

FTA Logistics Skills Report

2019



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We support, shape and stand-up for efficient logistics

FTA is one of the biggest business groups in the UK, supporting, shaping and standing up for efficient logistics. We are the only organisation in the UK that represents all of logistics, with members from the road, rail, sea and air industries, as well as the buyers of freight services such as retailers and manufacturers whose businesses depend on the efficient movement of goods.

An effective supply chain is vital to Keep Britain Trading, directly impacting over seven million people employed in making, selling and moving the goods that affect everyone everywhere.

With Brexit, technology and other disruptive forces driving changes in the way goods move across borders and through the supply chain, logistics has never been more important to UK plc.

As champions and challengers, FTA speaks to government with one voice on behalf of the whole sector, greatly increasing the impact of our messages and achieving amazing results for members.

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FTA's foreword



Welcome to the fifth in our series of reports on the labour and future skills challenges that face the UK logistics industry.

In order to fully understand the depth of this challenge, FTA's Logistics Skills Report 2019 profiles employment patterns in the logistics sector, focusing on skills shortages and future skills, and monitors the continuing shortfall in the number of HGV drivers necessary to support UK plc.

FTA is preparing for the future by recognising emerging social and technological changes that will affect logistics businesses and impact on demand for skills. The increasing popularity of online shopping is a social force that is changing the face of logistics. Since 2008, the most notable shifts in job growth were for warehouse and storage occupations, as well as van drivers and managers and directors in transport and distribution. This reflects the growing requirement for more warehouse space and deliveries from online retailing.

We also need to be ready for the challenges and opportunities presented by new digital technologies, artificial intelligence and robotics. These are already beginning to shape the way people live, work and learn. Skills demand will change in the coming years, in response to these disruptive influences, and roles requiring manual dexterity and precision will start to decline, with analytical thinking and innovation becoming more significant. Our research indicates that technology will act as a complementing force, replacing routine tasks rather than job roles.

Automation is emerging to varying degrees across the global supply chain, with warehousing having the highest potential for automation. Low-skilled workers are in jobs at high risk of automation, and a key requirement for our industry will be to manage the transition of workers towards new job opportunities.

The FTA Logistics Skills Report 2019 sets out the current employment profile for the logistics industry and explores emerging skills and future work. Readers of this report will benefit from access to knowledge from bespoke analysis of government datasets, in particular, the 'Labour Force Survey', and data for occupations at the highest risk of being automated, as well as other respected publications.

Recruiting workers at all skill levels, across the wide variety of logistics occupations, is one of the most pressing challenges we face as an industry. FTA is committed to supporting its members by providing the best representation, information and advice it can to help them attract and retain talented people.

A handwritten signature in white ink, appearing to read 'D Wells', with a horizontal line underneath.

David Wells
Chief Executive
Freight Transport Association

Sponsor's message



Manpower is proud to sponsor this FTA Logistics Skills Report. Unprecedented, unrelenting and uncharted technological change is intensifying the talent shortages facing the UK. We are seeing new skills appearing just as quickly as old ones disappear, challenging business leaders, educators and other organisations to re-think the way they address these shifts.

Traditionally, organisations have relied on buying the skills they need, attracting people with the skills that they lack in-house. In the tighter labour market we are seeing within logistics and in this report, we know it is not that simple. We are reaching a critical point that, without action, will see the movement of goods, services and people grind to a halt.

Manpower believes everyone shares a responsibility to build the skills the logistics sector needs now and in the future. It requires investment of time, money and energy to expand the talent pool, to equip them with the right skills.


We can all get behind initiatives like Think Logistics, a non-profit collective with the aim of making this industry a number one careers destination. Manpower has been involved with Think Logistics for the past five years and sees the impact of their outreach programmes. More young people are considering a logistics career due to the school workshops, paid internships and work placements that Think Logistics arranges.


This report shows us what we are up against but, from the conversations already taking place and the initiatives being introduced, we are confident that the logistics industry will meet the challenge head on.

