Labour Market Intelligence: Refresh – 2023

The Electrotechnical Skills Partnership

Snapshot report for South West

May 2023

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1. Introduction

1.1 Background

The Electrotechnical Skills Partnership (TESP) commissioned Pye Tait Consulting, an independent research agency, to refresh labour market intelligence (LMI) that was undertaken in 2018/19 (with some additions in 2020 via a mini-LMI study) to understand the current skills requirements to work within the electrotechnical sector. The main report from 2018/19 provided a detailed overview of the electrotechnical sector, its workforce, skills needs, and the training and development typically undertaken.[1]

The electrotechnical sector continues to be at the forefront of a rapidly-evolving revolution in how we use technology – with increased demand for digital communication, energy conservation, electric vehicle charging, and renewable energy solutions with a particular focus on the electrification of heat (such as heat pumps) in buildings. The underlying driver for most of this development is the Net Zero agenda.

The overarching aim of this research is to update the previous LMI work to ensure accurate and up-to-date intelligence, building upon 2018/19 and 2020 research findings. The findings will provide TESP with renewed/up-to-date data that can be used to inform the development or update of a future labour force strategy.

1.2 Methodology

The study involved three core strands of research:

- desk research,
- a telephone survey of 467 employers, and
- follow-up interviews with 12 employers.

The survey questionnaire was designed to be similar to that used in 2018/19 and 2020 to enable longitudinal comparison.

1.3 About this report

The major output from this study is a UK-level report that outlines trends in the sector over the past few years. It provides a detailed insight into the state of the electrotechnical sector in terms of its workforce size, demography, and skills needs/challenges.

In addition, a series of twelve regional reports (one per English region and per devolved nation) will succinctly present the key findings from the research for TESP's regional managers to take forward in their work. This is the report for the South West.

[1] TESP, 2019, Labour market intelligence research

The findings contained in this report are derived from the telephone survey of employers. Of the 467 total respondents, 46 are based in the South West.

Findings are based on a small sample of businesses in the region, resulting in a larger margin of error than the main report, meaning findings should not be interpreted quantitatively as being necessarily representative of the region. From a qualitative standpoint the results will, however, be valuable indications of the local situation.

Note that charts and tables presented in this report may not sum to 100% due to rounding.

1.4 Respondent profile

Almost three quarters (34, 74%) are micro firms employing fewer than 10 staff, over one fifth are small firms (10, 22%) with 10 to 49 staff, and the remainder (two, 4%) are medium firms employing between 50 and 249 staff. The average (mean) size of company in terms of staff is 11, while the most common (modal) size is three staff. These figures include both PAYE direct staff and 'others' such as self-employed. Discounting the latter group, the average (mean) size is 10, and the most common (modal) size is also three.

The age spread of workers in the South West is shifted slightly towards the younger end compared to the UK as a whole – see Table 1.

Table 1 Age profile of respondents: UK and South West

Age	UK-wide	South West
16 to 18	6%	8%
19 to 24	14%	15%
25 to 49	50%	51%
50 to 64	26%	23%
65+	4%	3%

Base: 467 (UK) and 46 (South West) respondents. Source: Pye Tait Consulting 2023.

The workforce of surveyed respondents in the region is reported by respondents as being 99% UK citizens, with the remainder being split almost evenly between Irish (0.5%) and EU (non-Irish) (0.4%) – a similar profile to the UK as a whole.

Three quarters (76%) undertake new fit commercial work, and five in six (83%) undertake commercial repair and maintenance work. Around three in five work in the domestic sector – new fit (57%) and repair (63%).

From a list of pre-defined activities, surveyed respondents most commonly undertake low voltage electrical installation (89%) or low voltage maintenance and repair work (89%). The next most common activities are emergency lighting systems (50%) and electrical design consultancy (46%).

1.5 Sector size

ONS SOC code data indicate there are 21,000 individuals (conf %: 5,400) working in the region in the SOC2020 code 5241: Electricians and electrical fitters.[2] However, it should be noted that ONS has identified an issue in the collection of occupation data affecting the accuracy of some detailed occupations and the data derived from the them, and urge caution in interpreting data. Nevertheless, based on an estimated proportion of those with electrotechnical skills who may operate at different skill levels, the overall total of electrotechnical-skilled workers in the region is 27,100 ± 5,400.

Further detail and considerations for how these figures are derived are outlined in the accompanying UK-wide report.

