difference between gross output and intermediate outputs.
- **Coefficients** – To generate the labour demand, the model makes use of a set of specific statistics for each major type of work to determine employment, by trade or profession, based upon the previous year's supply. In essence this is the number of workers in each occupation/ trade to produce £1m of output across each sub-sector.
- **LFS (Labour Force Survey)** – a UK household sample survey which collects information on employment, unemployment, flows between sectors and training, from around 53,000 households each quarter (>100,000 people).
- **LMI (Labour Market Intelligence)** – data that are quantitative (numerical) or qualitative (insights and perceptions) on workers, employers, wages, conditions of work, etc.
- **Macroeconomics** – the study of an economy on a national level, including total employment, investment, imports, exports, production and consumption.
- **Nec** – not elsewhere classified, used as a reference in LFS data.
- **ONS** – Office for National Statistics – official statistics on economy, population and society at national UK and local level.
- **Output** – total value of all goods and services produced in an economy.
- **Productivity** – output per employee.
- **SIC codes** – Standard Industrial Classification codes – from the UK Standard Industrial Classification of Economic Activities produced by the ONS.
- **SOC codes** – Standard Occupational Classification codes.
- **Supply** – the total stock of employment in a period of time plus the flows into and out of the labour market. Supply is usually calculated from LFS data.



# 3. Notes and Footprints

## Notes

- 1 Except for Northern Ireland, output data for the English regions, Scotland and Wales are supplied by the Office for National Statistics (ONS) on a current price basis. Therefore national deflators produced by the ONS have been used to deflate to a 2005 constant price basis, i.e. the effects of inflation have been stripped out.
- 2 The annual average growth rate of output is a compound average growth rate, i.e. the rate at which output would grow each year if it increased steadily year-on-year over the forecast period.
- 3 Only selected components of gross value added (GVA) are shown in this table and so do not sum to the total.
- 4 For new construction orders comparison is made with Great Britain rather than the UK, owing to the fact that there are no orders data series for Northern Ireland.
- 5 Employment numbers are rounded to the nearest 10.
- 6 The tables include data relating to plumbers and electricians. As part of SIC 43, plumbers and electricians working in contracting are an integral part of the construction process. However, it is recognised by CITB-ConstructionSkills that SummitSkills has responsibility for these occupations across a range of SIC codes, including SIC 43.2.
- 7 The employment and ARR tables show separate totals for SIC 41-43 and SIC 41-43, 71.1 and 74.9. The total for SIC 41-43 covers the first 22 occupational groups on the relevant tables and excludes civil engineers, other construction professionals and technical staff, architects and surveyors. The total for SIC 41-43, 71.1 and 74.9 includes all occupations.

## Footprints for Built Environment SSCs

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

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

The sector footprints for the other SSCs covering the built environment:

### SummitSkills

**Footprint** – Plumbing, Heating, Ventilation, Air Conditioning, Refrigeration and Electrotechnical.

**Coverage** – Building Services Engineering.

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

### AssetSkills

**Footprint** – Property Services, Housing, Facilities Management, Cleaning.

**Coverage** – Property, Housing and Land Managers, Chartered Surveyors, Estimators, Valuers, Home Inspectors, Estate Agents and Auctioneers (property and chattels), Caretakers, Mobile and Machine Operatives, Window Cleaners, Road Sweepers, Cleaners, Domestic, Facilities Managers.

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

### Energy and Utility Skills

**Footprint** – Electricity, Gas (including gas installers), Water and Waste Management.

**Coverage** – Electricity generation and distribution; Gas transmission, distribution and appliance installation and maintenance; Water collection, purification and distribution; Waste water collection and processing; Waste Management.

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

\* AssetSkills has a peripheral interest in SIC 71.1

# 4. Definitions: types and examples of construction work

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

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

## **Private sector housing**

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

## **Infrastructure – public and private**

### **Water**

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

### **Sewerage**

Sewage disposal works, laying of sewers and surface drains.

### **Electricity**

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

### **Gas, communications, air transport**

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

### **Railways**

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

### **Harbours**

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

### **Roads**

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

## **Public non-residential construction<sup>1</sup>**

### **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.

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

## Private commercial work<sup>2</sup>

### 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<sup>3</sup>.

## 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<sup>4</sup>.



<sup>2</sup> 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'.

<sup>3</sup> 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.

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

# 5. Occupational Groups

## Occupational group

Description, SOC (2000) reference.

### Senior, executive and business process managers

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

### Construction managers

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

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

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

Local government clerical officers and assistants, 4113  
Accounts and wages clerks, book-keepers, other financial clerks, 4122  
Filing and other records assistants/clerks, 4131  
Stock control clerks, 4133  
Database assistants/clerks, 4136  
Telephonists, 4141  
Communication operators, 4142  
General office assistants/clerks, 4150  
Personal assistants and other secretaries, 4215  
Sales and retail assistants, 7111  
Telephone salespersons, 7113  
Buyers and purchasing officers (50%), 3541  
Marketing associate professionals, 3543  
Personnel and industrial relations officers, 3562  
Credit controllers, 4121  
Market research interviewers, 4137  
Company secretaries (excluding qualified chartered secretaries), 4214  
Sales related occupations nec\*, 7129  
Call centre agents/operators, 7211  
Customer care occupations, 7212  
Elementary office occupations nec\*, 9219