Contents

FTA's foreword	3
Sponsor's message	4
Selected key indicators	5
FTA Logistics Skills Report highlights	6
Introduction	8
Data	10
The future of work	28
Appendices	38

Selected key indicators

 HGV drivers	2017				2018				2019	% change Q1 2018 to Q1 2019	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1		
Total HGV drivers in employment (thousands)	323	302	315	320	318	323	331	325	302	-5.0%	▼
Average age of HGV driver	48.1	48.3	48	47.9	48.4	47.8	48.2	47.8	48.2	-0.4%	▼
Number of EU HGV drivers (thousands)	42	43	46	37	36	42	36	39	37	5.2%	▲
Percentage of HGV drivers who are EU nationals	13%	14%	15%	12%	11%	13%	11%	12%	12%	N/A	▲
Gross hourly pay	£11.21	£11.30	£10.94	£11.55	£10.62	£11.54	£10.89	£11.13	£11.37	7.1%	▼
Drivers claiming Jobseeker's Allowance	530	455	355	385	392	353	315	287	237	-39.6%	▼
Number of HGV practical tests taken	19,179	18,162	18,225	16,880	17,352	18,508	18,473	18,454	18,460	6.4%	▲
Number of practical tests passed	11,113	10,476	10,437	9,841	10,054	10,553	10,810	10,775	10,927	8.7%	▲
Driver CPC initial qualification	8,943	9,939	8,284	9,511	10,623	9,202	9,352	10,401	10,420	-1.9%	▼

 Other selected logistics occupations	2017				2018				2019	% change Q1 2018 to Q1 2019	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1		
Managers and directors in transport and distribution in employment (thousands)	84	91	82	74	76	75	71	94	86	14.0%	▲
Van drivers in employment (thousands)	240	250	259	245	258	276	280	281	290	12.4%	▲
Number of EU van drivers in employment (thousands)	22	30	28	18	25	29	30	30	41	61.3%	▲
Percentage of van drivers who are EU nationals	9.2%	12.0%	10.8%	7.3%	9.7%	10.5%	10.7%	10.7%	14.1%	N/A	▲
Total forklift drivers in employment (thousands)	83	88	80	73	84	90	91	83	92	9.0%	▲
Number of EU forklift drivers in employment (thousands)	16	19	20	19	26	23	26	25	31	21.1%	▲
Percentage of forklift drivers who are EU nationals	19.3%	21.6%	25.0%	26.0%	31.0%	25.4%	28.6%	30.1%	34.0%	N/A	▲

Note: In recent years the truck and coach driver licensing category names have changed. Heavy Goods Vehicle (HGV) is now Large Goods Vehicle (LGV). However, for consistency in the document, the term HGV is used.

FTA Logistics Skills Report highlights

Employment in logistics

- Estimates of employment in UK logistics in Q1 2019 were assessed using the most recent data from the Labour Force Survey (LFS).
- The data show the wider logistics industry employed 2.59 million people, of which 13.2% were non-UK, EU nationals.
- Overall, the number of people employed in logistics decreased by an estimated 18,397, or 0.7%, in the year to Q1 2019.
- The reliance on labour from EU workers within various roles has helped to mitigate the fall in the total number of UK nationals working in the logistics sector (in the first quarter of 2019, compared with the same time the previous year).

Nationality demographics

- In the year ending March 2019, the number of EU citizens arriving for work fell to 92,000, which is less than half the level it was at its peak (190,000) in 2016. Though net EU immigration has fallen, there are still more EU citizens moving to the UK than leaving.
- Contrary to the national trend, the logistics sector experienced a net increase of 48,671 EU nationals, but there was also a net deficit of 67,068 UK nationals, working in logistics.
- EU8 citizens (those from the Central and Eastern European countries) do not follow the general pattern, with more leaving than arriving. EU8 logistics workers fell by 1.1%.
- South Asian nationals (mainly from India, Pakistan and Bangladesh) experienced an increase of over 12,000 in the year to Q1 2019, up by nearly two-thirds in the year.

Skill level, ethnicity and gender

- The greatest proportion of logistics jobs are low to middle skilled (42.7%), followed by low skilled at 26.5%. This is greater than the national average, where they represent only 10.4% and 32.6% respectively of all jobs in the economy.
- Within logistics, UK nationals are represented proportionately, while EU8 and EU2 nationals have a strong bias towards low and low to middle skilled jobs. South Asian nationals occupy a high proportion of low skilled jobs but also a larger share of high to middle skilled (the latter probably reflecting the current skills-based immigration criteria).
- Overall, the logistics sector continued to be dominated by people who describe themselves as ethnically white (89.8%). The second largest single ethnic group was black (3.1%), followed by Indian and Pakistani.
- The logistics industry continued to be largely composed of male workers (86.8%), with the proportion of women in logistics professions at 13.2% in Q1 2019.

