

# Construction Skills Network

West Midlands 2013-2017

Labour Market Intelligence





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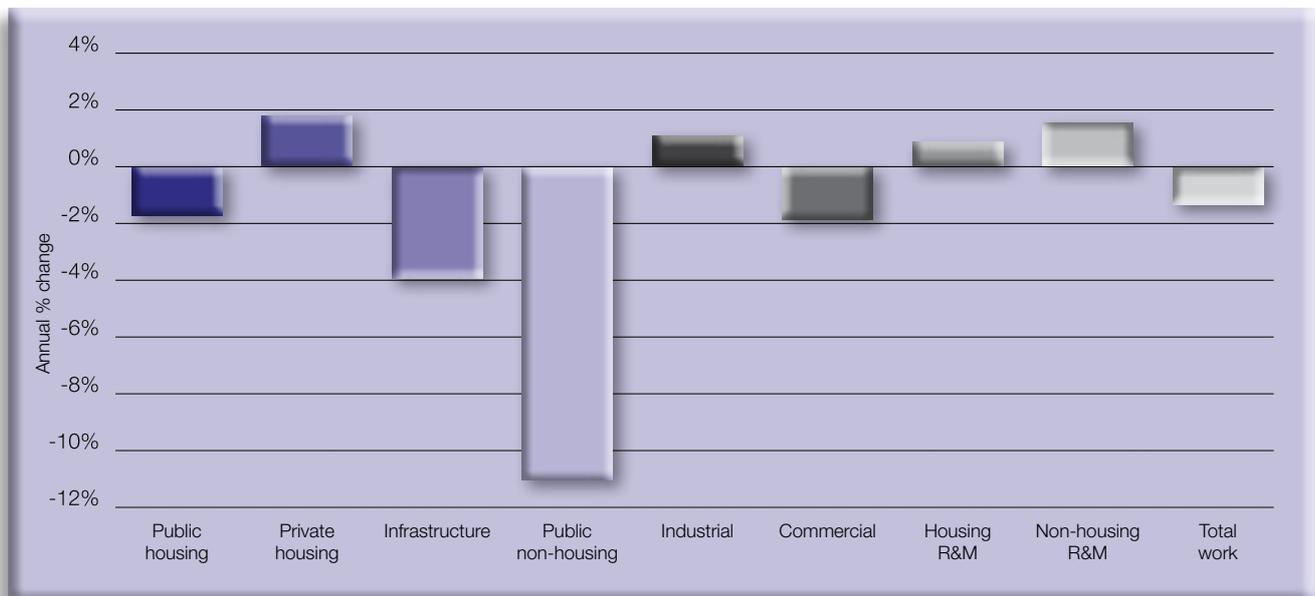
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# 1. Summary – West Midlands

The West Midlands is forecast to see output fall by 1.4% per year on average over the five years to 2017, making it the worst performing of all the regions and devolved nations. Whilst new work output is expected to decline at an average annual rate of 2.8%, repair and maintenance (R&M) work is forecast to fare better with average growth of 1.0% per year. Growth will return in 2016 and 2017 but will be only moderate. Construction employment in the region is expected to decline by 2.8% per year on average, falling in each year of the forecast period, not surprisingly considering the weak prospects for overall output in the region.

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



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



The construction industry in the West Midlands is forecast to see output decline at an average rate of 1.4% per year over the five years to 2017

## Key findings

The public non-housing sector is forecast to be the worst performing in the region over the 2013-2017 period, with an average annual decline of 10.9%. This is stronger than the UK decline of 5.8% per year on average. The region benefitted heavily from the early waves of the Building Schools for the Future (BSF) programme and thus output in the sector has further to fall to return to more 'normal' levels.

Public spending cuts will also impact on the public housing sector over the forecast period, with output expected to fall by 1.7% per year on average. The region benefitted from £622m of funding under the 2008-2011 National Affordable Housing programme but will receive funding of just £190m to build 9,047 units over the 2011-2015 period. This will inevitably lead to falling output in the shorter term, but there is likely to be some boost to output towards the end of the forecast period when registered providers have adapted to the new ways of raising funds from private sources.

The best performing sector is forecast to be the private housing one with average annual growth of 1.7% over the period to 2017. The sector will benefit from gradually improving economic conditions over the next few years, which will stimulate demand for housing as concerns over unemployment abate.

Industrial construction output will also increase in each year, on average, over the five years to 2017, albeit by only a modest 1.1%. In the shorter term the sector will benefit from work on the new Jaguar Land Rover plant in South Staffordshire, which is due to be ready for business in 2014, before improving economic conditions will provide some incentive for investment in new facilities elsewhere.

Construction employment in the West Midlands is forecast to decline in each year of the forecast period, falling to 153,960 by 2017. This is 30% lower than its recent 2007 peak. The lagged effect between output and employment means that job shedding is likely to continue in the region for some time after output returns to growth in 2016.

Employment will decline across all 26 occupations between 2013 and 2017, with the most marked falls expected for surveyors (-25%) and scaffolders (-23%). In contrast, civil engineering operatives not elsewhere classified (nec) and plant operatives are forecast to see the weakest declines.

The Annual Recruitment Requirement (ARR) for the West Midlands is 830, one of the lowest of the regions and devolved nations in absolute terms. It is equivalent to just 0.5% of base 2013 employment, substantially weaker than the UK figure of 1.2%. Wood trades and interior fit-out is the trade occupation with the largest ARR – at 150 it is equivalent to 18% of the region's total ARR.

