

INDUSTRY INSIGHTS

Construction Skills Network
Wales 2015-2019



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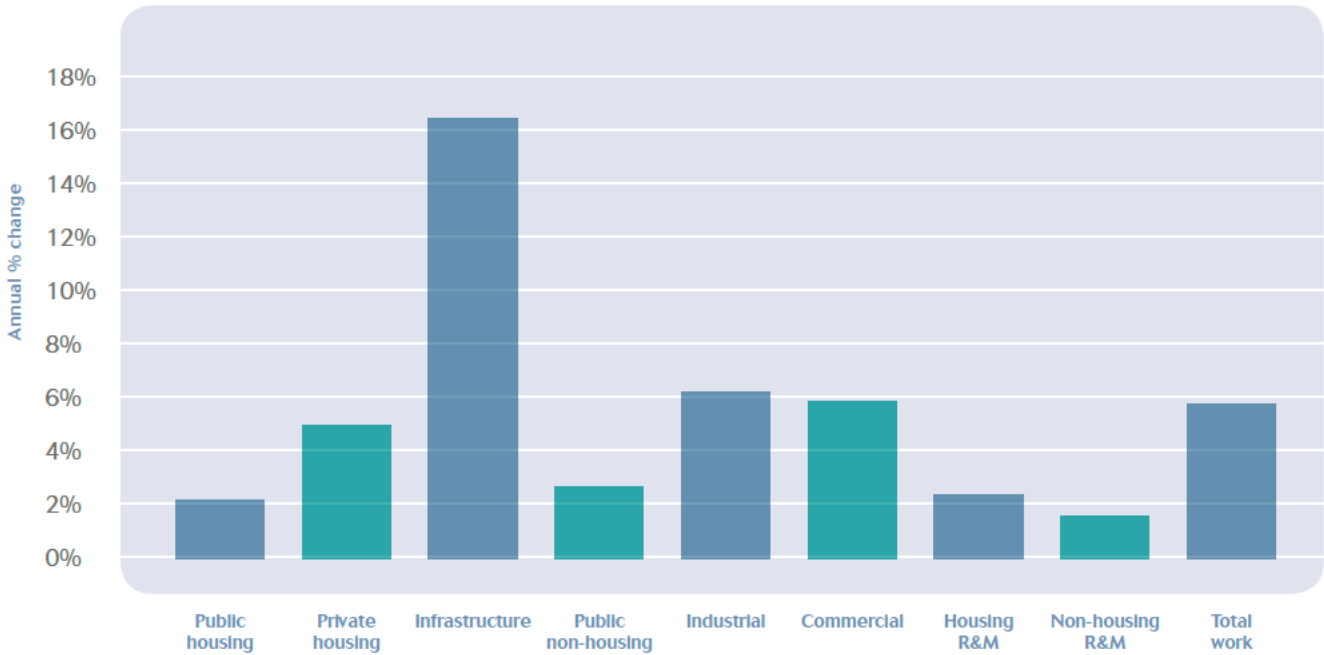
CSN explained

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1 Summary – Wales

Wales is projected to see annual average output growth of 5.8% over the 2015 to 2019 period, double the UK rate of 2.9%. Expansion is very centred in the new work sector, with an average annual increase in output of 7.8% compared with 2% for repair and maintenance. This output growth rate is expected to drive strong employment growth averaging 2.4% a year, again well above the UK average of 1.5%. Wales’ annual average recruitment requirement (ARR) is projected at 5,320, which represents 4.8% of base 2015 employment.

Annual average construction output growth 2015-2019 – Wales



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



1.1 Key findings

2014 should see the consolidation of the recovery in Welsh construction which began in 2013 after five years of largely stagnation and decline. Growth in 2014 will have primarily been driven by good performances in the repair and maintenance sectors and infrastructure.

Wales' projected annual average output growth rate of 5.8% is the strongest of any of the UK regions and devolved nations and it is not just based on the start of nuclear new build at Wylfa in Anglesey, but on a much wider expansion of activity across the infrastructure sector.

Besides new nuclear build there are substantial projects ongoing or in the pipeline in the transport arena – rail electrification and roads improvements – and in energy – tidal lagoons, gas fired and combined cycle power plants. All this leads to very strong growth in infrastructure output across most of the forecast period, giving an average annual rate in excess of 16%.

There are a number of sizeable projects up and coming in the commercial construction sector, the biggest of

Construction employment in Wales is projected to increase on average by 2.4% a year across the forecast period, nearly a percentage point above the UK average (1.5%).

Wales is projected to see annual average output growth of 5.8% over the 2015 to 2019 period, double the UK rate of 2.9%.

which will be Ebbw Vale's new motor racing circuit, and thus robust growth of around 6% a year on average is forecast. Private housing activity will be stronger in the early part of the forecast period boosted by continued low interest rates, 'Help to Buy' and changes to Stamp Duty, but still poor affordability and rising rates will dampen expansion thereafter.

Employment growth is projected to average 2.4% a year between 2015 and 2019, well above the UK average and the workforce is expected to reach 122,300 by 2019, less than 1% below its 2008 peak. Growth is expected to be strongest in the professional occupational categories – civil engineers, surveyors etc. – averaging between 3.5% and 5% a year. However, most of the main trades are also expected to see decent expansion, ranging from around 2% to 3.5% a year on average.