Skills shortages and gaps

- 63% of UK organisations are currently experiencing a skills shortage, costing £4.4 billion, with the transport and storage figure slightly higher than the average at 64%.
- In Q1 2019, there were 43,000 vacancies in the wider transport and storage industry (which is an increase of 43% compared to two years ago).
- There is increasing demand for logistics vocations relative to other professions. The most significant increase in demand is for managers and directors in transport and distribution, transport and distribution clerks, and managers and directors in storage and warehousing. This reflects the need, primarily from online retailing, for more warehousing and storage space.
- More than three-quarters (79%) of businesses expect to increase the number of higher-skilled roles over the coming years. Yet two-thirds (66%) fear there will be a lack of sufficiently skilled people to fill vacancies.

HGV driver shortage and profile



- The UK is facing a driver shortage of 59,000. The driver shortage is not just a problem for the UK; there is a driver shortage of 21% across Europe.
- There are few unemployed HGV drivers, with 237 claiming Jobseeker's Allowance in Q1 2019, which is down 39.6% from a year ago, continuing the overall downward trajectory, and the lowest since comparable records began in 2005.
- HGV drivers display a significantly older age profile than the general population and have an average age of 48.2 years.
- The pass rate for practical tests has increased consistently over the last decade, reaching its highest level at 58.3% in March 2019. The number of women taking practical HGV tests is very low but has risen steadily to 8.6% of the total candidates in 2018/19, and their pass rate is consistently higher than their male counterparts.

Apprenticeships



- Between May 2017 and April 2019, Apprenticeship Levy-paying employers spent only 18% of the funds available to them on the training and assessment of new apprentices. From May to August 2019, employers have not claimed £133m of Apprenticeship Levy funds.
- The total value of payments for the Apprenticeship Levy charge, made during the period 1 August 2018 to 31 July 2019, was £2.7bn of which £155m was paid by the transportation and storage sector.
- In England in 2017/18, the overall number of logistics apprenticeship starts fell by 35.6% year on year, while data for Wales show the number of logistics apprenticeship starts increased by 20.6% in the same period.
- Modern Apprenticeships in Scotland starts in the year to 31 March 2019 for transport and logistics decreased by 22.1% compared with 2017/18.

The future of work



- New digital technologies, such as information and communication technologies (ICTs), artificial intelligence and robotics, are reshaping the way people live, work and learn.
- Skills demand will change in the coming years and roles requiring manual dexterity and precision will start to decline by 2022, with analytical thinking and innovation top for both 2018 and 2022.
- Software developers, managing directors and sales and marketing professionals are key emerging jobs while, in addition to analytical skills, socio-emotional skills such as creativity, originality and initiative, social influence, and emotional intelligence will be critical.
- In the UK, 53% of all employees will require significant re-skilling and up-skilling. It is expected 36% will require training of up to six months, while 9% will require additional skills training of more than a year.

Automation



- Automation is emerging to varying degrees across the global logistics chain, with warehousing having the highest extent of automation.
- Jobs in the UK are at a lower risk of automation than the Organisation for Economic Co-operation and Development (OECD) average.
- Certain types of non-standard work (eg, zero-hours contracts) are more prevalent in the UK than the OECD average.
- Nearly 3% of people in UK employment (about 900,000 people) are on zero-hour contracts.
- In England, 7.4% of jobs are at high risk of automation, 64.9% at medium risk and 27.7% at low risk. For logistics roles, only one occupation can be considered low risk (purchasing managers and directors), while van drivers, forklift drivers and HGV drivers are at medium-high risk of automation.



Sally Gilson
Head of Skills Campaigns
Freight Transport Association

Introduction

FTA's Logistics Skills Report is an authoritative source of information and analysis on employment trends and current and future talent needs. To produce this report, we have commissioned in depth analysis of government data and respected reports from international bodies as well as surveyed our members to ensure impacts and the context are well understood and explored.

The logistics sector is the lifeblood of the nation's economy, employing around 2.6 million people and contributing £124 billion gross value added (GVA). Logistics is also a critical enabler of success across all businesses sectors, from independent coffee shops to large retailers and manufacturers, as well as essential services such as utilities, waste and recycling.

FTA Logistics Skills Report provides a wide-ranging commentary on the labour and future skills challenges facing the UK logistics industry. The 2019 report is the fifth in a series of skills reports, initially prompted by investigations into the extent of the driver crisis in 2015.

The report series delivers comprehensive intelligence about the changing logistics labour market and, for the first time this year, assesses the issue of jobs at risk of automation as well as looking at future skills. As in previous years, FTA has commissioned RepGraph to conduct an independent analysis of official statistics related to logistics jobs and skills. The data in this latest report are based on bespoke analysis of the Labour Force Survey (LFS), FTA member surveys and other reliable statistics, including publications from the Office for National Statistics (ONS) and Organisation for Economic Co-Operation and Development (OECD).

