

CONSTRUCTION SKILLS NETWORK

# The skills construction needs



**Yorkshire &  
the Humber**

Five Year Outlook 2023-2027



# YORKSHIRE & THE HUMBER

The volume of construction work in Yorkshire & the Humber will grow, slightly ahead of the UK forecast of 1.5% by an annual average rate of

↑ **2.2%**

Fastest sector rate of growth expected for

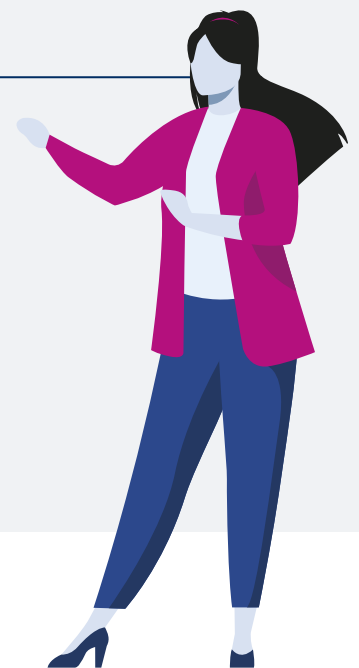
↑ **Infrastructure  
Repair & maintenance**

The occupations with the strongest additional recruitment requirement levels:

↑ **Other construction professionals  
and technical staff** (1470 per year)  
**Non-construction professional, technical, IT  
and other office-based staff** (390 per year)  
**Plasterers** (330 per year)

Major projects in Yorkshire & the Humber include a number of very large scale/long term developments such as:

+ **Offshore wind farm:  
Dogger Bank A** (£2bn)  
**Leeds City Village** (1,000 homes)  
**Full Sutton prison** (£400m)



Key facts and figures

2022

2023

2024

2025

2026

2027

2028

2029

The annual recruitment requirement in Yorkshire & the Humber of 1.7% per year is the same as the UK average and means an extra 17,800 workers will be needed in the region from 2023 to 2027.



# UK Macroeconomic backdrop

Having bounced-back in 2021, with an annual increase in gross domestic product (GDP) of 7.5%, the UK's economic growth in 2022 slowed in the first half of the year, before declining by -0.2% in Q3. November's monthly data release points to the UK entering a recession by the end of 2022, when, as forecast, there will have been two consecutive quarters of declines in GDP.

The economic challenges were highlighted by monthly GDP at the end of September 2022 being 0.2% below its pre-pandemic level (February 2020), and in real terms, the UK is the only G7 economy where a shortfall relative to its pre-pandemic level exists. The S&P Global/CIPS Purchasing Managers Indices (PMI) shows business activity declining for three consecutive months as the UK composite index fell to 47.2 in October from 49.1 in September and 49.6 in August, with a reading of less than 50 indicating a decline.

Inflationary pressure on household budgets continues to drive up Consumer Price Index (CPI) inflation, which hit a 41-year high of 11.1% annually in October 2022. Inflation is expected to remain high well into the first half of 2023 and tackling this, while keeping mortgage rises down, is a priority for Government. However, as set out in the 2022 Autumn Statement, this requires difficult decisions to address Government debt and deficit through a combination of tax rises and controlling public sector spending.

The prevailing view of independent forecasters, the Bank of England (BoE), the Office for Budget Responsibility (OBR) and the UK's Chancellor when delivering his Autumn Statement in parliament, is that the UK is set to face a period of recession with GDP declines

through 2023 and possibly into 2024, before the economy then begins to pick up. However, the suggestion is that it will be a shallower recession when compared to the recent falls seen during 2020 and 2008.

While the UK economic conditions in 2022 were challenging, construction output held up better than expected. When GDP declined by -0.2% in Q3, construction output increased by 0.6% and is on track to show an annual increase of over 4% by the end of 2022, with new housing and repair and maintenance sectors being key contributors. However, growth has increasingly been driven by the backlog of work as new orders have fallen and are now at their weakest since June 2020.

It's unlikely that construction output will continue to outperform the economy, which is why we are expecting a decline in output during 2023 that picks up in 2024. The commercial, infrastructure and industrial sectors look set to weather this slightly better than new housing or housing repair and maintenance. Housing repair and maintenance work is likely to be squeezed as households reprioritise their spending, and there are signs of a slowdown in the housing market with fewer new buyer enquiries and a reduction in mortgage approvals.

We still see the construction industry having a long-term challenge when it comes to recruiting workers. Vacancy levels remained high throughout 2022, unemployment rates are low, inactivity due to ill health is rising, and construction will be competing against other industries to attract and retain the workers it needs.

