Construction Skills Network

Northern Ireland 2013-2017

Labour Market Intelligence

Peace Bridge image – Martin McKeown Photography.

Contents

Tables and Charts

CSN Explained

CONTENTS

SUMMARY AND KEY FINDINGS

THE OUTLOOK FOR CONSTRUCTION IN NORTHERN IRELAND

CONSTRUCTION EMPLOYMENT FORECASTS FOR NORTHERN IRELAND

COMPARISONS ACROSS THE UK

CSN EXPLAINED

1. Summary – Northern Ireland

Construction output in Northern Ireland is forecast to grow at an annual average rate of 1.7% over the five years to 2017, a stronger growth rate than for the UK as a whole (0.8%). However, this relatively positive profile needs to be put into context – Northern Ireland's construction industry has experienced a much steeper decline than the UK as a whole (37% compared with 16% in the five years to 2012) and therefore is coming back up from a much lower base. Despite the growth in output, employment is projected to continue to fall to 2016 before stabilising, given an average annual drop of 1.5%. The annual average recruitment requirement (ARR) for the period 2013 to 2017 is forecast to be 660, representing just 1% of base 2013 employment.

Annual average construction output growth 2013-2017 – Northern Ireland

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

Key findings

For the first time since 2009 the construction industry in Northern Ireland is estimated to have outperformed the UK as a whole in 2012. While output is estimated to have declined by nearly 9% in the UK as a whole, the fall is likely to have been only 2% in Northern Ireland. The main reason for the difference is that the public sectors and infrastructure have performed better in Northern Ireland last year, although the private sectors, particularly private housing, performed worse than in the UK as a whole.

Besides the 'bounce-back' effect from a much lower base, the other main reason for a better outlook for construction in Northern Ireland than the UK is the fact that expenditure on construction by the public sector started to fall earlier in the former (2010) than in the latter (2011). Therefore it should have less far to fall in the future and this view seems to be supported by better performance in the public construction sectors in Northern Ireland in 2012. However, growth will be patchy, with some decline in public housing activity early in the forecast period and probably growth in health construction but decline in work on education facilities.

Infrastructure activity should be largely focused on transport over the next few years and in particular further upgrading of the roads network, such as the dualling of the A8 between Belfast and Larne. The Northern Ireland Executive is looking at innovative ways of funding capital projects post-2015 and is hoping to leverage some £500m to spend in the health care sector and £390m in the roads sector.

Despite the positive annual average output growth projections, construction employment is expected to fall over most of the forecast period. On an annual average basis, the decline is projected to be around 1.5%. While output should start to grow again in 2014, employment only stabilises two years later. There is always a lag between changes in output and employment levels, but the size of the lag is believed to have widened due to relatively high levels of underemployment, evidenced by the fact that, while output has dropped by 37% from its peak, employment has only fallen by 19%. This suggests that there will be a significant level of excess capacity that will need to be taken up once the industry gets back on to a growth path before employment starts to rise.

The ARR for the 2013 to 2017 period is estimated at 660, considerably lower than that estimated last year for the 2012 to 2016 period (1,170). Weakening levels of demand for construction services has meant that the ARR is entirely a replacement requirement at present. This represents 1% of the projected 2013 workforce in Northern Ireland, a slightly lower ratio than for the UK as a whole (1.2%).

Construction output in Northern Ireland is forecast to grow at an annual average rate of 1.7% over the five years to 2017

Regional comparisons 2013-2017

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

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

CONTENTS

SUMMARY AND KEY FINDINGS

THE OUTLOOK FOR CONSTRUCTION IN NORTHERN IRELAND

CONSTRUCTION EMPLOYMENT FORECASTS FOR NORTHERN IRELAND

COMPARISONS ACROSS THE UK

CSN EXPLAINED

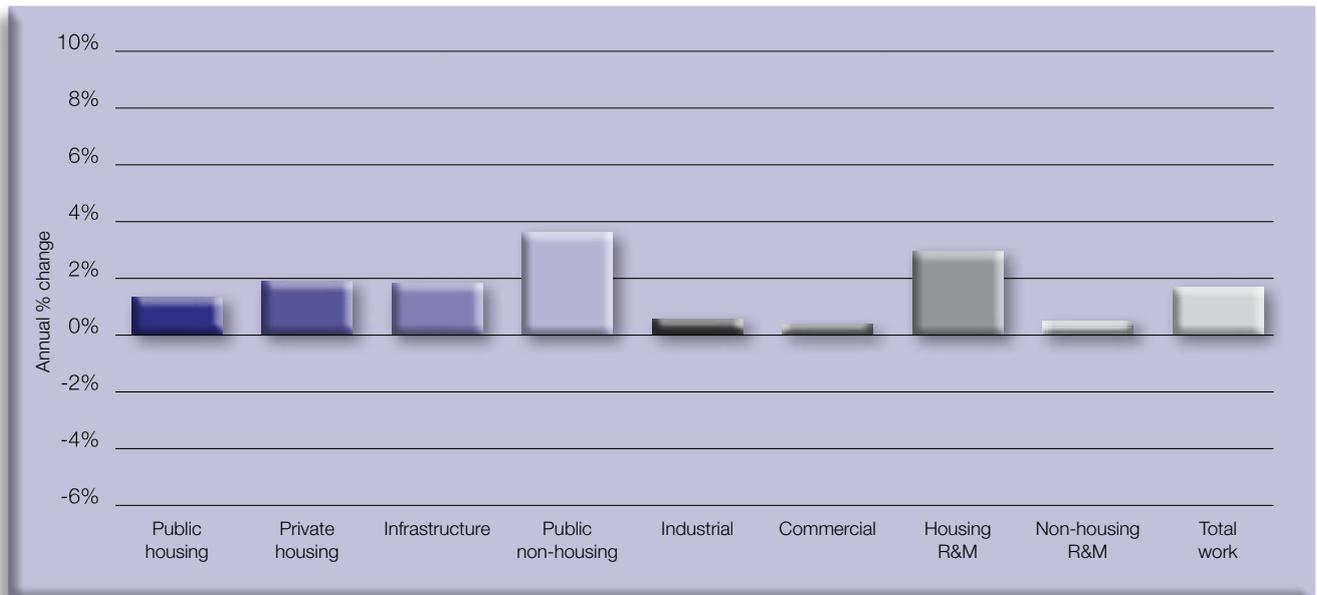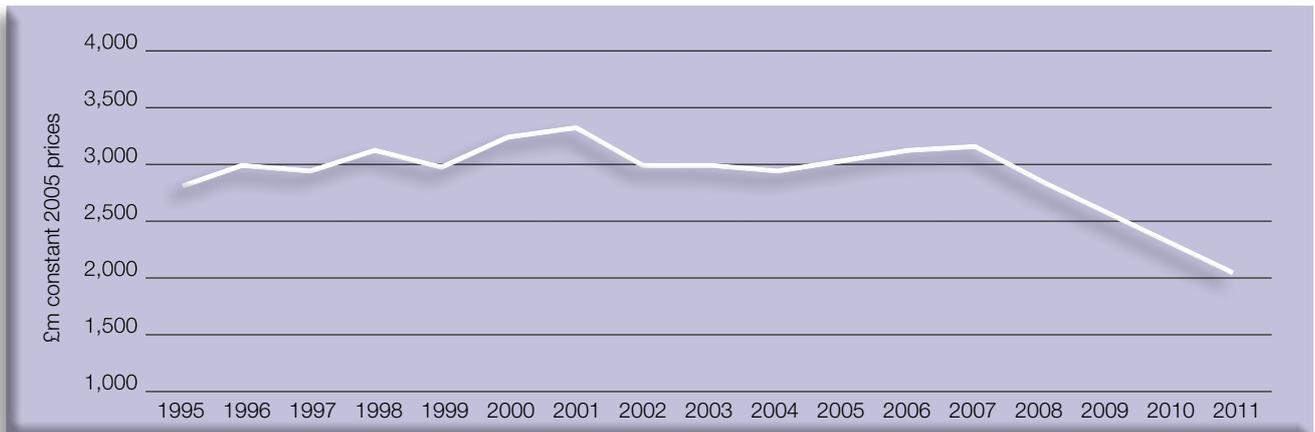# 2. The outlook for construction in Northern Ireland