## Regional comparisons 2013-2017

|                      | Annual average<br>% change in output | Change in<br>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 West Midlands

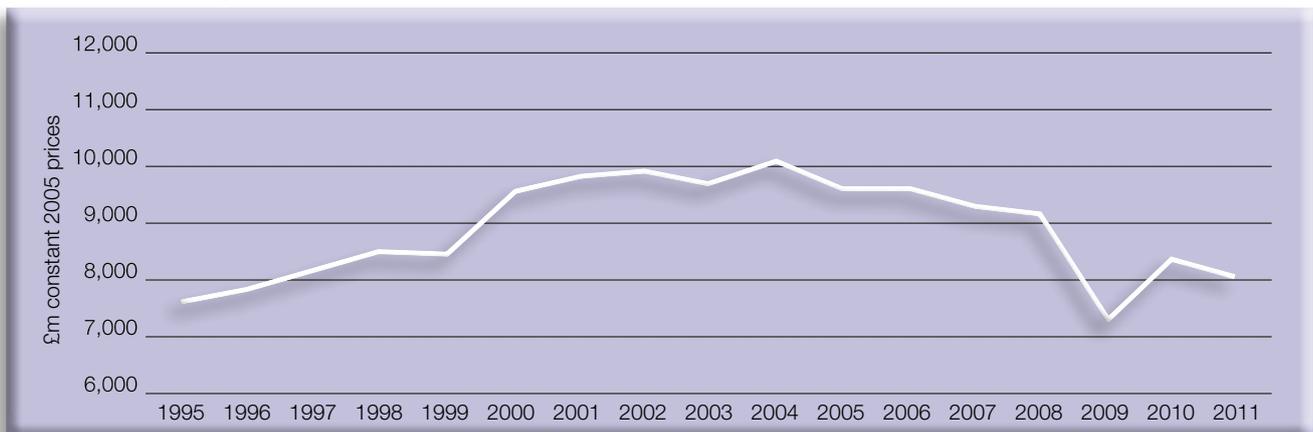
### 2.1 Construction output in the West Midlands – overview

After returning to growth in 2010, construction output in the West Midlands fell by 3% in 2011, to total just under £8bn in 2005 prices. There were substantial differences in the performance of the new work and repair and maintenance (R&M) sectors, with the former seeing a decline of 2% whilst output in the latter dropped by 6% in real terms.

After exceptionally strong growth of 64% in 2010, the public housing sector saw output decline by 16% in 2011 in real terms as the funding cuts to the Affordable Housing

Programme (AHP) began to be felt. The winding down of the remaining Building Schools for the Future (BSF) schemes was evident in the public non-housing sector as output fell by 3% during the year, albeit after a rise of 82% in 2010. The private housing sector saw output contract by 4% during the year, as demand was constrained by weak macro-economic conditions and ongoing concerns over unemployment. The best performing sector was infrastructure, although output rose by only a modest 2% during the year, whilst output edged up by 1% in the commercial sector, with the poor economic outlook providing little incentive for investment in retail and leisure developments.

### Construction output 1995-2011 – West Midlands



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

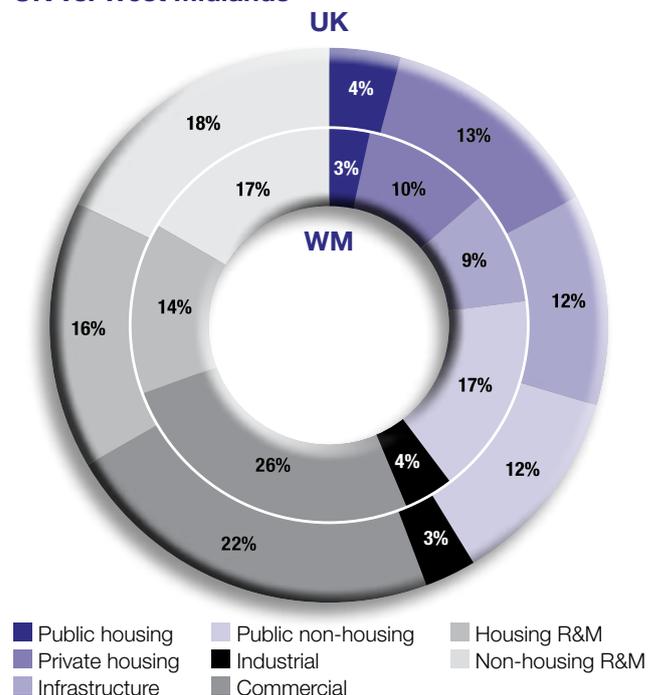
### 2.2 Industry structure

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

New work accounted for 69% of total construction output in 2011 in the West Midlands, slightly above the national average of 66%. This was a slight increase from 68% in 2010 in the region although, at a UK level, new work's share of total construction output remained unchanged.

There are a number of differences at the sectoral level in the West Midlands. The public non-housing sector took a 17% share of new work output in the region in 2011, compared with a figure of 12% nationally, and the region's commercial sector was also above average at 26% (22% at a UK level). In contrast, the region's private housing sector was smaller, at 10%, than at a UK level (13%), as was the infrastructure sector, which took a 9% share of new work construction output in 2011 in contrast to 12% on a national basis.

### Construction industry structure 2011 – UK vs. West 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

After returning to growth in 2010, Gross Value Added (GVA) in the West Midlands saw a second successive annual increase in 2011, albeit only a marginal 0.2%. GVA in the region totalled £91.6bn, around 7% of the UK total, which was broadly unchanged from its share in 2010.

The professional and other private services sector overtook public services as the largest sector in the West Midlands in 2011, with the former taking a 21.6% share compared with 20.4% for the latter. The professional and other private

services sector saw marked growth of 6.9% during 2011, the strongest of any sector, although increases were also seen in the manufacturing (3.3%), transport and storage (0.9%) and public services (0.5%) sectors. At the other end of the scale, finance and insurance activity fell by 8.2% and the information and communication sector saw a 7.9% contraction.

One of the main differences in the structure of the West Midlands' economy is the relative importance of both the manufacturing (13.7%) and wholesale and retail (13.3%) sectors compared with the UK as a whole, where the two sectors each took an 11% share of output in 2011.