Although the next five years will see a period of recession followed by slow growth, the UK construction industry will still account for at least 6% of UK GDP, have an annual output value of over £170bn and a workforce of over 2.6m. Recruiting and developing the workforce for the future will help to ensure that the industry is able to contribute to growth opportunities such as building the volume of homes the country needs, the infrastructure for energy and transport, and retrofitting the built environment to meet net zero targets.

**THE UK IS THE ONLY  
G7 ECONOMY WHERE A  
SHORTFALL RELATIVE  
TO ITS PRE-PANDEMIC  
LEVEL EXISTS.**

# Structure

The construction industry in **Yorkshire & the Humber** has some significant differences to the UK structure.

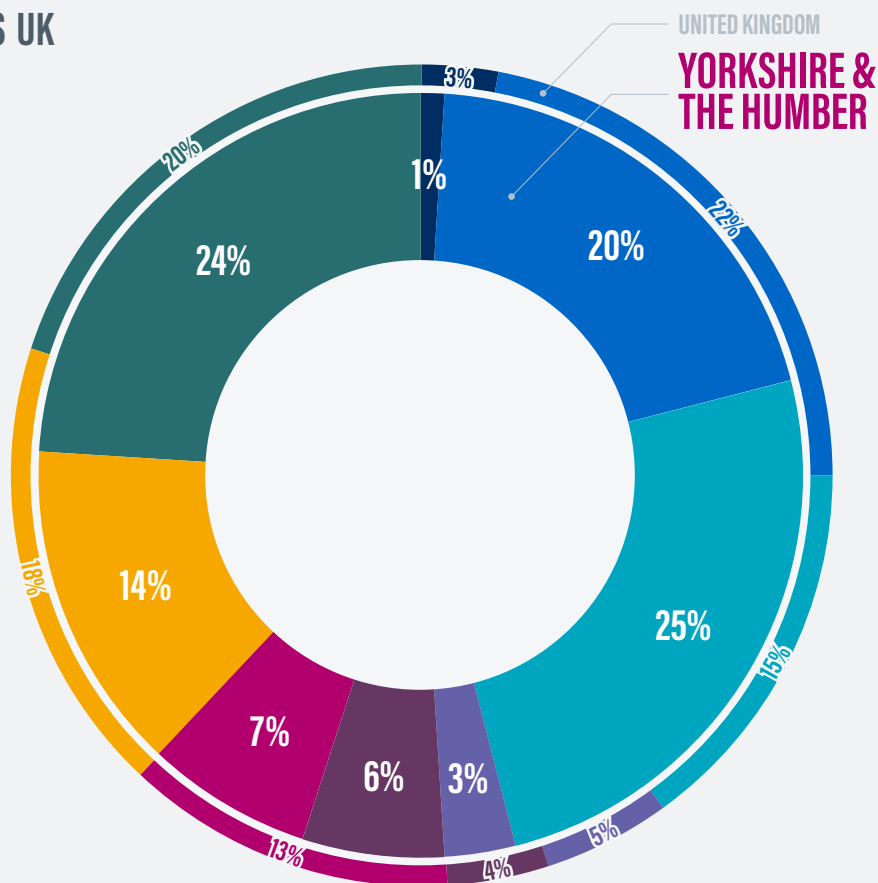
The construction industry in Yorkshire & the Humber has 14,325 businesses with more than one employee, which is 13% of all employers in the region. In 2022 the industry is estimated to have total output of around £14.5bn which is structured as per the below chart.

The profile of the construction industry in Yorkshire & the Humber has two obvious differences to the UK, with higher shares of infrastructure and non-housing R&M work. Infrastructure is the strongest sector in the region, accounting for 25% of total work,

noticeably higher than the UK share of 15%, with non-housing R&M following at 24%. Combined, these two sectors account for nearly half of the total 2022 output.

## CONSTRUCTION INDUSTRY STRUCTURE 2022 YORKSHIRE & THE HUMBER VS UK

- Public housing
- Private housing
- Infrastructure
- Public non-housing
- Industrial
- Commercial
- Housing R&M
- Non-housing R&M



Infrastructure output

# 25%

# 2022 view

Total annual output 2022

£14.5bn

Total estimated output 2023

£14.6bn



2021 had seen strong output growth in Yorkshire & the Humber, and although the rate slowed, growth continued into 2022.