2.1 Construction output in Northern Ireland – overview

Northern Ireland's construction industry suffered its fourth consecutive year of sharp decline in 2011, with output falling by 12% to £2.01bn in 2005 prices. Output ended that year 36% down on its 2007 peak. In the UK, output was down only 7% over the same period.

There was a substantial difference in performance between the new work and repair and maintenance (R&M) sectors, with the former seeing activity decline by 17% in 2011 while the latter experienced growth of 4%.

Of the new work sectors, only public housing showed an increase, with output shooting up by 57% to £183m (2005 prices), its highest level since 2006. In contrast private housing output fell by 40% after it looked like it was starting to stabilise in 2010. Both the infrastructure and public non-housing sectors experienced declines of 9% and it looks like work driven by the 2008-2011 Investment Strategy for Northern Ireland (ISNI) peaked in 2009 and then fell in 2010 and 2011. However, the private non-housing sectors fared even worse, with industrial construction declining by 14% and commercial by 16%.

Construction output 1995-2011 – Northern Ireland

2.2 Industry structure

The diagram, construction industry structure 2011 – UK vs. Northern Ireland (NI), 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.

The structure of the Northern Ireland construction industry remains significantly different from the UK average, although the differences have become less pronounced in recent years. Housing, both public and private, accounts for a larger share of construction activity in Northern Ireland than the UK as a whole, 28% combined in the former compared with 17% in the latter in 2011. The infrastructure and public non-housing sectors also took a proportionally bigger share of output in Northern Ireland than the UK as a whole in 2011, 16% and 15% respectively compared with 12% each.

In contrast, commercial construction accounted for only 11% of total output in Northern Ireland compared with 22% in the UK, and the housing R&M sector is also smaller, taking an 8% share in the former and 16% in the latter.

Historically the repair and maintenance (R&M) sector has been much smaller in Northern Ireland than in the UK as a whole. Whereas R&M traditionally accounts for a third or more of construction output in the UK, in Northern Ireland

Construction industry structure 2011 – UK vs. Northern Ireland

Public housing
Private housing
Infrastructure
Public non-housing
Industrial
Commercial
Housing R&M
Non-housing R&M
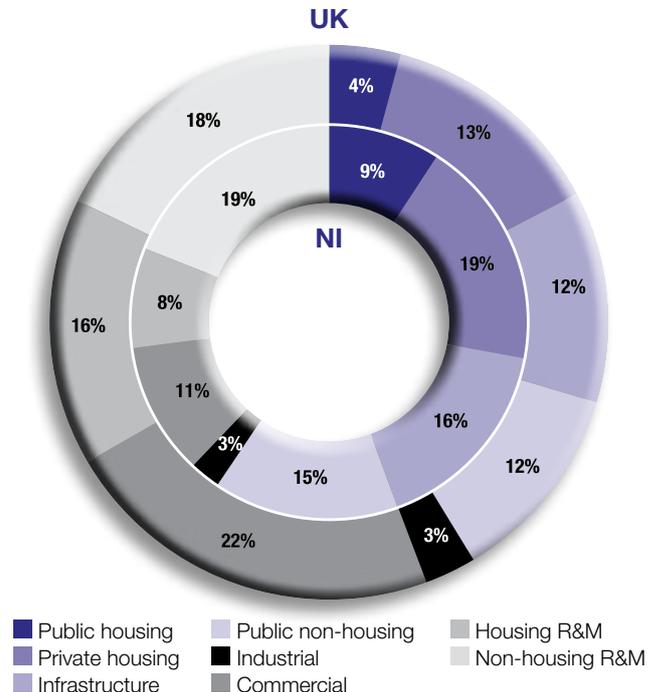
the figure has been much lower, just 14% in 2000. R&M's share of Northern Ireland output only rose by 3% in the seven years since then but in the next four years increased by 10% to reach 27% in 2011. Unfortunately this rise in share has been as much to do with a sharp fall in new work as an increase in R&M activity.

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
Northern Ireland's Gross Value Added (GVA) totalled £27.3bn in 2009 prices in 2011, a 0.5% increase on the previous year and the second consecutive year of growth. However, GVA remains more than 9% below pre-recessionary levels.

Northern Ireland accounted for 2.1% of the UK's GVA in 2011 and this share has remained stable since 2009.

