

INDUSTRY INSIGHTS

Construction Skills Network
Northern Ireland 2015-2019



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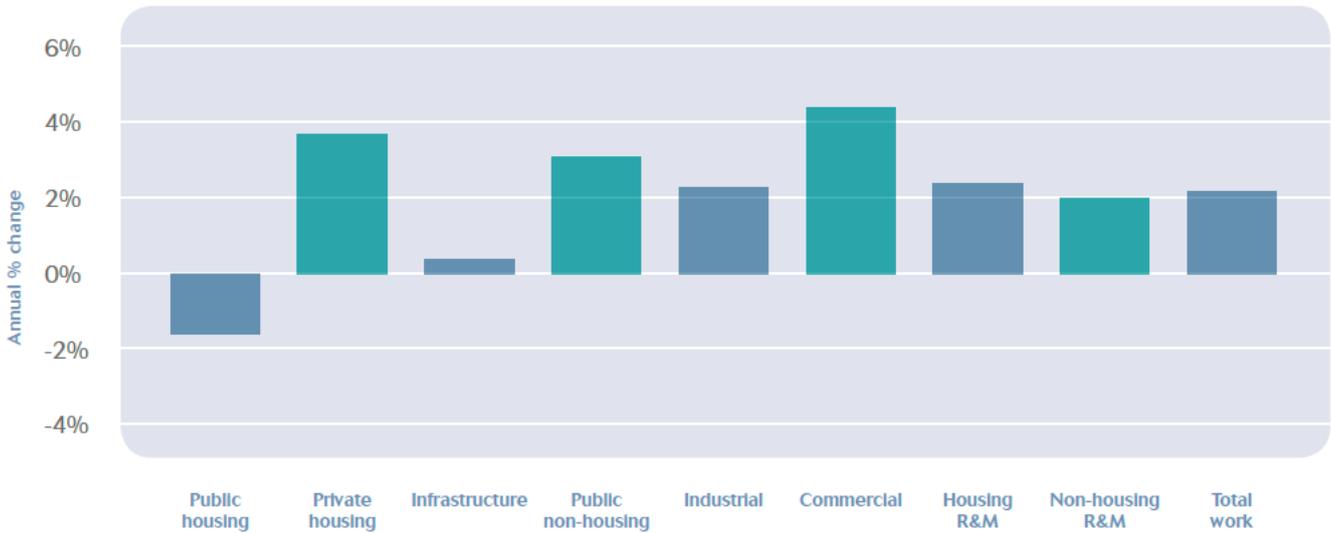
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1 Summary – Northern Ireland

Northern Ireland is projected to see annual average output growth of 2.2% over the 2015 to 2019 period, lower than the UK rate of 2.9%. Average growth rates for new work and repair and maintenance (R&M) are expected to be similar, at 2.3% and 2.1% respectively. This output growth rate should generate annual average employment growth of 1% over the forecast period, again below the UK average of 1.5%. Northern Ireland’s annual average recruitment requirement (ARR), at 1,490, represents 2.4% of base 2015 employment.

Annual average construction output growth 2015-2019 – Northern Ireland



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



1.1 Key findings

After a sixth consecutive year of contraction in 2013 it had been expected that construction output in Northern Ireland would finally see some growth in 2014. However, that seems not to have been the case, with an estimated decline of 5% likely based on 2014 data available so far. Private housing output seems to have gone into reverse after its first rise since 2006 in 2013, and poor performances are also estimated for the public housing, infrastructure and repair and maintenance sectors.

The estimated fall in 2014 will take construction output down to only 54% of its 2006 peak in Northern Ireland, thus any recovery will be from a very low base. However, we are anticipating recovery, not least because can activity levels fall much further? But the projected annual average output growth rate of 2.2% for the devolved nation will only take output in 2019 up to 61% of its 2006 peak.

Annual average output growth is expected to be strongest in the commercial (4.4%), private housing (3.7%) and public non-housing sectors (3.1%). Long-term developments such as City Quays and further work at the Titanic Quarter should benefit the commercial construction sector, while private housing activity will inevitably bounce back from its current low levels, although it is unlikely to return to its previous peak in the foreseeable future given that, at the time, output per

Private housing output is expected to expand at a moderate rate of 3.7% a year on average between 2015 and 2019.

Employment is projected to rise to 64,470 in 2019, representing annual average growth of 1% over the five year period.

capita was around 70% higher than the UK average. Growth in the public non-housing sector is expected to be driven by a significant amount of work in the education and health sub-sectors, particularly on colleges, in the early part of the forecast period, but expansion is likely to subside post-2016.

Employment growth is projected to average 1% a year over the 2015 to 2019 period, below the UK rate of 1.5%. This implies a productivity gain of 1.2% a year in Northern Ireland. However it should be remembered that different construction sectors are more or less labour intensive and thus changes in 'implied' productivity can be as much to do with relative sector growth rather than any change in 'real' productivity.

Demand is projected to be strongest in some of the managerial/supervisory and professional occupational categories, especially construction trades supervisors (4% annual average growth), but some trades show strong growth as well, such as plant operatives (3.4%) and bricklayers (3%).

Northern Ireland's annual recruitment requirement (ARR), at 1,490 for the 2015 to 2019 period shows further growth from last year when the requirement was for 1,280 a year on average between 2014 and 2018. Not surprisingly given demand growth, the requirement is strongest for bricklayers and plant operatives at around 12% of base 2015 employment.

Regional comparison 2015-2019

	Annual average % change in output	Growth in total employment	Total ARR
North East	2.3%	7,660	3,510
Yorkshire and Humber	2.3%	14,940	3,220
East Midlands	2.2%	9,340	3,120
East of England	2.5%	13,690	4,260
Greater London	4.2%	50,440	2,050
South East	2.5%	30,130	2,590
South West	3.6%	22,130	6,320
Wales	5.8%	13,890	5,320
West Midlands	2.1%	12,110	2,320
Northern Ireland	2.2%	3,220	1,490
North West	2.5%	17,130	4,790
Scotland	1.1%	1,320	5,700
UK	2.9%	196,000	44,690

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

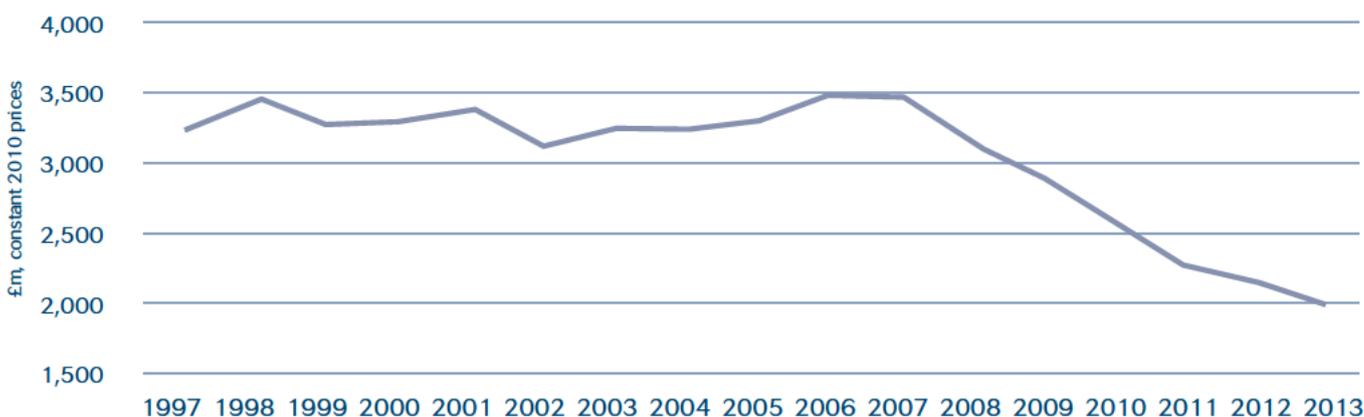
2 The outlook for construction in Northern Ireland

2.1 Construction output in Northern Ireland – overview

2013 was another bad year for the construction industry in Northern Ireland, with output falling by 9% in real terms to £1.98bn in 2010 prices. This was a sixth consecutive year of decline, taking output down

to just 57% of its 2006 peak, despite 2013 being the first year of growth for the private housing sector for seven years. The public housing, infrastructure and public non-housing sectors all experienced sharp falls, whilst repair and maintenance activity was also weak.