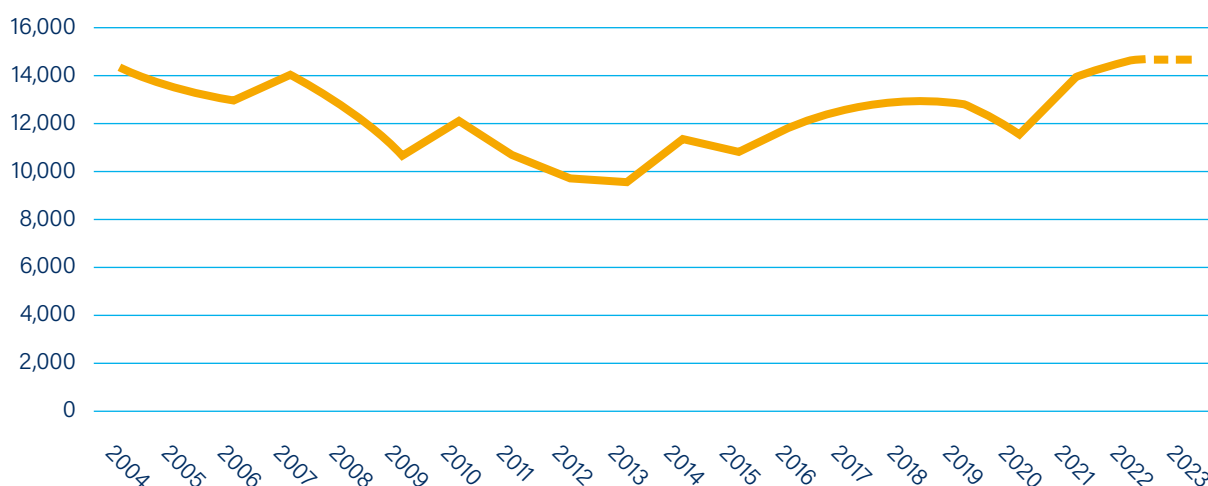
# 2022 view

Estimated construction output growth of 5% is above the **expected UK level of growth in 2022 (4.1%)**, due to strong performance from the private housing and R&M sectors. This will put construction output in the region for 2022 at around £14.5bn, which is 14% higher than the levels seen in 2018 and 2019, and above the previous high point of just over £14bn seen in 2004. Going into 2023, we expect output in Yorkshire & the Humber to slow down, though possibly not decline like other regions.

## CONSTRUCTION OUTPUT 2004 - 2023 YORKSHIRE & THE HUMBER

Source: ONS  
Ref: CSN explained, Section 4: Note 1

£m, constant 2019 prices



## OUTPUT FORECAST 2023 - 2027

Yorkshire & the Humber has an average annual output growth rate of 2.2%, which is above the UK rate of 1.5%<sup>1</sup> and one of the highest regional rates. Over the forecast we're expecting new work to be stronger than R&M and follow a pattern of lower growth in 2023 that picks up from 2024. Yorkshire & the Humber is slightly different to other regions in that we're expecting to see slight growth in 2023, rather than a decline.

Growth in the infrastructure sector, at an average rate of 5.4%, is the main reason for the better regional performance, although contributions will come from the range of sectors such as industrial, commercial, private housing and non-housing R&M. The only sector expected to struggle is housing R&M as household budgets are squeezed by inflation and cost-of-living increases.