Public services continues to be by far the largest element of the Northern Ireland economy, accounting for almost 26% of GVA, although its share has been generally falling over the past decade or so – its share was 29.6% in 2000. Professional and other private services was the second largest sector, accounting for 18.4% of GVA in 2011, still a lower share than in the UK as a whole (22.7%). In contrast manufacturing remains a much more important sector to the Northern Ireland economy than the UK as a whole, accounting for 17% of GVA in the former but only 10.9% in the latter.

Economic structure – Northern Ireland (£ billion, 2009 prices)

Selected sectors	Actual	Forecast Annual % change, real terms					
	2011	2012	2013	2014	2015	2016	2017
Public services	7.1	0.9	0.0	0.4	0.5	0.7	1.0
Professional and other private services	5.0	1.3	0.6	1.3	1.7	2.0	2.1
Manufacturing	4.6	-0.6	1.5	1.9	1.3	1.1	0.9
Wholesale and retail	3.2	-0.7	0.8	1.8	2.0	2.2	2.2
Accommodation, food services and recreation	1.1	4.1	2.5	2.8	2.2	1.9	1.8
Total Gross Value Added (GVA)	27.3	-0.6	0.4	1.3	1.5	1.8	1.8

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

2.5 Forward looking economic indicators
On an annual average basis, the Northern Ireland economy is projected to expand at a rate of 1.4% between 2013 and 2017, half a per cent lower than the average growth rate expected for the UK as a whole (1.9%).

Only two sectors, finance and insurance, and accommodation, food services and recreation, are forecast to have annual average growth rates in excess of 2%: 2.4% in the former and 2.2% in the latter. Both these sectors are relatively small, accounting for only 7.8% of Northern Ireland GVA combined in 2011, therefore the impact of good growth in these sectors on overall GVA is not substantial.

Of the more important sectors in the Northern Ireland economy, public services is expected to experience only weak growth of 0.5% a year, unsurprisingly given the pressure on public budgets, but it will still remain the biggest

sector in 2017. The professional and other private services sector should fare better, with annual average growth of 1.5% over the forecast period, although this is down on the 2.1% growth rate projected for the UK as a whole. Manufacturing is predicted to expand at an average annual rate of 1.3%, again a little down on the UK rate of 1.6%.

Real household disposable income (RHDI) is estimated to have risen by about 1% in 2012 after a sharp fall of over 2.2% in 2011. However household consumption growth is expected to have remained negative, and it will be 2014 before consumers feel confident enough to curtail paying down debt and increasing savings to the extent that household consumption starts growing faster than RHDI again. Even then growth in both indicators will remain moderate only returning to around 2% a year or above towards the end of the forecast period.

Economic indicators – Northern Ireland (£ billion, 2009 prices – unless otherwise stated)

	Actual	Forecast Annual % change, real terms					
	2011	2012	2013	2014	2015	2016	2017
Real household disposable income	22.9	1.0	0.7	1.3	1.7	1.7	2.1
Household spending	24.1	-1.1	0.1	1.5	1.9	2.0	2.0
Working age population (000s and as % of all)	1,113	61.5%	61.9%	62.2%	62.5%	62.7%	62.9%
House prices (£, current prices)	145,482	-9.3	-2.1	0.7	1.3	1.5	1.8
LFS unemployment (millions)	0.06	5.3	6.3	-7.8	-8.1	-5.3	-7.6

Source: ONS, DCLG, Experian

7

CONTENTS

SUMMARY AND KEY FINDINGS

THE OUTLOOK FOR CONSTRUCTION IN NORTHERN IRELAND

CONSTRUCTION EMPLOYMENT FORECASTS FOR NORTHERN IRELAND

COMPARISONS ACROSS THE UK

CSN EXPLAINED

House prices continue to tumble more sharply in Northern Ireland compared with other regions and devolved nations. According to the ONS, the mix-adjusted house price on an annualised basis for 2011 was £145,482, a 10% decline on the previous year. 2012 is looking little better, with a 9% estimated fall. Some modest growth is expected to return in 2014, but by then house prices will have dropped by over 45% since their 2006 peak.

The LFS/ILO unemployment rate is projected to continue to rise into 2013, peaking at around 8.3% in the first quarter of the year, before starting to subside thereafter. By 2017 the rate is forecast to decline to under 6%.

2.6 Construction output – short-term forecasts (2013-2014)

Construction output data for Northern Ireland is published by the Department of Finance and Personnel and at the time of writing data was available for the first half of 2012, although unlike the English regions and other devolved nations, an estimate of output in constant prices is made. No new orders data is available for the province.

Construction output in the first half of 2012 totalled £1.01bn in 2005 prices, 2% up on the previous half year but a marginal 1% below the outturn for the first half of 2011. This was a much better performance than GB over the same period, which saw a fall of 7% on both these measures.

The public sectors performed much better than the private ones over this period. Public housing output was up by 7% half-year-on-half-year and 19% against the same period of 2011, infrastructure was up 20% and 48% respectively on the same measures, public non-housing 24% and 1%, and public non-housing R&M 22% and 29%. In contrast the private housing, industrial and commercial sectors all experienced strong declines. This pattern fits in with the theory that public construction in Northern Ireland, having already experienced two years of sharp decline, has less far to fall than in many of the English regions, most of which have only experienced a single year of contraction so far.

On the basis of first-half performance, the estimated outturn for construction output in Northern Ireland for 2012 is for a modest decline of 2%.

After five years of decline, during which Northern Ireland's construction industry has contracted by 37% in output terms, stabilisation is expected to finally come in 2013. Over the short term – 2013 and 2014 – output is projected to show modest annual average growth of 0.9%.

By far the worst performing sector in the Northern Ireland construction industry has been the private housing one, which has contracted by nearly three quarters since its output peak at over £1.13bn in 2006. The estimated outturn for 2012 is just £289m, which represents another sizeable fall in activity compared with 2011. According to the University of Ulster's quarterly house price survey, house prices continued to fall in the third quarter of 2012, by 1.75% quarter-on-quarter and 3.6% on an annualised basis. However, this does represent a considerable slowing of the rate of decline, with some types of houses, particularly at the larger end of the market, increasing in value.