Construction output 1997-2013 – Northern Ireland



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

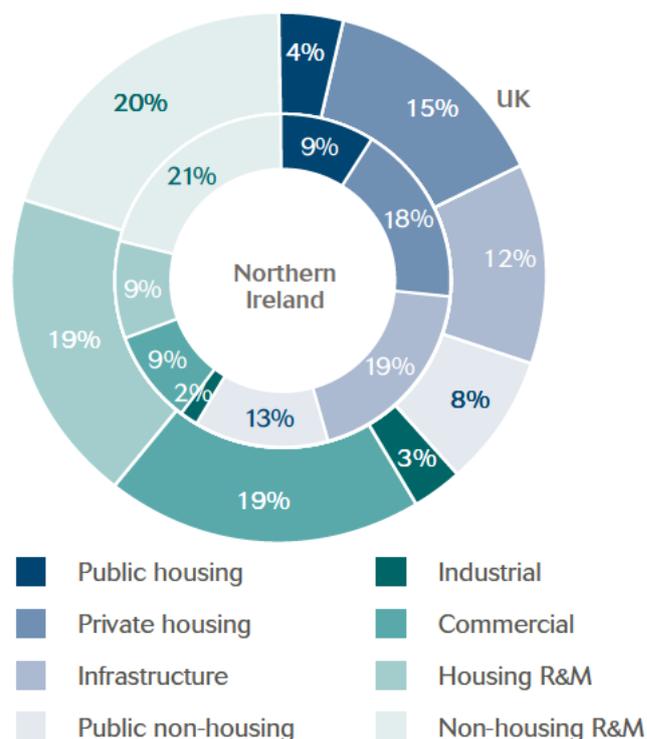
2.2 Industry structure

The diagram, Construction Industry structure 2013 – UK vs. Northern Ireland, illustrates the sector breakdown of construction in Northern Ireland, compared to that in the UK. Effectively, the percentages for each sector illustrate what proportion of total output each sector accounts for.

As can be seen from the pie chart, the structural make-up of Northern Ireland’s construction industry remains significantly different from that of the UK. New work accounts for 70% of all construction in the devolved nation compared with 62% in the UK as a whole, with the housing R&M sector proportionally 10% smaller (9% versus 19%). However the new work share is down from 82% in 2006, although this is due to weakness in the new work markets rather than any growth in repair and maintenance (R&M).

In contrast, new housing accounts for 27% of the industry in Northern Ireland but only 19% in the UK. The infrastructure sector is also proportionally larger in the devolved nation, with a 19% versus 12% share. Conversely, the commercial sector takes only a 9% share of Northern Ireland construction output compared with a 19% share across the UK as a whole.

Construction industry structure 2013 – UK vs Northern Ireland



Source: ONS, Experian

2.3 Economic overview

The expected performance of a regional or national economy over the forecast period (2015 – 2019) provides an indication of the construction sectors in which demand is likely to be strongest.

2.4 Economic structure

Northern Ireland's gross value added (GVA) totalled £29.2bn in 2010 prices in 2013, a 2.4% rise on revised figures for the previous year. This was the first increase in GVA in the devolved nation for six years and was ahead of the UK rate of growth (1.7%). However, it still left Northern Ireland GVA nearly 9% below its 2006 peak. Growth in 2013 was strongest in the wholesale and retail (5.7%), information and communication (4.6%) and utilities sectors (4.1%), but finance and insurance contracted by over 2%.

The Northern Ireland economy continues to show a marked bias towards public services which still accounted for over 29% of GVA in 2013, the highest proportion of any UK region or devolved nation. Manufacturing's share in the economy has fallen in the past 14 years but less so than in some other parts of the UK. The sector's share of total output has dropped from 16.7% to 13.4%, but it is leaner and fitter and is

currently expanding at a steady pace. There have also been reductions in the share of the relatively small finance and insurance and transport and storage sectors. Making up for these declines have been increases in the shares of strongly-growing sectors, evidencing the diversification of the economic base. The strongest rise has been in professional and other private services where growth since 2000 has averaged 3.3% a year, even including the bleak period during the recession, and its share of GVA has increased from 14.8% to 17.6%. Wholesale and retail trade grew steadily prior to 2007, faltered during the recession, but has recovered strongly in the past two years. The most noteworthy growth rate has been achieved by the information and communication sector at an annual average rate of 4.2%, raising its share of total output from 2.6% in 2000 to 3.2% in 2013, although this still lags the 6.5% share it holds across the UK as a whole by some distance.

Economic structure – Northern Ireland (£ billion, 2010 prices)

Selected sectors	Actual	Forecast					
		Annual % change, real terms					
	2013	2014	2015	2016	2017	2018	2019
Public services	8.6	-0.2	0.1	-0.1	-0.2	0.3	1.1
Professional and other private services	5.1	4.4	3.3	3.2	3.3	2.9	2.5
Wholesale and retail	4.1	7.0	3.3	2.2	2.4	2.3	2.1
Manufacturing	3.9	5.2	1.6	1.6	2.1	1.5	0.8
Finance and insurance	1.4	-1.2	2.9	3.7	3.7	3.2	2.8
Total Gross Value Added (GVA)	29.2	2.7	2.2	1.9	2.0	1.9	1.8

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

2.5 Forward looking economic indicators

GVA growth in Northern Ireland in 2014 is estimated at 2.7%, with the wholesale and retail sector having another very good year (7%), followed by manufacturing (5.2%) and professional and other private services (4.4%).

Economic expansion is projected to slow to an annual average rate of 1.9% a year over the 2015 to 2019 period, around half a percent lower than the UK rate (2.4%). This is largely due to the devolved nation's economic structure and its relatively high exposure to generally slow growing sectors such as public services and manufacturing.

While manufacturing output is estimated to have seen strong expansion in 2014 its rate of growth is expected

to slow markedly to an annual average rate of 1.5% over the five years to 2019, which is unlikely to drive a significant requirement for additional factory space. The transport and storage sector is projected to see somewhat stronger growth of 2% a year on average over the same period, thus the prospects for the warehouse construction sub-sector may be a little better.

Of the sectors that drive demand for commercial premises, finance and insurance is predicted to fare best with annual average growth of 3.3%, closely followed by professional and other private services (3%), suggesting that demand for office space is likely to be stronger than that for retail or leisure space over the forecast period.