Wales' annual recruitment requirement (ARR) is projected at 5,320 a year on average, the third largest on an absolute level and the highest as a ratio of base 2015 employment. Its ratio, at 4.8%, is well above the UK average of 1.7%. Wales traditionally suffers from high net outflows of its construction workforce to other areas of the UK, in particular to the South West and North West of England.

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 Wales

2.1 Construction output in Wales – overview

Construction output in Wales totalled £4.12bn in 2013 in 2010 prices, a 5% increase on the previous year. Sector performance was mixed, with strong growth in the private housing, infrastructure and housing repair and maintenance sectors in part counteracted by sharp falls in public housing and industrial output.

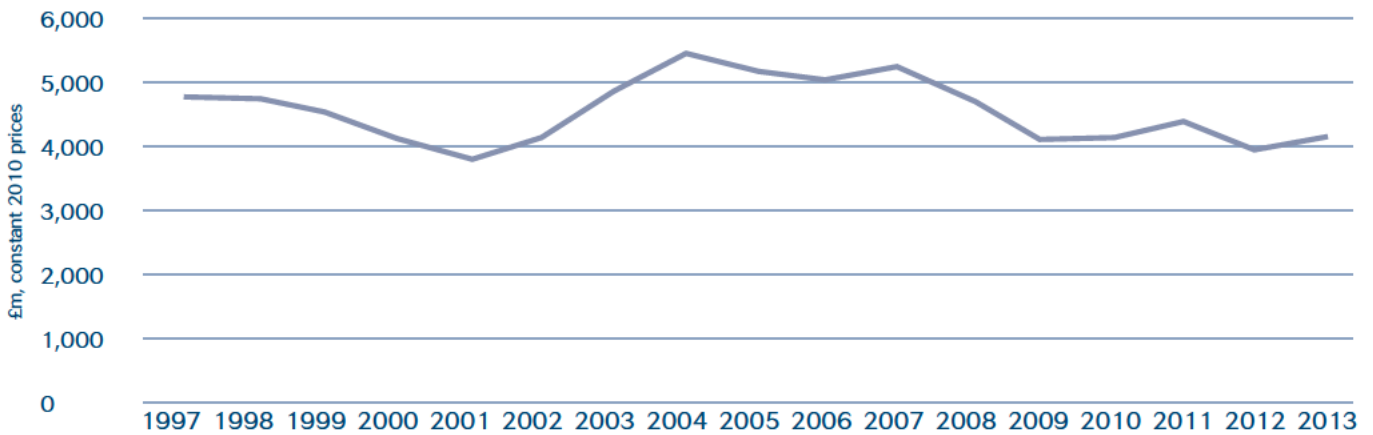
2.2 Industry structure

The diagram, Construction Industry structure 2013 – UK vs. Wales, illustrates the sector breakdown of

construction in Wales, compared to that in the UK. Effectively, the percentages for each sector illustrate what proportion of total output each sector accounts for.

The Welsh construction industry is a little more skewed towards new work than the UK as a whole, with that sector accounting for 65% of total construction output in the devolved nation compared with 62% UK-wide. The other significant differences are a proportionally more important public non-housing sector in Wales (12% versus 8%) and less important non-housing R&M one (17% versus 20%). Other than these differences, the structure of the Welsh construction market is similar to the UK as a whole.

Construction output 1997-2013 Wales



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

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.

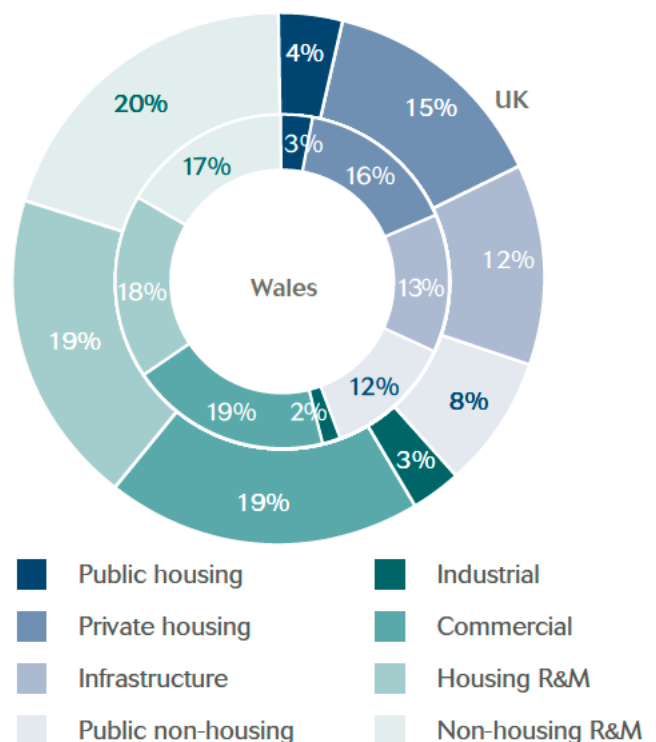
2.4 Economic structure

Despite considerable success in broadening the economic base, notably through expansion in distribution, hotels and catering and professional and financial services in recent decades, Wales continues to rely heavily on the public sector (26.2% v 19.1%) and on manufacturing (16.4% v 10.3%) compared with the UK as a whole.

There has actually been little change in the structure of the Welsh economy over the decade to 2013. Public services and manufacturing took the same share of GVA in 2013 as they did in 2004. The main movements over the period have been a rise in importance of professional and other private services (17.2% to 19.9%) and a decline in importance of construction (8% to 6.5%).