The University's assessment of recovery in the sector is that it will be slow and irregular, hence our relatively modest 2% annual average growth rate for 2013 and 2014. The biggest housing project in the pipeline is the proposed

Infrastructure output is expected to rise by an estimated 18% in 2012

Annual average construction output growth 2013-2014 – Northern Ireland
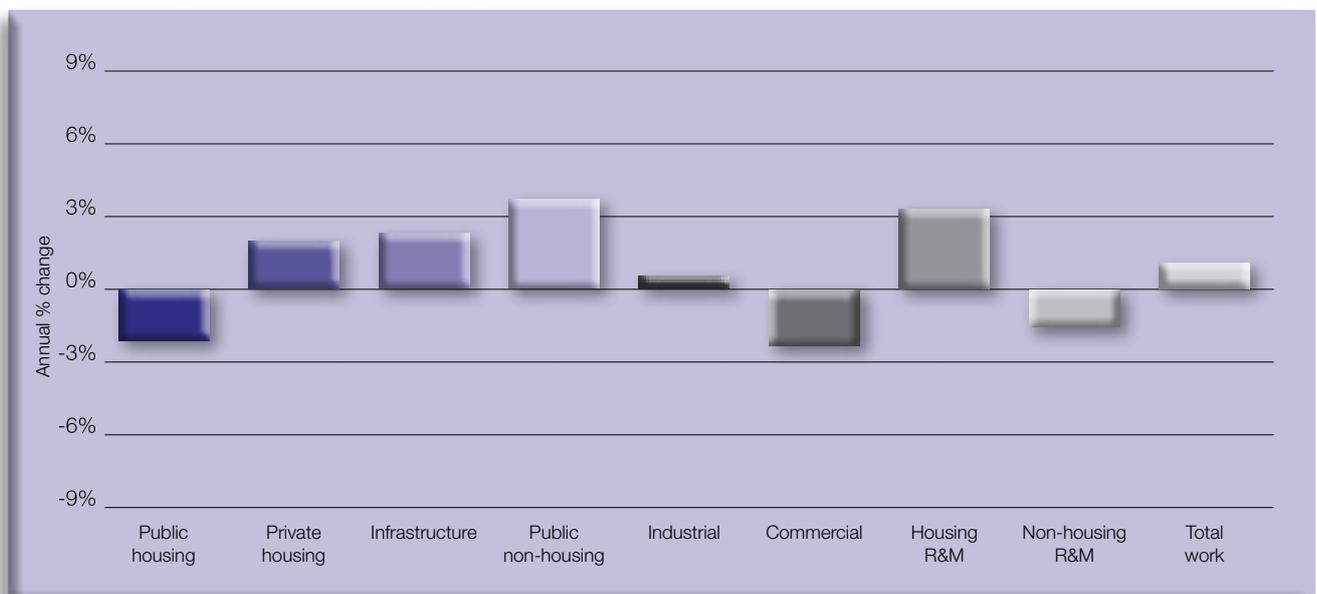
redevelopment of the Hilden Mill site in Lisburn, which could deliver up to 660 mixed-tenure units, as well as light industrial, commercial and community facilities. It is hoped that a final decision on the site's regeneration will be taken by June 2014.

The short-term forecast for the public non-housing sector is reasonably upbeat, although improvement comes after some sharp falls in recent years. The main elements of this sector are education and health construction and the Northern Ireland Executive's 2011-2015 Budget shows combined capital expenditure on them falling from £369.5m in 2012/13 to £291.2m in 2013/14, but then rising again to £355.4m in 2014/15. The Investment Strategy for Northern Ireland (ISNI) 2011-2021 has just been finalised, showing committed investment of £1.59bn on education and health between 2011 and 2014, little different from the £1.62bn in the 2008-2011 programme.

At present, in terms of the value of projects in delivery, focus is more on the health than education side of the equation. The biggest project currently on site is the £180m-£200m critical care unit as part of the redevelopment of the Royal Victoria Hospital, due to complete towards the end of 2013. Work is also ongoing on the £120m-£140m Phase B of the Ulster Hospital redevelopment. However, this is a long-term project due to continue to 2018, and therefore will have only a limited effect on the volume of output in the sector.

The infrastructure sector looks set to have had a good year in 2012 with output rising by an estimated 18% after three years of decline. Growth is likely to slacken off over the next couple of years but still give a positive annual average rate of 2.3% to 2014. After falling in 2012/13 to £430.9m capital investment on roads, other transport, and water and sewerage is due to grow quite strongly over the next couple of years, to £613.2m in 2014/15 according to the 2011-2015 Budget. The largest contract currently in procurement is the £1bn arc21 to build and operate a range of waste management facilities across Northern Ireland. This project is being procured through the PFI/PPP route and the capital investment element should be between £320m and £370m. In the roads sub-sector construction commenced on the £100m-£120m dualling of the A8 between Belfast and Larne, with completion due in the first quarter of 2015.

Northern Ireland continues to invest in its Warm Homes Scheme to fight fuel poverty. According to the 2009 Northern Ireland House Conditions Survey nearly 55% of households in the private rented sector, 51% in the social rented sector and 39% of owner-occupiers were in fuel poverty in that year. The £120m-£140m scheme is due to continue until March 2015 and should deliver a steady stream of energy efficiency works over the period.

2.7 Construction output – long-term forecasts (2013-2017)

Annual average output growth over the 2013 to 2017 period is projected to be 1.7% for Northern Ireland, significantly better than the overall UK rate of 0.8% over the period. While Northern Ireland generally performs a little worse than the UK across the private sectors, it does better in the public ones, largely due to the fact that publicly funded construction activity started declining a year earlier in the former than the latter so does not have quite as far to fall. Northern Ireland's block grant from Westminster is due to fall by a total of 34% between 2010/11 and 2014/15 and the public housing, infrastructure and public non-housing construction sectors have already seen a 20% fall in 2010 and 2011.

Northern Ireland, like the rest of the UK, but in particular the devolved nations, is looking to alternative funding options to take forward public projects. It is hoping to leverage some £500m in the health care sector and £390m in the roads sector to fund projects starting beyond 2015.

Looking at the long-term investment plans in the 2011-2021 ISNI, expenditure should remain stable over the 2015/16 to 2020/21 period in comparison with 2011/12 to 2014/15 in the infrastructure sector, increasing in the education and health sectors and falling in the housing and regeneration sector. However, this is based on averaging out expenditure over the period of the ISNI, therefore not taking account of annual variations. Furthermore investment in the 2015/16 to 2020/21 period is indicative rather than committed and is therefore is subject to change.

