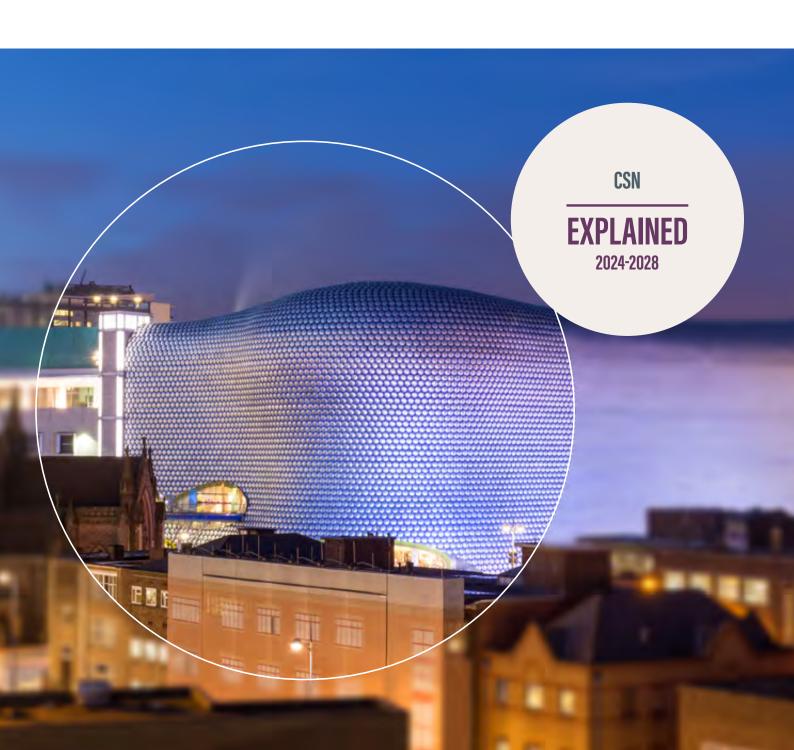


**CONSTRUCTION SKILLS NETWORK** 

# FOCUSING ON THE SKILLS CONSTRUCTION NEEDS.



## **CONTENTS**

**Further details and clarification** of the main points covered in the CSN Report.

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THE MODEL APPROACH	Explains the workforce models.	4
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OCCUPATION GROUPS	Gives a detailed breakdown of the 28 occupational groups, and the standard occupational classification (SOC) codes that are aggregated to produce the workforce and recruitment requirement. For the 2024-2028 report, these groups have been updated from SOC(2010) into SOC(2020) classifications.	10
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## **METHODOLOGY**

In total there are 13 reports covering UK nations and regions,

with forecasting models for each that are linked to the UK model. The forecasting models are backed up with meetings held across the areas.

Meetings consist of key stakeholders invited from industry, government, education and sector bodies, all of whom contribute their industry knowledge and views on training, skills, recruitment, qualifications and policy.

#### MODELLING IS AT THE HEART OF THE REPORT, GENERATING FORECASTS OF WORKFORCE DEMAND WITHIN THE INDUSTRY

Modelling is at the heart of the report, generating forecasts of workforce demand within the industry, based on a forecasted level of work output, for a range of occupational groups. The models are designed and managed by Experian under the independent guidance and validation of a 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. Changes to the model are only made after consultation with the Technical Reference Group.

The work has been evolving since its conception in 2005, acting as a vehicle for CITB and CITB Northern Ireland to collect and produce information on the future workforce needs of the industry.





# THE MODEL APPROACH



Each English region, Scotland,
Northern Ireland, and Wales have
a separate model, although all
are interrelated due to labour
movements. In addition, there
is one UK 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 a UK level.

The models work by forecasting demand and supply of workers separately. The difference between demand and supply forms the recruitment requirement. The forecast total workforce 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 net requirement that takes into account workforce flows into and out of construction, due to factors such as movements between industries, migration, sickness and retirement.

The ARR values show where additional recruitment is needed to meet forecasted demand; it is over and above existing flows that are expected to happen. Flows are based on average over the previous five years.

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.

# THE ANNUAL RECRUITMENT REQUIREMENT (ARR) IS A NET REQUIREMENT THAT TAKES INTO ACCOUNT WORKFORCE FLOWS INTO AND OUT OF CONSTRUCTION.

To generate the workforce demand, the models use a set of specific statistics for each major type of work to determine the workforce, by trade, needed to produce the predicted levels of construction output. The labour supply for each occupational group is based upon the previous year's supply, i.e. the total workforce combined with flows into and out of the labour market.

The model approach relies on a combination of primary research, information and insight 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 group meetings.

