

Cheshire and Warrington Labour Market - Construction - Building Services Engineering Pathway

The Cheshire and Warrington Data and Labour Market Steering Group have commissioned this work which takes the qualification pathways that have been developed by the Institute for Apprenticeships and Technical Education, mapping different occupations against them and contextualising them for the Cheshire and Warrington economy.

Other Pathways include:

- Care Route
- Construction – Design, Surveying & Planning Pathway
- Construction – Onsite Construction Pathway
- Digital Route
- Logistics Pathway
- Science Pathway
- Transport Pathway

The pathways will be updated as necessary and, by the end of October, all the draft pathways will be posted on the LEP website.

Cheshire and Warrington Briefing: Construction - Business Services Engineering Occupations

Introduction

This briefing covers some key facts about Construction - Business Services Engineering Occupations in Cheshire and Warrington:

- What sort of jobs are there?
- How many jobs are there and what do these jobs pay?
- Which employers are recruiting and where are jobs being advertised?
- What sort of skills are employers looking for?
- What sort of apprenticeships are available?
- What sort of courses can young people and adults do?

Construction - Business Services Engineering Occupations Description

The types of jobs in Construction - Business Services Engineering are set out in the table below

Construction - Business Services Engineering Jobs		
Technical Occupations	Higher Technical Occupations	Professional Occupations
<ul style="list-style-type: none">• Building Services Engineering Operative/Technician• Facilities Management Operative/Supervisor• Utilities Installation and Maintenance Operative/Technician	<ul style="list-style-type: none">• Building Services Engineering Technician• Facilities Manager	<ul style="list-style-type: none">• Building Services Engineering Professional• Facilities Management Professional

A fuller description of the occupations in Construction - Business Services Engineering Pathway¹ can be found at Annex 1.

Construction - Business Services Engineering wages in Cheshire and Warrington

The table below sets out details on job numbers and the median wages that different occupations that fall into the Construction Business Services Engineering pathway attract in Cheshire and Warrington.

¹ This is the Construction Business Services Engineering Pathway as described in the Institute for Apprenticeships and Technical Education (IFATE) Occupational Maps <https://www.instituteforapprenticeships.org/occupational-maps/>



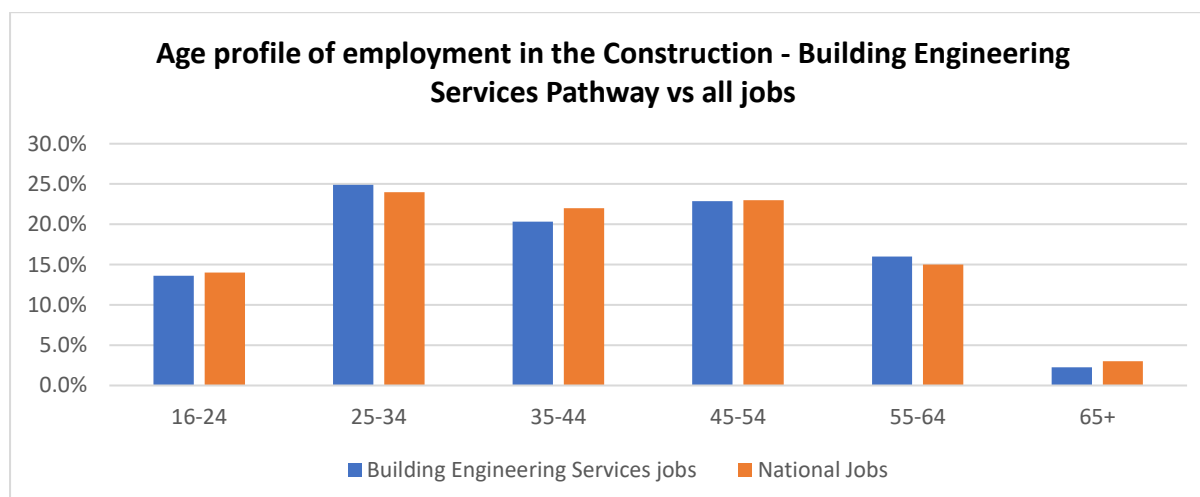
Job Numbers and median wages of Construction - Business Services Engineering occupations in Cheshire and Warrington		
	2021 Jobs	Median Wages
Property, Housing and Estate Managers	2346	£35,793
Electrical Engineers	770	£50,353
Electrical and Electronics Technicians	491	£31,358
Electricians and Electrical Fitters	3624	£32,784
Electrical and Electronic Trades n.e.c.	1135	£34,979
Skilled Metal, Electrical and Electronic Trades Supervisors	545	£36,402
Plumbers and Heating and Ventilating Engineers	1188	£30,143
<i>Source: EMSI Analyst</i>		