In terms of structure, the Welsh economy has more in common with the one English region of comparable size, the North East, where public services and manufacturing account for 25.8% and 15.6% of total GVA respectively.

Construction industry structure 2013 – UK vs Wales



Source: ONS, Experian

2.5 Forward looking economic indicators

Wales is expected to underperform compared with the UK in terms of general economic growth over the next five years, with annual average GVA expansion of 2% against 2.4%. Greater exposure to relatively undynamic sectors such as public services and manufacturing constrains annual average GVA growth. Not surprisingly given the similarity in structure, Wales' overall forecast annual average GVA growth is similar to the North East (2% versus 2.1%).

Looking at the sectors that can specifically impact the demand for new construction, neither the manufacturing nor the transport and storage sectors are forecast to show particularly strong growth over the next five years – 1.5% a year on average in the former and 1.7% in the latter. The drivers for commercial construction look much more robust, with 3.3% a year growth on average projected for professional and other private services, 2.6% for finance and insurance, 2.5% for wholesale and retail, and 2.4% for accommodation, food services and

recreation. Overall, increasing demand looks like it will be fairly evenly spread across the offices, retail and leisure sub-sectors.

As has been the case for most of the UK, real disposable income has struggled to show much increase in 2014 as average earnings growth has remained below the inflation rate for much of the year. However, the prospects for both going forward are expected to be better, although real disposable income growth is forecast to average a relatively moderate 1.8% a year in Wales over the five years to 2019.

House price growth on the ONS mixed-adjusted measure is estimated at around 7% in Wales in 2014. Given ongoing affordability issues, a tightening of lending criteria in the aftermath of the Mortgage Market Review and the likelihood of interest rate rises starting to kick in from the middle of 2015, house price growth is expected to moderate to around 4% a year on average between 2015 and 2019.

Economic structure – Wales (£ billion, 2010 prices)

Selected sectors	Actual	Forecast					
		Annual % change, real terms					
	2013	2014	2015	2016	2017	2018	2019
Public services	12.3	0.5	0.1	-0.2	-0.3	0.2	1.1
Professional and other private services	9.3	5.3	3.8	3.5	3.5	3.1	2.8
Manufacturing	7.7	2.8	1.7	1.5	1.8	1.3	1.0
Wholesale and retail	4.7	5.2	3.0	2.3	2.4	2.3	2.3
Finance and insurance	2.5	-1.9	2.2	2.9	2.8	2.6	2.6
Total Gross Value Added (GVA)	46.9	2.7	2.2	1.9	2.0	1.9	1.9

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

2.6 New construction orders – overview

New construction orders in Wales hit their most recent nadir in 2011, when at £1.42bn in current prices, they had fallen down to the sort of level last seen in 2001. They picked up sharply in 2012, rising by close to 50%, but growth then stalled in 2013 and at a little over £2bn new orders were still substantially below their 2006 peak of £3.44bn.

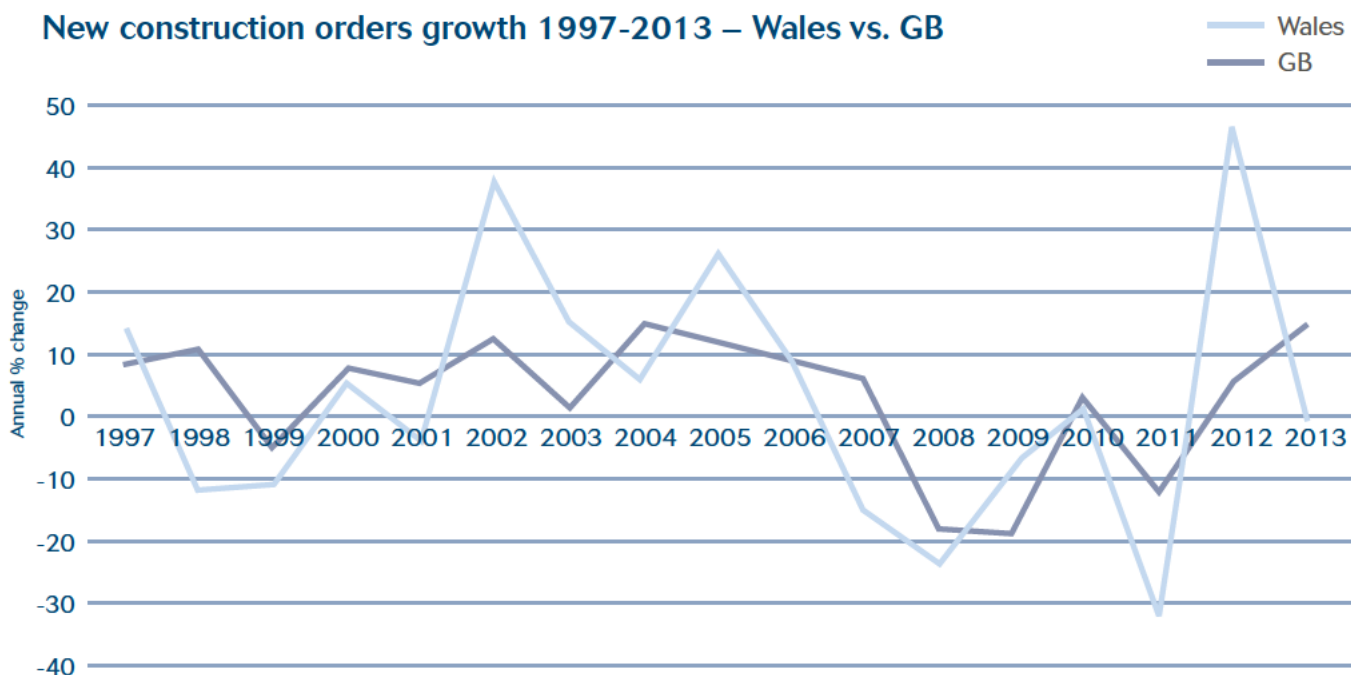
The only sector that displayed growth in new orders in 2013 was the commercial construction one, with a rise of nearly 22%, the second consecutive year of strong increase. All the other new work sectors experienced declines, which were particularly strong in the public housing (15%), public non-housing and industrial sectors (11%).