[2] Annual Population Survey, ONS, Jan to Dec 2022. Conf is presented as the standard error as a percentage of the figure.

2. Recruitment

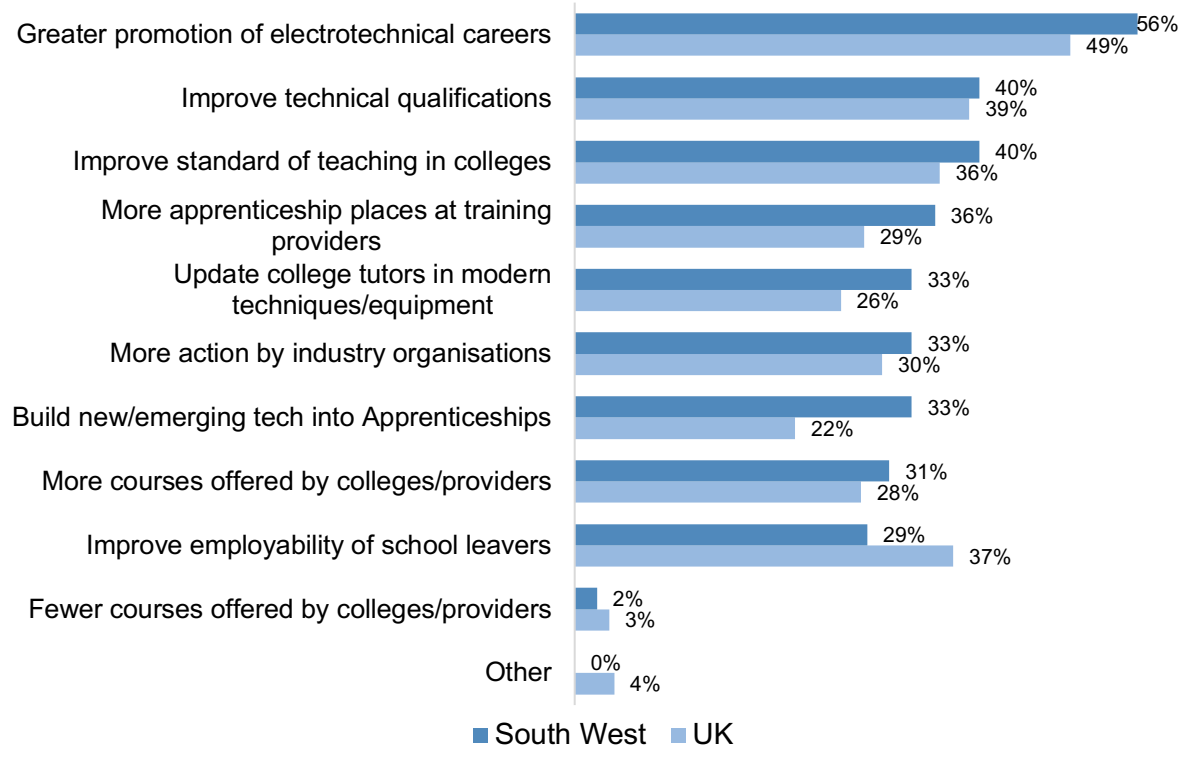
Surveyed employers most commonly report advertising to recruit skilled workers over the past 12 months (35 roles advertised), followed by apprentices/trainees (25) and supervisors (two). Of these, employers say four in five (80%) skilled roles were hard to fill, as were two in five (40%) of apprentice/trainee roles.

In terms of the employment basis, as compared to pre-COVID-19, around two in five employers (41%) are 'more likely' to recruit using a PAYE directly employed approach and a third to hire apprentices (33%). Around two in five are less likely to loan labour between companies or use an employment agency (40% and 44% respectively), with none saying they are more likely to do so.

The main perceived actions required to tackle recruitment problems and skills shortages in the region include (see Figure 1):

- greater promotion of electrotechnical careers (mentioned by 56% vs 49% in UK as a whole),
- improving the standard of teaching in colleges (40% vs 36%), and
- improving technical qualifications (40% vs 39%).

Figure 1 Perceived actions required to tackle recruitment problems – UK vs South West



Base: 441 (UK) and 45 (South West) respondents (multiple responses permitted).
Source: Pye Tait Consulting 2023.