Average growth rate for Yorkshire & the Humber

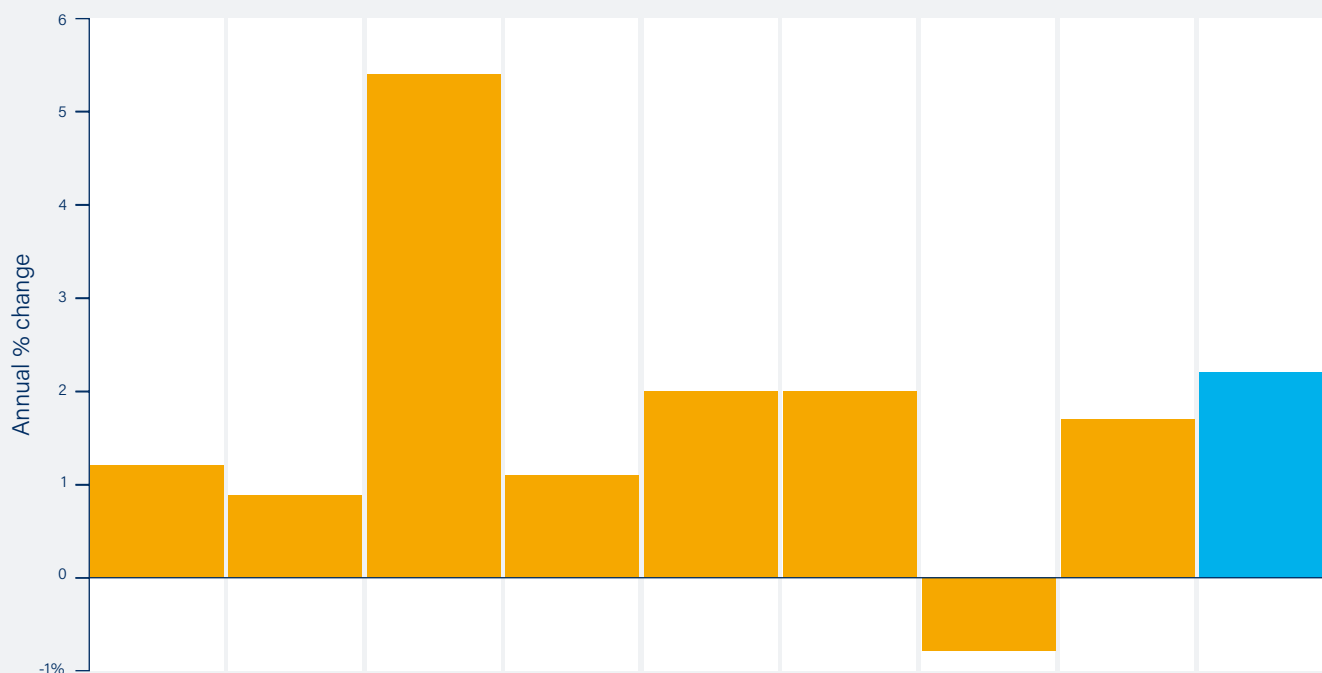
# 2.2%

# Forecast

## ANNUAL AVERAGE OUTPUT GROWTH 2023-2027 YORKSHIRE & THE HUMBER

Source: Experian  
Ref: CSN Explained, Section 4, Note 2

Public housing	Private housing	Infrastructure	Public non-housing	Industrial	Commercial	Housing R&M	Non-housing R&M	Total work
1.2%	0.9%	5.4%	1.1%	2.0%	2.0%	-0.8%	1.7%	2.2%



## CONSTRUCTION OUTPUT - YORKSHIRE & THE HUMBER (£ MILLION, 2019 PRICES)

Source: Experian  
Ref: CSN Explained, Section 4, Note 2

	Estimate	Forecast (Annual % change, real terms)					Annual average
	2022	2023	2024	2025	2026	2027	2023-2027
Public housing	135	-5.0%	2.5%	2.7%	3.0%	3.1%	1.2%
Private housing	2,960	-0.8%	0.8%	1.4%	1.6%	1.7%	0.9%
Infrastructure	3,608	2.8%	6.1%	6.6%	5.8%	5.7%	5.4%
Public non-housing	425	-3.6%	1.6%	1.9%	2.7%	2.9%	1.1%
Industrial	833	4.3%	2.8%	0.4%	1.2%	1.1%	2.0%
Commercial	981	1.6%	0.6%	2.6%	2.7%	2.6%	2.0%
<b>New work</b>	<b>8,941</b>	<b>1.2%</b>	<b>3.2%</b>	<b>3.7%</b>	<b>3.5%</b>	<b>3.6%</b>	<b>3.0%</b>
Housing R&M	2,110	-4.6%	-0.2%	-0.2%	0.5%	0.7%	-0.8%
Non-housing R&M	3,485	0.9%	1.4%	2.5%	1.9%	2.0%	1.7%
<b>Total R&amp;M</b>	<b>5,595</b>	<b>-1.2%</b>	<b>0.9%</b>	<b>1.5%</b>	<b>1.4%</b>	<b>1.6%</b>	<b>0.8%</b>
<b>Total work</b>	<b>14,536</b>	<b>0.3%</b>	<b>2.3%</b>	<b>2.8%</b>	<b>2.7%</b>	<b>2.8%</b>	<b>2.2%</b>

The annual average growth rate is the rate of growth between the end of 2022 and the end of 2027, i.e., a five-year period.



# In Yorkshire & the Humber there are a number of **very large scale/long term developments** that will deliver output for a number of sectors.

Infrastructure for renewable energy has a strong presence in the region, helping to drive growth. Hornsea 2 is due to complete installation in 2022, construction is underway for the £2bn Dogger Bank A and work should start on the 1.2GW Dogger Bank B and C projects from 2023. Transport infrastructure also contributes to growth with the Integrated Rail Plan (IRP) supporting the development of the planned £4.2bn West Yorkshire mass transit system with an immediate fund of £200m, and the region benefiting from the £1.2bn Transforming Cities Fund.