#### The key 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.

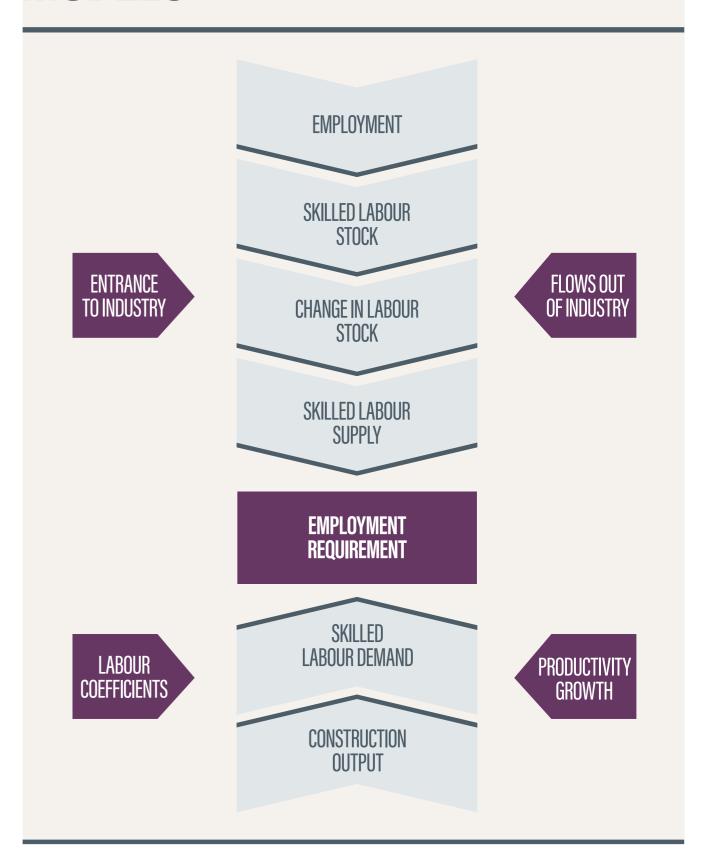
The main reason for outflow is likely to be transfer to other industries.

#### Flows into the workforce 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.

## WORKFORCE MODELS



## **GLOSSARY OF TERMS**

Coefficients	To generate the labour demand, the model makes use of a set of specific statistics for each major type of work, to determine workforce 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.
Demand	This is calculated using construction output data from the Office for National Statistics (ONS) and the Northern Ireland Statistics and Research Agency (NISRA), 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 occupational groups using a series of coefficients to produce figures for workforce demand that relate to 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.
LFS (Labour Force Survey)	A UK household sample survey that collects information on employment, unemployment, flows between sectors and training. Information is collected from around 53,000 households each quarter.
LMI (labour market intelligence)	Data that is quantitative (numerical) or qualitative (insights and perceptions) on workers, employers, wages, conditions of work and the like.
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 the workforce in a period of time, plus the flows into and out of the labour market. Supply is calculated from LFS data.

## **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. National deflators produced by the ONS have been used to deflate prices to a 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.
- **5:** Workforce 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.
- 7: A reporting minimum of 50 is used for the annual recruitment requirement (ARR). As a result, some region and nation ARR forecasts do not sum to the total UK requirement.
- 8: The workforce 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.

- **9:** Apprenticeship data is sourced from:
- England; Department for Education; Construction, Planning and the Built Environment Sector Subject Area (SSA)
- Scotland; Skills Development Scotland; Construction and Related Sector
- Wales; Welsh Government, StatsWales; Construction Sector
- Northern Ireland; Department for the Economy; supplied by CITB Northern Ireland

## Footprints for the Built Environment Sector

and CITB Northern Ireland:

CITB and CITB Northern Ireland are responsible for SIC 41 Construction of buildings, SIC 42 Civil engineering, SIC 43 Specialised construction activities and SIC 71.1 Architectural and engineering activities and related technical consultancy.

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

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

## **DEFINITIONS**

## TYPES AND EXAMPLES OF CONSTRUCTION WORK EXAMPLES

#### 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-housing construction

#### **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 work

#### 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.



#### 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.

#### Non-housing:

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

#### Notes:

Where contracts for the construction or improvement of non-housing 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'. Contractors reporting work may not always be aware of the distinction between improvement or renovation work and repair and maintenance work in the non-housing sectors.

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

## OCCUPATIONAL GROUPS

For the 2024-2028 Outlook, the occupational groups have been transitioned to SOC(2020) from SOC(2010), and the groups were also reviewed to ensure what was being covered matched the description.

While the number of occupational groups used in the report has remained at 28, there have been some changes which mean some groups are not directly comparable to those used in previous reports.

The table on Page 11 summarises the main changes, and details of the SOC(2020) mapping follows.

For reference, SOC(2020) links and categorises job titles into nine major groups, with sub-divisions or 2 digit, 3 digit and 4 digit codes used within each major group for additional detail.