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

| Selected sectors                        | Actual<br>2011 | Forecast<br><i>Annual % change, real terms</i> |            |            |            |            |            |
|---|----------------|--|------------|------------|------------|------------|------------|
|   |                | 2012   | 2013       | 2014       | 2015       | 2016       | 2017       |
| Professional and other private services | 20             | 1.2  | 0.5        | 1.5        | 2.1        | 2.4        | 2.6        |
| Public services                         | 19             | 0.6  | -0.5       | 0.0        | 0.2        | 0.5        | 1.0        |
| Manufacturing                           | 13             | -0.1   | 1.9        | 2.2        | 1.7        | 1.0        | 0.7        |
| Wholesale and retail                    | 12             | -0.9   | 0.9        | 2.0        | 2.4        | 2.6        | 2.5        |
| Finance and insurance                   | 5              | -1.0   | 0.6        | 1.3        | 2.7        | 3.5        | 3.9        |
| <b>Total Gross Value Added (GVA)</b>    | <b>92</b>      | <b>-0.5</b>                                    | <b>0.4</b> | <b>1.4</b> | <b>1.8</b> | <b>2.0</b> | <b>2.1</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 West Midlands is forecast to rise at an average rate of 1.5% between 2013 and 2017, weaker than the UK average of 1.9%. Growth is expected to be only modest in the largest sectors throughout most of the forecast period.

Professional and other private services, the largest sector in the region, is forecast to see output rise by 1.8% per year, on average, whilst the next biggest, public services, will see only weak average annual growth of 0.2% over the five years to 2017. An average increase of 1.5% per year is forecast for the manufacturing sector, which is the third largest sector in the West Midlands, while wholesale and retail will see output rise by 2.1% per year on average.

Consumer spending fell by 1.3% in the West Midlands in 2011, as weak wage growth and elevated inflation dampened demand and real household incomes fell by 2.4%.

Following two years of decline, real household disposable incomes are forecast to have returned to growth in 2012, albeit only a weak 0.9%, benefitting from easing inflation. The pace of growth is forecast to pick up in subsequent years as unemployment falls and wage growth improves, and will reach 2.2% by 2017. Consumer spending is expected to have seen a negligible rise of 0.1% in 2012 and is forecast to increase in each year of the period to 2017.

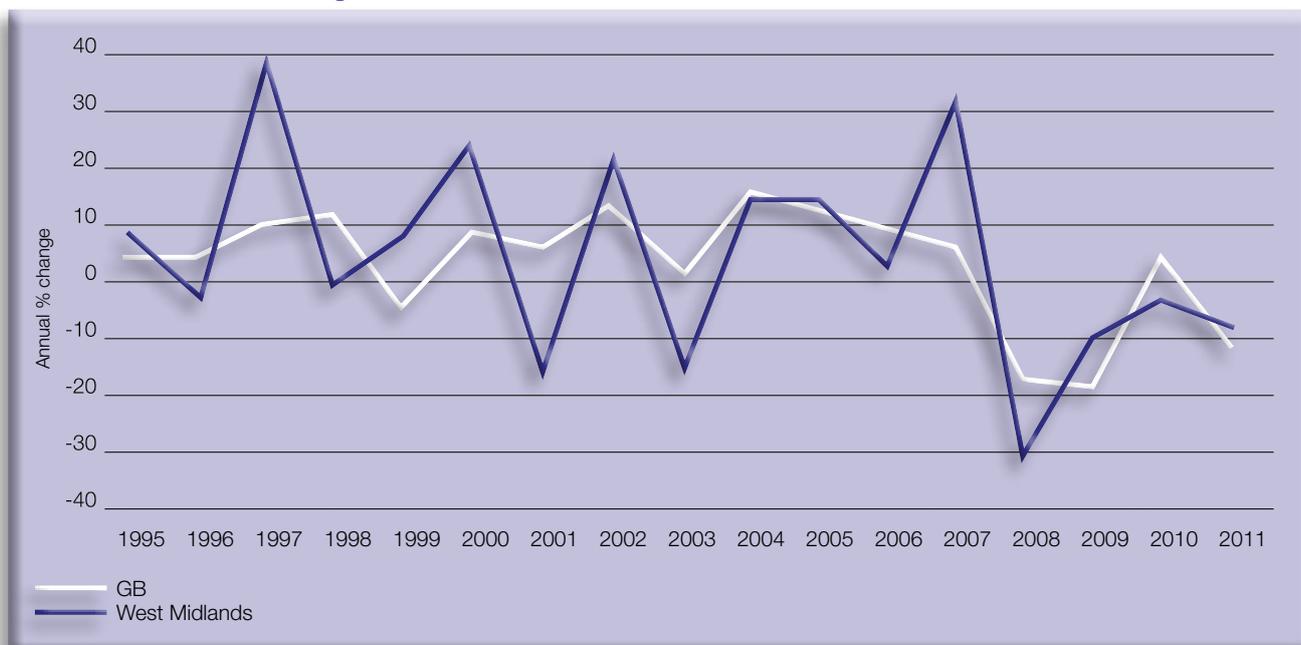
In 2011, unemployment was 240,000 in the West Midlands, equivalent to an unemployment rate of 9%, which was substantially above the UK figure of 8.1%. The region's unemployment rate is expected to reach 9.4% in 2013 before easing during the remaining years of the forecast period. It is forecast to stand at 7.2% in 2017.

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

|  | Actual<br>2011 | Forecast<br><i>Annual % change, real terms</i> |       |       |       |       |       |
|--|----------------|--|-------|-------|-------|-------|-------|
|  |                | 2012   | 2013  | 2014  | 2015  | 2016  | 2017  |
| Real household disposable income                 | 72             | 0.9  | 0.7   | 1.4   | 1.6   | 1.6   | 2.2   |
| Household spending                               | 71             | 0.1  | 0.9   | 1.6   | 2.1   | 2.3   | 2.2   |
| Working age population<br>(000s and as % of all) | 3,308          | 60.2%  | 60.5% | 60.8% | 61.1% | 61.3% | 61.4% |
| House prices (£)                                 | 170,210        | 0.3  | 0.3   | 1.0   | 1.7   | 1.9   | 2.2   |
| LFS unemployment (millions)                      | 0.24           | 0.3  | 5.1   | -6.8  | -7.0  | -4.5  | -6.5  |

Source: ONS, DCLG, Experian

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



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

### 2.6 New construction orders – overview

New construction orders in the West Midlands peaked at £6.8bn (in current prices) in 2007 and have been on a downward path since. In 2011, they declined by 9% to £3.6bn, the lowest annual total since 1998.

