

# **NORTH EAST**

North East manufacturing is booming. A Make UK (formally known as EEF) and BDO report shows that the number of manufacturing businesses in the region grew by 3.1% between 2017 and 2018, while the number of jobs has grown by 7% since 2010 – the second highest of any UK region.

# NORTH EAST



---

## Introduction

However, some parts of the region are strongly dependent on one or two major advanced manufacturing and engineering (AME) sector employers, such as Nissan in Sunderland and Hitachi in County Durham, and these large organisations support and sustain long supply chains within the region.

The region has a good reputation for engineering skills – largely on the basis of a strong industrial heritage and the Nissan plant’s world-leading productivity – but with 90% of growing businesses reporting skills shortages, more needs to be done to secure the skills pipeline for the future.

The region’s relative strength in exporting – it is one of few UK regions which are net exporters – also leaves it relatively vulnerable to a potential ‘no deal’ or ‘hard’ Brexit. Nissan is one high-profile automotive sector employer to have received assurances from the UK government regarding Brexit. Whether skills were an item on the agenda is unknown – the agreement hasn’t been published – but it is clear that the long-term success of the AME sector in any region depends upon its skills supply.



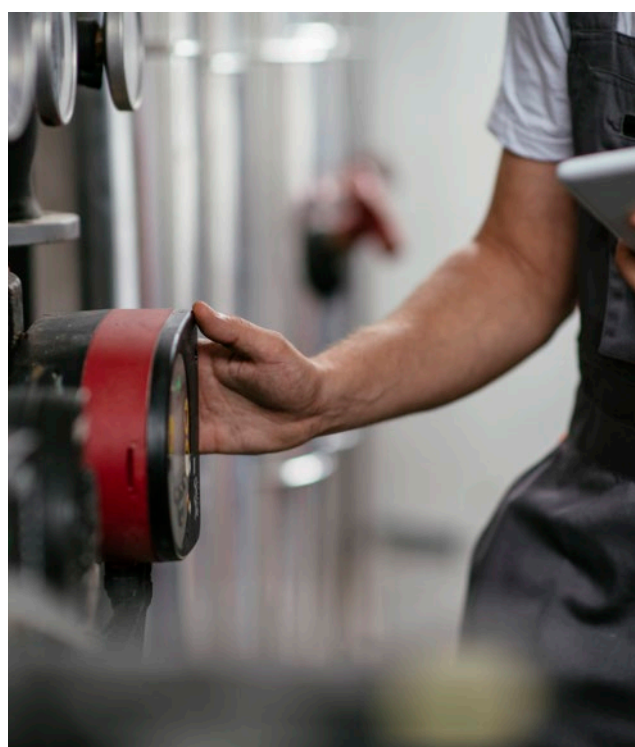
## Regional Profile

The North East's AME sector is disproportionately made up of micro-sized employers; they account for 89% of the total employer base. 4.5% of employers are classed as medium-sized, which is twice the UK average.

The North East seemingly does well at growing small employers into medium-sized ones, but less well at growing micro-sized employers.

Employer size	Micro (0-9 employees)	Small (10-49 employees)	Medium (50-249 employees)	Large (250+ employees)	Total	As percentage of total
East Midlands	9,920	1,315	325	50	11,610	7.4
East of England	13,905	1,610	400	75	15,990	10.2
London	14,705	995	225	50	15,975	10.2
<b>North East</b>	<b>6,180</b>	<b>535</b>	<b>165</b>	<b>35</b>	<b>6,915</b>	<b>4.4</b>
North West	15,120	1,625	375	75	17,195	10.9
Northern Ireland	2,660	370	85	15	3,130	2
Scotland	14,080	1,085	250	65	15,480	9.9
South East	21,125	2,125	470	125	23,845	15.2
South West	11,575	1,265	270	65	13,175	8.4
Wales	5,120	545	160	35	5,860	3.7
West Midlands	13,620	2,110	525	110	16,365	10.4
Yorkshire and the Humber	9,655	1,435	375	65	11,530	7.3
<b>Total</b>	<b>137,665</b>	<b>15,015</b>	<b>3,625</b>	<b>765</b>	<b>157,070</b>	<b>100</b>
<b>As % of Total</b>	<b>87.6</b>	<b>9.6</b>	<b>2.3</b>	<b>0.5</b>	<b>100</b>	