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

	Actual	Forecast					
		Annual % change, real terms					
	2013	2014	2015	2016	2017	2018	2019
Real household disposable income	42.6	0.7	1.6	0.9	1.8	2.3	2.1
Household spending	41.3	2.5	2.3	1.9	1.9	1.9	1.9
Working age population (000s and as % of all)	1,856	60.6%	60.9%	61.1%	61.0%	60.9%	60.9%
House prices (£)	161,836	7.16	5.92	3.63	2.81	2.90	3.06
LFS unemployment (millions)	0.12	-17.06	-4.16	-1.08	0.47	-1.86	-0.51

Source: ONS, DCLG, Experian

New construction orders growth 1997-2013 – Wales vs. GB



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

2.7 New construction orders – current situation

New orders for Wales seem to have peaked in the second quarter of 2013 and have fallen off since then, although they stabilised in the second quarter of 2014. They totalled just under £1.3bn in current prices in the first half of 2014, marginally down on the same period of 2013 but 67% up on a very poor second half of that year. On an annualised basis, new orders were sharply up in the public non-housing and industrial sectors but down in the remaining ones.

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

Regional Office for National Statistics (ONS) output statistics are published in current prices and are thus inclusive of any inflationary effect. At the time of writing, regional ONS construction output statistics were only available for the first two quarters of 2014.

Construction growth in the first half of 2014 in Wales has been disappointing, with output only a little over 1% up on the end of 2013 on an annualised basis. The infrastructure, industrial and R&M sectors saw growth, but the remainder contracted, including private housing, against the trend for most of the rest of the UK.

Looking at the recent results of State of Trade surveys, the message is a bit mixed. Experian's regional monthly composite indicator (activity/orders/tender enquiries) for Wales reached 53 in September 2014, up 8 points on August and the first time it registered a result over 50 since March 2013. It continued to rise in October, to 57. The FMB's quarterly State of Trade survey has been much more upbeat, with strong positive balances on the regional indicator for Wales (workloads/expected workloads/enquiries) in the first three quarters of 2014 (+39, +23, +28). The CECA Workload survey turned strongly positive for civil engineering workloads in Wales in the second quarter of 2014 after decline or stagnation in the previous three quarters, and the balance continued to be very positive in the third quarter of the year at +71.

Wales' short term average annual growth rate of 6.1% is even stronger than its 2015 to 2019 one (5.8%) demonstrating the fact that construction industry expansion in the devolved nation is not just predicated on the start of new nuclear build at Wylfa. Part of the reason for the strong short-term growth is that we are yet to see the very strong growth in new orders in 2012 feed through into output.

In the infrastructure sector, the draft revised budget for 2015/16, published in September, suggests that road and rail investment could rise by 20% in that financial

New work construction orders – Wales (£ million, current prices)

	Actual	Annual % change				
		2013	2009	2010	2011	2012
Public housing	83	53.9	31.4	-44.4	-2.0	-15.3
Private housing	439	-8.1	126.5	-40.3	42.5	-4.4
Infrastructure	480	11.7	-29.1	-37.7	159.5	-2.6
Public non-housing	444	-18.2	-14.6	-21.7	31.7	-11.0
Industrial	73	48.4	-68.6	-1.4	12.3	-11.0
Commercial	562	-30.0	12.1	-32.0	28.7	21.6
Total new work	2,081	-8.0	1.4	-32.5	47.2	-0.6

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

Construction output – Wales (£ million, 2011 prices)

	Actual 2013	Forecast annual % change			Annual average 2015-2016
		2014	2015	2016	
Public housing	121	-6%	-1%	3%	1.0%
Private housing	646	-4%	4%	9%	6.4%
Infrastructure	551	9%	11%	14%	12.6%
Public non-housing	512	4%	8%	-2%	3.1%
Industrial	73	28%	30%	4%	16.1%
Commercial	796	-8%	9%	9%	8.8%
New work	2,700	0%	8%	7%	8.0%
Housing R&M	733	15%	2%	1%	1.8%
Non-housing R&M	690	7%	4%	4%	4.1%
Total R&M	1,423	11%	3%	3%	2.9%
Total work	4,122	4%	6%	6%	6.1%

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

year compared with 2014/15. Besides ongoing works on valley lines expansion, electrification, and heads of the valleys improvements in the rail and roads sub-sectors, the Welsh Government has been given the right to borrow up to £500m to finance capital projects, although it seems that the funding will be largely tied to the upgrading of the M4. Thus we are predicting strong growth of close to 13% a year on average in 2015 and 2016.