#### The nine major groups are:

- 1: Managers, Directors And Senior Officials
- 2: Professional Occupations
- 3: Associate Professional Occupations

- 4: Administrative And Secretarial Occupations
- 5: Skilled Trades Occupations
- 6: Caring, Leisure And Other Service Occupations
- 7: Sales And Customer Service Occupations
- 8: Process, Plant And Machine Operatives
- 9: Elementary Occupations



 $\hbox{* n.e.c.} - \hbox{not elsewhere classified, used to cover a range of job titles that are not covered by other codes} \\$ 

NEW GROUP NAMES (2024)	PREVIOUS GROUP NAMES (2023)	NOTES
Directors, executives and senior managers	Senior, executive, and business process managers	Slight change to focus on: Major Group 1: 2 digit code 11
Construction project managers	Construction Project Managers	No change
Non-construction professional and technical office based staff	Other construction process managers	Group changed to cover: Major group 1: 2 digit code 12 Major Group 2 Major Group 3
Other non-construction office-based staff	Non-construction professional, technical, IT, and other office-based staff	Group changed to cover: Major Group 4 Major Group 7
These changes moved some of the workfo	orce numbers between these four groups to	give cleaner definitions of what is covered in each.
Construction trades supervisors	Construction Trades Supervisors	No change
Carpenters and joiners	Wood trades and interior fit-out	Reduction in numbers as focus tightened. Previous group included a portion of SOC(2010) 5319, which has been reassigned
Bricklayers and masons	Bricklayers	Similar coverage, although Stonemasons now have a distinct code in SOC(2020)
Other construction and building trades	Building envelope specialists  Specialist building operatives	New group has wider coverage as two previous groups have been combined, however, now linked to distinct SOC (2020) codes: 5319 & 5449
Painters and decorators	Painters and decorators	Slight reduction in numbers as focus tightened. Previous group included a portion of SOC(2010) 5319, which has been reassigned
Plasterers	Plasterers	No change
Roofers	Roofers	No change
Floorers and wall tilers	Floorers	No change
Glaziers and window trades	Glaziers	Slight reduction in numbers as focus tightened. Previous group included a portion of SOC(2010) 5319, which has been reassigned
Scaffolders	Scaffolders	No change
Plant operatives	Plant operatives	No change
Plant mechanics/fitters	Plant mechanics/fitters	No change
Steel erectors and metal workers	Steel erectors/structural fabrication	No change
Labourers	Labourers nec*	Minor change, broader coverage
Groundworkers		New group in SOC(2020)
Electrical installation trades	Electrical trades and installation	Minor change, broader coverage
Plumbing and HVAC trades	Plumbing and HVAC Trades	Slight reduction in numbers as focus tightened. Previous group included a portion of SOC(2010) 5319, which has been reassigned
Logistics	Logistics	Minor change, coverage broader, however, one previous SOC(2010) reallocated to office-based group
Road and rail construction operatives	Civil engineering operatives nec*	No change to coverage
Non-construction trades and operatives	Non-construction operatives	Minor change to coverage
		n.e.c. have been handled. Under the new groupings we however, CITB will undertake work to give a more detailed
Civil engineers	Civil engineers	No change
Other professionals and technical staff working in construction	Other construction professionals and technical staff	Minor change
A   - 14 4 -	Architects	Minor change
Architects	7 11 01 11 10 01 10	

## OCCUPATIONAL GROUPS

Full information on the mapping of SOC(2020) to occupational groups is listed below, along with their Standard Occupational Codes SOC(2010) for reference.

	Directors, executives, and senior managers
1111	Chief executives and senior officials
1132	Marketing, sales and advertising directors
1134	Purchasing managers and directors
1136	Human resource managers and directors
1137	Information technology directors
1139	Functional managers and directors n.e.c. <sup>1</sup>
1135	Charitable organisation managers and directors
1140	Directors in logistics, warehousing and transport
1137	Information technology directors
1131	Financial managers and
1122	Production managers and directors in construction
1121	Production managers and directors in manufacturing
1140	Directors in logistics, warehousing and transport
	Construction project managers
2455	Construction project managers
	and related professionals
	Non-construction professional and technical office-based staff – a wide range of job roles covering IT, Legal, Finance, and other functions that support construction businesses, such as:
2131	Non-construction professional and technical office-based staff – a wide range of job roles covering IT, Legal, Finance, and other functions that
2131 1243	Non-construction professional and technical office-based staff – a wide range of job roles covering IT, Legal, Finance, and other functions that support construction businesses, such as:
	Non-construction professional and technical office-based staff  – a wide range of job roles covering IT, Legal, Finance, and other functions that support construction businesses, such as:  IT project managers
1243	Non-construction professional and technical office-based staff – a wide range of job roles covering IT, Legal, Finance, and other functions that support construction businesses, such as: IT project managers  Managers in logistics
1243 2132	Non-construction professional and technical office-based staff  – a wide range of job roles covering IT, Legal, Finance, and other functions that support construction businesses, such as: IT project managers  Managers in logistics IT managers
1243 2132 2435	Non-construction professional and technical office-based staff  – a wide range of job roles covering IT, Legal, Finance, and other functions that support construction businesses, such as: IT project managers Managers in logistics IT managers Professional/Chartered company secretaries
1243 2132 2435 3534	Non-construction professional and technical office-based staff  – a wide range of job roles covering IT, Legal, Finance, and other functions that support construction businesses, such as: IT project managers  Managers in logistics IT managers  Professional/Chartered company secretaries Financial accounts managers  Sales accounts and business
1243 2132 2435 3534 3556	Non-construction professional and technical office-based staff  – a wide range of job roles covering IT, Legal, Finance, and other functions that support construction businesses, such as: IT project managers  Managers in logistics IT managers  Professional/Chartered company secretaries Financial accounts managers  Sales accounts and business development managers