There were diverse performances among the sectors in 2011, with the infrastructure sector seeing new orders more than double to £765m, but they have been very volatile in recent years. New orders for the public housing sector also rose strongly, by 25%, although at £198m, they were still only 56% of their peak 2007 level. Private housing and industrial construction new orders both rose by 20% during the year. In contrast, the public non-housing sector saw a 44% decline in new orders during 2011, albeit from a record high in 2010, and commercial construction new orders fell by 21%.

### 2.7 New construction orders – current situation

In the first half of 2012, new construction orders in the West Midlands totalled £1.75bn, in current prices, 3% lower than in the corresponding period of 2011. They were also 4% below on a half-year-on-half-year basis.

Infrastructure new orders fared particularly well, rising by 156% on a year-on-year basis, although they were 15% lower than in the second half of 2011. The public housing sector was the only other one to see an increase in new orders in the six months to June 2012 – they were up by 12% from the corresponding period of 2011 and by 28% on the second half of 2011.

In contrast, public non-housing orders declined by 45% on a year-on-year basis in the first half of 2012, which was not particularly surprising considering the scale of the public spending cuts. Private housing new orders fell by 23%, industrial orders by 12% and commercial construction orders by 10% in the first half of 2012.

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

|                       | Actual 2011  | Annual % change |              |              |             |             |
|-----------------------|--------------|-----------------|--------------|--------------|-------------|-------------|
|                       |              | 2007            | 2008         | 2009         | 2010        | 2011        |
| Public housing        | 198          | 57.1            | -19.7        | -14.0        | -34.8       | 24.9        |
| Private housing       | 630          | -12.6           | -40.4        | -27.1        | -1.2        | 19.5        |
| Infrastructure        | 765          | 153.2           | -41.8        | 66.0         | -60.3       | 107.4       |
| Public non-housing    | 843          | 17.6            | 2.2          | 20.8         | 24.9        | -44.1       |
| Industrial            | 202          | 28.3            | -51.9        | -37.4        | -23.1       | 20.3        |
| Commercial            | 991          | 42.5            | -32.1        | -40.6        | 22.1        | -21.4       |
| <b>Total new work</b> | <b>3,629</b> | <b>30.8</b>     | <b>-31.5</b> | <b>-10.7</b> | <b>-4.1</b> | <b>-9.1</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 first half of 2012, construction output in the West Midlands fell by 8% from the corresponding period of 2011 to total £4.05bn in current prices. New work output dropped by 16% whilst R&M rose by 7%. The public non-housing and the infrastructure sectors saw the strongest declines, of 33% and 24%, respectively, whilst commercial construction output fell by 14%, year-on-year. The private housing (6%) and the public housing (5%) sectors were the only two new work sectors to see output rise in the six months to June 2012.

In the short term, the construction sector in the West Midlands is forecast to see an annual average decline of 4.3% in 2013 and 2014. New work output is expected to fare worse than R&M over the period, with an average fall of 6.5% per year for the former and a decline of just 0.3% per year on average for the latter.

The worst performing sector is forecast to be the public non-housing one, as public expenditure cuts continue to bite. The region was also one of the main beneficiaries of the early stages of the Building Schools for the Future (BSF) programme – output in the public non-housing sector rose by 105% between 2007 and 2011 – and thus the sector has further to return to more ‘normal’ levels of output. The annual average decline of 18.2% for 2013 and 2014 follows an expected contraction of 30% in 2012.

Output in the public housing sector is expected to contract by 7.6% per year on average over the 2013-2014 period, reflecting the substantial funding cuts. The West Midlands received £622m of funding under the 2008-2011 National Affordable Funding Programme but is set to receive just £190m to fund 9,047 units over the 2011-2015 period.

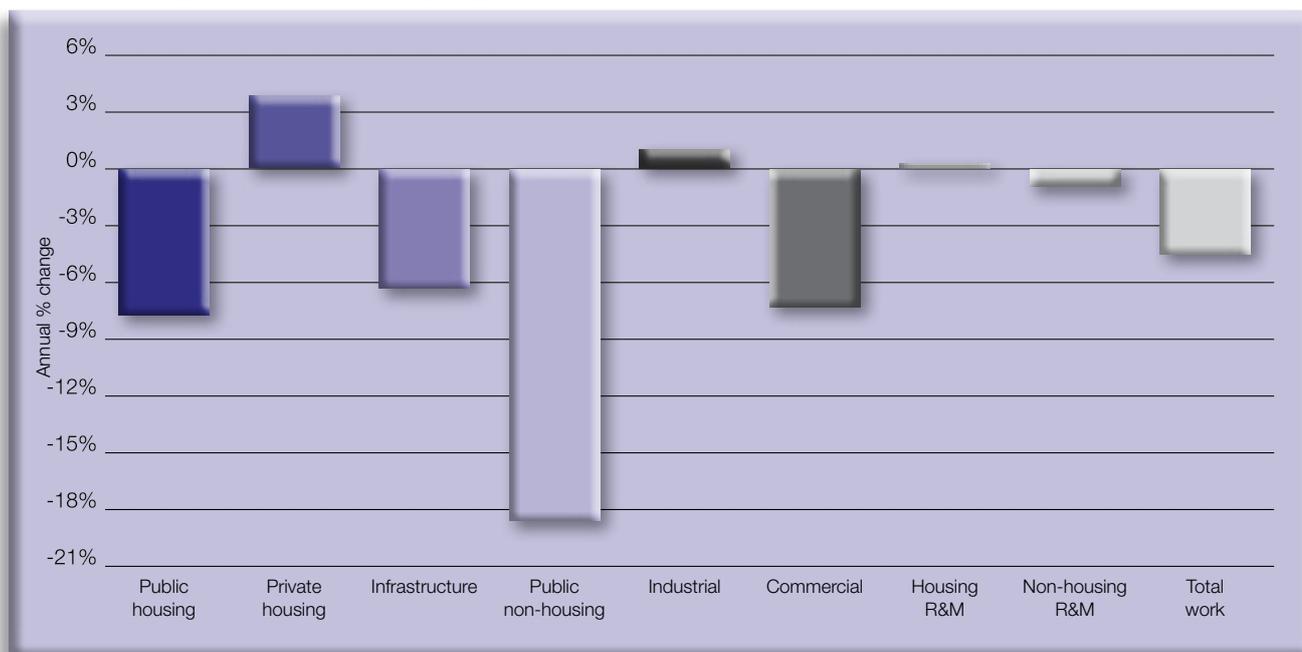
The outlook for the commercial construction sector is poor, certainly in the short term. Ongoing weak economic conditions are providing little incentive for developers to activate any new schemes or restart mothballed ones. However, there are a number of relatively small projects planned for the West Midlands’ commercial sector, with work having started on a £100m John Lewis store as part of the redevelopment of Birmingham New Street Station.