3. Skills needs of the electrotechnical sector

3.1 Electrotechnical qualifications

Respondents in the South West have a slightly less optimistic view of qualifications and preparedness of job applicants and a slightly more optimistic view of training compared to the UK as a whole – see Table 2.

Table 2 Views on qualifications – agreement levels UK wide and South West

	UK-wide	South West
Job applicants typically have the skills we require of them to do the job well	58%	54%
Currently available qualifications fully reflect the demands of the job today	59%	57%
We are able to find suitable training in our area when we need it	69%	72%

Base variable: 460 to 462 (UK) and 46 (South West) respondents. Source: Pye Tait Consulting 2023.

3.2 Current and future skills needs

Employers were asked to comment on their business's current and future demand for a variety of technical skills. The results for the UK as a whole, and for the South West are presented in Table 3. It should be noted that, for the two sets of 'current demand' columns, three options were available to respondents ('not needed right now', 'needed and we have this skill', and 'needed but we don't' have in the business'), but that the 'not needed right now' responses are omitted for clarity.

A discussion of the findings is presented in the main UK-wide report.

Table 3 Current and future demand for technical skills – UK vs South West

Skill	Current demand – UK-wide		Current demand – South West		Needed in 3 years – UK-wide	Needed in 3 years – South West
	Needed and have skill	Needed but don't have skill	Needed and have skill	Needed but don't have skill		
Building Automatic Control Systems (BACS) design, installation & maintenance	16%	0.6%	11%	-	20%	8%
Direct electrical heating systems (e.g. storage heaters, UFH) design and installation	23%	0.6%	18%	-	38%	21%
Electric vehicle charging equipment (EVCE) installation	34%	2%	38%	-	39%	44%
Electrical - High Voltage	35%	2%	31%	3%	37%	26%
Electrical - Low Voltage	89%	1%	86%	5%	88%	95%
Electrical Design	67%	2%	56%	2%	69%	65%
Electrical Energy Storage Systems (EESS) design & installation	31%	2%	35%	3%	39%	35%
Emergency lighting, installation & servicing	63%	0.5%	64%	2%	64%	74%
Energy efficiency services including lighting and lamp replacement services, power factor correction etc.	45%	0.6%	47%	-	47%	53%
Fire detection and alarm system installation and servicing	51%	0.5%	43%	-	52%	41%
Heat pump installation and design	25%	2%	24%	-	31%	29%
Installation & maintenance of temporary and stand-by generator sets	28%	1%	30%	-	30%	25%
Installation of technologies associated with Smart-Buildings	20%	3%	25%	3%	36%	22%
Installation, servicing & maintenance of security systems including intruder/controlled access and CCTV	46%	0.8%	40%	-	44%	40%

Lighting systems installation & maintenance including Highway and Street lighting	47%	0.6%	42%	3%	49%	50%
Lightning protection systems design & installation	46%	0.9%	39%	3%	50%	53%
Renewable energy systems design & installation	32%	6%	34%	3%	44%	48%

Employers were asked a similar question in relation to their current and future demand for a variety of generic skills. The results for the UK as a whole, and for the South West are presented in Table 4. It should be noted that, for the two sets of 'current demand' columns, three options were available to respondents ('not needed right now', 'needed and we have this skill', and 'needed but we don't' have in the business'), but that the 'not needed right now' responses are omitted for clarity.

Table 4 Current and future demand for generic skills – UK vs South West

Skill	Current demand – UK-wide		Current demand – South West		Needed in 3 years – UK-wide	Needed in 3 years – South West
	Needed and have skill	Needed but don't have skill	Needed and have skill	Needed but don't have skill		
Management and leadership	97%	0.4%	96%	-	93%	93%
Maths	96%	-	91%	-	93%	96%
Problem solving	97%	0.4%	96%	-	94%	96%
Project and time management	95%	0.7%	98%	-	93%	96%
Spoken English	97%	-	96%	-	94%	96%
Team working and communication	98%	0.2%	98%	-	94%	93%
Written English	98%	-	96%	-	94%	96%
Client engagement	94%	2%	94%	4%	93%	93%
Digital literacy (e.g. using the cloud / other platforms)	78%	7%	61%	11%	94%	82%

The main perceived reasons for skills deficiencies in the region include (see Figure 2):

- inappropriate training courses (mentioned by 33% vs 26% in UK as a whole), and
- ageing workforce finding it difficult to keep up-to-date (26% vs 28%).