Economic indicators – Northern Ireland (£ billion, 2010 prices – unless otherwise stated)

	Actual	Forecast					
		Annual % change, real terms					
	2013	2014	2015	2016	2017	2018	2019
Real household disposable income	24.2	0.8	1.8	0.8	1.7	2.1	2.0
Household spending	25.7	1.1	1.9	1.6	1.7	1.9	2.0
Working age population (000s and as % of all)	1,134	62.3%	62.6%	62.7%	62.5%	62.4%	62.4%
House prices (£)	129,950	3.18	5.43	3.38	2.77	2.86	2.99
LFS unemployment (millions)	0.07	-6.83	-4.26	-1.55	-0.39	-1.77	-0.96

Source: ONS, DCLG, Experian

2.6 Construction output – short-term forecasts (2015–2016)

Construction output data for Northern Ireland are published by the Department of Finance and Personnel and at the time of writing data was available for the first half of 2014, although unlike the English regions and other devolved nations, an estimate of output in constant prices is made. No new orders data are available for the devolved nation.

The performance of the construction industry in Northern Ireland continues to be poor with construction output in 2010 prices in the first half of 2014 reaching £942m, 3% down on the previous half-year and over 7% below its level in the same period of 2013. The annualised total has declined for the past nine quarters and in the second quarter of 2014 was nearly 4% down on its total at the end of 2013. Only the public non-housing, industrial and commercial sectors have shown any growth and the signs of expansion seen in the private housing market in the second half of 2013 seem to have evaporated, at least for the moment. It is likely, over 2014 as a whole, that output has fallen by about 5% in real terms, representing the seventh consecutive year of decline.

We do expect to finally see a modest return to growth of 1% in 2015, strengthening to 4% in 2016, giving an annual average rate of 2.9% over the short term. Activity in the public sectors in 2015 could be affected by underspend on projects in 2014/15. For example, only £15m of the £50m allocated to shared education and housing schemes is likely to be spent in the 2014/15 financial year. Unfortunately, underspent funding often cannot be carried over from one year to the next, it is just lost and so could have an impact on growth in the first half of 2015.



Activity in the public housing sector has become very cyclical in recent years and this could be as a result of how capex, budgeted for in successive ISNIs, is allocated. The last peak in output was in 2012 at a new historic high in real terms and thus it was inevitable that we would see some decline thereafter. In fact, most of the decline is expected in 2015 and 2016 as activity falls to more sustainable levels.

The private housing market is at last showing signs of life. Recent house price data has generally been showing an upward trend. The ONS's mixed-adjusted series shows a quarter-on-quarter increase in prices of 5.9% in the third quarter of 2014 and an annualised rise of 8.6%. Quarterly data from the Halifax and Nationwide was even more robust, with the former showing a quarter-on-quarter increase of 9.4% and annualised growth of 19.5% in the third quarter of 2014 while the latter reported rises of 2.9% and 10.2% respectively on the same measures. However, to put the above in context, house prices in Northern Ireland still remain a long way below their pre-recessionary peak.

In terms of projects, the £100m Hilden Mill development is still awaiting a final decision on the purchase and regeneration of the site, which was due last summer. A mixed-use development including 179 dwelling units has been proposed for an industrial site in Derry with a possible start date in the second half of 2015. The Benmore Group is looking to take forward a couple of major projects in Belfast over the next couple of years, a 226-apartment development at Little Donegal Street, and one with 253 apartments on Library Street.

In the infrastructure sector, contractors have now been chosen for the two sections of the A5 recently in procurement, worth between £260m and £300m, with a start on site on both projects expected in the second quarter of 2015. Currently in procurement is the £100m to £120m scheme to dual the A6 between the M22 and Castledawson roundabout, expected to start towards the end of 2015, the £50m to £60m dualling of the A26 between Glarryford and Ballymoney, and the A31 Magherafelt Bypass, worth between £25m and £30m. In the water and sewerage sector the £120m to £140m improvement to Belfast's sewage system has recently been completed and there is nothing of a similar size in the pipeline in the sub-sector to replace it, suggesting construction is likely to decline, at least in the short term. The largest project in the pipeline in the rail sub-sector is the £20m to £25m track renewal scheme between Coleraine and Derry, which is scheduled to start in the first quarter of 2015. Overall, infrastructure activity is expected to decline a little in 2015 but bounce back in 2016.

In the public non-housing sector, as of the third quarter of 2014, there were 20 education packages of work in pre-procurement or procurement, including the Castle Tower Special School in Ballymena and St Patrick's Academy in Dungannon, for which construction work is scheduled to start in the second quarter of 2015. Both projects are worth between £20m and £25m. In total around £60m of education projects were in construction phase, only £17m were in procurement, but around £250m were in pre-procurement stage,

Construction output – Northern Ireland (£ million, 2011 prices)

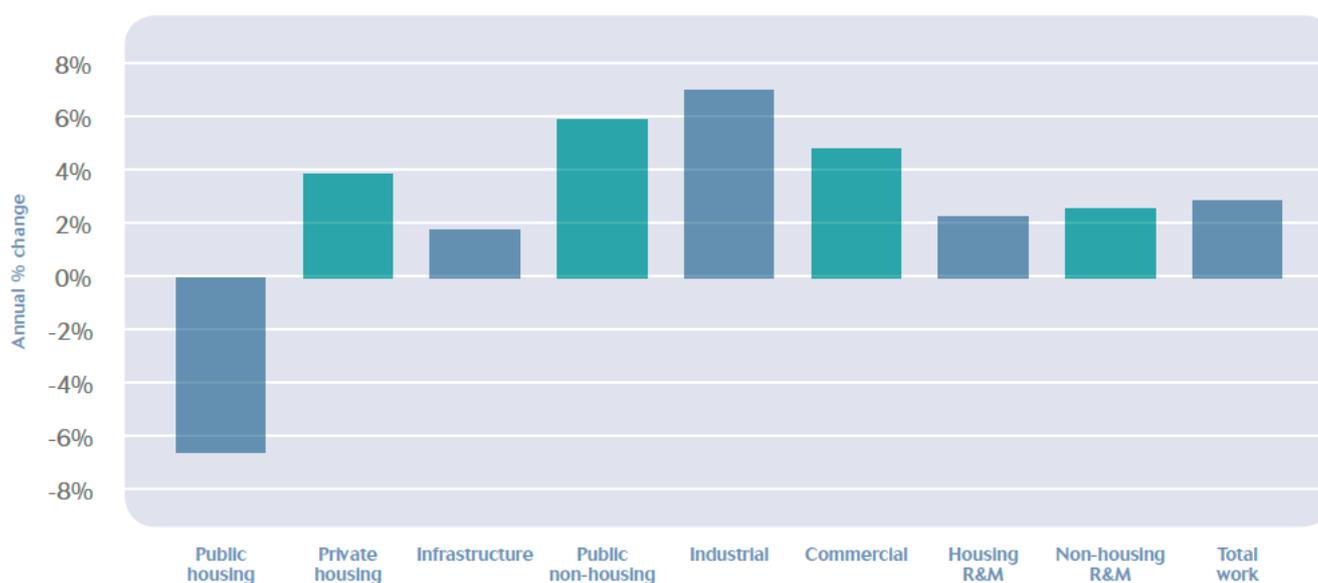
	Actual 2013	Forecast annual % change			Annual average 2015-2016
		2014	2015	2016	
Public housing	175	-18%	-9%	-5%	-6.6%
Private housing	348	-8%	6%	2%	3.9%
Infrastructure	382	-13%	-3%	7%	1.8%
Public non-housing	259	9%	1%	11%	6.0%
Industrial	33	18%	10%	4%	7.1%
Commercial	181	6%	4%	6%	4.9%
New work	1,378	-5%	1%	5%	3.0%
Housing R&M	188	-2%	2%	2%	2.3%
Non-housing R&M	416	-5%	2%	3%	2.6%
Total R&M	604	-4%	2%	3%	2.5%
Total work	1,982	-5%	1%	4%	2.9%

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

including three regional college developments worth between £70m and £85m. This strongly suggests that construction activity in the education sub-sector is likely to rise in the early part of the forecast period. Despite the decline in capital investment projected in the 2011-15 Budget, project data suggest that construction activity should also rise over the early part of the forecast period in the health sub-sector. An assessment of the ISNI pipeline showed around £50m of work under construction, but around £110m for which procurement has been concluded and on which work on site should start imminently, and a further £70m of projects in procurement. Thus our projections are for good growth in public non-housing output in 2015 and 2016, subsiding thereafter.