Construction - Business Services Engineering jobs in Cheshire and Warrington²

- In 2021, there were over 10,000 of these jobs in Cheshire and Warrington³.
- About 9,000 of these jobs were at Level 3, and about 1,000 required qualifications at Level 4+.
- Over the next ten years, about a quarter of these jobs will need to be filled by new entrants because of retirements and similar.
- Electrical and Electronics Technicians; Electricians and Electrical Fitters; Electrical and Electronic Trades; and Plumbers and Heating and Ventilating Engineers are all at some risk of automation in the future.
- There are slightly fewer jobs like this in Cheshire and Warrington than would be expected from the national average.

Age profile of Construction - Business Services Engineering jobs

The age profile of employees in the Construction Business Services Engineering pathway is very similar to the age profile for all jobs.



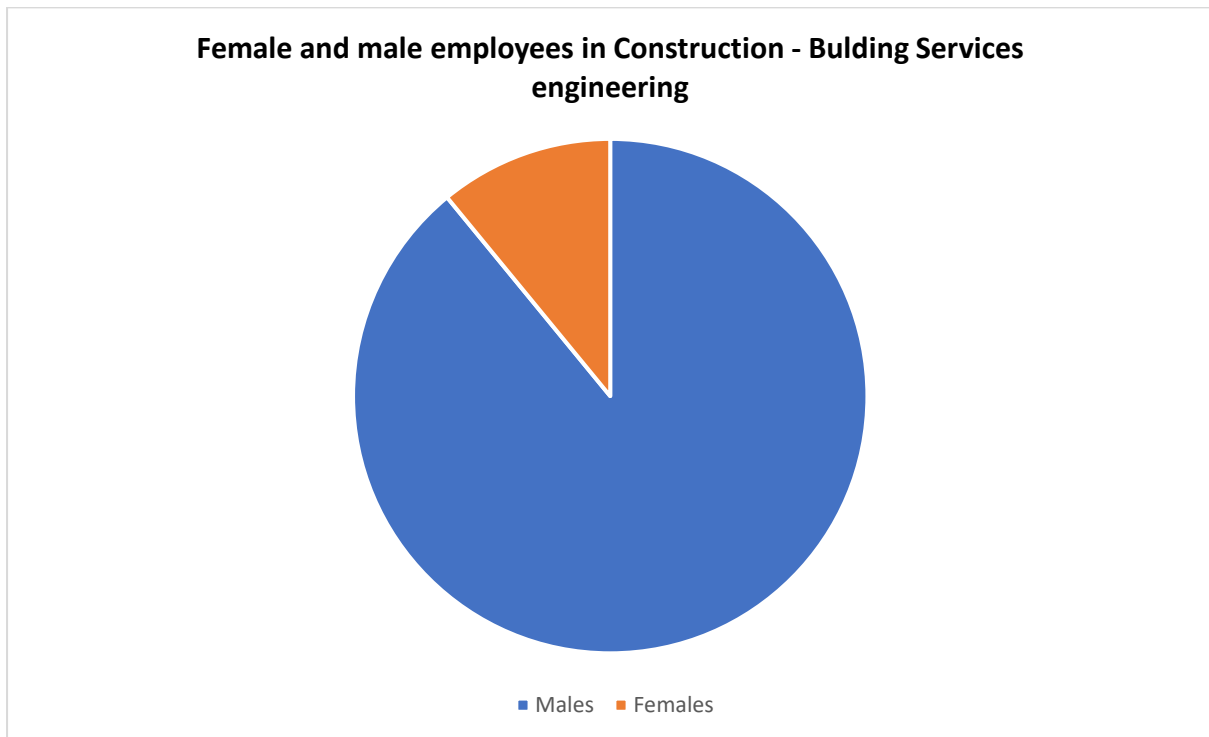
Source: EMSI Analyst

² For mapping of the Institute for Apprenticeships and Technical Education (IFATE) Construction Business Services Engineering Pathway to 4-digit SOC codes see Annex 2.

³ Data in this section from EMSI Analyst.



Gender profile of Construction - Business Services Engineering Jobs



Source: EMSI Analyst

Job postings⁴

- In the last five years, there have been about 7k unique job postings for this type of job in C&W (excluding staffing companies) with about 3k in Cheshire West and Chester, 2k in Cheshire East, and 2k in Warrington.
- These jobs were mainly advertised in Warrington (2,098); Chester (1,205); Northwich (836); Crewe (701); Macclesfield (369); Ellesmere Port (312); Knutsford (213); Winsford (176); and Congleton (128).
- The average number of times a role like this gets advertised in Cheshire and Warrington has increased from 3 in 2016 to 6 in 2021. This may indicate that employers are finding these roles slightly harder to fill recently.
- Top recruiters in Cheshire and Warrington (excluding staffing agencies) include MIRAI Ltd; Atkins plc; Rightio; Beaver Management Ltd; PRS; Sodexo Ltd; Millbank Holdings; Cerco IT; and Centrica plc.
- The most frequently advertised job titles in Cheshire and Warrington are for Electricians, Gas Engineers, Field Service Engineers, Electrical Engineers, Plumbers, Property Managers, Service Engineers, Installation Engineers, and Maintenance Electricians.

⁴ All data in this section and the next is from EMSI Analyst.