Construction output – Northern Ireland (£ million, 2005 prices)

	Actual 2011	Forecast annual % change			Annual average 2013-14
		2012	2013	2014	
Public housing	183	12%	-4%	0%	-2.1%
Private housing	383	-24%	-1%	5%	2.0%
Infrastructure	327	18%	5%	0%	2.3%
Public non-housing	301	2%	0%	7%	3.5%
Industrial	50	-12%	-7%	9%	0.2%
Commercial	222	-18%	-5%	1%	-2.3%
New work	**1,466**	**-4%**	**0%**	**3%**	**1.2%**
Housing R&M	164	-5%	4%	3%	3.4%
Non-housing R&M	382	4%	-2%	-1%	-1.5%
Total R&M	**547**	**1%**	**0%**	**0%**	**-0.1%**
Total work	**2,012**	**-2%**	**0%**	**2%**	**0.9%**

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

CONTENTS

SUMMARY AND KEY FINDINGS

THE OUTLOOK FOR CONSTRUCTION IN NORTHERN IRELAND

CONSTRUCTION EMPLOYMENT FORECASTS FOR NORTHERN IRELAND

COMPARISONS ACROSS THE UK

CSN EXPLAINED

Annual average construction output growth 2013-2017 – Northern Ireland

Bar chart showing annual % change for construction sectors. Public housing ~0.9%, Private housing ~1.7%, Infrastructure ~1.5%, Public non-housing ~3.4%, Industrial ~0.4%, Commercial ~0.3%, Housing R&M ~2.9%, Non-housing R&M ~0.3%, Total work ~1.6%.
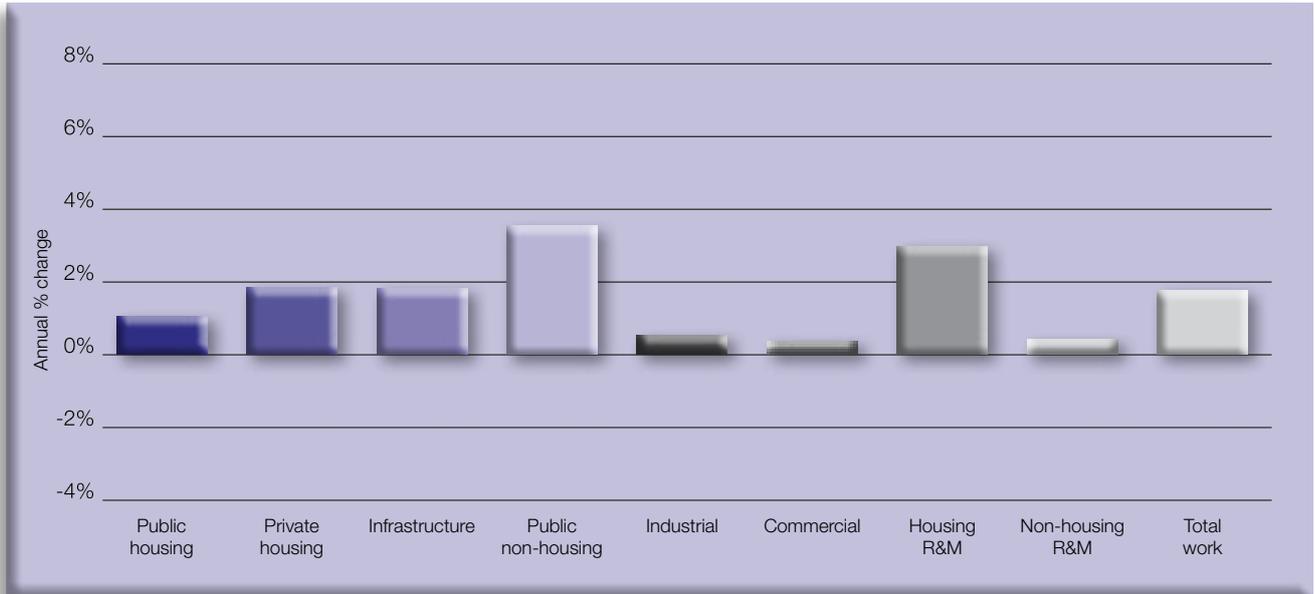
In the light of the financial difficulties that the Republic of Ireland currently finds itself in, the £800m upgrade of the A5, which was originally due to be joint funded by the former and the Northern Ireland Executive, has been put on the back burner. Smaller improvements to the A5 are now likely to be taken forward to ease the worst of the problems.

As well as the upgrade in school facilities in recent years, major refurbishment works have been taking place and will continue to do so on the University of Ulster's York Street campus and at various sites for Queen's University Belfast, Stranmillis University College, and St Mary's University College. The latest ISNI states that *'the focus of attention will shift beyond 2014/15 to those colleges that have not had significant investment in recent years and where existing facilities are no longer fit for purpose'*. The implications seem to be that there is still plenty of work that needs to be done on the education stock.

On the health side, the Northern Ireland Executive is hoping to take forward a new regional children's hospital towards the end of its current Budget period (2015), and further redevelopment should take place at the Royal Hospital, including a new maternity unit.

Some growth is expected in both the infrastructure and public non-housing sectors over the next five years, estimated at 1.8% a year for the former and 3.6% a year for the latter, although this will be predicated on alternative funding being generated and therefore the projects will be dependent on this in the future.

For the private sectors, the long, slow recovery in private housing is expected to continue post-2014 as house prices stabilise and improved affordability starts to tempt first-time buyers in particular back into the market. However, this scenario is predicated on no further shocks to the economy as a whole and therefore gradually improving household finances and employment prospects. We have erred very much on the cautious side with fairly modest annual average growth of 1.9% for the sector over the next five years, which will still leave the sector in 2017 only 28% of the size it was at its peak in 2006 in output terms.

Public non-housing is forecast to rise on average by 3.6% per year until 2017

As mentioned in Section 2.5, manufacturing output is projected to grow over the forecast period, but the rate of expansion is likely to be fairly modest. Therefore there may be little impetus for manufacturers to increase capacity over the medium term. What growth there is in the sector may come from the warehousing sub-sector, which is likely to benefit from the continuing growth in online retailing. As of the fourth quarter of last year there were about £11m of industrial projects on site with £24m in the pipeline.