In the commercial sector work has started on the first project at the £250m City Quays development in Belfast, which is due to run until 2030. CQ1, as it is known, consists of nearly 69,000 square feet of grade A office space which is due to complete in early 2015. A detailed planning application has already been submitted for CQ2, a further 124,000 square feet of office space and the regeneration will eventually include leisure, hotel, retail and residential space. The College Square East building previously owned by Belfast Metropolitan College has recently been sold having been on the market since 2011, with plans to refurbish it as a city-centre hotel.

Annual average construction output growth 2015-2016 – Northern Ireland



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

2.7 Construction output – long-term forecasts (2015–2019)

Northern Ireland’s projected annual average construction output growth rate over the 2015-19 period is a reasonably robust 2.2%, although it still lags the UK’s (2.9%). All sectors bar the public housing one are expected to see growth, with the commercial construction one leading the way with 4.4% per annum on average.

It should be remembered that the industry in Northern Ireland is coming back from a much lower base than the UK as a whole. Between its peak in 2006 and 2013 output in the devolved nation fell by an estimated 43%, while across the UK as a whole the drop between the 2007 peak and 2013 was only 13%.

Further cuts to the Northern Ireland Executive’s block grant, of £160m in 2015/16 and £1.3bn in 2016/17 to 2018/19 have recently been announced. However, Northern Ireland is not alone in having to make further cuts post 2015. The UK Government in Westminster has made clear for some time that austerity measures would continue to at least 2018 and departments would be expected to make further savings. Nevertheless, it has been made clear that the main emphasis of these cuts should be on resource expenditure, not capital expenditure, thus it is our belief that they should not impact new construction work significantly although they may affect repair and maintenance expenditure, depending on whether authorities capitalise this or not. The Northern Ireland Executive receives its funding as a block grant and is able to set its own investment priorities and it is our belief that it will generally follow the UK lead of ‘protecting’ capital expenditure.

House prices growth will inevitably subside from the high levels recently experienced and a slowdown in the market is already being reported across many areas of the UK. Inflation in the housing market in Northern Ireland is projected at around 3.5% a year

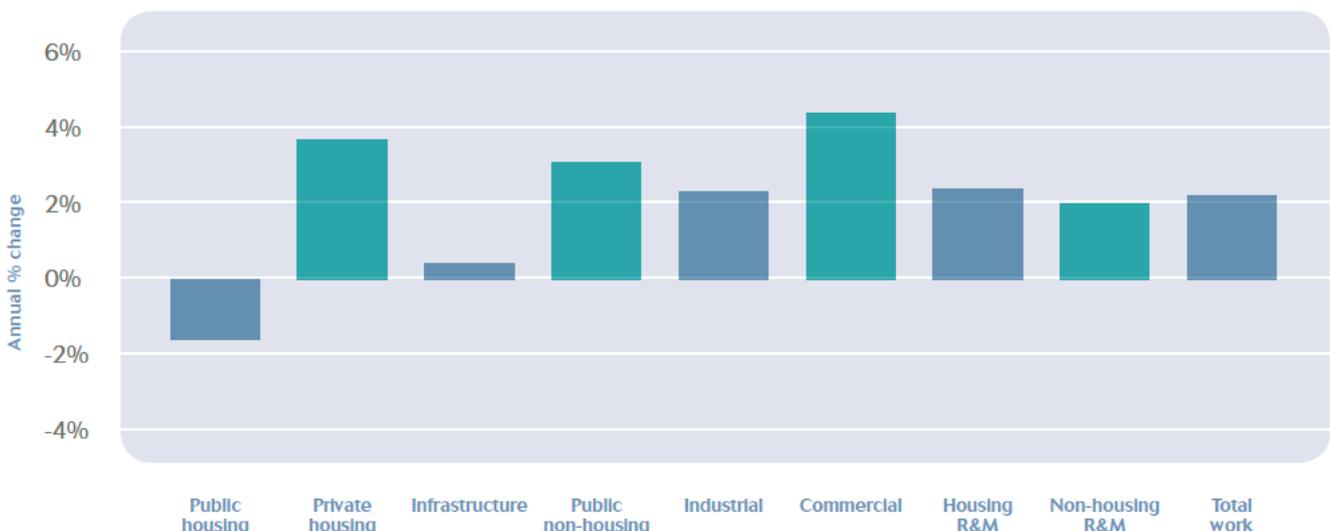
over the 2015 to 2019 period which in the latter year should take house prices back to close to their 2010 level. Private housing output is expected to expand at a moderate rate of around 3.7% a year on average, which will take output up to around £390m in 2010 prices by 2019. This is well below its peak of between £1.2bn and £1.3bn but this level is unlikely to be approached again in the foreseeable future, given that it equated to expenditure of over £700 per capita in Northern Ireland, against a UK average of less than £420.

Further road improvement schemes may be taken forward over the second half of the forecast period on the M2, A26, and A6, which could total over £400m of expenditure, but these will be conditional on alternative financing being successfully sourced. A further £1bn is projected to be invested in the water and sewerage sector between 2016 and 2021 to meet rising European Union standards in the sector, but this level of spending is roughly the same on an annualised basis as that in the 2011 to 2015 budget.

The prospects for the main sectors that create demand for commercial construction are generally considerably better during the forecast period than their performance in the five years to 2013 and have strengthened over recent months. Leading the way in terms of growth is expected to be finance and insurance with average annual expansion of 3.3% over the 2015 to 2019 period, followed by professional and other private services (3%), wholesale and retail (2.5%), and accommodation, food services and recreation (2.2%). In the case of both professional and other private services and finance and insurance this represents a reversal of a declining trend in the 2009-13 period.

There are plans afoot to redevelop the historic Herdman’s Mill on the banks of the River Mourne, which closed in 2004, as a tourism destination, including a museum, sports and community facilities.

Annual average construction output growth 2015-2019 – Northern Ireland



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

Construction output – Northern Ireland (£ million, 2011 prices)

	Estimate 2014	Forecast annual % change					Annual average 2015-2019
		2015	2016	2017	2018	2019	
Public housing	143	-9%	-5%	1%	4%	1%	-1.6%
Private housing	322	6%	2%	4%	4%	3%	3.7%
Infrastructure	334	-3%	7%	0%	-3%	2%	0.4%
Public non-housing	282	1%	11%	0%	2%	1%	3.1%
Industrial	39	10%	4%	2%	-3%	-1%	2.3%
Commercial	193	4%	6%	4%	6%	2%	4.4%
New work	1,312	1%	5%	2%	2%	2%	2.3%
Housing R&M	184	2%	2%	3%	3%	1%	2.4%
Non-housing R&M	395	2%	3%	2%	0%	3%	2.0%
R&M	579	2%	3%	2%	1%	3%	2.1%
Total work	1,891	1%	4%	2%	1%	2%	2.2%

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

2.8 Beyond 2019

Renewal of the UK's transport and energy infrastructure is high up the agenda not only of the Westminster government, but all the devolved nations' administrations as well. In particular, issues of capacity and security of supply are critical for the energy sector. One of the major sustainable energy projects in the pipeline in Northern Ireland is the Fair Head Tidal Array proposal. Construction is due to commence on a 10MW demonstration project in 2017 and if it

proves successful, phase 2 entailing a 100MW array, generating energy for up to 70,000 homes, will follow.