Strongest growth in the short term is expected in industrial construction. The sector has been in long-term decline in Wales, as it has been throughout the UK, with its share of total construction output falling from 9% in 1990 to 2% in 2013. Therefore its annual average growth rate in excess of 16% over the 2015 to 2016 period accounts for only £33m extra output in value terms.

Commercial construction growth in the short-term is also expected to be quite robust at an average annual rate of 8.8%. Wales seems to be having an upsurge in convention/exhibition centre work, with a £60m project in Cardiff now joined by the prospect of a new convention centre at the Celtic Manor resort

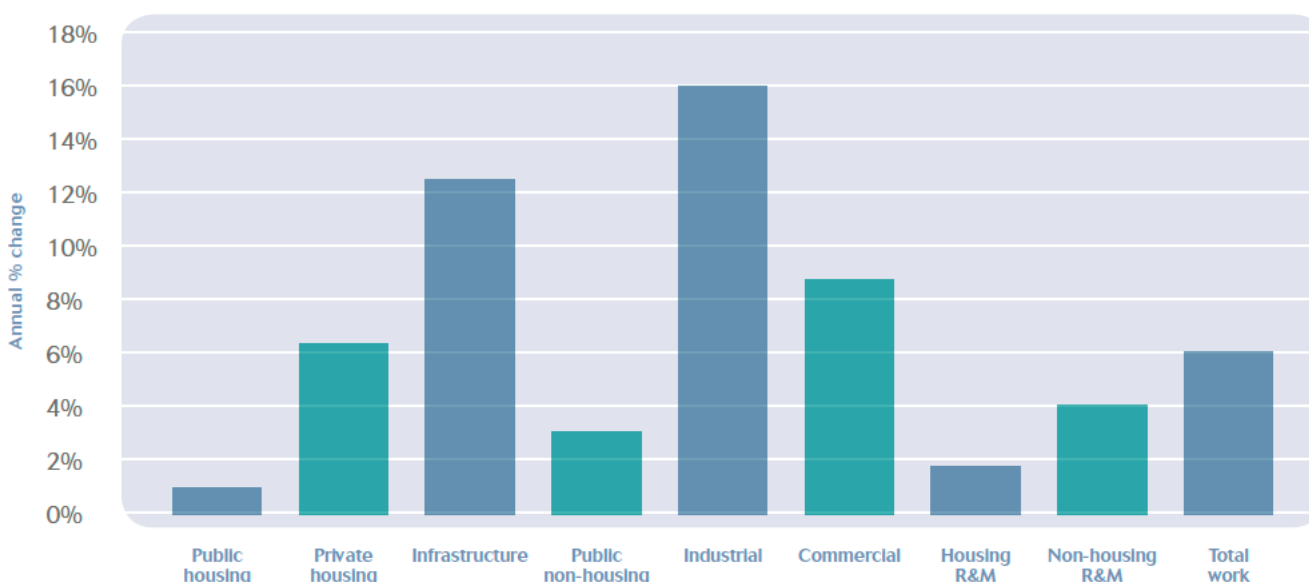
near Newport. The expectation is that a full planning application for the £160m project will have been submitted before the end of 2014.

Total housing starts continue to rise, reaching over 5,900 on an annualised basis in the second quarter of this year, 3% up on the end of 2013.

The overall trend in house prices has generally been upwards, with the ONS's mix-adjusted series showing a 3.3% increase in the third quarter of 2014 on a quarter-on-quarter basis and 6.1% higher on an annualised basis. The Halifax reported a quarterly rise of 3.8% in the third quarter, and an annualised rate of 4.8%. In contrast, the Nationwide reported a 0.8% fall on a quarter-on-quarter basis, but a 5% rise annually. Despite recent growth in house prices, there are still large swathes of rural Wales, in particular, in which they remain below their 2009 level according to recent analysis from Halifax.

Rising house prices, coupled with changes to Stamp Duty, continued low interest rates and the spur of 'Help to Buy', should provide the impetus for further growth in the private housing market over the next two years, at an average annual rate of over 6%.

Annual average construction output growth 2015-2016 – Wales



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

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

The medium-term annual average output forecasts for Wales remain strongly positive at 5.8%, substantially above the UK rate (2.9%), despite the start of main civils work at Wylfa now put back to 2019. Even without Wylfa, construction output growth is projected to average 4.2% a year due to strong performances in the infrastructure, industrial and commercial sectors.

Including Wylfa, annual average growth in excess of 16% is expected for the infrastructure sector over the forecast period, with a massive hike in activity in 2019. However, even if Wylfa was to be excluded, the infrastructure growth rate would be around 7.5%.

In the energy sector, Hirwaun Power has submitted proposals to build a 299MW gas-fired power station in South Wales, which would generate enough electricity for 400,000 homes. Work on the £200m project is scheduled to start in the second half of 2016. Wrexham Power Ltd is looking to develop the Wrexham Energy Centre, a £300m combined cycle gas turbine power station on Wrexham Industrial Estate. The scheme has recently completed its Statutory Consultation and construction works could start in mid-2016. Finally, in February this year, the developer submitted the Development Consent Order for the £850m Swansea Bay Tidal Lagoon power plant. This would be the largest in the world with an installed capacity of 320MW and a design life of 120 years. The most optimistic plan has a construction start date of the first half of 2015 but this is unlikely to be achieved. Thus, besides Wylfa, there is a significant amount of work in the pipeline that should generate good output growth in the sector in 2016 and beyond.