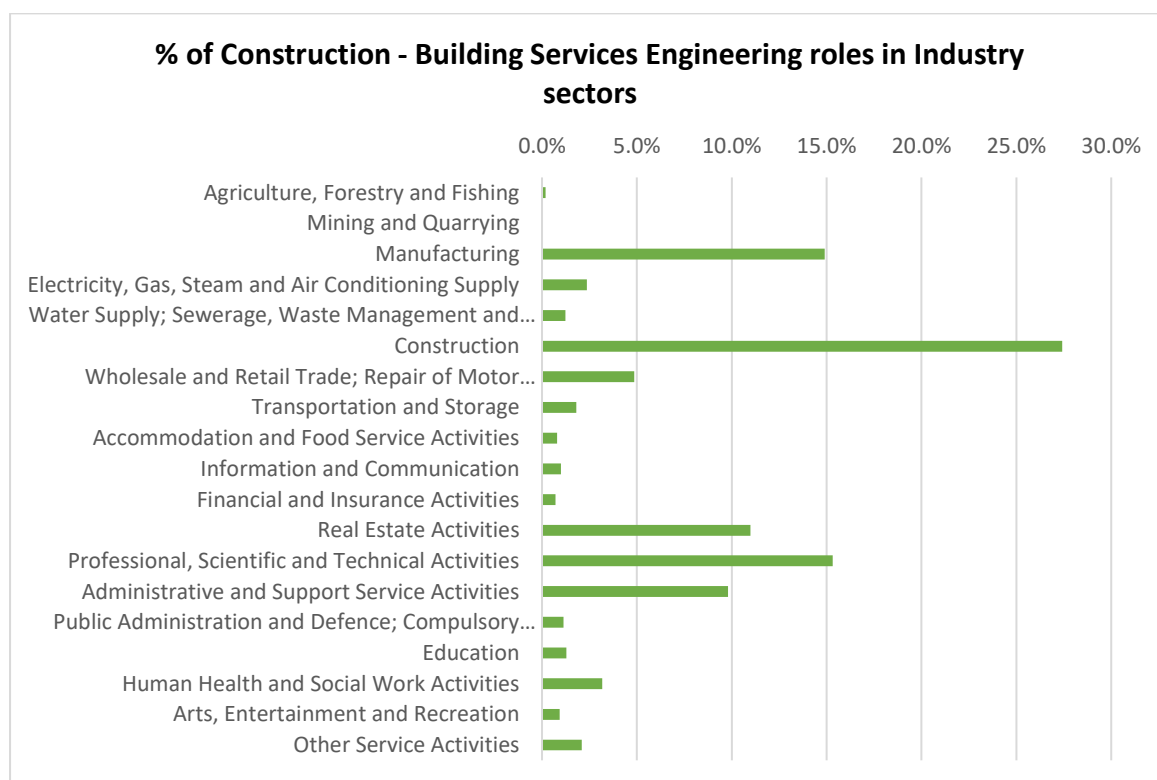


Hard Skills sought by employers

Hard skills sought by employers for Construction - Business Services Engineering Jobs in C&W	
Skill	Frequency in Postings
Electrical Engineering	12%
Field Service Management	7%
Plumbing	7%
Electrical Wiring	6%
Boilers	5%
Facility Management	5%
Programmable Logic Controllers	5%
Building Services Engineering	4%
Commissioning	4%
Control Systems	4%
Electrical Systems	4%
Risk Analysis	4%
Electronic Engineering	4%
Instrumentation	3%
Control Engineering	3%
Key Performance Indicators (KPIs)	3%
Personal Protective Equipment	3%
Mechanical Engineering	3%
Property Management	3%
Customer Satisfaction	3%

Source: EMSI Analyst

Which industry sectors in Cheshire and Warrington employ people in these occupations?



Source: EMSI Analyst



Apprenticeships

In the past five years, there have been 203 apprenticeships advertised in Construction - Business Services Engineering occupations in Cheshire and Warrington. Over this time, more than 20 have been advertised in each of Warrington, Crewe, Knutsford, and Northwich.

In the academic year 2019/20, 56 residents of Cheshire and Warrington started an apprenticeship in a Construction - Business Services Engineering occupation. The most popular apprenticeship was to become a Maintenance and Operations Engineering Technician. All other occupations had fewer than 10 residents starting an apprenticeship in 2019/20.

Apprenticeships in Construction - Business Services Engineering occupations started by people in Cheshire and Warrington 2019-2020				
	Level 2	Level 3	Level 4+	Total