The region’s infrastructure sector is also forecast to see output fall in both 2013 and 2014, with an average decline of 6.2% in each year. Work on the extension of the Midlands Metro tram network through Birmingham city centre is expected to begin in 2013 and there are a number of relatively small roads projects currently under way, including the M6 managed motorway scheme. The weak outlook for the sector in the short term reflects the lack of any major infrastructure projects in the pipeline in the West Midlands.

The private housing and industrial sectors are the only two expected to see any growth in the short term, with average increases of 3.6% and 1%, respectively, per year in 2013 and 2014. Work started in 2012 on the new £355m Jaguar Land Rover plant in South Staffordshire, which will form part of the new i54 business park. However, although construction has already started, the project has not yet shown up in the new orders figures. The company anticipates that the new plant will be ready for business in 2014.

The private housing sector is expected to return to growth in 2013, following an estimated fall of 2% in 2012. Although output is forecast to rise in both 2013 and 2014, the outlook for the sector is muted. Levels of mortgage approvals and transactions remain little changed on a national basis and demand for house purchase continues to be constrained by weakness in the wider economy and concerns over unemployment. Nevertheless, output will recover slightly from its recent record lows in the short term.

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



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

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

|                      | Actual       | Forecast annual % change |            |            | Annual average |
|----------------------|--------------|--------------------------|------------|------------|----------------|
|                      | 2011         | 2012                     | 2013       | 2014       | 2013-14        |
| Public housing       | 275          | 5%                       | -13%       | -1%        | -7.6%          |
| Private housing      | 827          | -2%                      | 2%         | 5%         | 3.6%           |
| Infrastructure       | 729          | -19%                     | -8%        | -5%        | -6.2%          |
| Public non-housing   | 1,312        | -30%                     | -23%       | -14%       | -18.2%         |
| Industrial           | 312          | -5%                      | 4%         | -2%        | 1.0%           |
| Commercial           | 2,049        | -19%                     | -7%        | -7%        | -7.0%          |
| New work             | 5,504        | -17%                     | -8%        | -5%        | 6.5%           |
| Housing R&M          | 1,120        | 7%                       | -1%        | 1%         | 0.0%           |
| Non-housing R&M      | 1,313        | -8%                      | -2%        | 1%         | -0.5%          |
| <b>Total R&amp;M</b> | <b>2,433</b> | <b>-1%</b>               | <b>-1%</b> | <b>1%</b>  | <b>-0.3%</b>   |
| <b>Total work</b>    | <b>7,937</b> | <b>-12%</b>              | <b>-6%</b> | <b>-3%</b> | <b>-4.3%</b>   |

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

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

The construction industry in the West Midlands is forecast to see output decline at an average rate of 1.4% per year over the five years to 2017, making it the worst performing of all the regions and devolved nations. Whilst new work output is expected to fall at an annual average rate of 2.8%, the R&M sector is forecast to see output rise by 1% on average in each year to 2017.

Not surprisingly, it is the public non-housing sector which is expected to fare the worst over the forecast period, with an annual average contraction of 10.9%. Although the majority of projects were cancelled when the BSF programme was axed in 2010, there are a number of 'legacy' projects still ongoing. In the West Midlands, there is still work to come on Wrekin and Telford's second wave projects and a further 18 schools under the £379m Wolverhampton BSF programme. However, these are still relatively small in value terms compared to early waves of the programme and output in the sector is expected to fall over the forecast period before stabilising in 2017.

Work is underway on the £106m managed motorway scheme on the M6 between junctions 5 and 8, which is due to complete by spring 2014. Other road projects in the pipeline include the £58m A45/46 Tollbar End which is due to start in 2013/14 and the £170m M6 managed motorway programme between junctions 10a and 13 is due to start in 2014/15, although the construction element of these will be much smaller than for the other two projects. Work has recently started on the A45 Corridor Improvements scheme in Birmingham and is due to begin on the Birmingham Airport runway extension in 2013, with both due to complete by 2014. However, these are relatively small projects in construction terms and thus the infrastructure sector is expected to decline by 4% per year on average between 2013 and 2017.