1254	Waste disposal and environmental services managers
3556	Sales accounts and business development managers
2137	IT network professionals
2412	Solicitors and lawyers
2421	Chartered and certified accountants
2482	Quality assurance and regulatory professionals
2483	Environmental health professionals
3131	IT operations technicians
3533	Financial and accounting technicians
3544	Data analysts
3552	Business sales executives
3555	Estate agents and auctioneers
3571	Human resources and industrial relations officers  Other non-construction office-based staff covers administrative and customer
	Other non-construction office-based staff covers administrative and customer service roles that support construction businesses, such as:
4121	Other non-construction office-based staff covers administrative and customer service roles that support construction businesses, such as:  Credit controllers
	Other non-construction office-based staff covers administrative and customer service roles that support construction businesses, such as:
4121	industrial relations officers  Other non-construction office-based staff covers administrative and customer service roles that support construction businesses, such as:  Credit controllers  Book-keepers, payroll managers
4121 4122	industrial relations officers  Other non-construction office-based staff covers administrative and customer service roles that support construction businesses, such as:  Credit controllers  Book-keepers, payroll managers and wages clerks
4121 4122 4124	industrial relations officers  Other non-construction office-based staff covers administrative and customer service roles that support construction businesses, such as:  Credit controllers  Book-keepers, payroll managers and wages clerks  Finance officers
4121 4122 4124 4131	Other non-construction office-based staff covers administrative and customer service roles that support construction businesses, such as:  Credit controllers  Book-keepers, payroll managers and wages clerks  Finance officers  Records clerks and assistants
4121 4122 4124 4131 4133	Other non-construction office-based staff covers administrative and customer service roles that support construction businesses, such as:  Credit controllers  Book-keepers, payroll managers and wages clerks  Finance officers  Records clerks and assistants  Stock control clerks and assistants
4121 4122 4124 4131 4133 4136	Other non-construction office-based staff covers administrative and customer service roles that support construction businesses, such as:  Credit controllers  Book-keepers, payroll managers and wages clerks  Finance officers  Records clerks and assistants  Stock control clerks and assistants  Human resources administrative occupations
4121 4122 4124 4131 4133 4136 4151	Other non-construction office-based staff covers administrative and customer service roles that support construction businesses, such as:  Credit controllers  Book-keepers, payroll managers and wages clerks  Finance officers  Records clerks and assistants  Stock control clerks and assistants  Human resources administrative occupations  Sales administrators
4121 4122 4124 4131 4133 4136 4151 4142	Other non-construction office-based staff covers administrative and customer service roles that support construction businesses, such as:  Credit controllers  Book-keepers, payroll managers and wages clerks  Finance officers  Records clerks and assistants  Stock control clerks and assistants  Human resources administrative occupations  Sales administrators  Office supervisors
4121 4122 4124 4131 4133 4136 4151 4142 4214	Other non-construction office-based staff covers administrative and customer service roles that support construction businesses, such as:  Credit controllers  Book-keepers, payroll managers and wages clerks  Finance officers  Records clerks and assistants  Stock control clerks and assistants  Human resources administrative occupations  Sales administrators  Office supervisors  Company secretaries and administrators
4121 4122 4124 4131 4133 4136 4151 4142 4214 4215	Other non-construction office-based staff covers administrative and customer service roles that support construction businesses, such as:  Credit controllers  Book-keepers, payroll managers and wages clerks  Finance officers  Records clerks and assistants  Stock control clerks and assistants  Human resources administrative occupations  Sales administrators  Office supervisors  Company secretaries and administrators  Personal assistants and other secretaries
4121 4122 4124 4131 4133 4136 4151 4142 4214 4215 4216	Other non-construction office-based staff covers administrative and customer service roles that support construction businesses, such as:  Credit controllers  Book-keepers, payroll managers and wages clerks  Finance officers  Records clerks and assistants  Stock control clerks and assistants  Human resources administrative occupations  Sales administrators  Office supervisors  Company secretaries and administrators  Personal assistants and other secretaries  Receptionists
4121 4122 4124 4131 4133 4136 4151 4142 4214 4215 4216 4152	Other non-construction office-based staff covers administrative and customer service roles that support construction businesses, such as:  Credit controllers  Book-keepers, payroll managers and wages clerks  Finance officers  Records clerks and assistants  Stock control clerks and assistants  Human resources administrative occupations  Sales administrators  Office supervisors  Company secretaries and administrators  Personal assistants and other secretaries  Receptionists  Data entry administrators

