

Construction sector – skills overview

Dorset LSIP overview – March 2023

Introduction:

This short paper is intended to form part of the evidence that informs the development of the Dorset Local Skills Improvement Plan. It is not intended to be a comprehensive analysis of the skills landscape relating to the relevant construction sector. Rather, it is intended to be an overview of some of the main broad trends that have been highlighted in relevant research. It is intended to sit alongside the other work that has been developed to inform the Dorset LSIP – notably the direct business consultations, and analysis of other secondary data such as skills demand in job postings.

Construction:

The greatest challenge UK construction faces over the next five years is, arguably, recruiting the number of people to fill the growing number of vacancies. It will be a major task as construction vacancies recently hit a 20-year high and competition for talent, from other industries, will be tough. In 2021 over a third (34%) of employers suggested they had skills gaps, compared with 14% in 2018 and 20% in 2016. However, evidence suggests that on-the-job training provided by construction employers fell dramatically following the pandemic and has not since recovered. In 2021, [just over one-third of employers provided on-the-job training.](#)

Among drivers of new skills, the factor predicted to have the biggest impact is an increase in competitive pressure, previously being new legislative or regulatory requirements.

[According to projections by the CITB in 2022 \(based on market conditions at the time\) an estimated c225,000 workers will be required by the UK construction industry to meet projected demand over the next 5 years.](#) The major sectors for demand are expected to relate to private housing, infrastructure and repair and maintenance.

For construction, the strong demand for work from the pandemic combined with the end of free movement and lower numbers of self-employed workers, are factors that have contributed to faster wage increases and skilled worker shortages.

The largest increases in demand are expected in occupations such as carpenters and joiners and construction managers, along with a range of technical roles. These include electronics technicians, civil engineering technicians, estimators, and valuers, as well as office-based support staff. These technical roles will become increasingly important with the need for the industry needing to move towards its own net zero ambitions through activities such as large-scale retrofit and increasing building carbon standards for new-build. Construction is a large contributor to carbon emissions, and therefore there is a large-scale skills requirement associated with helping the industry contribute to wider net zero ambitions. Digital skills and net zero ways of working are becoming increasingly important.

However, net zero, digitisation and modern methods of construction are often seen by industry as medium- to long-term challenges and tend to be low on the list of training needs for employers.

The trend towards offsite construction and digitisation – both growth areas for skills – will continue. The industry is currently trying to fully understand the impact of the shift to offsite construction in terms of scale and what this means for the division between manufacturing and construction.

The pattern of stronger workforce growth in professional occupations compared with the trades that has been observed in recent years is expected to continue.

In the short-term, the construction industry will need to address the challenge of a new [building safety regime](#).

The CITB has been working with industry and have identified several wide priorities to improve labour supply into the industry. These are responding to the main *challenges* identified:

- Responding to the skills demand - research indicates potential new recruits often have negative perceptions about the working culture.
- Developing the capacity & capability of training provision
- Addressing future skills needs - industry wants to develop the underpinning behavioural skills of the construction managers, with employers and employees expressing a strong preference for increasing the availability of nontechnical and behavioural skills training.

The *broad priorities* identified by the industry are:

- Attract 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 or inactive.
- Attract new entrants into the workforce from those leaving school, further education, apprenticeships, or higher education.
- Improve the retention of workers within the industry.
- Look at how productivity can be improved.

This then links through to a number of actions that have been identified by the CITB in its [own Action Plan](#), directing its own activities in support of the construction skills agenda:

- It will focus on the entire employment lifecycle:
 - attract people to industry
 - routes into industry (apprenticeships, further education, changing careers)
 - Enter industry (relating to attract an extra 50,000 extra workers needed every year)
 - Upskill - core skills (i.e. Health & Safety)
 - Upskill - occupational skills (i.e. digital, net zero skills)
 - Upskill - behavioural skills (i.e. leadership and management)
 - Retain people (increasing diversity)

The CITB Business Plan sets out a number of activities that it has/is developing to address some of these actions. [The Go Construct website](#) will continue to be the main hub of information and the platform for inspiring new entrants to consider a construction career.

The CITB recognises that apprenticeships are at the heart of addressing the skills demand. During the pandemic, the number of people starting construction-related apprenticeships fell. It provides financial support to employers offering apprenticeships through the Apprenticeship Attendance and Achievement Grants. It has also established the [Construction Skills Fund](#), as well as [onsite experience hubs](#).