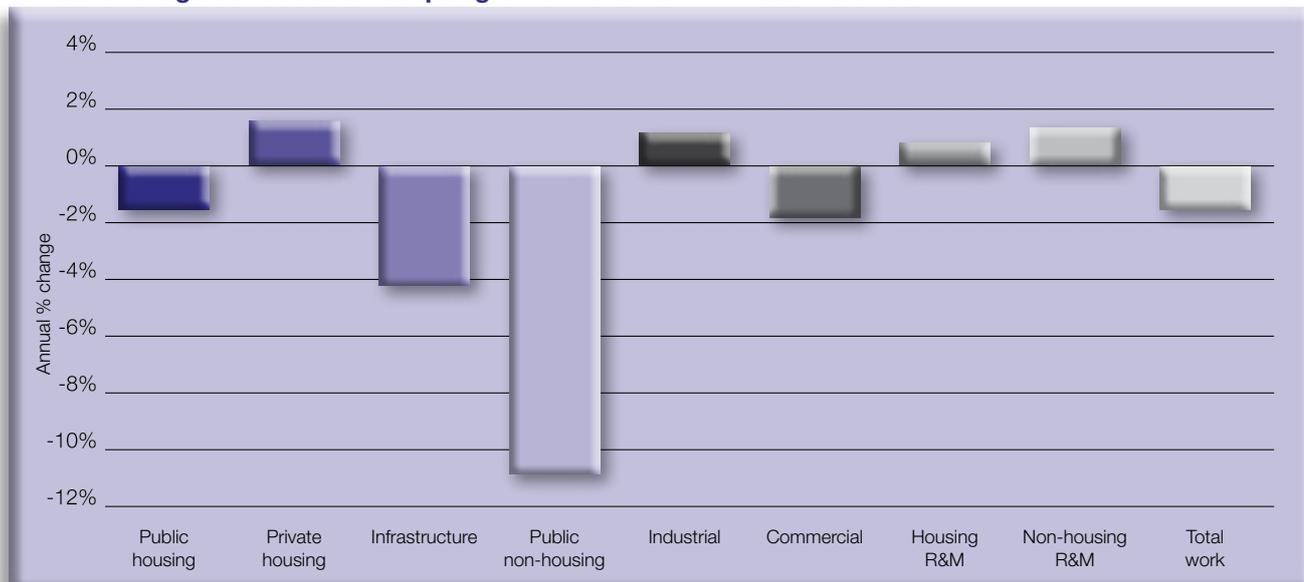
The commercial construction sector in the West Midlands is not expected to return to growth until 2015 and even then it will see only muted increases to 2017. Resorts World is planning a development at the National Exhibition Centre in Birmingham, including a new casino, a 176-bed hotel, conference facilities, along with an outlet centre, a cinema and a range of food and drink outlets. Work was due to start towards the end of 2012 with an expected completion date of January 2015.

Public housing output is forecast to decline at an average rate of 1.7% per year over the period to 2017, although this reflects contracting activity in the shorter term, with growth forecast to return in 2015. The marked funding cuts for social housing across England will impact on the sector in the near term, with registered providers having to adapt to new business models where they need to raise more funding from private sources themselves. Prospects for the sector are stronger towards the end of the forecast period, as credit conditions improve and funding becomes easier to access.

Industrial construction output in the West Midlands is expected to rise at an average rate of 1.1% per year over the period to 2017. The sector will be boosted by work on the new Jaguar Land Rover plant in the short term, with gradually improving economic conditions and strengthening export demand providing some impetus for new manufacturing and distribution facilities over the next few years.

With average annual growth of 1.7% between 2013 and 2017, the private housing sector is forecast to be the best performing in the West Midlands over the forecast period. Demand is expected to pick up over the next few years, in line with improving economic conditions and receding worries over unemployment. Schemes such as NewBuy and FirstBuy may provide some boost to activity, although it is only likely to be at the margins.

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



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

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

|                    | Estimate     | Forecast annual % change |            |           |           |           | Annual average 2013-17 |
|--------------------|--------------|--------------------------|------------|-----------|-----------|-----------|------------------------|
|                    |              | 2012                     | 2013       | 2014      | 2015      | 2016      |                        |
| Public housing     | 289          | -13%                     | -1%        | 5%        | 1%        | 2%        | -1.7%                  |
| Private housing    | 808          | 2%                       | 5%         | 2%        | 0%        | 0%        | 1.7%                   |
| Infrastructure     | 588          | -8%                      | -5%        | -4%       | -3%       | 0%        | -4.0%                  |
| Public non-housing | 921          | -23%                     | -14%       | -15%      | -1%       | 0%        | -10.9%                 |
| Industrial         | 296          | 4%                       | -2%        | 3%        | 0%        | 1%        | 1.1%                   |
| Commercial         | 1,666        | -7%                      | -7%        | 1%        | 1%        | 3%        | -1.9%                  |
| New work           | 4,569        | -8%                      | -5%        | -2%       | 0%        | 1%        | -2.8%                  |
| Housing R&M        | 1,201        | -1%                      | 1%         | 2%        | 1%        | -1%       | 0.6%                   |
| Non-housing R&M    | 1,213        | -2%                      | 1%         | 3%        | 3%        | 3%        | 1.5%                   |
| <b>R&amp;M</b>     | <b>2,414</b> | <b>-1%</b>               | <b>1%</b>  | <b>2%</b> | <b>2%</b> | <b>1%</b> | <b>1.0%</b>            |
| <b>Total work</b>  | <b>6,983</b> | <b>-6%</b>               | <b>-3%</b> | <b>0%</b> | <b>1%</b> | <b>1%</b> | <b>-1.4%</b>           |

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

### 2.10 Beyond 2017

One of the major projects which is likely to boost construction output in the West Midlands post-2017 is High Speed 2 (HS2). This is a planned high speed railway between London and the Midlands, Northern England and potentially the central belt of Scotland. The first phase of the route is from London Euston to the Midlands.

One other area of potential growth is the green agenda, which could provide a substantial boost to the construction sector. There is the potential for a sizeable amount of energy efficiency improvements to the dwelling stock, and this, coupled with increasing demand for microgeneration measures, could stimulate activity in the R&M sectors.

The best performing sector is forecast to be the private housing sector, with average annual growth of 1.7% over the period to 2017

# 3. Construction employment forecasts for the West 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 West 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.

Construction employment in the West Midlands is forecast to decline in each year to 2017, although output is expected to return to growth in 2016. The lagged effect between output and employment means that job shedding is likely to continue in the region for some time after output

starts to improve. Employment is forecast to decline at an average annual rate of 2.8% over the five years to 2017, substantially weaker than the UK figure of a 0.8% decline per year on average.

In 2011, the largest construction-specific occupations in the West Midlands were wood trades and interior fit-out, and construction managers, both of which accounted for 10% of the total workforce, followed by plumbing and HVAC trades with a 9% share. Despite declines in these occupations over the 2013-2017 period, they will retain their shares over the forecast period as the falls are in line with the drop in total employment.