7132	Sales supervisors – retail and wholesale
7211	Call and contact centre occupations
7219	Customer service occupations n.e.c.
7220	Customer service supervisors
3582	Health and safety managers and officers
	Construction trades supervisors
5330	Construction and building trades supervisors
5250	Skilled metal, electrical and electronic trades supervisors
	Carpenters and joiners
5316	Carpenters and joiners
5442	Furniture makers and other craft woodworkers
8131	Paper and wood machine operatives
	Bricklayers and masons
5313	Bricklayers
5312	Stonemasons and related trades
	Other construction and building trades
5319	Construction and building trades n.e.c.
5449	Other skilled trades n.e.c.
	Painters and decorators
5323	Painters and decorators
	Plasterers
5321	Plasterers
	Roofers
5314	Roofers, roof tilers and slaters
	Floorers
5322	Floorers and wall tilers
	Glaziers
5317	Glaziers, window fabricators and fitters
5441	Glass and ceramics makers, decorators and finishers

	Scaffolders
8151	Floorers and wall tilers
	Plant operatives
8139	Plant and machine operatives n.e.c.
8221	Crane drivers
8222	Fork-lift truck drivers
8229	Mobile machine drivers and operatives n.e.c.
	Plant mechanics/fitters
5222	Tool makers, tool fitters and markers-out
5223	Metal working production and maintenance fitters
5224	Precision instrument makers and repairers
5231	Vehicle technicians, mechanics and electricians
8145	Tyre, exhaust and windscreen fitters
	Steel erectors and metal workers
	Steel erectors and metal workers
5212	Metal plate workers, smiths, moulders and related occupations
5212 5213	Metal plate workers, smiths,
	Metal plate workers, smiths, moulders and related occupations
5213	Metal plate workers, smiths, moulders and related occupations Welding trades
5213 5311	Metal plate workers, smiths, moulders and related occupations  Welding trades  Steel erectors
5213 5311 5221	Metal plate workers, smiths, moulders and related occupations  Welding trades  Steel erectors  Metal machining setters and setter-operators
5213 5311 5221 8115	Metal plate workers, smiths, moulders and related occupations  Welding trades  Steel erectors  Metal machining setters and setter-operators  Metal making and treating process operatives
5213 5311 5221 8115	Metal plate workers, smiths, moulders and related occupations  Welding trades  Steel erectors  Metal machining setters and setter-operators  Metal making and treating process operatives  Metal working machine operatives
5213 5311 5221 8115 8120	Metal plate workers, smiths, moulders and related occupations  Welding trades  Steel erectors  Metal machining setters and setter-operators  Metal making and treating process operatives  Metal working machine operatives  Labourers
5213 5311 5221 8115 8120	Metal plate workers, smiths, moulders and related occupations  Welding trades  Steel erectors  Metal machining setters and setter-operators  Metal making and treating process operatives  Metal working machine operatives  Labourers  Elementary construction occupations n.e.c.

1 n.e.c. – not elsewhere classified, used to cover a range of job titles that are not covered by other codes

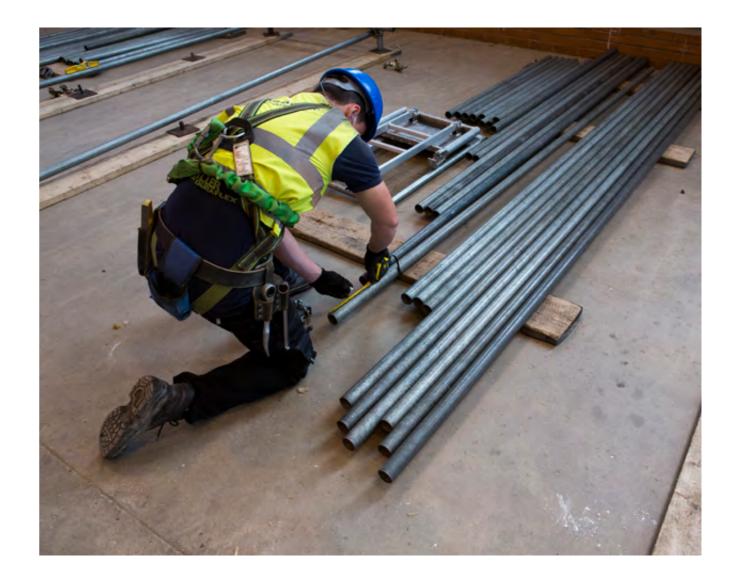
## OCCUPATIONAL GROUPS (CONTINUED)