CITB has been working with the DfE to support the development of [Occupational Traineeships](#). Building on pilot activity (focusing on brickwork), additional Occupational Traineeships are now being developed in Carpentry and Joinery, Drylining, and Painting and Decorating.

The [Construction Training Directory \(CTD\)](#) is an online searchable database, providing details of grant-eligible courses, delivered to defined standards developed with industry. CITB also supports more than [80 Training Groups](#) across England (including the Dorset Construction Training Forum) a Dorset-based CITB Engagement Officer), Scotland and Wales. The aim of these groups is to support employers in their area to identify and access cost-effective training.

Looking wider at the overall trend in achievement for vocational construction qualifications, covering apprenticeships and further education at Level 2 and above in England, achievements in construction-related courses are still lower than pre-pandemic levels (although starts in construction-related apprenticeships have increased over the past 12 months), emphasising that construction has work to do to recover the lost ground caused by the pandemic on the skills landscape, before even then tackling the extra training needed to meet the future growth.

Net Zero Ambitions and Retrofit:

Returning back to construction and the need to address net zero ambitions, it is recognised that a long-term focus is required to give businesses and training providers the confidence to invest in skills and training for energy efficiency retrofit.

Skill shortages are seen as one of the key barriers to enabling a significant scaling up in retrofit activity. This is seen across a range of areas including planning, surveying, product specification, finance, modern methods of construction, renewable technologies, ventilation, business planning and onsite construction. Skills shortages have been associated with the short-term nature of previous retrofit initiatives. This has acted as a disincentive for construction businesses to invest, and individuals also not having little incentive to pursue apprenticeships or courses in relevant skills. The main challenge identified by industry respondents was policy stability which is vital to give the sector the certainty it needs to invest in the workforce.

The use of Energy Performance Certificates (EPCs) are likely to become a key part of energy efficiency policy which will in turn lead to an increase in the demand for energy assessments and domestic and non-domestic energy assessors.

Retrofit work will be largely done by smaller firms but energy retrofit is often [seen as higher risk by these firms](#). Coordination of training at a local level will need to be improved through industry, training providers, and local government collaboration – an opportunity for Local Skills Improvement Plans.

Several roles have existing skills shortages, and many will need large increases in numbers to meet Government targets, including:

- Energy assessors: as the use of EPCs increases Retrofit coordinators will be essential to ensure quality – some forecasts suggest 50,000 energy assessors will be required by 2030
- Project managers: with an understanding of the retrofit process - 86,500 required by 2028
- Insulation installers: existing installers will need to be upskilled if minimum qualifications are set in [PAS2035](#)
- Heat pump installers: starting by upskilling existing Gas Safe engineers, existing training needs to be improved and standardised - 50,000 required by 2030.

One of the areas considered to have a key near term skill gap (to 2025) is heat pumps in relation to their design, specification and installation.

The current route to becoming a heat pump installer is too costly, bureaucratic and confusing, with outdated content still being taught: The [Heat Pump Association](#) is updating access routes and course content.

Labour demand – Dorset LSIP:

Associated Occupations

We have associated the following occupations with the chosen course areas.

34,686 Jobs (2021) 1% above National average	+0.8% % Change (2021-2022) Nation: +0.7%	£14.01/hr £28.6k/yr Median Wages Nation: £14.15/hr; £29.1k/yr
--	--	--