### Total employment by occupation – West Midlands

|  | Actual<br>2011 | Forecast       |                |
|--|----------------|----------------|----------------|
|  |                | 2013           | 2017           |
| Senior, executive, and business process managers                           | 10,720         | 9,740          | 8,540          |
| Construction managers  | 19,000         | 17,570         | 15,760         |
| Non-construction professional, technical, IT, and other office-based staff | 24,180         | 21,920         | 19,660         |
| Wood trades and interior fit-out   | 19,220         | 17,570         | 16,060         |
| Bricklayers  | 4,780          | 4,600          | 4,390          |
| Building envelope specialists  | 8,080          | 7,440          | 6,700          |
| Painters and decorators  | 7,980          | 7,380          | 6,610          |
| Plasterers and dry liners  | 3,650          | 3,430          | 3,170          |
| Roofers  | 3,090          | 2,810          | 2,480          |
| Floorers   | 3,240          | 2,930          | 2,720          |
| Glaziers   | 3,920          | 3,540          | 3,090          |
| Specialist building operatives nec*  | 3,780          | 3,380          | 2,890          |
| Scaffolders  | 660            | 550            | 440            |
| Plant operatives   | 1,710          | 1,620          | 1,540          |
| Plant mechanics/fitters  | 1,980          | 2,030          | 1,860          |
| Steel erectors/structural  | 2,060          | 2,030          | 1,940          |
| Labourers nec*   | 6,850          | 6,060          | 5,500          |
| Electrical trades and installation   | 12,810         | 12,080         | 10,960         |
| Plumbing and HVAC trades   | 16,390         | 14,780         | 13,370         |
| Logistics  | 5,480          | 4,840          | 3,970          |
| Civil engineering operatives nec*  | 3,880          | 3,950          | 3,860          |
| Non-construction operatives  | 1,770          | 1,690          | 1,530          |
| Civil engineers  | 3,530          | 3,180          | 2,980          |
| Other construction professionals and technical staff                       | 9,110          | 8,590          | 7,970          |
| Architects   | 1,890          | 1,690          | 1,550          |
| Surveyors  | 6,510          | 5,450          | 4,420          |
| <b>Total (SIC 41-43)</b>   | <b>165,230</b> | <b>151,940</b> | <b>137,040</b> |
| <b>Total (SIC 41-43, 71.1, 74.9)</b>                                       | <b>186,270</b> | <b>170,850</b> | <b>153,960</b> |

All occupations in the West Midlands are forecast to see falling employment over the period to 2017, with the weakest declines for civil engineering operatives nec, plant operatives and steel erectors/structural workers. In contrast, scaffolders, surveyors and logistics personnel are forecast to see the most marked declines in employment over the forecast period.

### 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 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.

The ARR for the 26 occupations within the West Midlands' construction industry is illustrated in the table. The figure of 830 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.

At 150 and accounting for 18% of the West Midlands' total ARR, wood trades and interior fit-out is the construction-specific occupation with the highest ARR in the region. Workers in this occupation work across a number of sectors, including R&M, which is forecast to perform better than

new work over the forecast period. The West Midlands' ARR is equivalent to just 0.5% of base 2013 employment, substantially lower than the UK figure of 1.2%.

The latest mobility report from CITB-ConstructionSkills provides some good indications of geographic flows for the construction industry. According to the survey, 57% of the construction workforce in the West Midlands originated there, one of the lowest proportions of the regions and devolved nations. The second biggest contribution to the region's construction workforce was from the East Midlands (14%), with 8% from outside the UK.

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, 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 – West Midlands

|  | 2013-2017  |
|--|------------|
| Senior, executive, and business process managers                           | -          |
| Construction managers  | -          |
| Non-construction professional, technical, IT, and other office-based staff | -          |
| Wood trades and interior fit-out   | 150        |
| Bricklayers  | 60         |
| Building envelope specialists  | -          |
| Painters and decorators  | -          |
| Plasterers and dry liners  | -          |
| Roofers  | -          |
| Floorers   | 120        |
| Glaziers   | <50        |
| Specialist building operatives nec*  | -          |
| Scaffolders  | -          |
| Plant operatives   | 120        |
| Plant mechanics/fitters  | -          |
| Steel erectors/structural  | -          |
| Labourers nec*   | 220        |
| Electrical trades and installation   | -          |
| Plumbing and HVAC trades   | -          |
| Logistics  | 50         |
| Civil engineering operatives nec*  | 70         |
| Non-construction operatives  | -          |
| Civil engineers  | -          |
| Other construction professionals and technical staff                       | -          |
| Architects   | -          |
| Surveyors  | -          |
| <b>Total (SIC 41-43)</b>   | <b>830</b> |
| <b>Total (SIC 41-43, 71.1, 74.9)</b>                                       | <b>830</b> |

## 4. Comparisons across the UK

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

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

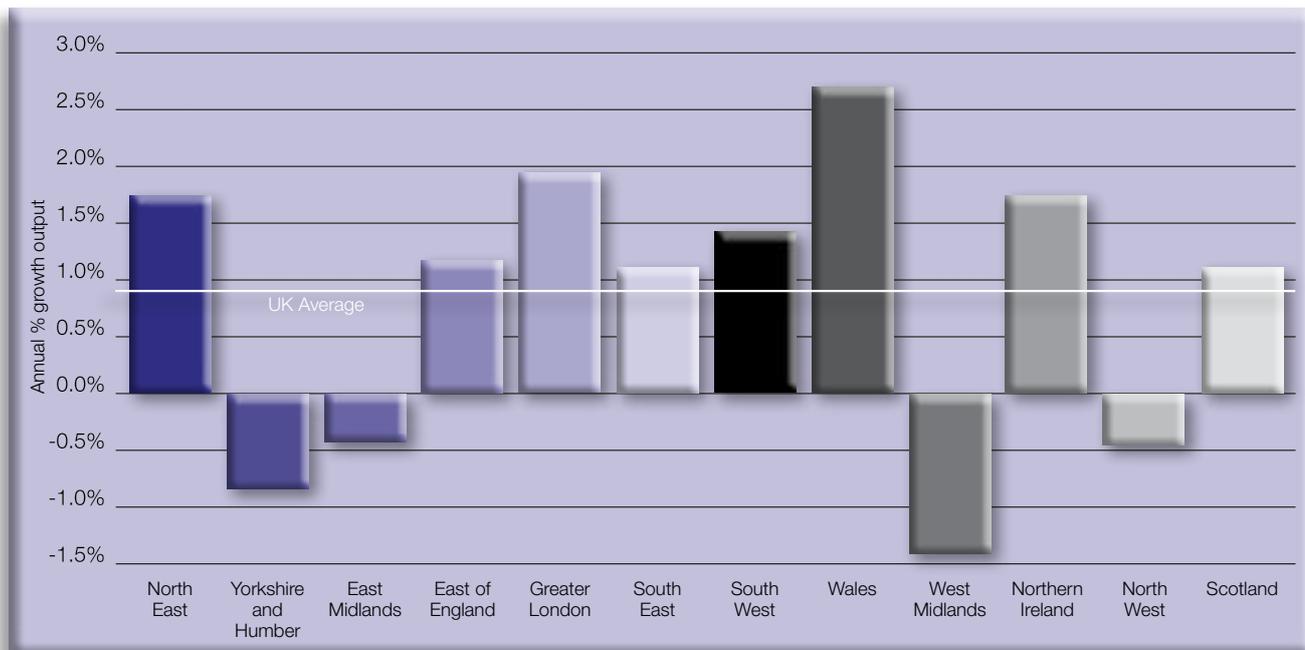
The profile of employment changes across the regions and devolved nations is different to that of output over the period to 2017. The relationship between overall output and employment is not straightforward given that some sectors are much more labour-intensive than others, and the relative performances of the sectors within overall output impacts on the prospects for employment across the UK. For example, Wales' output growth is largely predicated on the new nuclear power station at Wylfa and new nuclear build is one of the least labour intensive areas of the construction industry. Greater London and the East of England are the only two regions predicted to see employment growth over the forecast period, and even here it is very weak.