The estimated performance in 2013 of those sectors that drive demand for commercial premises ranged

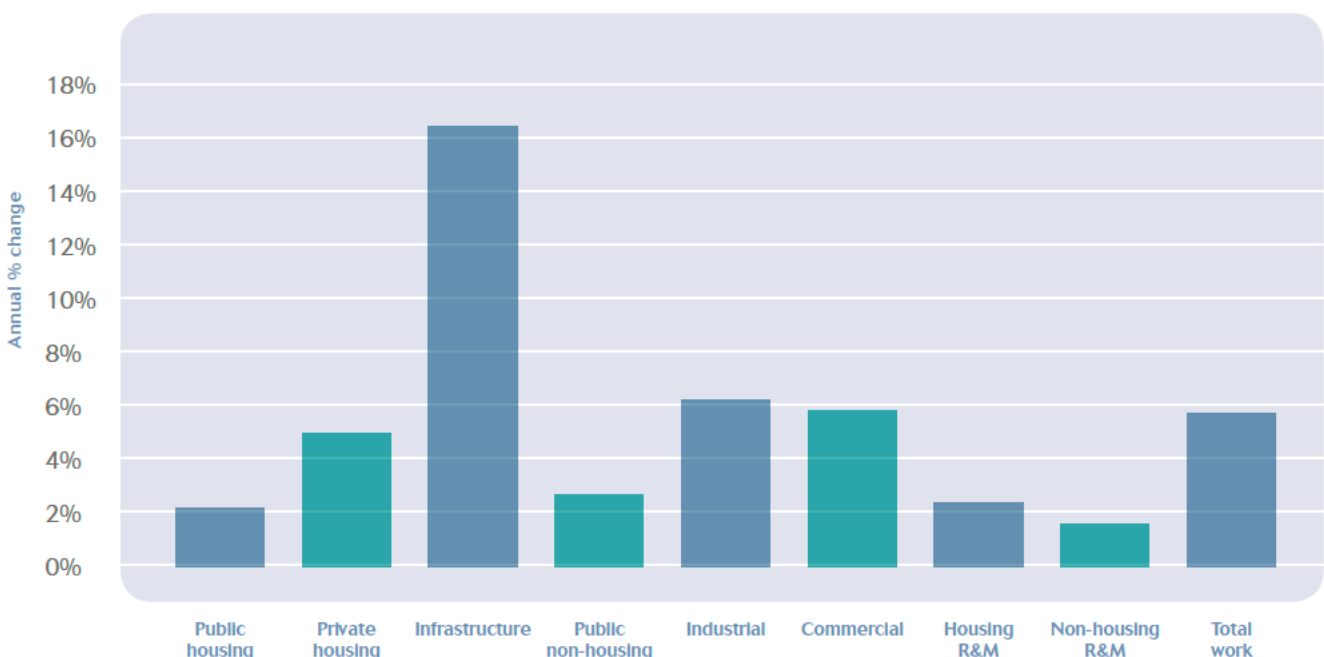
from strong growth of 5.4% in the wholesale and retail sector to a decline of 3.1% in the accommodation, food services and recreation one. Looking forward, reasonably robust growth is expected from all the relevant sectors over the five years to 2019 – 3.3% a year on average for professional & other private services, 2.6% for finance and insurance, 2.5% for wholesale and retail, and 2.4% for accommodation, food services and recreation. Overall increasing demand looks like it will be fairly evenly spread across the offices, retail and leisure sub-sectors.

The prospects for a new motor racing circuit being built in Ebbw Vale moved a step nearer recently with the Heads of the Valley Development Company signing a five-year deal to bring motorcycling’s British MotoGP to Wales.

Growth in private housing output is expected to subside somewhat in the second half of the forecast period, giving an average annual rate of 5% over the 2015 to 2019 period. Once the positive effects of the changes to Stamp Duty come out of the system, the negative effect of anticipated rises in interest rates from the second half of 2015 will start to kick in. Given that affordability remains poor, we believe housing demand will weaken in the second half of the forecast period.

Nevertheless, there are a number of major regeneration projects proposed with a large residential element but, of these, phase 2 of the Barry Waterfront project is currently delayed because of ground contamination issues and the Holyhead scheme is mired in controversy. Cardiff City Council’s plans for 1,000 new homes across the city remains the largest public housing project in the pipeline. Elsewhere, the Isle of Anglesey County Council has plans to build nearly 400 new affordable housing units across three sites.

Annual average construction output growth 2015-2019 – Wales



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

Construction output – Wales (£ million, 2011 prices)

	Estimate 2014	Forecast annual % change					Annual average 2015-2019
		2015	2016	2017	2018	2019	
Public housing	114	-1%	3%	2%	5%	2%	2.2%
Private housing	622	4%	9%	4%	6%	3%	5.0%
Infrastructure	600	11%	14%	4%	5%	56%	16.6%
Public non-housing	533	8%	-2%	2%	4%	1%	2.7%
Industrial	93	30%	4%	2%	-3%	2%	6.3%
Commercial	732	9%	9%	4%	6%	2%	5.9%
New work	2,694	8%	7%	3%	5%	15%	7.8%
Housing R&M	845	2%	1%	4%	4%	0%	2.4%
Non-housing R&M	741	4%	4%	1%	-1%	0%	1.6%
R&M	1,586	3%	3%	3%	1%	0%	2.0%
Total work	4,280	6%	6%	3%	4%	10%	5.8%