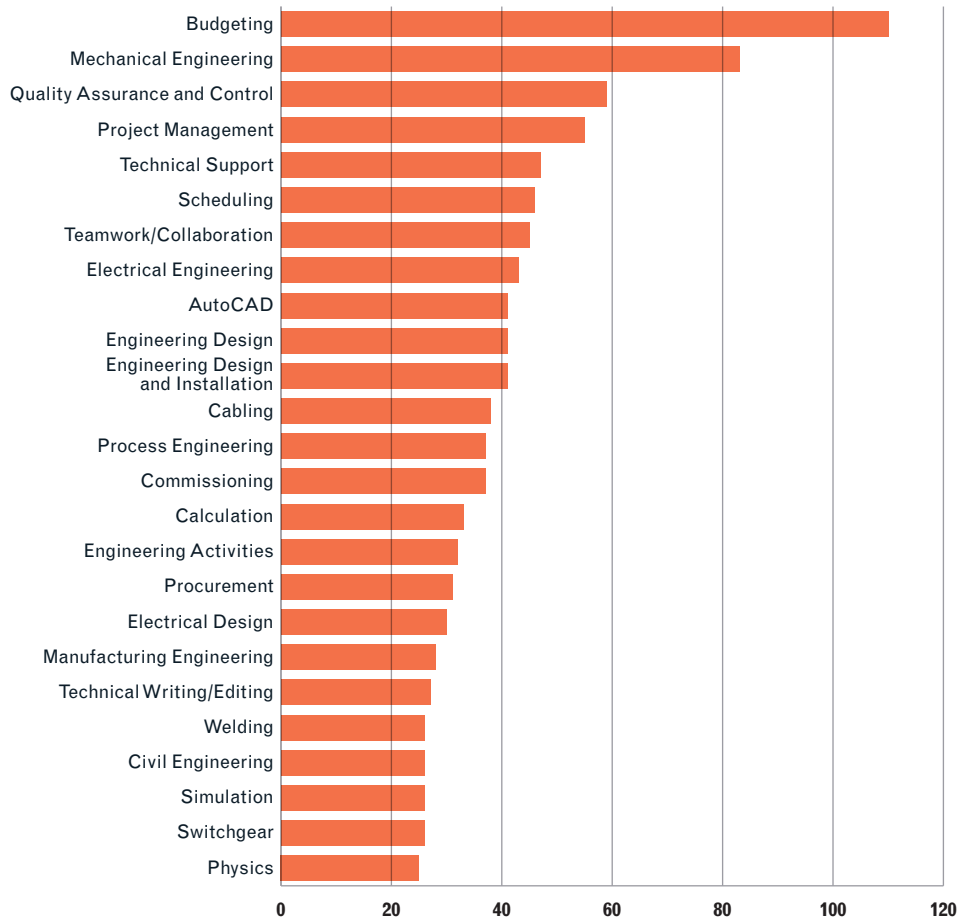
	2018 Employment in AME
East Midlands	112,377
East of England	139,623
London	102,730
<b>North East</b>	<b>56,051</b>
North West	161,874
Northern Ireland	38,878
Scotland	107,941
South East	189,627
South West	144,903
Wales	79,798
West Midlands	192,956
Yorkshire and Humber	120,346
<b>Grand Total</b>	<b>1,447,103</b>