### Wood trades and interior fit-out

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

### Bricklayers

Bricklayers, masons, 5312

### Building envelope specialists

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

### Painters and decorators

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

### Plasterers and dry liners

Plasterers, 5321

### Roofers

Roofers, roof tilers and slaters, 5313

### Floorers

Floorers and wall tilers, 5322

### Glaziers

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

### Specialist building operatives nec\*

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

**Scaffolders**

Scaffolders, staggers, riggers, 8141

**Plant operatives**

Crane drivers, 8221  
Plant and machine operatives nec\*, 8129  
Transport operatives nec\*, 8219  
Fork-lift truck drivers, 8222  
Mobile machine drivers and operatives nec\*, 8229  
Agricultural machinery drivers, 8223

**Plant mechanics/fitters**

Metal working production and maintenance fitters, 5223  
Motor mechanics, auto engineers, 5231  
Labourers in process and plant operations nec\*, 9139  
Tool makers, tool fitters and markers-out, 5222  
Vehicle body builders and repairers, 5232  
Auto electricians, 5233  
Vehicle spray painters, 5234  
Tyre, exhaust and windscreen fitters, 8135

**Steel erectors/structural**

Steel erectors, 5311  
Welding trades, 5215  
Sheet metal workers, 5213  
Metal plate workers, shipwrights and riveters, 5214  
Construction trades nec\* (5%), 5319  
Smiths and forge workers, 5211  
Moulders, core makers, die casters, 5212  
Metal machining setters and setter-operators, 5221

**Labourers nec\***

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

**Electrical trades and installation**

Electricians, electrical fitters, 5241  
Electrical/electronic engineers nec\*, 5249  
Telecommunications engineers, 5242  
Lines repairers and cable jointers, 5243  
TV, video and audio engineers, 5244  
Computer engineers, installation and maintenance, 5245

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

Plumbers and HVAC trades, 5314  
Pipe fitters, 5216  
Labourers in building and woodworking trades (6%), 9121  
Construction trades nec\* (5%), 5319

**Logistics**

Heavy goods vehicle drivers, 8211  
Van drivers, 8212  
Packers, bottlers, canners, fillers, 9134  
Other goods handling and storage occupations nec\*, 9149  
Buyers and purchasing officers (50%), 3541  
Transport and distribution clerks, 4134  
Security guards and related occupations, 9241

**Civil engineering operatives nec\***

Road construction operatives, 8142  
Rail construction and maintenance operatives, 8143  
Quarry workers and related operatives, 8123  
Construction operatives nec\* (20%), 8149  
Labourers in other construction trades nec\*, 9129

**Non-construction operatives**

Metal making and treating process operatives, 8117  
Process operatives nec\*, 8119  
Metal working machine operatives, 8125  
Water and sewerage plant operatives, 8126  
Assemblers (vehicle and metal goods), 8132  
Routine inspectors and testers, 8133  
Assemblers and routine operatives nec\*, 8139  
Stevedores, dockers and slingers, 9141  
Hand craft occupations nec\*, 5499  
Elementary security occupations nec\*, 9249  
Cleaners, domestics, 9233  
Road sweepers, 9232  
Gardeners and groundsmen, 5113  
Caretakers, 6232

**Civil engineers**

Civil engineers, 2121

**Other construction professionals  
and technical staff**

Mechanical engineers, 2122  
Electrical engineers, 2123  
Chemical engineers, 2125  
Design and development engineers, 2126  
Production and process engineers, 2127  
Planning and quality control engineers, 2128  
Engineering professional nec\*, 2129  
Electrical/electronic technicians, 3112  
Engineering technicians, 3113  
Building and civil engineering technicians, 3114  
Science and engineering technicians nec\*, 3119  
Architectural technologists and town planning technicians, 3121  
Draughtspersons, 3122  
Quality assurance technicians, 3115  
Town planners, 2432  
Electronics engineers, 2124  
Building inspectors, 3123  
Scientific researchers, 2321

**Architects**

Architects, 2431

**Surveyors**

Quantity surveyors, 2433  
Chartered surveyors (not Quantity surveyors), 2434

\* not elsewhere classified

# 6. CSN website and contact details

## The CSN website – [www.cskills.org/csn](http://www.cskills.org/csn)

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

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

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

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

The website also contains further information about:

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

The CSN website can be found at:

**[www.cskills.org/csn](http://www.cskills.org/csn)**

## CSN members area

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

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

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

CSN members therefore have:

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

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

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

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

## Contact details

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

**[csn@cskills.org](mailto:csn@cskills.org)**





CONTENTS

SUMMARY AND KEY FINDINGS

THE OUTLOOK FOR CONSTRUCTION  
IN THE EAST MIDLANDS

CONSTRUCTION EMPLOYMENT  
FORECASTS FOR THE EAST MIDLANDS

COMPARISONS ACROSS THE UK

CSN EXPLAINED

For more information about the  
Construction Skills Network, contact:

**Adam Evans**

Research and Development

Research Analyst

0344 994 4400

[adam.evans@cskills.org](mailto:adam.evans@cskills.org)

[www.cskills.org](http://www.cskills.org)