5041	Electrical trades and installation
5241	Electricians and electrical fitters
5246	Electrical service and maintenance mechanics and repairers
5242	Telecoms and related network installers and repairers
5249	Electrical and electronic trades n.e.c.
5245	Security system installers and repairers
5246	Electrical service and maintenance mechanics and repairers
3112	Electrical and electronics technicians
	Plumbing and heating, ventilation, and air conditioning trades
5214	Pipe fitters
5225	Air-conditioning and refrigeration installers and repairers
5315	Plumbers & heating and ventilating installers and repairers
	Logistics
4134	Transport and distribution clerks and assistants
8211	Large goods vehicle drivers
8214	Delivery drivers and couriers
8219	Road transport drivers n.e.c.
9252	Warehouse operatives
9259	Elementary storage occupations n.e.c.
9253	Delivery operatives
8219	Road transport drivers n.e.c.
9251	Elementary storage supervisors
	Road and rail construction operatives
8152	Road construction operatives
8153	Rail construction and maintenance operatives
8132	Mining and quarry workers and related operatives

	Non-construction operatives
5113	Gardeners and landscape gardeners
6232	Caretakers
8119	Process operatives n.e.c.
8134	Water and sewerage plant operatives
8149	Assemblers and routine operatives n.e.c.
9223	Cleaners and domestics
9231	Security guards and related occupations
9112	Forestry and related workers
9269	Other elementary services occupations n.e.c.
8119	Process operatives n.e.c.
9131	Industrial cleaning process occupations
9139	Elementary process plant occupations n.e.c.
9229	Elementary cleaning occupations n.e.c.
	Civil engineers
2121	Civil engineers
	Other professionals and technical staff working in construction, such as:
2111	Chemical scientists
2119	Natural and social science professionals n.e.c.
2122	Mechanical engineers
2123	Electrical engineers
2124	Electronics engineers
2125	Production and process engineers
2127	Engineering project managers and project engineers
2151	Conservation professionals
2152	Environment professionals
2452	Chartered architectural technologists, planning officers and consultants
2481	Quality control and planning engineers
3111	Laboratory technicians
3113	Engineering technicians
3114	Building and civil engineering technicians

3115	Quality assurance technicians
3116	Planning, process and production technicians
3120	CAD, drawing and architectural technicians
3541	Estimators, valuers and assessors
3551	Buyers and procurement officers
3581	Inspectors of standards and regulations
8143	Routine inspectors and testers
	~

	Architects
2451	Architects
	Surveyors
2453	Quantity surveyors
2454	Chartered surveyors





Amber Valley	Erewash	North Northamptonshire
Ashfield	Gedling	North West Leicestershire
Bassetlaw	Harborough	Nottingham
Blaby	High Peak	Oadby and Wigston
Bolsover	Hinckley and Bosworth	Rushcliffe
Boston	Leicester	Rutland
Broxtowe	Lincoln	South Derbyshire
Charnwood	Mansfield	South Holland
Chesterfield	Melton	South Kesteven
Derby	Newark and Sherwood	West Lindsey
Derbyshire Dales	North East Derbyshire	West Northamptonshire
East Lindsey	North Kesteven	

# REGIONAL BREAKDOWN WITHIN ENGLAND

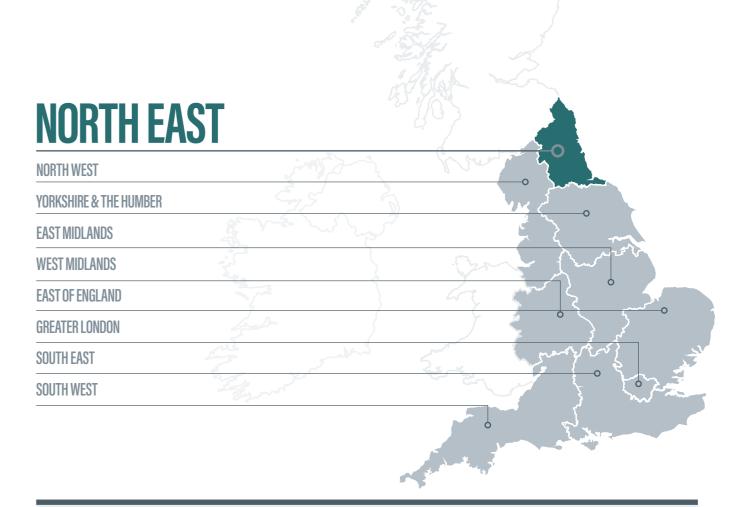


Babergh	Colchester	King's Lynn & West Norfolk	St Albans
Basildon	Dacorum	Luton	Stevenage
Bedford	East Cambridgeshire	Maldon	Tendring
Braintree	East Hertfordshire	Mid Suffolk	Three Rivers
Breckland	East Suffolk	North Hertfordshire	Thurrock
Brentwood	Epping Forest	North Norfolk	Uttlesford
Broadland	Fenland	Norwich	Watford
Broxbourne	Great Yarmouth	Peterborough	Welwyn Hatfield
Cambridge	Harlow	Rochford	West Suffolk
Castle Point	Hertsmere	South Cambridgeshire	
Central Bedfordshire	Huntingdonshire	South Norfolk	
Chelmsford	Ipswich	Southend-on-Sea	