The Titanic Quarter has recently set out its long-term vision for the area, accepting that recent years have been a challenge due to falling land and property values. This vision includes a luxury boutique hotel, a casino, extensions to the Science Park, and doubling the number of people living in the quarter from 5,000 to 10,000.

Construction output in Northern Ireland should return to growth in 2015, with annual average growth of 2.2% expected over the next five years.



3 Construction employment forecasts for Northern Ireland

3.1 Total construction employment forecasts by occupation

The table presents actual construction employment (SICs 41-43, 71.1, and 74.9) in Northern Ireland for 2013, the estimated total employment across 28 occupational categories in 2014 and forecasts for the industry for 2015 to 2019. A full breakdown of occupational groups is provided in Section 5 of CSN Explained.

Total construction employment in Northern Ireland was estimated at around 60,300 in 2013 according to the Labour Force Survey (LFS). Employment is projected to rise to 64,470 in 2019, representing annual average growth of 1% over the 2015 to 2019 period. This compares with an annual average output growth rate of 2.2%, indicating an 'implied' productivity gain of

1.2% a year. However it should be remembered that different construction sectors are more or less labour intensive and thus changes in 'implied' productivity can be as much to do with relative sector growth rather than any change in 'real' productivity.

Overall growth in demand is expected to be stronger for the professional and managerial occupational categories than the trade side, although some trades will see strong demand, especially bricklayers (3% annual average growth a year) and plant operatives (3.4%). Annual average growth is predicted to range from 1.8% to 2.9% a year for professionals and 2.1% to 4% for construction managers and supervisory staff, although demand for senior and business process managers is likely to decline. In total, 19 out of the 28 occupational categories are expected to see some growth in demand during the five years to 2019.

Total employment by occupation – Northern Ireland

	Actual 2013	Estimate 2014	Forecast 2015	Forecast 2019
Senior, executive, and business process managers	3,830	3,720	3,640	3,440
Construction project managers	1,070	1,110	1,150	1,250
Other construction process managers	4,760	4,900	5,040	5,430
Non-construction professional, technical, IT and other office-based staff	6,770	6,840	6,900	6,850
Construction trades supervisors	850	880	920	1,070
Wood trades and interior fit-out	7,910	8,210	8,520	9,480
Bricklayers	2,340	2,430	2,520	2,820
Building envelope specialists	980	980	990	1,000
Painters and decorators	3,150	3,190	3,230	3,210
Plasterers	2,090	2,180	2,240	2,240
Roofers	1,100	1,130	1,170	1,290
Floorers	250	260	260	260
Glaziers	560	560	560	550
Specialist building operatives nec*	800	820	830	840
Scaffolders	230	240	240	260
Plant operatives	1,430	1,500	1,570	1,770
Plant mechanics/fitters	710	730	750	810
Steel erectors/structural fabrication	190	190	190	170
Labourers nec*	3,810	3,760	3,740	3,550
Electrical trades and installation	4,890	4,890	4,890	4,730
Plumbing and HVAC Trades	3,490	3,350	3,230	2,920
Logistics	460	480	500	560
Civil engineering operatives nec*	540	520	510	470
Non-construction operatives	190	200	210	280
Civil engineers	2,380	2,420	2,470	2,650
Other construction professionals and technical staff	2,990	3,090	3,190	3,550
Architects	1,590	1,680	1,750	1,940
Surveyors	940	970	1,000	1,080
Total (SIC 41-43)	52,400	53,070	53,800	55,250
Total (SIC 41-43, 71.1, 74.9)	60,300	61,230	62,210	64,470

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. Thus, the annual recruitment requirement provides an indication of the number of new employees that would need to be recruited into construction each year in order to realise forecast output.

The ARR for Northern Ireland continues to rise slowly, to 1,490 for the 2015 to 2019 period compared with one of 1,280 for 2014-2018 reported last year. This is to be expected as the industry recovers and more slack in employment terms is taken up. A further upward pressure on the ARR would be the permanent loss of those with the required skills to early retirement, other industries, and other regions and devolved nations.

Northern Ireland's 2015-19 ARR of 1,490 represents 2.4% of base projected 2015 employment, a higher ratio than the UK average, with the workforce suffering strong leakages to other parts of the UK and also probably to the Republic of Ireland, whose construction industry is recovering strongly from its deep recession.

The requirement is expected to be strongest over the next five years in some of the managerial and trades

occupations, especially plant operatives and bricklayers at around 12% of base 2015 employment and construction project managers (nearly 9%). In particular the construction industry has to compete with other sectors for plant operatives – only 21% of them work in construction according to the Labour Force Survey and many may have transferable skills.

Please note that all of the ARR's presented in this section are employment requirements and not necessarily training requirements. This is because some new entrants to the construction industry, such as skilled migrants or those from other industries where similar skills are 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 – Northern Ireland

	2015 - 2019
Senior, executive, and business process managers	-
Construction project managers	100
Other construction process managers	120
Non-construction professional, technical, IT and other office-based staff	-
Construction trades supervisors	50
Wood trades and interior fit-out	130
Bricklayers	300
Building envelope specialists	<50
Painters and decorators	100
Plasterers	130
Roofers	70
Floorers	<50
Glaziers	-
Specialist building operatives nec*	-
Scaffolders	-
Plant operatives	190
Plant mechanics/fitters	60
Steel erectors/structural fabrication	-
Labourers nec*	-
Electrical trades and installation	-
Plumbing and HVAC Trades	<50
Logistics	<50
Civil engineering operatives nec*	<50
Civil engineers	-
Other construction professionals and technical staff	170
Architects	-
Surveyors	-
Total (SIC 41-43)	1,320
Total (SIC 41-43, 71.1, 74.9)	1,490

4 Comparisons across the UK

Despite ongoing delays to the nuclear new build programme, Wales is still projected to have the strongest output growth rate, despite the start on main construction works on Wylfa unlikely before the beginning of 2019. Nuclear new build still remains in the forecast period for the South West, where main construction works on Hinkley Point C should begin in 2015, helping to boost the region's annual average output growth rate to 3.6%.

Greater London slips in between Wales and the South West, with projected annual average output expansion of 4.2%, benefiting from very strong demand for housing, both public and private, despite recent indications that house prices in the capital are stabilising, and good growth in the commercial construction sector. Together, these three sectors accounted for 44% of London's construction output in 2013, well above the UK average (38%), and so are proportionally providing a stronger driver for overall growth in the capital compared with elsewhere.

While most UK regions and nations are expected to experience quite strong growth in private housing output to 2016, with a slowdown to more sustainable levels thereafter, the prospects for public housing are much more uncertain as the current Affordable Housing Programme (AHP) winds down to April 2015. The overall pot of funding available from central government for 2015-18 is much the same on an annualised basis as in 2011-15 and there are concerns that many housing associations may find increasing their borrowing levels from private sources more problematical in the future.

Outside of the South West, infrastructure growth is likely to be strongest in the North East and Wales, the former being driven by £400m of roads work in the Highways Agency's Area 14, which covers the region and the latter benefiting from Great Western Line electrification, road upgrades, energy works, such as Swansea's tidal lagoon and, of course, nuclear new build at Wylfa in Anglesey.