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

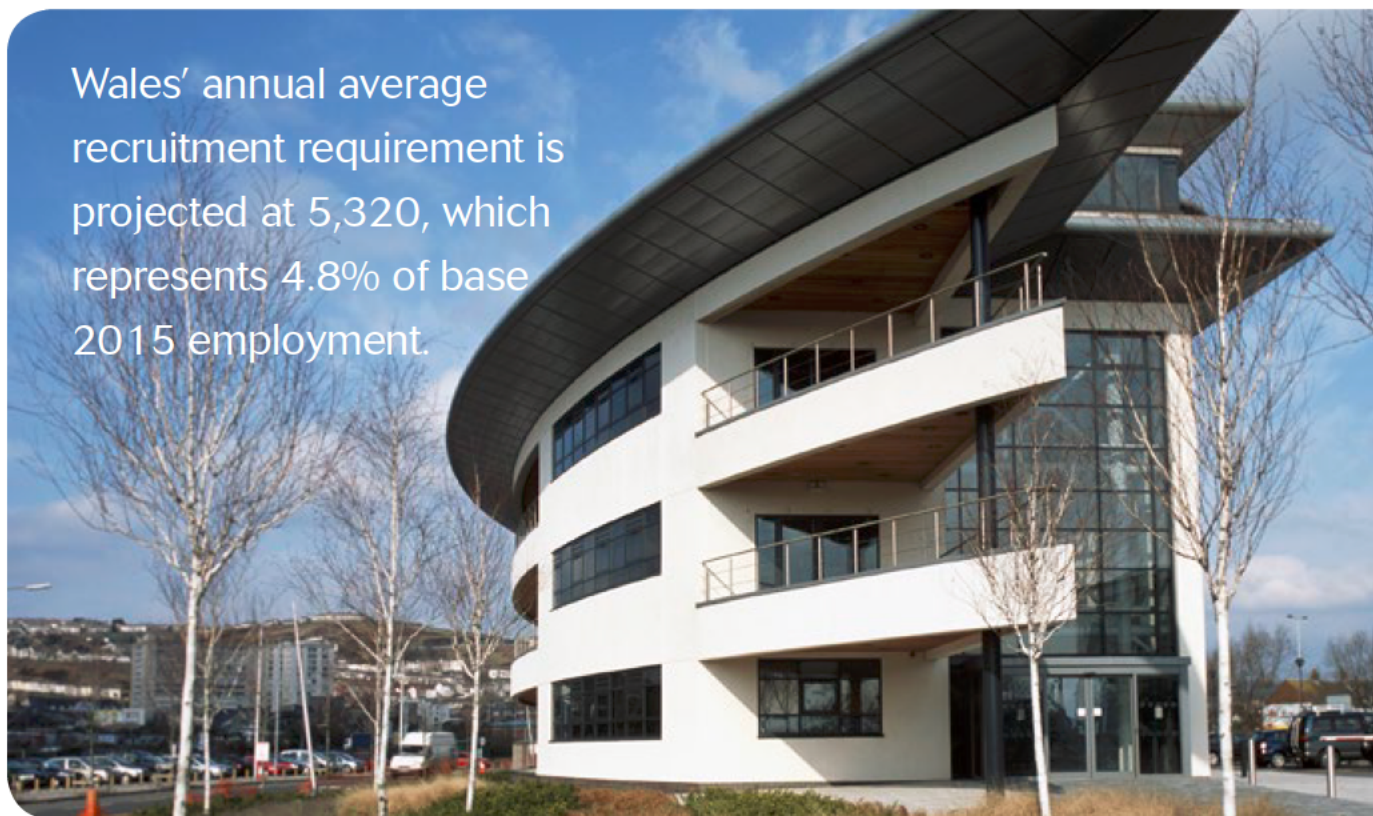
2.10 Beyond 2019

Main construction works on nuclear new build at Wylfa are now not expected to start until 2019 and thus a very strong output stream from this project will continue well past our current forecast period, to 2025.

Anglesey may turn out to be one of the main focusses of construction activity in Wales over the long term with, in addition to Wylfa, work on more conventional power, ports and harbours, and marine energy generation, being discussed.

In the long term, the possibility of a Severn Barrage project hasn't entirely disappeared, with Severn Tidal Energy being incorporated early in 2014 and raising £10m in initial funding. Severn Tidal Energy propose a barrage between Lavernock Point in the Vale of Glamorgan to the Brean Peninsula on the English side of the estuary in Somerset and would incorporate a road and rail link over the structure, thus improving transport links between South Wales and the South West.

Wales' annual average recruitment requirement is projected at 5,320, which represents 4.8% of base 2015 employment.



3 Construction employment forecasts for Wales

3.1 Total construction employment forecasts by occupation

The table presents actual construction employment (SICs 41-43, 71.1, and 74.9) in Wales 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.

Construction employment in Wales is projected to increase on average by 2.4% across the forecast period, nearly a percentage point above the UK average (1.5%). This better performance is not just due to Wylfa, which, after all, will not start affecting employment levels until towards the end of the forecast period, but to the underlying rate of growth in Welsh construction.

On these forecasts, employment should reach around 122,300 by 2019, less than 1% below its 2008 peak. Output will actually be at a new historic high in 2019, indicating a decent rate of productivity gain, although some of this will be due to the 'Wylfa effect' of strong growth in a low labour intensive sector.