Building Services Design Engineer (degree)			3	3
Building Services Engineering Craftsperson		4		4
Building Services Engineering Installer	2			2
Building Services Engineering Technician			2	2
Highways Maintenance Skilled Operative	2			2
Maintenance and Operations Engineering Technician		34		34
Plumbing and Domestic Heating Technician		5		5
Property Maintenance Operative	4			4
<i>Source: ESFA Localities datacube 2019-2020 (residency)</i>				

College Courses

The most popular courses with young people in Cheshire and Warrington in the 2019/20 academic year that feed into Construction - Business Services Engineering occupations were the Diplomas in Electrical Installation (Levels 1-3) and the Diplomas in Plumbing Studies (Levels 1-3). The T-level in building services engineering for construction is being rolled out shortly. This is intended to replace other Level 3 qualifications.

Most popular Construction - Business Services Engineering qualifications taken by 16-18yr olds in 2019/20				
	Below Level 2	Level 2	Level 3	Grand Total
Award in Construction Skills (Electrical)	21			21
Award in Construction Skills (Plumbing)	20			20
Diploma in Electrical Installation	81		2	83
Diploma in Electrical Installations (Buildings and Structures)		110	47	157
Diploma in Plumbing Studies	59	46	14	119
<i>Source: ESFA localities datacube (residency) 2019-2020</i>				



The most popular courses with adults in Cheshire and Warrington in the 2019/20 academic year that feed into Construction - Business Services Engineering occupations were Diplomas in Electrical Installation and Diplomas in Plumbing Studies.