In the industrial sector, a joint venture between developer Cole Waterhouse and real estate manager Henderson Park is set to acquire a 136-acre logistics development in Kellingley, Yorkshire, which will provide 130,000 square metres of warehouse space. The site is located on a former colliery around 20km from Leeds and has outline planning consent. The plot has already been prepared for development and the first units are expected to be ready for occupation by early 2023. Sustainability will be a


key consideration at all stages of the development, with the finished assets targeting high BREEAM ratings.

Housing development plans such as those for Leeds City Village, Doncaster and Castleford, along with the Lincolnshire Lakes Garden town will help to support growth in the private housing sector.


For public non-residential output, Leeds Teaching Hospitals NHS Trust plans for expansion at the Leeds General Infirmary have been given planning permission. Work is currently underway to carry out demolition of old buildings, tearing down two wings of the hospital, with this work set to complete in the autumn. The project involves the construction of two new buildings on the site of the Old Nurses' home, at the cost of £650m. Building work has also begun on the £400m new "mega prison" to house nearly 1,500 inmates at Full Sutton, in East Yorkshire. It will be the UK's first all-electric jail, powered by solar panels and heat pump technology with construction creating 600 jobs.

 **Dogger Bank A installation**

**£2bn**

 **West Yorkshire mass transit system**

**£4.2bn**

 **Leeds General Infirmary expansion plans**

**£650m**

# Workforce<sup>2</sup> forecast

The level of output growth in Yorkshire & the Humber gives an annual average increase of 0.3% in the construction workforce, which is higher than the UK figure of 0.1%.

In 2022 we expect the workforce to increase slightly to 206,900 then dip back to 206,300 in 2023 before increasing to reach 210,300 by 2027. When compared to previous levels of workforce growth, this is a marginal change over five years and essentially a stable demand requirement.

## TOTAL WORKFORCE BY OCCUPATION - YORKSHIRE & THE HUMBER

	Actual	Estimate	Forecast	
	2021	2022	2023	2027
Senior, executive, and business process managers	10,400	10,600	10,300	10,600
Construction project managers	3,200	3,300	3,200	3,400
Other construction process managers	14,800	15,100	14,600	15,000
Non-construction professional, technical, IT, and other office-based staff	34,000	33,400	33,300	33,600
Construction trades supervisors	3,000	3,100	3,100	3,300
Wood trades and interior fit-out	20,600	20,400	20,300	19,800
Bricklayers	6,600	6,600	6,500	6,300
Building envelope specialists	8,000	8,000	8,100	8,300
Painters and decorators	6,300	6,400	6,300	6,200
Plasterers	5,700	5,700	5,600	5,400
Roofers	4,400	4,600	4,500	4,400
Floorers	2,000	2,000	2,000	2,000
Glaziers	2,900	3,000	3,000	3,000
Specialist building operatives nec*	4,600	4,500	4,400	4,300
Scaffolders	1,900	1,900	1,800	2,100
Plant operatives	1,200	1,100	1,100	1,300
Plant mechanics/fitters	3,100	3,200	3,400	3,300
Steel erectors/structural fabrication	2,400	2,500	2,600	2,900
Labourers nec*	6,800	6,800	6,800	6,900
Electrical trades and installation	14,400	14,600	14,700	15,600
Plumbing and HVAC Trades	14,000	14,100	13,800	13,900
Logistics	1,400	1,400	1,400	1,700
Civil engineering operatives nec*	2,700	2,800	2,900	3,200
Non-construction operatives	4,900	4,900	4,800	5,100
<b>Total (SIC 41-43)</b>	<b>179,300</b>	<b>179,800</b>	<b>178,800</b>	<b>181,200</b>
Civil engineers	3,600	3,700	3,900	4,300
Other construction professionals and technical staff	16,100	16,200	16,300	16,500
Architects	500	500	600	600
Surveyors	6,500	6,700	6,900	7,700
<b>Total (SIC 41-43, 71.1, 74.9)</b>	<b>206,000</b>	<b>206,900</b>	<b>206,300</b>	<b>210,300</b>

Source: ONS, CSN, Experian  
Ref: CSN Explained, Section 4, Notes 5 and 6

# Annual Recruitment Requirement (ARR)

The average annual recruitment requirement in Yorkshire & the Humber is set to average 1.7% per year, based on 2022 workforce levels, which is the same as the UK figure. This means the construction industry would have to increase current recruitment by 3,560 new workers each year to deliver the expected work between the start of 2023 and end of 2027.