Figure 2 Perceived reasons for skills deficiencies

Base: 422 (UK) and 42 (South West) respondents (multiple responses permitted).
Source: Pye Tait Consulting 2023.

4. Future of the electrotechnical sector

4.1 Take-up of technology

The main perceived issues that organisations in the region face in adopting new technologies and processes include (see Figure 3):

- a lack of finance/resources (mentioned by 18% vs 18% in UK as a whole), and
- a lack of readily available training courses (11% vs 11%).

Figure 3 Perceived challenges in adopting new technologies - UK vs South West

Base: 456 (UK) and 45 (South West) respondents (multiple responses permitted).
Source: Pye Tait Consulting 2023.

There appears to be a similar level of concern in the South West compared to the wider UK that sector-wide take-up of new technology and processes is relatively modest (41% agree or strongly agree, vs 40% in UK) – Table 5.

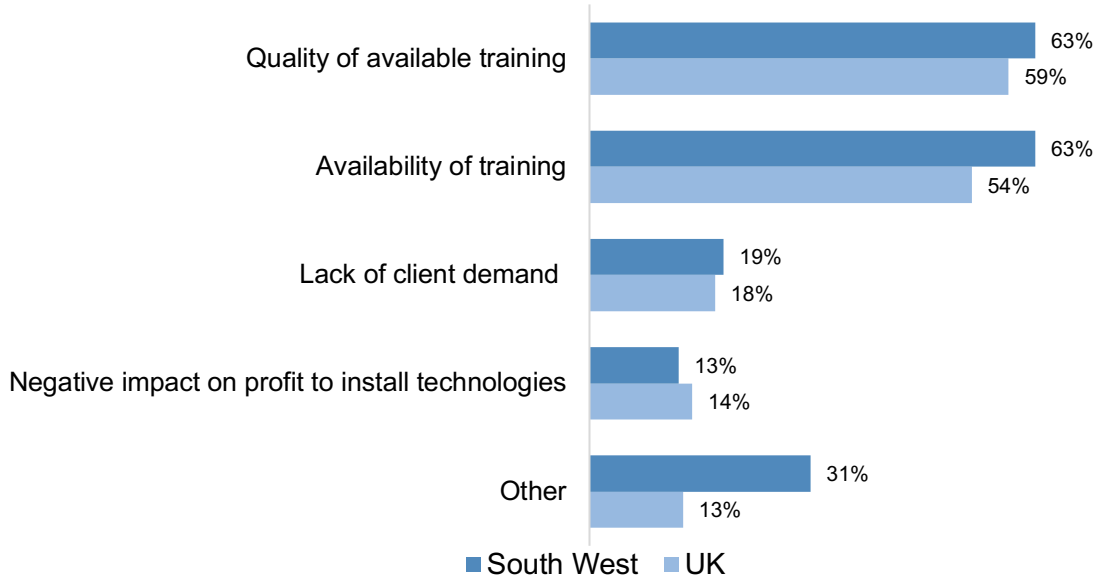
Table 5 Sector-wide take-up of new technology is relatively modest – UK vs South West

	UK-wide	South West
Strongly agree	9%	7%
Agree	31%	34%
Disagree	60%	59%
Strongly disagree	0.5%	-

Base: 399 (UK) and 41 (South West) respondents. Source: Pye Tait Consulting 2023.

Those agreeing or strongly agreeing were asked why they believe take-up has been relatively modest. Reasons generally reflect those of the wider UK, with the quality of available training and availability of training being the most common reasons (both 63%) – Figure 4.

Figure 4 Perceived reasons for modest take-up of technology – UK vs South West



Base: 153 (UK) and 16 (South West) respondents (multiple responses permitted).
Source: Pye Tait Consulting 2023.

4.2 Workforce projection

Companies anticipate that, in five years' time, they will employ a slightly higher average of staff – 12 staff (compared to 11 now). This includes both PAYE direct staff and 'others' such as self-employed. Discounting the latter group, the future average (mean) size is anticipated to be 11 (compared to 10 now), indicating a small expansion in company size anticipated in the future for the region.

Compared to the UK as a whole, anticipated demand for personnel in the region in the next two to three years is higher for qualified electricians, and lower for managers and supervisors, design engineers and estimators, project supporting roles, and fire and security system installers – see Table 6. While most surveyed employers believe demand will remain steady, a greater proportion believe demand will increase than decrease over the coming years for almost all roles.