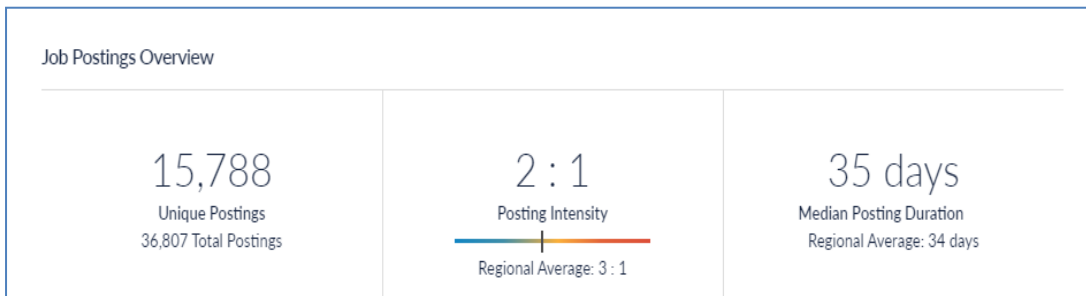
Occupation	2021 Jobs	Annual Openings	Median Wages	Growth (2021 - 2022)	Location Quotient (2021)
Electricians and Electrical Fitters	2,653	89	£14.47/hr	+1.39%	1.13
Metal Working Production and Maintenance Fitters	2,317	73	£13.92/hr	+0.91%	1.13
Elementary Construction Occupations	1,801	55	£11.40/hr	+0.72%	1.22
Production Managers and Directors in Construction	1,775	81	£21.23/hr	+0.68%	1.10
Plumbers and Heating and Ventilating Engineers	1,703	71	£14.13/hr	+1.88%	1.35
Carpenters and Joiners	1,446	38	£13.50/hr	+1.04%	1.22
Packers, Bottlers, Canners and Fillers	1,432	36	£9.69/hr	+0.28%	0.71
Construction and Building Trades n.e.c.	1,422	58	£13.41/hr	+1.62%	1.38
Food, Drink and Tobacco Process Operatives	1,371	30	£10.08/hr	-1.68%	0.75
Construction Operatives n.e.c.	1,156	36	£12.00/hr	+1.47%	1.31
Engineering Technicians	869	22	£15.78/hr	+0.46%	1.09
Construction Project Managers and Related Professionals	705	27	£18.79/hr	+0.43%	0.97
Chartered Surveyors	694	47	£17.89/hr	+1.59%	1.02
Electrical and Electronic Trades n.e.c.	681	18	£15.94/hr	+0.73%	0.85
Fork-lift Truck Drivers	679	21	£12.45/hr	-0.59%	0.55
Metal Machining Setters and Setter-operators	676	18	£13.89/hr	+1.18%	1.28
Laboratory Technicians	645	17	£11.19/hr	0.00%	0.87
Construction and Building Trades Supervisors	628	19	£16.00/hr	+0.80%	1.21
Metal Working Machine Operatives	562	12	£11.69/hr	+0.36%	0.93
Civil Engineers	555	13	£19.38/hr	+0.36%	0.76

There are around c35,000 jobs (2021) across the Dorset LSIP area in occupations associated with construction courses (SSA2) – which encapsulates building and construction and manufacturing technologies.

There c16,000 job postings relating to the associated occupations (although recognising that recruitment tends to be quite informal in the sector so not reflected in these advertised vacancies and therefore the scale of labour demand is probably understated here). Typically jobs are posted twice before being filled (posting intensity of 2:1). The most

common job postings within the associated occupations are labourers, carpenters, electricians etc – as would be largely expected.

(Source: Lightcast, 2023)



Top Posted Job Titles

Job Title	Total/Unique (Jan 2021 - Dec 2022)	Posting Intensity	Median Posting Duration
Labourers	1,483 / 622	2 : 1	36 days
Production Operatives	999 / 418	2 : 1	35 days
Carpenters	1,317 / 404	3 : 1	37 days
Electricians	854 / 341	3 : 1	35 days
Groundworkers	759 / 273	3 : 1	34 days
Quantity Surveyors	506 / 236	2 : 1	34 days
Painters/Decorators	527 / 229	2 : 1	37 days
Gas Engineers	512 / 217	2 : 1	34 days
Maintenance Engineers	478 / 202	2 : 1	32 days
Machine Operators	571 / 199	3 : 1	33 days
Site Managers	470 / 178	3 : 1	39 days
Plumbers	367 / 176	2 : 1	37 days
Forklift Drivers	314 / 174	2 : 1	38 days
Laminators	420 / 164	3 : 1	32 days
Bricklayers	420 / 158	3 : 1	33 days
Surveyors	315 / 151	2 : 1	37 days
CNC Mill Operators	286 / 141	2 : 1	36 days
Field Service Engineers	325 / 141	2 : 1	27 days
CSCS Labourers	212 / 128	2 : 1	35 days
Production Engineers	275 / 125	2 : 1	37 days

Top Specialized Skills

Skill	Postings with Skill
Construction	1,042
Carpentry	1,035
Machinery	923
Plumbing	810
Painting	688
Marketing	667
Maintenance Engineering	532
Machining	480
Forklift Truck	449
Technical Drawing	442
Electrical Wiring	432
Engineering Drawings	427
Warehousing	408
Hand Tools	399
Tooling	352
AutoCAD	345
Risk Analysis	332
Mechanical Engineering	326
Housekeeping	301
Power Tool Operation	294

(Source: Lightcast, 2023)