**The following occupations have some of the strongest recruitment requirements values:**

- Other construction professionals and technical staff (1,470 per year)
- Non-construction professional, technical, IT and other office-based staff (390 per year)
- Plasterers (330 per year).

Other construction professionals and technical staff will be in demand as they also have a high requirement relative to the workforce, at 9.1% compared to the overall figure of 1.7%. There will also be pressure on occupations such as civil engineering operatives (3.9%), steel erectors (3.9%) and construction project managers (3.7%) where demand is high compared to their workforce level. For occupations that have no ARR value on the table, indication is that recent levels of recruitment will be able to meet future need if they are maintained.

## ARR BY OCCUPATION - YORKSHIRE & THE HUMBER

	ARR as % of 2022 workforce	ARR value per year
Senior, executive, and business process managers	2.3%	240
Construction Project Managers	3.7%	120
Other construction process managers	-	<50
Non-construction professional, technical, IT, and other office-based staff	1.2%	390
Construction Trades Supervisors	1.6%	50
Wood trades and interior fit-out	0.7%	150
Bricklayers	1.4%	90
Building envelope specialists	-	<50
Painters and decorators	-	-
Plasterers	5.8%	330
Roofers	-	-
Floorers	-	-
Glaziers	-	-
Specialist building operatives nec*	-	-
Scaffolders	-	-
Plant operatives	-	-
Plant mechanics/fitters	2.9%	90
Steel erectors/structural fabrication	3.9%	100
Labourers nec*	-	<50
Electrical trades and installation	0.9%	130
Plumbing and HVAC Trades	-	-
Logistics	-	<50
Civil engineering operatives nec*	3.9%	110
Non-construction operatives	-	-
<b>Total (SIC 41-43)</b>		<b>1,800</b>
Civil engineers	2.4%	90
Other construction professionals and technical staff	9.1%	1,470
Architects	-	-
Surveyors	3.0%	200
<b>Total (SIC 41-43, 71.1, 74.9)</b>	<b>1.7%</b>	<b>3,560</b>

Source: ONS, CSN, Experian  
Ref: CSN Explained, Section 4, Notes 5 and 6

In a typical year, the region's construction industry would recruit between 12,500 – 16,500 workers with the usual the movement of people into and out of the industry, or workforce churn. When looking at the future recruitment demand, we recognise that a level of churn will always take place and take this into account to producing the extra recruitment identified by the ARR figure.

When looking at the workforce and ARR forecast it is important to note that in 2022, the cost-of-living crisis is having a significant effect on the economy and growth forecasts, particularly for 2023 and 2024. This is reflected in the ARR figure in the 2023-2027 outlook being lower than the 2022-2026 view, which is due to lower construction output growth.

However, despite the lower growth forecast, there is a requirement to recruit extra workers as there is still a relatively high level of vacancies in Yorkshire & the Humber that need filling going into 2023.



To fill vacancies and recruit new staff, construction companies can look at several routes such as:

**Attracting skilled workers who are already working elsewhere** in the construction industry, although this obviously moves existing workers around rather than meet overall industry need

**Attracting skilled workers who have left the industry** back into construction. This would be either those who have left to work in other industries or those that have become unemployed/inactive

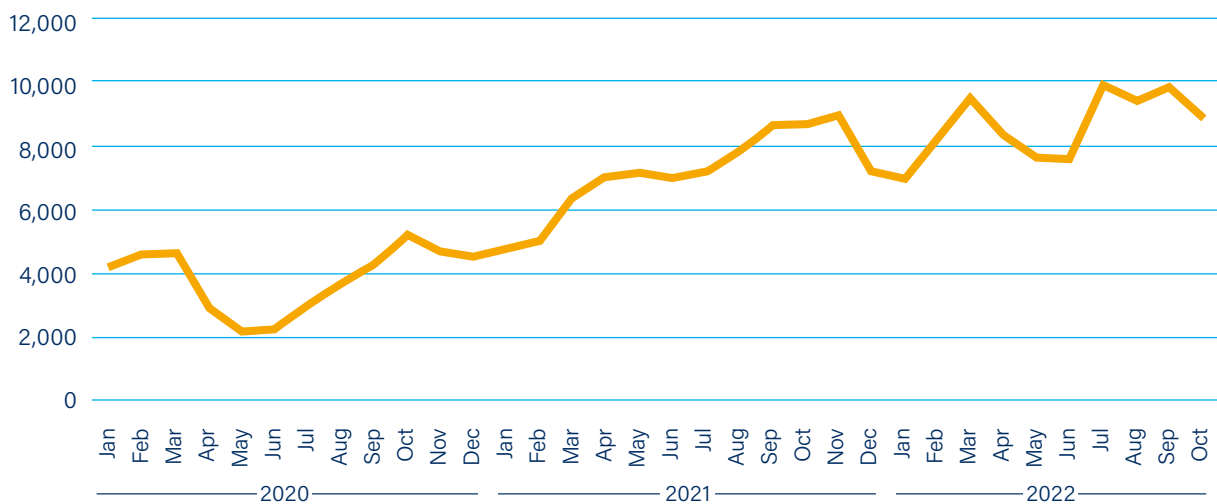
**Recruiting and training new entrants into construction** from those leaving school, further education, higher education or migration