Growth in commercial construction output is also expected to be poor over the forecast period, averaging just 0.3% a year in the five years to 2017. Rates of growth in the main sectors that drive commercial construction – wholesale and retail, accommodation, food services and recreation, finance and insurance, and professional and other business services – are forecast to be well down on pre-recessionary levels. This, combined with the difficulties that developers have in accessing finance at affordable levels, are likely to constrain growth in the sector over the medium term.

However, there are some decent-sized schemes in the pipeline, such as the £360m mixed use Royal Exchange scheme in Belfast, now due to start in the middle of 2013, and the £27m upgrade of the Windsor Park football stadium which should have begun at the end of 2012. The Ulster GAA is also looking to replace the current Casement Park stadium at a cost of over £76m. This project could start at the end of 2013.

On the repair and maintenance (R&M) side, mention has already been made of the Warm Homes scheme, which has been ongoing since 2009. It is also worth mentioning that during the boom period in the Northern Ireland housing market, nearly 130,000 new homes were built (2000-2008). This represented nearly 18% of the housing stock in 2008. As these homes age their requirements for R&M work will increase.

2.8 Beyond 2017

As has already been mentioned the focus of the Northern Ireland Executive post-2015 will be very much on finding alternative methods of funding construction of public facilities, given that financial constraints are likely to still bear down heavily on what will be available from the public purse. It is likely that these funds will be targeted at continuing improvements to the roads network, further education facilities, ongoing investment in the water and sewerage network, and a programme of investment in primary and community care health centres.

Retrofitting of buildings, both residential and non-housing, will continue to gain in importance as the 2020 carbon emission reduction targets draw near. As the last Northern Ireland House Conditions Survey illustrated, although Northern Ireland had the highest percentages of the housing stock with loft and cavity wall insulation, there is still plenty more to be done to make homes more energy efficient and eradicate fuel poverty.

Construction output – Northern Ireland (£ million, 2005 prices)

| | Estimate | Forecast annual % change | | | | | Annual average |
	2012	2013	2014	2015	2016	2017	2013-17
Public housing	204	-4%	0%	6%	4%	1%	1.2%
Private housing	289	-1%	5%	2%	2%	2%	1.9%
Infrastructure	385	5%	0%	4%	0%	1%	1.8%
Public non-housing	308	0%	7%	6%	5%	0%	3.6%
Industrial	44	-7%	9%	1%	0%	2%	0.5%
Commercial	182	-5%	1%	2%	1%	3%	0.3%
New work	**1,412**	**0%**	**3%**	**4%**	**2%**	**1%**	**1.9%**
Housing R&M	157	4%	3%	3%	3%	1%	2.9%
Non-housing R&M	397	-2%	-1%	2%	2%	2%	0.5%
R&M	**554**	**0%**	**0%**	**2%**	**2%**	**2%**	**1.2%**
Total work	**1,966**	**0%**	**2%**	**3%**	**2%**	**1%**	**1.7%**

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

CONTENTS

SUMMARY AND KEY FINDINGS

THE OUTLOOK FOR CONSTRUCTION IN NORTHERN IRELAND

CONSTRUCTION EMPLOYMENT FORECASTS FOR NORTHERN IRELAND

COMPARISONS ACROSS THE UK

CSN EXPLAINED

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 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 Northern Ireland is projected to total just over 64,000 in 2017, an average annual decline of 1.5% over the forecast period. Although employment has already fallen by 19% between 2008 and 2012, output has fallen by over 37% in total since its peak in 2007. This would seem to indicate a fairly substantial underemployment gap (excess capacity) in Northern Ireland which is likely to extend the normal lag that would be expected from the time when output starts to rise again and employment follows suit.

Therefore while output starts to rise again in 2014, employment is projected to continue to decline until 2016 and finally stabilise in 2017.

The primary reason for the development of this underemployment gap seems to be the employment structure of the construction industry across the English regions and devolved nations. In a nutshell there seems to be a strong correlation between the level of direct employment in a region or devolved nation and the size of the output/employment gap. Generally, the higher the level of direct employment the larger the gap.

According to the latest Workforce Mobility and Skills in the UK Construction Sector 2012 report commissioned by ConstructionSkills, 52% of the workforce are directly employed in Northern Ireland, a fairly high level although not the highest. The cost of making direct employees redundant, the wish to retain skilled staff, plus long-term loyalty seems to have made firms who directly employ their staff more reluctant to shed them. However, this is likely to mean that they are working fewer hours than would normally be the case in better times, creating a significant level of excess capacity in the industry which will need to be taken up before new staff are hired (required specialists excepted).

Total employment by occupation – Northern Ireland

	Actual 2011	Forecast 2013	Forecast 2017
Senior, executive, and business process managers	1,920	1,880	1,790
Construction managers	6,650	6,450	6,130
Non-construction professional, technical, IT, and other office-based staff	5,840	6,340	6,860
Wood trades and interior fit-out	10,580	9,250	8,540
Bricklayers	3,960	3,730	3,610
Building envelope specialists	1,010	1,000	1,020
Painters and decorators	5,580	4,680	4,180
Plasterers and dry liners	2,230	2,070	1,980
Roofers	930	760	680
Floorers	540	510	490
Glaziers	1,300	1,260	1,240
Specialist building operatives nec*	1,910	1,630	1,480
Scaffolders	130	90	80
Plant operatives	2,780	2,460	2,240
Plant mechanics/fitters	1,700	1,620	1,620
Steel erectors/structural	1,710	1,580	1,510
Labourers nec*	2,310	2,040	1,880
Electrical trades and installation	5,940	5,750	5,630
Plumbing and HVAC trades	3,920	3,660	3,520
Logistics	1,270	1,280	1,300
Civil engineering operatives nec*	1,410	1,330	1,270
Non-construction operatives	1,610	1,510	1,480
Civil engineers	1,050	1,030	960
Other construction professionals and technical staff	1,960	1,940	1,880
Architects	2,000	1,830	1,660
Surveyors	1,310	1,140	1,010
Total (SIC 41-43)	**65,230**	**60,880**	**58,530**
Total (SIC 41-43, 71.1, 74.9)	**71,550**	**66,820**	**64,040**

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

Some of the effects of the underemployment gap in Northern Ireland may be mitigated by the fact that, according to the same mobility study, there are significant numbers of the Northern Ireland construction workforce operating in other parts of the UK at present. According to the study, 1% of the current Scottish construction workforce originates from Northern Ireland, 3% of the North West's, 2% of the West Midlands', 1% of the South East's, and 1% of Greater London's. Using Labour Force Survey data as the baseline, this would equate to over 21,000 in 2011, some 30% of Northern Ireland's current workforce.