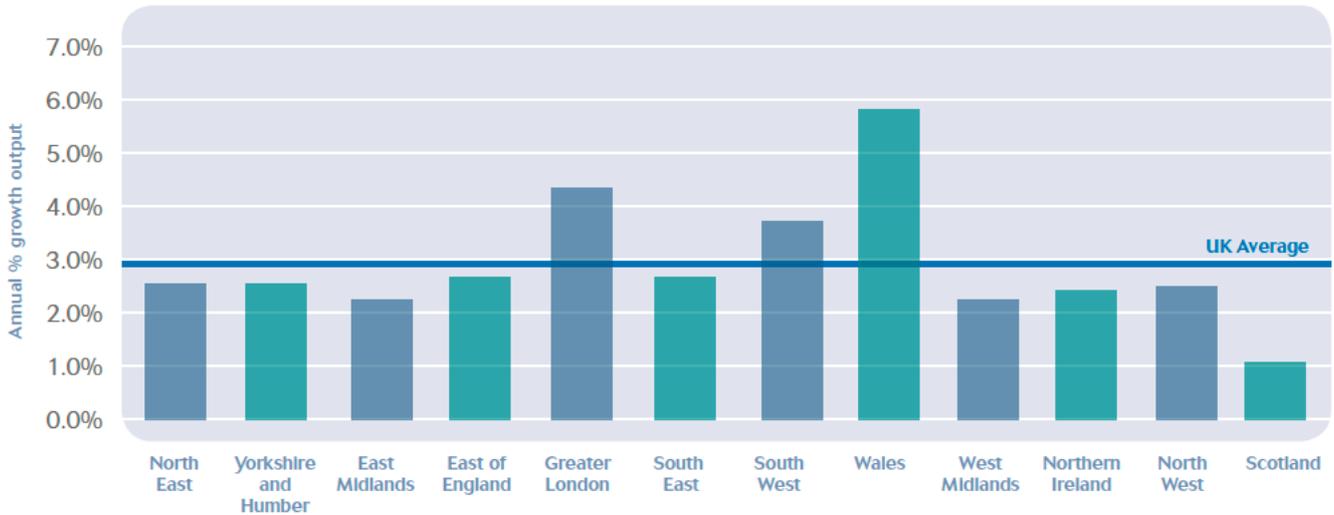
Strongest growth in commercial construction is expected in Yorkshire & the Humber (annual average growth of 6.3%), the North West (6.3%), Wales (5.9%) and Greater London (5.7%). South Yorkshire in particular seems to be benefiting from the reactivation of retail-led projects mothballed during the 'great recession', while Wales is seeing an upsurge in conference and exhibition venue construction.

Annual average employment growth rates across the regions and nations tend to cluster within plus or minus half a percent of the UK average of 1.5%. The exceptions are Greater London and Wales (2.4%), and Scotland (0.1%). For Greater London workforce demand is in the main driven by growth in the sectors mentioned above, but even in the infrastructure one, which is already at a historic high in output terms, further expansion is expected over the next five years. Employment demand in Wales inevitably benefits from the start of main works on Wylfa, despite the fact that infrastructure is less labour intensive than many other sectors. Wylfa is a very large project in a relatively small market. Scotland's relatively poor projected output growth rate (1.1% a year on average) is only just enough to drive marginal employment growth given anticipated productivity gains.

Despite London's strong employment demand, its annual recruitment requirement (ARR) only equates to around 0.5% of projected 2015 employment. This is because the region acts as a natural magnet for the construction workforce within the UK and beyond. In contrast, Wales' strong employment demand is supplemented on the supply side by traditional employment outflows to other regions, especially the North West and South West, and so has a much higher ARR ratio, of 4.8%. Most other regions and nations have an ARR ratio of within a percentage point of the UK average (1.7%).

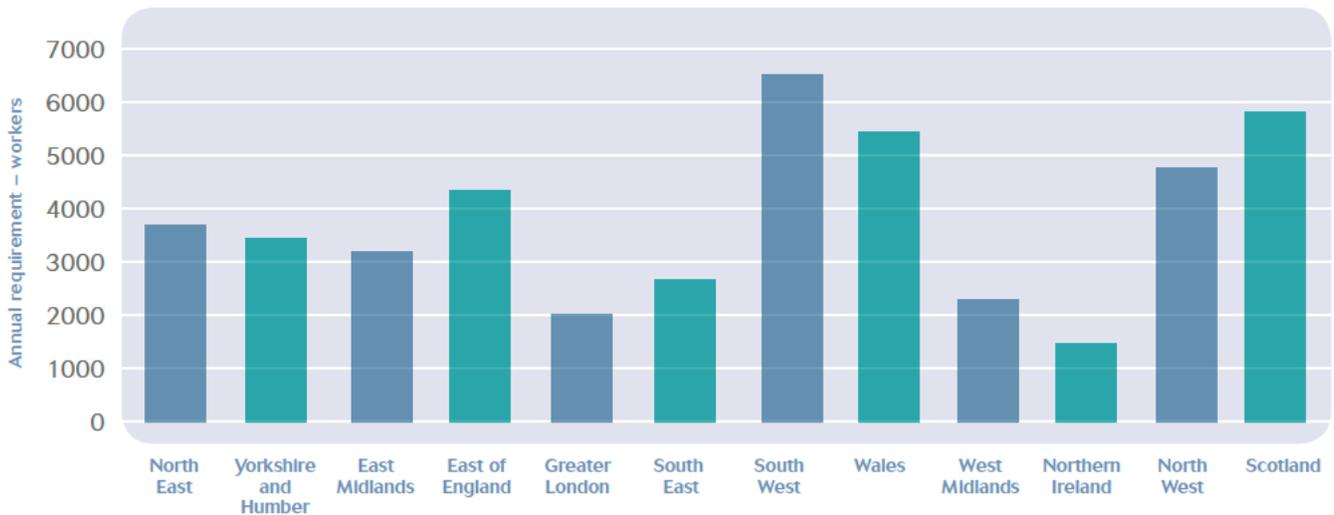


Annual average output growth by region 2015-2019



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

Annual recruitment requirement (ARR) by region 2015-2019



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.

Section 3 has some further notes relating to the data sources used for the various charts and tables. This section also outlines what is meant by the term 'footprint', when talking about the areas of responsibility that lie with a Sector Skills Council (SSC) or Sector Bodies.

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

Section 5 gives a detailed breakdown of the 28 occupational groups into the individual standard occupational classification (SOC) codes that are aggregated to provide the employment and recruitment requirement.

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



1. CSN Methodology

Background

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

CITB, CIC and CITB-ConstructionSkills Northern Ireland are working as ConstructionSkills, the Sector Skills Council for Construction, to produce robust labour market intelligence which provides a foundation on which to plan for future skills needs and to target investment.

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

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

At the heart of the CSN are several models which generate forecasts of employment requirements within the industry for a range of occupational groups. The models are designed and managed by Experian under the independent guidance and validation of the Technical Reference Group, which is comprised of statisticians and modelling experts.

The models have evolved over time and will continue to do so, to ensure that they account for new research as it is published as well as new and improved modelling techniques. Future changes to the model will only be made after consultation with the Technical Reference Group.

The model approach

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

The models work by forecasting demand and supply of skilled workers separately. The difference between demand and supply forms the employment requirement. The forecast total employment levels are derived from expectations about construction output

and productivity. Essentially, this is based upon the question 'How many people will be needed to produce forecast output, given the assumptions made about productivity?'.