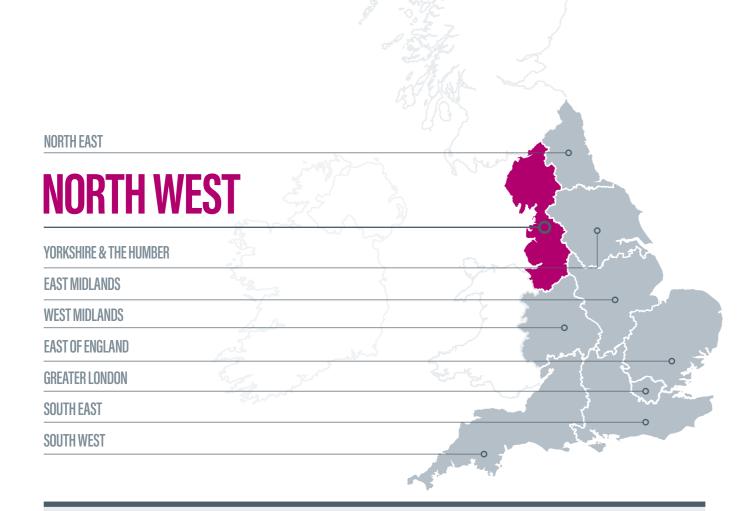
# NORTH EAST NORTH WEST YORKSHIRE & THE HUMBER EAST MIDLANDS WEST MIDLANDS EAST OF ENGLAND GREATER LONDON SOUTH EAST SOUTH WEST

#### **GREATER LONDON LOCAL AUTHORITIES** Barking and Dagenham Hammersmith and Fulham Newham Redbridge Barnet Haringey Richmond upon Thames Bexley Harrow Havering Southwark Sutton Hillingdon **Bromley** Hounslow **Tower Hamlets** Camden Waltham Forest City of London Islington Croydon Kensington and Chelsea Wandsworth Ealing Kingston upon Thames Westminster Enfield Lambeth Greenwich Lewisham Merton Hackney

# REGIONAL BREAKDOWN WITHIN ENGLAND



NORTH EAST LOCAL AUTHORITIES
County Durham
Darlington
Gateshead
Hartlepool
Middlesbrough
Newcastle upon Tyne
North Tyneside
Northumberland
Redcar and Cleveland
South Tyneside
Stockton-on-Tees
Sunderland



#### NORTH WEST LOCAL AUTHORITIES

Allerdale
Barrow-in-Furness
Blackburn with Darwen
Blackpool
Bolton
Burnley
Bury
Carlisle

Cheshire East
Cheshire West and Chester
Chorley
Copeland
Eden
Fylde
Halton
Hyndburn
Knowsley
Lancaster

Liverpool

Manchester

Oldham
Pendle
Preston
Ribble Valley
Rochdale
Rossendale
Salford
Sefton
South Lakeland
South Ribble
St. Helens

Stockport

Tameside
Trafford
Warrington
West Lancashire
Wigan
Wirral
Wyre

# REGIONAL BREAKDOWN WITHIN ENGLAND



#### **SOUTH EAST LOCAL AUTHORITIES**

Α	run
Α	shford
	asingstoke
aı	nd Deane
В	racknell Forest
В	righton
aı	nd Hove
В	uckinghamshire
С	anterbury
С	herwell
С	hichester

Dartford
Dover
East Hampshire
Eastbourne
t Eastleigh
Elmbridge
Epsom
re and Ewell
Fareham
Folkestone
and Hythe

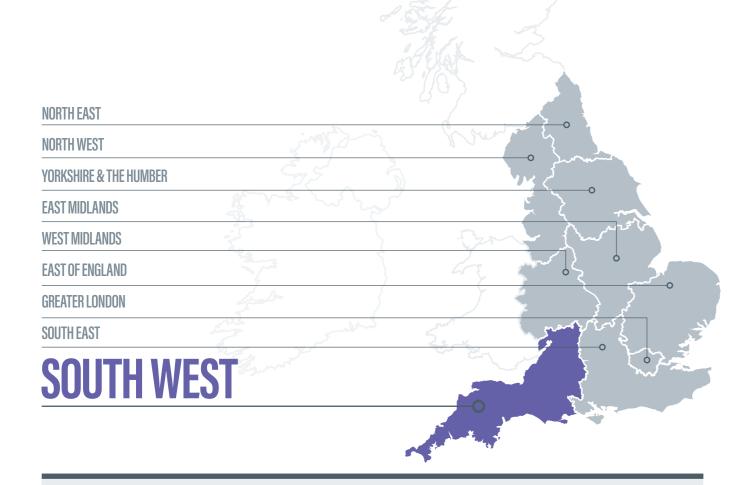
Crawley

Gosport
Gravesham
Guildford
Hart
Hastings
Havant
Horsham
Isle of Wight
Lewes
Maidstone
Medway
Mid Sussex