Small drops are expected across almost all the construction trades over the forecast period except for building envelope specialists, although this may represent a change in the type of housing being constructed from traditional brick and block to modular construction, perhaps with a larger offsite manufacturing input. The number of bricklayers employed is predicted to decline over the same 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 the industry from training, due to inconsistency and coverage of supply data. Therefore, the annual recruitment requirement provides an indication of the number of new employees that would need to be recruited into construction each year in order to realise forecast outputs.

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.

The ARR for the 2013 to 2017 period for the 26 occupational groups within Northern Ireland's construction industry is illustrated in the table. The ARR of 660 is significantly lower than that projected for the 2012-2016 period last year, of 1,170, and reflects the fact that there is no real demand for the recruitment requirement. The number is indicative of the average requirements per year for the industry, as based on the output forecasts. This takes into account 'churn', that is flows into and out of the industry, excluding training flows.

This ARR represents 1% of projected base employment in Northern Ireland in 2013, slightly lower than the UK average (1.2%). According to the ConstructionSkills Mobility Study, 96% of the construction workforce in Northern Ireland originated there, the highest indigenous level in the UK. 1% came from Scotland and 3% from outside the UK.

In absolute terms the largest trade requirements are for bricklayers and plant operatives (both 120), but as a percentage of 2013 base employment, plant operatives (4.9%) and glaziers (4%) are those most required.

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 not elsewhere classified (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

	2013-2017
Senior, executive, and business process managers	-
Construction managers	<50
Non-construction professional, technical, IT, and other office-based staff	140
Wood trades and interior fit-out	-
Bricklayers	120
Building envelope specialists	<50
Painters and decorators	-
Plasterers and dry liners	<50
Roofers	-
Floorers	<50
Glaziers	50
Specialist building operatives nec*	-
Scaffolders	-
Plant operatives	120
Plant mechanics/fitters	-
Steel erectors/structural	-
Labourers nec*	-
Electrical trades and installation	50
Plumbing and HVAC trades	-
Logistics	70
Civil engineering operatives nec*	<50
Non-construction operatives	-
Civil engineers	-
Other construction professionals and technical staff	-
Architects	-
Surveyors	-
Total (SIC 41-43)	**660**
Total (SIC 41-43, 71.1, 74.9)	**660**

CONTENTS

SUMMARY AND KEY FINDINGS

THE OUTLOOK FOR CONSTRUCTION IN NORTHERN IRELAND

CONSTRUCTION EMPLOYMENT FORECASTS FOR NORTHERN IRELAND

COMPARISONS ACROSS THE UK

CSN EXPLAINED

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.
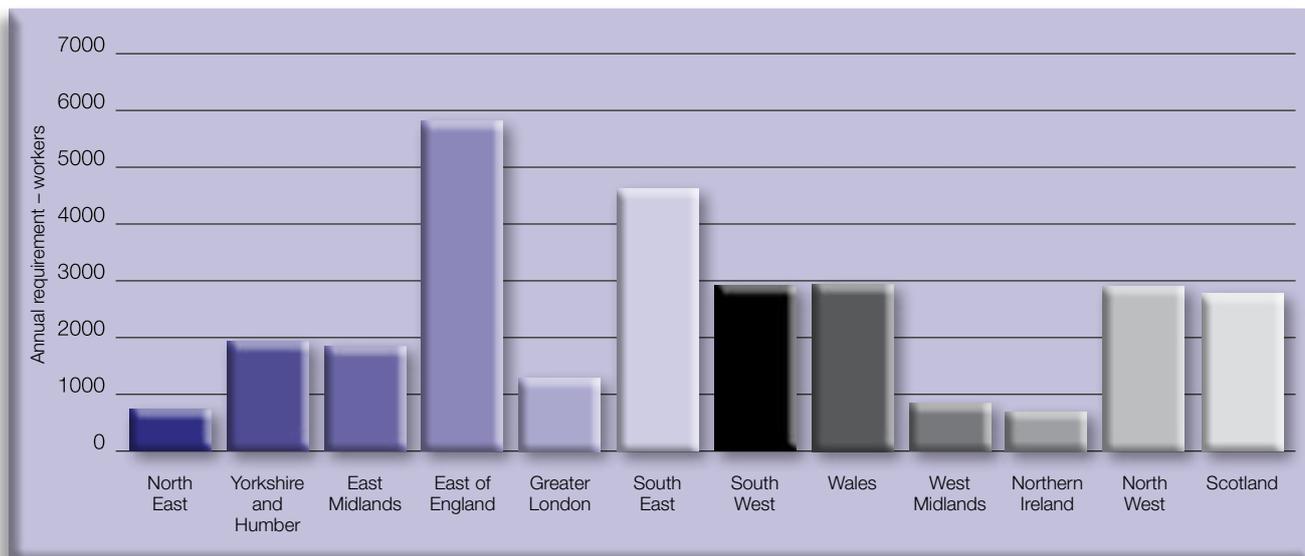
Annual average output growth by region 2013-2017
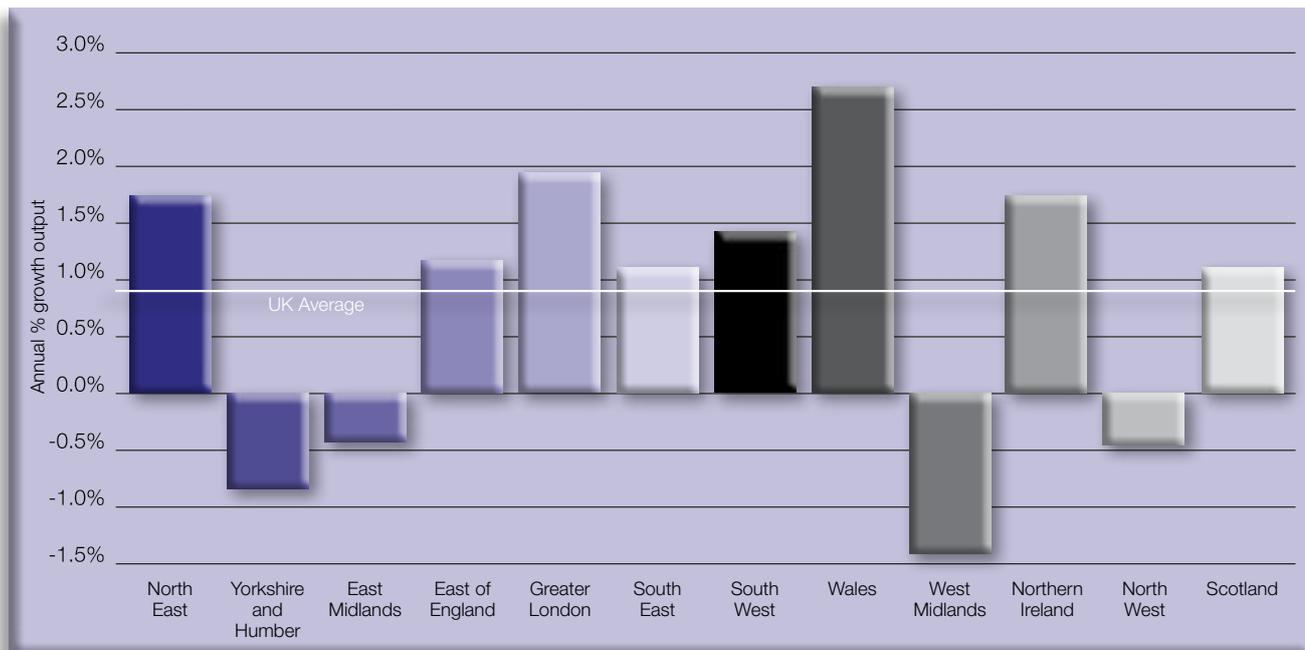
Source: CSN, Experian
ref. CSN Explained, Section 3, Note 2