Employment growth is expected to be strongest in the professional occupational categories – civil engineers, surveyors etc. – averaging between 3.5% and 5% a year. The main trades – wood trades, bricklayers etc. – are expected to do less well as their relative position is further eroded by the encroachment of off-site manufacturing techniques and modern methods of construction, but most are still forecast to see growth averaging between 2% and 3.5% a year.

Total employment by occupation – Wales

	Actual 2013	Estimate 2014	Forecast 2015	Forecast 2019
Senior, executive, and business process managers	3,640	3,700	3,730	3,830
Construction project managers	1,280	1,350	1,410	1,610
Other construction process managers	6,870	7,190	7,530	8,640
Non-construction professional, technical, IT and other office-based staff	11,020	11,360	11,590	12,210
Construction trades supervisors	2,410	2,280	2,210	2,160
Wood trades and interior fit-out	12,910	13,270	13,680	14,780
Bricklayers	6,190	6,400	6,620	7,270
Building envelope specialists	4,270	4,390	4,530	4,920
Painters and decorators	5,410	5,570	5,800	6,450
Plasterers	3,820	4,130	4,390	4,870
Roofers	1,280	1,320	1,340	1,440
Floorers	120	130	130	150
Glaziers	520	530	540	550
Specialist building operatives nec*	4,060	4,110	4,170	4,400
Scaffolders	730	760	790	840
Plant operatives	1,620	1,620	1,620	1,710
Plant mechanics/fitters	1,260	1,310	1,350	1,520
Steel erectors/structural fabrication	1,120	1,150	1,160	1,200
Labourers nec*	5,170	5,390	5,570	6,140
Electrical trades and installation	6,260	6,480	6,670	7,200
Plumbing and HVAC Trades	9,170	9,560	9,830	10,770
Logistics	690	700	720	810
Civil engineering operatives nec*	1,180	1,250	1,310	1,480
Non-construction operatives	1,310	1,280	1,270	1,180
Civil engineers	1,990	2,080	2,170	2,470
Other construction professionals and technical staff	5,450	5,710	6,010	6,910
Architects	1,230	1,300	1,380	1,580
Surveyors	3,760	4,110	4,420	5,220
Total (SIC 41-43)	92,310	95,230	97,960	106,130
Total (SIC 41-43, 71.1, 74.9)	104,740	108,430	111,940	122,310

Source: ONS, CSN, Experian
ref. CSN Explained, Section 3, Notes 5, 6 and 8

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.

Wales' ARR of 5,320 is the highest of all the regions and devolved nations in terms of its ratio to 2015 employment which, at 4.8%, is much higher than the UK's (1.7%). Wales traditionally has a high ARR due to significant net outflows to other parts of the UK. The large net outflows to other regions shown in the Labour Force Survey data are supported by recent analysis of intra-regional/devolved nation mobility in CITB's 2012 Workforce Mobility and Skills survey.

Not surprisingly, some of the highest ARR's are for occupations such as civil engineers (7.4%) who, while in

demand across construction, will be most needed in the infrastructure sector, although some of the trades, such as bricklayers also have a high requirement (8.3%), reflecting perceived shortages during the recovery period.

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 – Wales

	2015 - 2019
Senior, executive, and business process managers	110
Construction project managers	-
Other construction process managers	-
Non-construction professional, technical, IT and other office-based staff	870
Construction trades supervisors	100
Wood trades and interior fit-out	770
Bricklayers	550
Building envelope specialists	130
Painters and decorators	390
Plasterers	120
Roofers	110
Floorers	-
Glaziers	-
Specialist building operatives nec*	-
Scaffolders	<50
Plant operatives	<50
Plant mechanics/fitters	120
Steel erectors/structural fabrication	-
Labourers nec*	670
Electrical trades and installation	180
Plumbing and HVAC Trades	-
Logistics	50
Civil engineering operatives nec*	<50
Civil engineers	160
Other construction professionals and technical staff	650
Architects	110
Surveyors	160
Total (SIC 41-43)	4,240
Total (SIC 41-43, 71.1, 74.9)	5,320

Source: CSN, Experian
ref. CSN Explained, Section 3, Notes 7 and 8
*Not elsewhere classified

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 at 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 and 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 at 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 it 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:

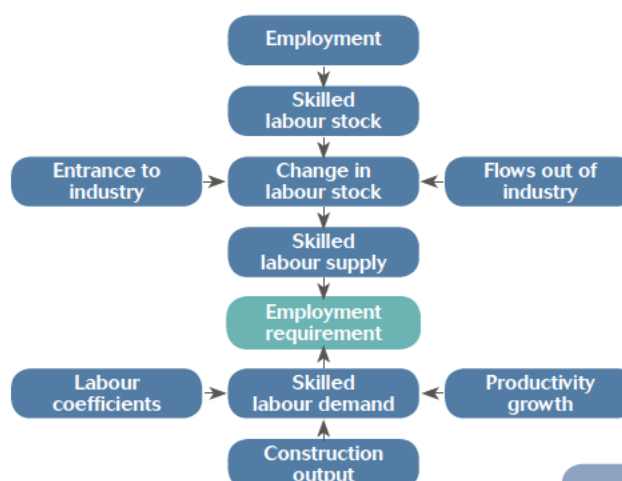
- Transfers to other industries
- International/domestic out migration
- Permanent retirements (including permanent sickness)
- Outflow to temporary sickness and home duties.

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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