The **annual recruitment requirement (ARR)** is a gross requirement that takes into account workforce flows into and out of construction, due to such factors as movements between industries, migration, sickness and retirement. However, these flows do not include movements into the industry from training, although robust data on training provision is being developed by CITB in partnership with public funding agencies, further education, higher education and employer representatives. Thus, the annual recruitment requirement provides an indication of the number of new employees that would need to be recruited into construction each year in order to realise forecast output.

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

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

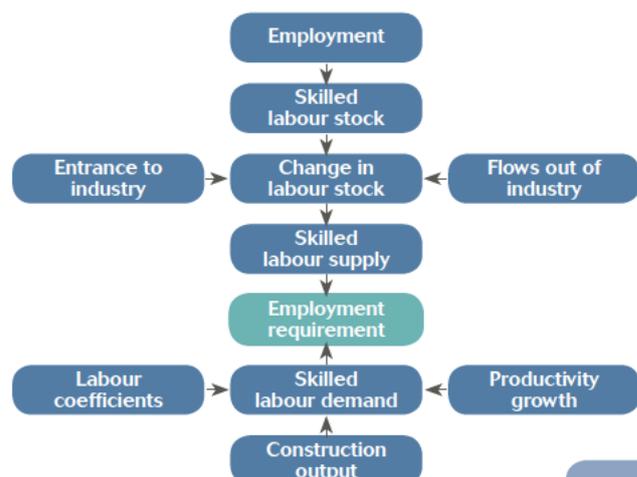
- Transfers to other industries
- International/domestic out migration
- Permanent retirements (including permanent sickness)
- Outflow to temporary sickness and home duties.

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

Flows into the labour market include:

- Transfers from other industries
- International/domestic immigration
- Inflow from temporary sickness and home duties.

The most significant inflow is likely to be from other industries. A summary of the model is shown in the flow chart below.



2. Glossary of terms

Building envelope specialists – any trade involved with the external cladding of a building other than bricklaying, e.g. curtain walling.

Demand – this is calculated using construction output data from the Office for National Statistics (ONS) and the Department of Finance and Personnel Northern Ireland (DFP), along with vacancy data from the National Employer Skills Survey, produced by the Department for Education and Skills. These data sets are translated into labour requirements by trade using a series of coefficients to produce figures for labour demand that relate to forecast output levels.

GDP (gross domestic product) – total market value of all final goods and services produced. A measure of national income. $GDP = GVA$ plus taxes on products minus subsidies on products.

GVA (gross value added) – total output minus the value of inputs used in the production process. GVA measures the contribution of the economy as a difference between gross output and intermediate outputs.

Coefficients – to generate the labour demand, the model makes use of a set of specific statistics for each major type of work, to determine employment by trade or profession, based upon the previous year's supply. In essence, this is the number of workers of each occupation or trade needed to produce £1m of output across each sub-sector.

LFS (Labour Force Survey) – a UK household sample survey which collects information on employment, unemployment, flows between sectors and training. Information is collected from around 53,000 households each quarter (the sample totals more than 100,000 people).

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

Macroeconomics – the study of an economy at a national level, including total employment, investment, imports, exports, production and consumption.

Nec – not elsewhere classified, used as a reference in LFS data.

ONS (Office for National Statistics) – organisation producing official statistics on the economy, population and society at both a national and local level.

Output – total value of all goods and services produced in an economy.

Productivity – output per employee.

SIC codes (Standard Industrial Classification codes) – from the United Kingdom Standard Industrial Classification of Economic Activities produced by the ONS.

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

Supply – the total stock of employment in a period of time, plus the flows into and out of the labour market. Supply is usually calculated from LFS data.



3. Notes and Footprints

Notes

- 1 Except for Northern Ireland, output data for the English regions, Scotland and Wales is supplied by the Office for National Statistics (ONS) on a current price basis. Thus, national deflators produced by the ONS have been used to deflate prices to a 2005 constant price basis, so that the effects of inflation have been stripped out.
- 2 The annual average growth rate of output is a compound average growth rate, i.e. the rate at which output would grow each year if it increased steadily over the forecast period.
- 3 Only selected components of gross value added (GVA) are shown in this table and so do not sum to the total.
- 4 For new construction orders, comparison is made with Great Britain rather than the UK, owing to the fact that there are no orders data series for Northern Ireland.
- 5 Employment numbers are rounded to the nearest 10.
- 6 The tables include data relating to plumbers and electricians. As part of SIC 43, plumbers and electricians working in contracting are an integral part of the construction process. However, it is recognised by ConstructionSkills that SummitSkills has responsibility for these occupations across a range of SIC codes, including SIC 43.2.
- 7 A reporting minimum of 50 is used for the annual recruitment requirement (ARR). As a result some region and devolved nation ARR forecasts do not sum to the total UK requirement.
- 8 The Employment and ARR tables show separate totals for SIC41-43 and SIC41-43, 71.1 and 74.9. The total for SIC41-43 covers the first 24 occupational groups on the relevant tables and excludes civil engineers, other construction professionals and technical staff, architects and surveyors. The total for SIC41-43, 71.1 and 74.9 includes all occupations.

Footprints for Built Environment Sector Bodies

ConstructionSkills is responsible for SIC 41 Construction of buildings, SIC 42 Civil engineering,

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

SIC 43 Specialised construction activities and SIC 71.1 Architectural and engineering activities and related technical consultancy.

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

The sector footprints for the other Sector Bodies covering the Built Environment:

SummitSkills

Footprint – plumbing, heating, ventilation, air conditioning, refrigeration and electrotechnical.

Coverage – Building services engineering.

ConstructionSkills shares an interest with SummitSkills in SIC 43.21 Electrical installation and SIC 43.22 Plumbing, heat and air-conditioning installation. ConstructionSkills recognises the responsibility of Summit Skills across Standard Industrial Classifications (SIC) 43.21 and 43.22; thus data relating to the building services engineering sector is included here primarily for completeness.

The Building Futures Group

Footprint – property services, housing, facilities, management, cleaning.

Coverage – property, housing and land managers, chartered surveyors, estimators, valuers, home inspectors, estate agents and auctioneers (property and chattels), caretakers, mobile and machine Operatives, window cleaners, road sweepers, cleaners, domestics, facilities managers.

The Building Futures Group has a peripheral interest in SIC 71.1 Architectural and engineering activities and related technical consultancy.

Energy and Utility Skills

Footprint – electricity, gas (including gas installers), water and waste management.

Coverage – electricity generation and distribution, gas transmission, distribution and appliance installation and maintenance, water collection, purification and distribution, waste water collection and processing, waste management.

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

4. Definitions: types and examples of construction work

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

Housing schemes, care homes for the elderly and the provision within housing sites of roads and services for gas, water, electricity, sewage and drainage.

Private sector housing

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

Infrastructure – public and private

Water

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

Sewerage

Sewage disposal works, laying of sewers and surface drains.

Electricity

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

Gas, communications, air transport

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

Railways

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

Harbours

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

Roads

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

Public non-residential construction¹

Factories and warehouses

Publicly owned factories, warehouses, skill centres.

Oil, steel, coal

Now restricted to remedial works for public sector residual bodies.

Schools, colleges, universities

State schools and colleges (including technical colleges and institutes of agriculture); universities including halls of residence, research establishments etc.

Health

Hospitals including medical schools, clinics, welfare centres, adult training centres.

Offices

Local and central Government offices, including town halls, offices for all public bodies except the armed services, police headquarters.

Entertainment

Theatres, restaurants, public swimming baths, caravan sites at holiday resorts, works and buildings at sports grounds, stadiums, racecourses etc. owned by local authorities or other public bodies.