Annual recruitment requirement (ARR) by region 2013-2017

Source: CSN, Experian

CONTENTS

SUMMARY AND KEY FINDINGS

THE OUTLOOK FOR CONSTRUCTION IN NORTHERN IRELAND

CONSTRUCTION EMPLOYMENT FORECASTS FOR NORTHERN IRELAND

COMPARISONS ACROSS THE UK

CSN EXPLAINED

CSN Explained

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

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

Section 2 provides a glossary to clarify some of the terms that are used in the reports, 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 ConstructionSkills to collect and produce information on the future employment and training needs of the industry. CITB-ConstructionSkills (GB), CIC and CITB-ConstructionSkills NI 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.

CONTENTS

SUMMARY AND KEY FINDINGS

THE OUTLOOK FOR CONSTRUCTION IN NORTHERN IRELAND

CONSTRUCTION EMPLOYMENT FORECASTS FOR NORTHERN IRELAND

COMPARISONS ACROSS THE UK

CSN EXPLAINED
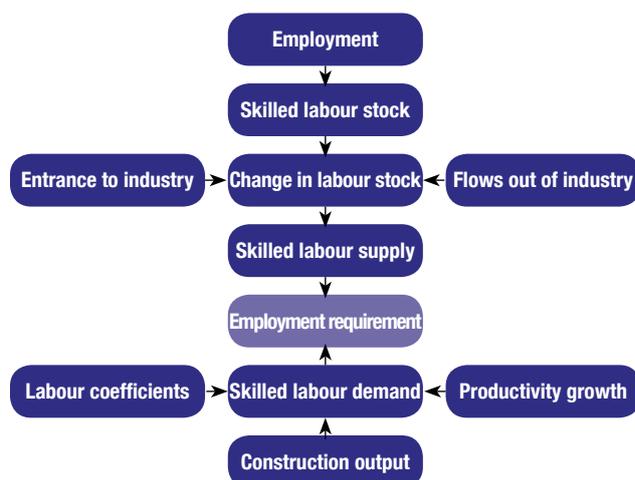
2. Glossary of Terms

- **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 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

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 ConstructionSkills:

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

SummitSkills

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

Coverage – Building Services Engineering.

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 Classfications (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, Domestics, 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.

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

CONTENTS

SUMMARY AND KEY FINDINGS

THE OUTLOOK FOR CONSTRUCTION IN NORTHERN IRELAND

CONSTRUCTION EMPLOYMENT FORECASTS FOR NORTHERN IRELAND

COMPARISONS ACROSS THE UK

CSN EXPLAINED

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[1]

Factories and warehouses

Publicly owned factories, warehouses, skill centres.

Oil, steel, coal

Now restricted to remedial works for public sector residual bodies.

Schools, colleges, universities

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

Health

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

Offices

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

Entertainment

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

Garages

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

Shops

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

Agriculture

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

Miscellaneous

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

Private industrial work

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

---

[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'.

Private commercial work[2]

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[3].

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[4].

[2] 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'.

[3] 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.

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

CONTENTS

SUMMARY AND KEY FINDINGS

THE OUTLOOK FOR CONSTRUCTION IN NORTHERN IRELAND

CONSTRUCTION EMPLOYMENT FORECASTS FOR NORTHERN IRELAND

COMPARISONS ACROSS THE UK

CSN EXPLAINED

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, stagers, 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

CONTENTS

SUMMARY AND KEY FINDINGS

THE OUTLOOK FOR CONSTRUCTION IN NORTHERN IRELAND

CONSTRUCTION EMPLOYMENT FORECASTS FOR NORTHERN IRELAND

COMPARISONS ACROSS THE UK

CSN EXPLAINED

6. CSN website and contact details

The CSN website – 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 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 ConstructionSkills research
- how to become a member of the network.

The CSN website can be found at:
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

CONTENTS

SUMMARY AND KEY FINDINGS

THE OUTLOOK FOR CONSTRUCTION
IN NORTHERN IRELAND

CONSTRUCTION EMPLOYMENT
FORECASTS FOR NORTHERN IRELAND

COMPARISONS ACROSS THE UK

CSN EXPLAINED

For more information about the
Construction Skills Network, contact:

Tony Batchelor
Research and Development
Research Analyst
0344 994 4400
tony.batchelor@cskills.org

www.cskills.org