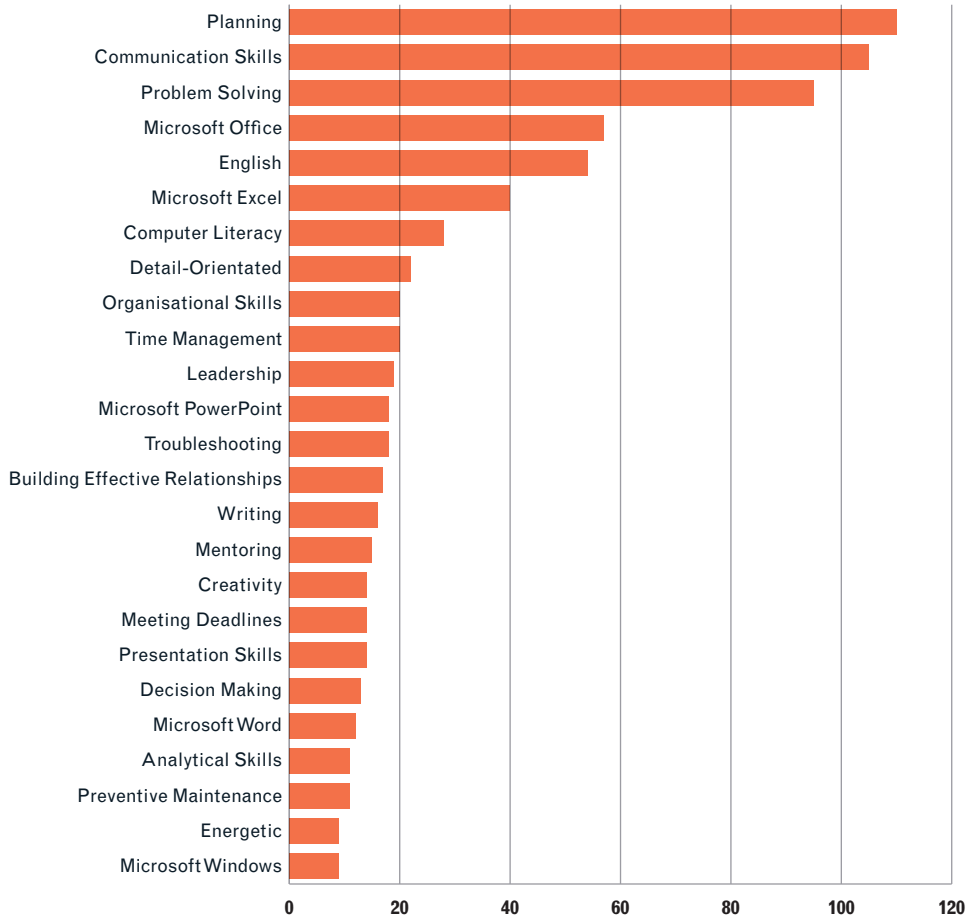
## Demand for Skills

Budgeting skills are in the highest demand in the North East AME sector, according to Labour Insight analysis of 2017 job postings – with Mechanical Engineering skills the top engineering-related skill in demand.

Quality Assurance and Control is also an area of demand, which is perhaps a reflection of the relative importance of the region’s automotive sector



Planning skills are the most sought-after general skills in the AME sector, with basic computer skills also featuring highly.



## North East AME employment by sector (SIC groups)

The North East's relative strength in the automotive sector can be attributed to the Nissan plant in Sunderland, while sizeable Fabricated Metal Products and Mechanical Equipment sectors are a reflection of a vibrant industrial base which manufactures everything from diggers to specialist medical equipment.

Sector	North East 2018	North East 2023	2018-23 North East change	2018-23 UK change
Fabricated Metal Products	11,048	10,307	-6.70%	-6.10%
Automotive	10,687	9,752	-8.70%	-10.60%
Mechanical Equipment	9,517	7,960	-16.40%	-18.80%
Engineering design activities for industrial process and production	6,392	6,350	-0.70%	-1.30%
Electrical Equipment	4,692	4,182	-10.90%	-7.40%
Research and experimental development on natural sciences and engineer	3,826	4,273	11.70%	7.20%
Technical testing and analysis	2,336	2,326	-0.40%	-1.10%
Manufacture of computer, electronic and optical products	1,302	1,163	-10.70%	-21.50%
Aerospace	1,222	1,098	-10.10%	-3.50%
Repair of machinery Installation of industrial machinery and equipment	1,145	1,251	9.30%	0.20%
Basic Metals	933	827	-11.40%	-10.10%
Wholesale of metals and metal ores	731	733	0.30%	0.40%
Marine	459	412	-10.20%	-3.50%
Repair and maintenance of aircraft and spacecraft	412	448	8.70%	-0.10%
Rubber Tyres	373	346	-7.20%	-12.80%
Repair and maintenance of other transport equipment	238	258	8.40%	-0.30%
Repair of electrical equipment	184	201	9.20%	0.40%
Repair of fabricated metal products, machinery and equipment	168	183	8.90%	-0.20%
Repair and maintenance of ships and boats	158	172	8.90%	0.00%
Other Transport Equipment	135	122	-9.60%	-3.30%
Repair of electronic and optical equipment	94	103	9.60%	0.30%
<b>Grand Total</b>	<b>56,051</b>	<b>52,466</b>	<b>-6.40%</b>	<b>-5.50%</b>