Garages

Buildings for storage, repair and maintenance of road vehicles, transport workshops, bus depots, road goods transport depots and car parks.

Shops

Municipal shopping developments for which the contract has been let by a Local Authority.

Agriculture

Buildings and work on publicly financed horticultural establishments; fen drainage and agricultural drainage, veterinary clinics.

Miscellaneous

All work not clearly covered by any other headings, such as fire stations, police stations, prisons, reformatories, remand homes, civil defence work, UK Atomic Energy Authority work, council depots, museums, libraries.

Private industrial work

Factories, warehouses, wholesale depots, all other works and buildings for the purpose of industrial production or processing, oil refineries, pipelines and terminals, concrete fixed leg oil production platforms (not rigs); private steel work; all new coal mine construction such as sinking shafts, tunnelling, etc.

Private commercial work¹

Schools and universities

Schools and colleges in the private sector, financed wholly from private funds.

Health

Private hospitals, nursing homes, clinics.

Offices

Office buildings, banks.

Entertainment

Privately owned theatres, concert halls, cinemas, hotels, public houses, restaurants, cafés, holiday camps, swimming pools, works and buildings at sports grounds, stadiums and other places of sport or recreation, youth hostels.

Garages

Repair garages, petrol filling stations, bus depots, goods transport depots and any other works or buildings for the storage, repair or maintenance of road vehicles, car parks.

Shops

All buildings for retail distribution such as shops, department stores, retail markets, showrooms, etc.

Agriculture

All buildings and work on farms, horticultural establishments.

Miscellaneous

All work not clearly covered by any other heading, e.g. exhibitions, caravan sites, churches, church halls.

New work

New housing

Construction of new houses, flats, bungalows only.

All other types of work

All new construction work and all work that can be referred to as improvement, renovation or refurbishment and which adds to the value of the property.²

Repair and maintenance

Housing

Any conversion of, or extension to any existing dwelling and all other work such as improvement, renovation, refurbishment, planned maintenance and any other type of expenditure on repairs or maintenance.

All other sectors

Repair and maintenance work of all types, including planned and contractual maintenance.³

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

2 Contractors reporting work may not always be aware of the distinction between improvement or renovation work and repair and maintenance work in the non-residential sectors.

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

5. Occupational Groups

Occupational group

Description, SOC (2010) reference.

Senior, executive, and business process managers

Chief executives and senior officials	1 115
Financial managers and directors	1 131
Marketing and sales directors	1 132
Purchasing managers and directors	1 133
Human resource managers and directors	1 135
Property, housing and estate managers	1 251
Information technology and telecommunications directors	1 136
Research and development managers	2 150
Managers and directors in storage and warehousing	1 162
Managers and proprietors in other services nec*	1 259
Functional managers and directors nec*	1 139
IT specialist managers	2 133
IT project and programme managers	2 134
Financial accounts managers	3 538
Sales accounts and business development managers	3 545

Construction project managers

Construction project managers and related professionals	2 436
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Other construction process managers

Production managers and directors in manufacturing	1 121
Production managers and directors in construction	1 122
Managers and directors in transport and distribution	1 161
Waste disposal and environmental services managers	1 255
Health and safety officers	3 567
Conservation and environmental associate professionals	3 550

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

IT operations technicians	3 131
IT user support technicians	3 132
Finance and investment analysts and advisers	3 534
Taxation experts	3 535
Financial and accounting technicians	3 537
Vocational and industrial trainers and instructors	3 563
Business and related associate professionals nec*	3 539
Legal associate professionals	3 520
Inspectors of standards and regulations	3 565
Programmers and software development professionals	2 136

Information technology and telecommunications professionals nec*	2 139
Estate agents and auctioneers	3 544
Solicitors	2 413
Legal professionals nec*	2 419
Chartered and certified accountants	2 421
Business and financial project management professionals	2 424
Management consultants and business analysts	2 423
Receptionists	4 216
Typists and related keyboard occupations	4 217
Business sales executives	3 542
Book-keepers, payroll managers and wages clerks	4 122
Records clerks and assistants	4 131
Stock control clerks and assistants	4 133
Telephonists	7 213
Communication operators	7 214
Personal assistants and other secretaries	4 215
Sales and retail assistants	7 111
Telephone salespersons	7 113
Buyers and procurement officers	3 541
Human resources and industrial relations officers	3 562
Credit controllers	4 121
Company secretaries	4 214
Sales related occupations nec*	7 129
Call and contact centre occupations	7 211
Customer service occupations nec*	7 219
Elementary administration occupations nec*	9 219
Chemical scientists	2 111
Biological scientists and biochemists	2 112
Physical scientists	2 113
Laboratory technicians	3 111
Graphic designers	3 421
Environmental health professionals	2 463
IT business analysts, architects and systems designers	2 135
Conservation professionals	2 141
Environment professionals	2 142
Actuaries, economists and statisticians	2 425
Business and related research professionals	2 426
Finance officers	4 124
Financial administrative occupations nec*	4 129
Human resources administrative occupations	4 138
Sales administrators	4 151
Other administrative occupations nec*	4 159
Office supervisors	4 162
Sales supervisors	7 130
Customer service managers and supervisors	7 220
Office managers	4 161

Construction trades supervisors

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

Wood trades and interior fit-out

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

Bricklayers

Bricklayers and masons	5312
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Building envelope specialists

Construction and building trades nec* (50%)	5319
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Painters and decorators

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

Plasterers

Plasterers	5321
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Roofers

Roofers, roof tilers and slaters	5313
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Floorers

Floorers and wall tilers	5322
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Glaziers

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

Specialist building operatives not elsewhere classified (nec*)

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

Scaffolders

Scaffolders, staggers and riggers	8141
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Plant operatives

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

Plant mechanics/fitters

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

Steel erectors/structural fabrication

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

Labourers nec*

Elementary construction occupations (100%)	9120
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Electrical trades and installation

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

Plumbing and heating, ventilation, and air conditioning trades

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

Logistics

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

Civil engineering operatives not elsewhere classified (nec*)

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

Non-construction operatives

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

*Not elsewhere classified

Civil engineers

Civil engineers 2121

Other construction professionals and technical staff

Mechanical engineers 2122

Electrical engineers 2123

Design and development engineers 2126

Production and process engineers 2127

Quality control and planning engineers 2461

Engineering professionals nec* 2129

Electrical and electronics technicians 3112

Engineering technicians 3113

Building and civil engineering technicians 3114

Science, engineering and production technicians nec* 3119

Architectural and town planning technicians 3121

Draughtspersons 3122

Quality assurance technicians 3115

Town planning officers 2432

Electronics engineers 2124

Chartered architectural technologists 2435

Estimators, valuers and assessors 3531

Planning, process and production technicians 3116

Architects

Architects 2431

Surveyors

Quantity surveyors 2433

Chartered surveyors 2434



6. CSN Website and contact details

The CSN website

citb.co.uk/csn

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

The main UK report, along with the twelve LMI reports (one for Northern Ireland, Scotland, Wales and each of the nine English regions) can be downloaded from the site, while other CITB research reports are also freely available on the CITB website. Having access to this range of labour market intelligence and trend insight allows industry, Government, regional agencies and key stakeholders to:

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

The website also contains information about:

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

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

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

- Details of specific projects
- Demand within various types of work or sectors
- Labour supply
- Inflows and outflows across the regions and devolved nations.

CSN members therefore have:

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

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

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

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

Contact details

For further information about the CSN website, enquiries relating to the work of the CSN, or to register your interest in becoming a member of the CSN, please contact us at: csn@citb.co.uk

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