**Improving the retention of workers** within the industry

Looking at **how productivity can be improved.**

## MONTHLY UNIQUE ONLINE JOB POSTINGS - YORKSHIRE & THE HUMBER

Source: Lightcast, selected construction occupations, Yorkshire & the Humber



Responding to a skills shortage is likely to be a mix of options, as the continued strength of the jobs market, and relatively low levels of unemployment means competition for workers.

Companies that are able to understand and meet what workers value the most are the ones that are more likely to be successful at attracting and retaining new staff. That could range from being able to offer long-term career opportunities with support to help development, through to good levels of pay, flexible working to have a positive work/life balance and creating a culture of fairness, inclusion and respect.

There are also recent trends in training to consider as the GB wide drop in employer training, which was expected with the impact of Covid-19, had started to pick-up in 2021, although there is a slightly mixed picture in 2022.

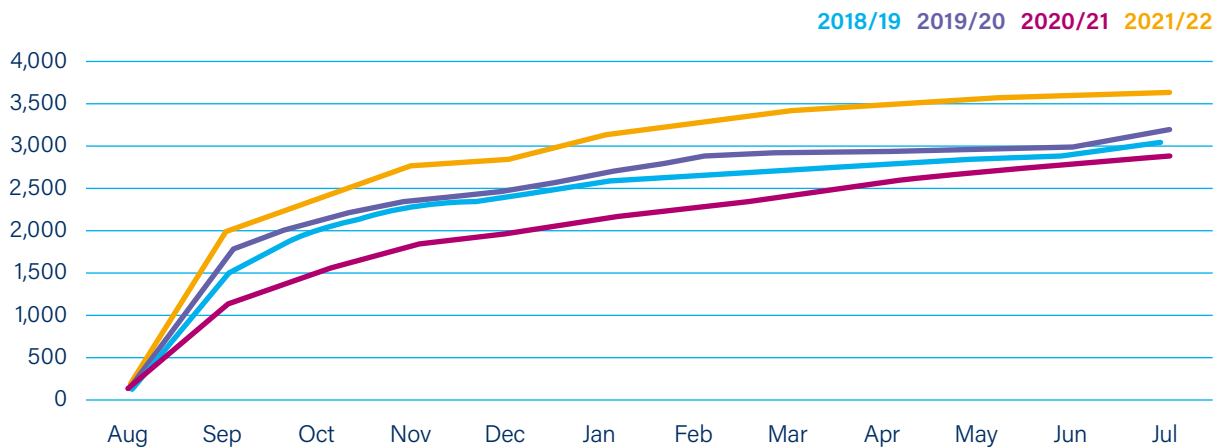
Construction apprenticeship starts in England have increased in 2021/22, and in Yorkshire & the Humber, they have picked up strongly, ending the 2021/22 academic year 26% up on 2020/21, and above figures from earlier years.

However, looking over the wider range of construction training delivered across England there isn't the same level of qualification achievements, with numbers in 2022 down compared to 2021 and 2019.

This points to a slightly different position between apprenticeships and other training, indicating that the construction industry has work to do to get overall training numbers back to pre-covid levels and then increase to meet current and future demand.