## North East employment by qualification level

Qualification level	North East 2018	North East 2023	2018-23 North East change	2018-23 UK change
No qualification	1,750	978	-44.1%	-45.8%
QCF1 GCSE (below grade C) & equivalent	7,242	6,109	-15.6%	-21.8%
QCF2 GCSE (A-C) & equivalent	11,962	10,793	-9.8%	-10.3%
QCF3 A Level & equivalent	14,839	12,988	-12.5%	-14.9%
QCF4 HE below Degree Level	5,280	5,321	0.8%	3.2%
QCF5 Foundation Degree	1,536	1,600	4.2%	6.4%
QCF6 First Degree	9,774	10,581	8.3%	10.2%
QCF7 Other Higher Degree	3,025	3,388	12.0%	4.0%
QCF8 Doctorate	642	709	10.4%	2.2%
<b>Grand Total</b>	<b>56051</b>	<b>52466</b>	<b>-6.4%</b>	<b>-5.5%</b>

**The North East has a plurality of AME talent educated to Level 3 (A Level/Advanced Apprenticeship equivalent), which is to be expected given the sectors in which the region is strong.**

With 36% of the North East AME workforce having undertaken higher education, the region is above the UK average of 30%. However, the region's smaller research sector than the UK average (7% vs 9% of total AME employment) explains the smaller than average number of workers with PhDs.

In common with other UK regions, the North East is expected to see a decline in the numbers employed in AME, with a growth in the numbers educated to higher education level not compensated for by a decline in the numbers with lower level qualifications.



**1,056 Managers** require development to **Level 3 or higher**



**3,895 Professionals** require development to **Level 4 or higher**



**2,528 of those working in Skilled Trades Occupations** require development to **Level 3 or higher**



**3,040 Operators** require development to **Level 2 or higher**



**1,967 of those in Associate Professional and Technical roles** require development to **Level 3 or higher**



## North East employment by occupational area

The North East AME sector is forecast to see medium-term reductions across all occupational areas apart from caring, leisure and other service roles.

The largest drop will be in skilled trades occupations, in common with other UK regions and the UK as a whole.

Occupational area	North East 2018	North East 2023	2018-23 North East change	2018-23 UK change
Skilled trades occupations	15,756	13,818	-12.30%	-11.70%
Professional occupations	11,791	11,787	0.00%	0.20%
Associate professional and technical	8,138	7,083	-13.00%	-12.90%
Process, plant and machine operatives	7,737	7,534	-2.60%	-1.90%
Administrative and secretarial	4,646	4,492	-3.30%	-8.50%
Managers, directors and senior officials	4,419	4,362	-1.30%	-0.70%
Elementary occupations	1,730	1,552	-10.30%	-9.60%
Sales and customer service	1,323	1,301	-1.70%	-4.20%
Caring, leisure and other service	511	538	5.30%	2.30%
<b>Grand Total</b>	<b>56,051</b>	<b>52,466</b>	<b>-6.40%</b>	<b>-5.50%</b>



## Gender

With just 14% of the region’s AME workforce being female, the sector in the North East is less diverse than across the UK as a whole, where 19% of the workforce is female. Newcastle University has a Women’s Engineering Society, which will hopefully help to keep more female engineering students on programme and in the sector post-graduation.

The number of females is projected to increase slightly by 2023, unlike in other parts of the UK – achieving this will depend on the region’s ability to encourage more girls to study STEM subjects.

Gender	North East 2018	North East 2023	2018-23 North East change	2018-23 UK change
Females	7,929	7,971	0.5%	-0.6%
Males	48,122	44,495	-7.5%	-6.7%
<b>Grand Total</b>	<b>56,051</b>	<b>52,466</b>	<b>-6.4%</b>	<b>-5.5%</b>