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



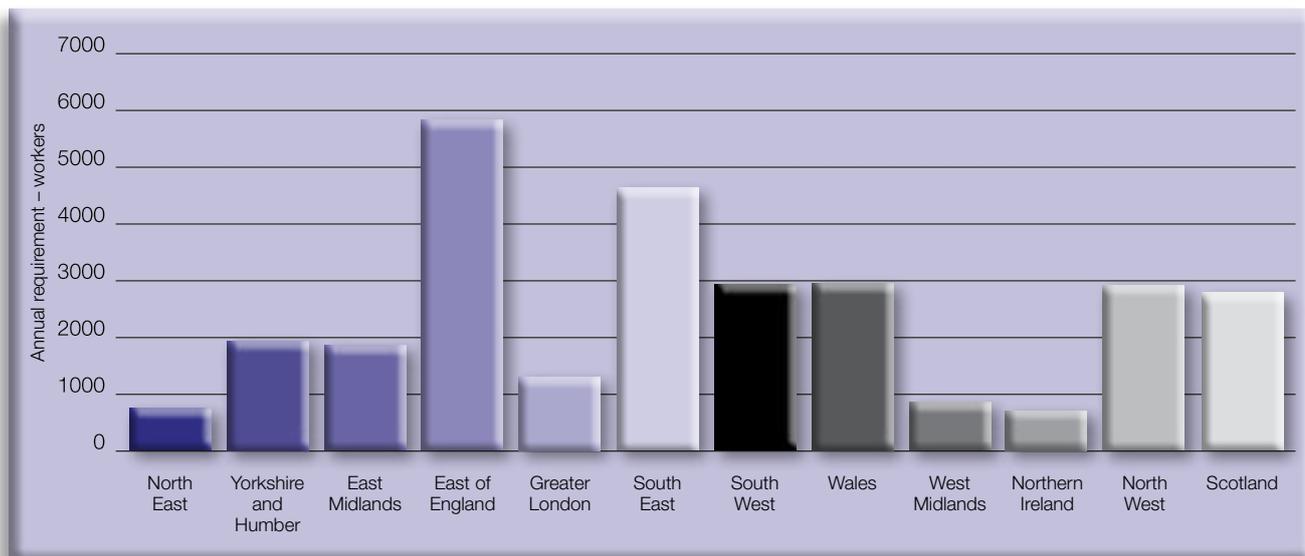
Construction employment in the West Midlands is forecast to decline each year to 2017, although output is expected to return to growth in 2016

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



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

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



Source: CSN, Experian



# CSN Explained

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

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

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

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

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

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



# 1. CSN Methodology

## Background

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

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

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

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

## The model approach

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

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

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

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

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

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

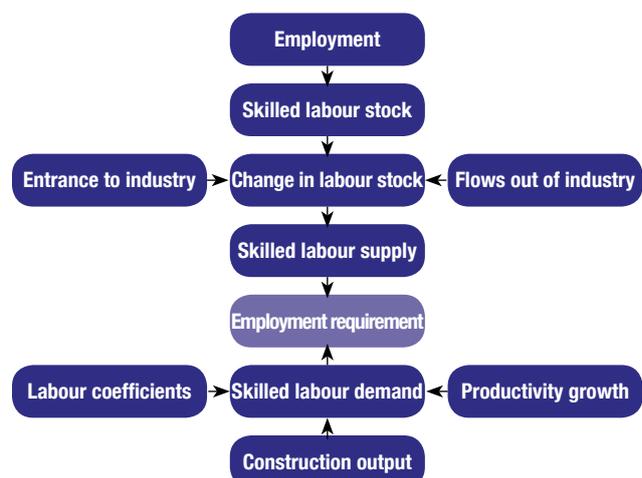
The main reason for outflow is likely to be transfer to other industries.

Flows into the labour market include:

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

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

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



## 2. Glossary of Terms

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



# 3. Notes and Footprints

## Notes

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

## Footprints for Built Environment SSCs

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

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

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

\* AssetSkills has a peripheral interest in SIC 71.1

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

### SummitSkills

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

**Coverage** – Building Services Engineering.

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

### AssetSkills

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

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

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

### Energy and Utility Skills

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

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

# 4. Definitions: types and examples of construction work

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

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

## **Private sector housing**

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

## **Infrastructure – public and private**

### **Water**

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

### **Sewerage**

Sewage disposal works, laying of sewers and surface drains.

### **Electricity**

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

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

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

### **Railways**

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

### **Harbours**

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

### **Roads**

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

## **Public non-residential 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)**



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CSNI EXPLAINED

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