Most popular Construction - Business Services Engineering qualifications taken by adults				
Row Labels	Below Level 2	Level 2	Level 3	Grand Total
Award in the Requirements for Electrical Installations BS767:2018			12	12
Diploma in Electrical Installations (Buildings and Structures)		46	28	74
Diploma in Plumbing Studies	20	30	15	65
Domestic Natural Gas Core Safety			13	13
Source: ESFA localities datacube (residency) 2019-2020				



Annex 1: Construction - Building Services Engineering Pathway

Construction - Building Services Engineering Pathway		
Technical Occupations	Higher Technical Occupations	Professional Occupations
<p>Building Services Engineering Operative/Technician Design, plan, assemble, install, house, commission, test, maintain, service and repair of all forms of a buildings' emergency, security, and utility systems</p> <p>Building Services Engineering Craftsperson (L3) Building Services Engineering Ductwork Craftsperson (L3) Building Services Engineering Ductwork Installer (L2) Building Services Engineering Installer (L2) Building Services Engineering Service & Maintenance Engineer (L3) Building Services Engineering Ventilation Hygiene Technician (L3) Dual Fuel Smart Meter Installer (L2) Electrical, Electronic Product Service & Installation Engineer (L3) Fire, Emergency & Security Systems Technician (L3)</p> <ul style="list-style-type: none"> • Fire • Fire & Emergency Lighting • Fire & Security • Security <p>Gas Engineering Operative (L3) Installation Electrician & Maintenance Electrician (L3) Lightning Protection Operative (L2) Low Carbon Heating Technician (L3) Plumbing & Domestic Heating Technician (L3)</p> <ul style="list-style-type: none"> • Environmental Technologies • Fossil Fuel - Natural Gas • Fossil Fuel - Oil - Fossil Fuel - Solid Fuel <p>Powered Pedestrian Door Installer & Service Engineer (L2) Refrigeration, Air Conditioning & Heat Pump Engineering Technician (L3) Smart Home Technician (L3)</p>	<p>Building Services Engineering Technician Design and supervise the installation of building services during construction</p> <p>BEMS (Building Energy Management Systems) (L4) Building Services Engineering Technician (L4)</p>	<p>Building Services Engineering Professional Design and install buildings service systems based on agreed client specification undertaken during a building's construction</p> <p>Building Services Engineering Site Management (degree) (L6) Fire Safety Engineer (L6)</p>



<p>Facilities Management Operative/Supervisor Manage and maintain (planned and reactive) a building's mechanisms and systems across electrical, plumbing, plant, safety systems and other equipment</p> <p>Facilities Management Supervisor (L3) Facilities Services Operative (L2) Junior Energy Manager (L3) Property Maintenance Operative (L2) Facilities Management Supervisor (L3) Facilities Services Operative (L2) Junior Energy Manager (L3) Property Maintenance Operative (L2)</p>	<p>Facilities Manager Manage the services for a building including maintenance and repair</p> <p>Facilities Manager (L4)</p>	<p>Facilities Management Professional Manage the services for a group of buildings or an estate along with their on-going improvement and maintenance of their services</p> <p>Senior & Head of Facilities Management (degree) (L6)</p>
<p>Utilities Installation and Maintenance Operative/Technician Install, exchange, commission and maintain metering systems, appliances, lighting and other road-based utilities</p> <p>Highway Electrical Maintenance & Installation Operative (L2) Highways Electrician or Service Operative (L3) Telecoms Field Operative (L2) Wireless Communications Rigger (L2)</p>		



Annex 2 Mapping of SOC 2010 codes to the Construction Building Services Engineering Pathway

There is no simple mapping of the IFATE Occupational Maps to 4-digit SOC codes. The codes below will contain the occupations included in the Construction Building Services Engineering Pathway but may also include others.

SOC Code	Occupation Description
5314	Plumbers and heating and ventilating engineers
5250	Skilled metal, electrical and electronic trades supervisors
5249	Electrical and electronic trades n.e.c.
5241	Electricians and electrical fitters
3112	Electrical and electronics technicians
2123	Electrical engineers
1251	Property, housing, and estate managers