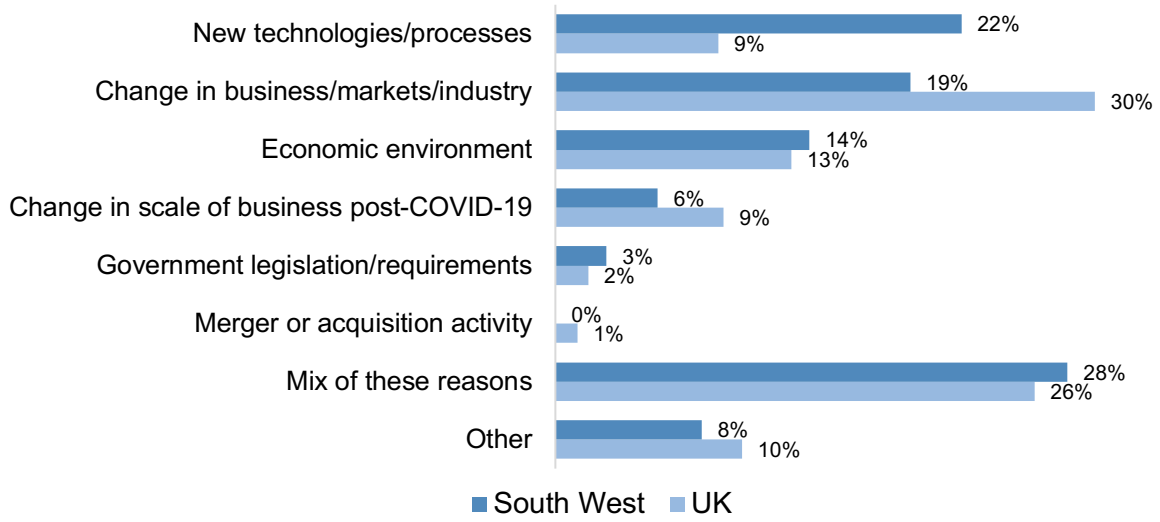
Table 6 Anticipated demand for personnel change – UK vs South West

		Decrease	Remain the same	Increase
Managers and supervisors	UK-wide	4%	88%	8%
	South West	4%	93%	2%
Design engineers and estimators	UK-wide	5%	81%	14%
	South West	5%	87%	8%
Qualified electricians	UK-wide	5%	41%	54%
	South West	4%	31%	64%
Apprentices	UK-wide	6%	45%	49%
	South West	7%	44%	49%
Project supporting roles	UK-wide	5%	82%	13%
	South West	5%	90%	5%
Fire and security system installers	UK-wide	7%	82%	11%
	South West	5%	91%	5%
Electrical labourers	UK-wide	5%	64%	31%
	South West	5%	65%	30%

Base variable: 390 to 452 (UK) and 39 to 45 (South West) respondents. Source: Pye Tait Consulting 2023.

Respondents foreseeing an increase or decrease in demand for any role were asked for the main reason for this change. Responses generally reflect those provided at a UK-wide level, though belief that new technologies/processes are a main reason is higher (22% vs 9% in the UK) – see Figure 5.

Figure 5 Main reason for change in demand – UK vs South West



Base: 325 (UK) and 23 (South West) respondents. Source: Pye Tait Consulting 2023.

Compared to the UK as a whole, anticipated demand for personnel in the region in the next three years as a direct result of new technologies and processes is higher for skilled and unskilled workers (e.g. qualified electricians and labourers) and lower for directors and managers, supervisors, and project personnel – see Table 7.

Table 7 Anticipated demand for job roles as a direct result of new technologies – UK vs South West

		Decrease	Remain the same	Increase
Directors and managers	UK-wide	5%	89%	7%
	South West	5%	93%	2%
Supervisors	UK-wide	5%	83%	12%
	South West	5%	85%	10%
Project personnel	UK-wide	5%	76%	19%
	South West	5%	83%	12%
Skilled e.g. qualified electricians	UK-wide	6%	41%	53%
	South West	5%	41%	55%
Unskilled e.g. labourer	UK-wide	6%	60%	33%
	South West	5%	60%	35%
Apprentices/trainees	UK-wide	8%	44%	47%
	South West	10%	46%	44%

Base variable: 396 to 442 (UK) and 40 to 44 (South West) respondents. Source: Pye Tait Consulting 2023.