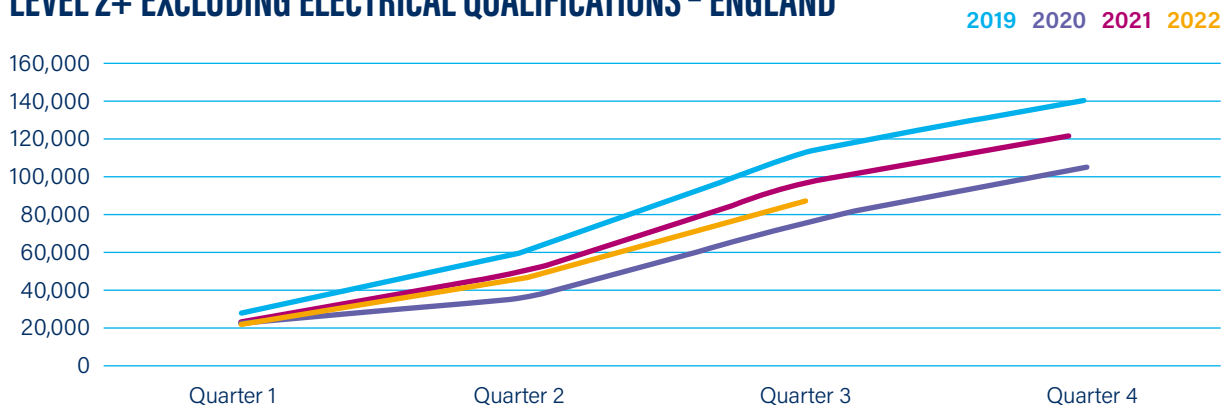
## YORKSHIRE & THE HUMBER CUMULATIVE APPRENTICESHIP STARTS FOR CONSTRUCTION, PLANNING AND THE BUILT ENVIRONMENT SECTOR

Source: Department for Education



## CONSTRUCTION SECTOR QUALIFICATION CERTIFICATES ISSUED LEVEL 2+ EXCLUDING ELECTRICAL QUALIFICATIONS - ENGLAND

Source: Ofqual



# CITB support to the construction industry in Yorkshire & the Humber

CITB England will continue to support industry through various ongoing initiatives.

CITB is therefore looking at a range of actions that will help to support construction companies to invest in training by helping to protect apprenticeships, using targeted funding for skills priorities, helping businesses to identify training needs and ensuring that standards are in place for the required training. Examples of this are the [Apprenticeship Toolkit](#) that was launched in February providing information that helps companies to know about the process of hiring an apprentice, and how CITB can help; and the [Onsite Experience](#) hubs, designed to provide a one-stop recruitment solution for construction employers. More details on CITB's actions and plans will be set out in forthcoming Business Plan.

In Yorkshire & the Humber, CITB works with employers, training groups, providers and stakeholders to deliver informative sessions on grants, funding and CITB support. CITB Engagement Teams continue to work closely with Apprenticeship providers and employers in the region to support apprenticeship recruitment. A New Entrant Support Team provides dedicated apprenticeship support for employers, making the

apprenticeship journey simpler and supporting employers with their needs from recruitment through to completion.

Employers and FE Providers are being encouraged to use the Talentview Construction portal with employers posting apprenticeship vacancies as well as work experience opportunities. Providers are encouraging students to register onto the portal so that they can be matched to job opportunities. CITB has offered support to Employer Representative Bodies (ERBs) in support of the Local Skills Improvement Plans (LSIP), to help inform and develop the plans through:

- Harnessing CITB Industry Insight & Forecasting Evidence Based Research;
- Creating Guidance that identifies themes and offers practical recommendations for ERBs to help solve construction skills issues in their community through LSIPs
- Connectivity with local employers to assist in gaining insight on skills and training needs.

Overcoming skills shortages by supporting training and recruitment in a more competitive labour market at a time when the economy will be in a recession requires combined action from CITB, construction companies and government. Having a workforce that is competent and trained to make the most of the future opportunities is vital to ensuring Yorkshire & the Humber has the volume of energy efficient homes it needs, the infrastructure to ensure the economy thrives, and to tackle the retrofit of the built environment to meet net zero targets. As the report sets out, over the next five years the construction industry will continue to support over 206,000 workers and contribute over £15bn worth of output from an industry that accounts for 13% of all businesses that employ people in the region.

The construction industry will continue to contribute over

# £15bn

# Regional breakdown within England

North East

North West

**Yorkshire & the Humber**

East Midlands

West Midlands

East of England

Greater London

South West

South East

## Yorkshire & the Humber

Barnsley  
Bradford  
Calderdale  
Craven  
Doncaster  
East Riding of Yorkshire  
Hambleton  
Harrogate  
Kingston upon Hull, City of  
Kirklees  
Leeds

North East Lincolnshire  
North Lincolnshire  
Richmondshire  
Rotherham  
Ryedale  
Scarborough  
Selby  
Sheffield  
Wakefield  
York

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