Mole Valley
New Forest
Oxford
Portsmouth
Reading
Reigate and
Banstead
Rother
Runnymede
Rushmoor
Sevenoaks

Milton Keynes

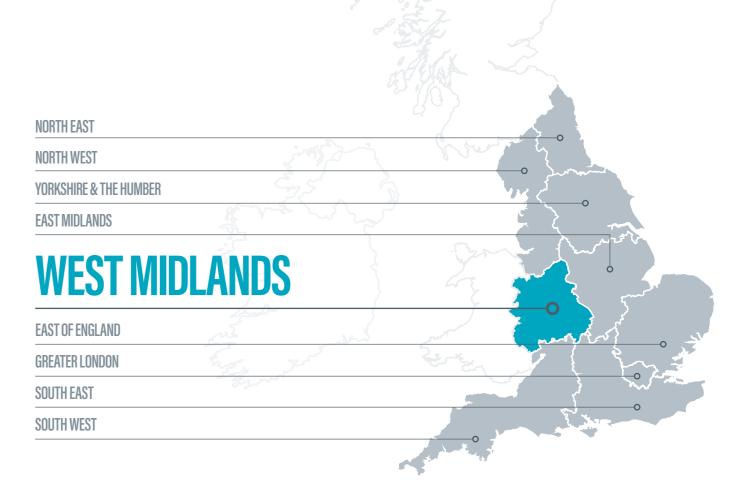
Slough Vale of White Horse South Oxfordshire Waverley Southampton Wealden Spelthorne West Berkshire Surrey Heath West Oxfordshire Swale Winchester Tandridge Test Valley Windsor and Maidenhead Thanet Woking Tonbridge Wokingham and Malling Tunbridge Wells Worthing



Bath and North East Somerset	Mendip
Bournemouth, Christchurch and Poole	Mid Devon
Bristol, City of	North Devon
Cheltenham	North Somerset
Cornwall	Plymouth
Cotswold	Sedgemoor
Dorset	Somerset West and Taunton
East Devon	South Gloucestershire
Exeter	South Hams
Forest of Dean	South Somerset
Gloucester	Stroud
Isles of Scilly	Swindon

Teignbridge
Tewkesbury
Torbay
Torridge
West Devon
Wiltshire

# REGIONAL BREAKDOWN WITHIN ENGLAND



Birmingham	Redditch	Walsall
Bromsgrove	Rugby	Warwick
Cannock Chase	Sandwell	Wolverhampton
Coventry	Shropshire	Worcester
Dudley	Solihull	Wychavon
East Staffordshire	South Staffordshire	Wyre Forest
Herefordshire, County of	Stafford	
Lichfield	Staffordshire Moorlands	
Malvern Hills	Stoke-on-Trent	
Newcastle-under-Lyme	Stratford-on-Avon	
North Warwickshire	Tamworth	
Nuneaton and Bedworth	Telford and Wrekin	

NORTH EAST

**NORTH WEST** 

## YORKSHIRE & THE HUMBER

**EAST MIDLANDS** 

**WEST MIDLANDS** 

EAST OF ENGLAND

GREATER LONDON

SOUTH EAST

SOUTH WEST

#### YORKSHIRE & THE HUMBER LOCAL AUTHORITIES

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

North East Lincolnshire

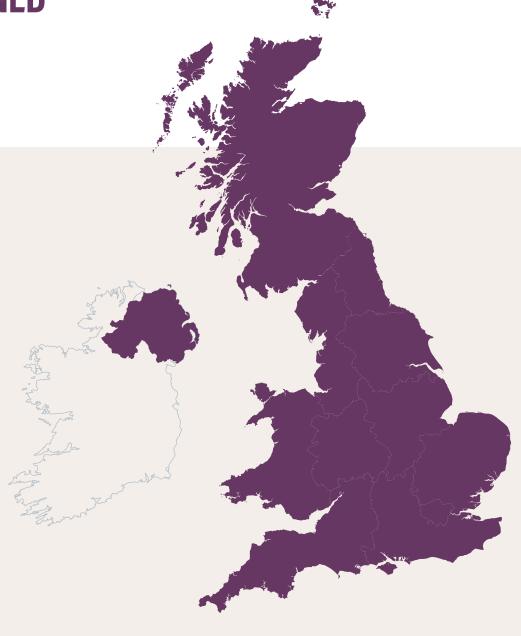
North Lincolnshire
Richmondshire
Rotherham
Ryedale
Scarborough
Selby
Sheffield
Wakefield
York











FOR MORE INFORMATION ABOUT THE CONSTRUCTION SKILLS NETWORK CONTACT:

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