An overview of the logistics industry is provided, and an analysis of the proportion of workers in different logistics occupations is reported along with ethnicity and gender. The report also addresses increasing concern from FTA members surrounding skills shortages within logistics, with an emphasis on the falling numbers of HGV drivers.

Several interdependent challenges, such as number of logistics vacancies, low unemployment and declining EU net migration, are facing the UK logistics industry and exacerbating job shortages. Changes in EU immigration patterns are explored in the report, specifically the fall in immigration for work which is now less than half the level it was at its peak in the year ending June 2016. EU net migration has decreased over the past few years and is less than a third of its peak level at the end of 2015. Contrary to the national trend, the logistics sector experienced a net increase of EU nationals in the year to Q1 2019, but there were not enough to mitigate the net decrease in UK workers at the same time. Overall vacancies in the wider transport and storage industry have risen by 43% in two years and unemployment is at its lowest rate since the mid-1970s. The interconnections among these factors create a perfect storm for logistics jobs shortages.

HGV drivers and mechanics are becoming increasingly hard to recruit, and the age demographic, specifically within the HGV driver population, is significantly older than the national average. Retirement and problems recruiting younger people are contributing to driver shortages in particular, with 60% of HGV drivers over the age of 44 and only 19% under the age of 35. There is a lack of people filling the void left by those leaving the industry. Not enough young people are considering logistics, especially HGV driving, as a career option. There are several reasons for this, including the cost of licence acquisition, lack of understanding of the sector, poor sector image, working hours and lack of quality driver facilities. As a result of these factors and the reliance on labour from the EU within various roles, the sector is facing serious labour shortages over the next five to 10 years. In addition, variations in driver salary by region and country are reported based on the Annual Survey of Hours and Earnings (ASHE) to provide an insight at a more local level.

The report is also concerned with skills gaps. Labour shortages are not only evident through recruitment difficulties but also through skills gaps within the existing workforce. Logistics businesses are struggling to fill vacancies due to a lack of skills, qualifications and experience among applicants. Specialist skills or knowledge and the ability to manage own time and prioritise were the skills most lacking among applicants to logistics roles, according to FTA members. The continuing fall in people undertaking apprenticeships in general, and logistics apprenticeships in particular, is not helpful in addressing labour shortages and skills gaps.

The nature of work is changing, and the report addresses reskilling needs, key emerging job roles and skills, as well as general trends in automation. New digital technologies, artificial intelligence, and robotics are already changing the way individuals live, work and learn. Fears of a sharp decline in overall employment are largely unfounded since, as some jobs and tasks decline, others are emerging and, in general, employment has been growing. Although there is anxiety around automation, in reality technology is still limited in what it can do and is transforming job tasks rather than eradicating occupations. Van driver jobs are identified as being at risk from automation, mainly related to more automated routeing and planning, as well as new technologies aimed at last mile logistics.



To tackle the skills shortage, FTA is campaigning for the Apprenticeship Levy to become a Skills Levy, so previously unused funds can be utilised for more flexible training programmes. We are also campaigning for amendments to the Future Immigration White Paper, so logistics businesses are able to have continued access to non-UK workers post Brexit.

Data

Logistics faces multiple challenges in recruiting and retaining the talented people it needs. On the one hand, holders of key roles, such as drivers, have a high average age, and there is a lack of people entering the sector to fill the number of vacancies that exist. On the other, low unemployment and declining EU net migration are exacerbating job shortages.

Employment in logistics

Estimates of employment in UK logistics in Q1 2019 were assessed using the most recent data from the Labour Force Survey (LFS)¹. The data show the wider logistics sector employed 2.59 million people, of which 13.2% were non-UK, EU nationals (fig 1), up from 11.3% in Q1 2018.

Overall, the number of people employed in logistics decreased by an estimated 18,397, or 0.7%, in the year to Q1 2019, while the number of HGV drivers was down 15,859, or 5.0%, year on year. However, the reliance on labour from EU workers within various roles has helped mitigate the fall in the total number of UK nationals working in the logistics sector. In the first quarter of 2019, compared with the same time the previous year, the proportion of HGV drivers who were EU nationals increased by 5.2% (but decreased 5.1% compared to the previous quarter), while the number of van drivers who were EU nationals increased by 61.3% to 41,008. Conversely, EU nationals who were managers and directors in storage and warehousing fell by 22.7%. Overall, there was a 16.5% annual increase in EU nationals

in logistics. This was offset by a decrease of 67,068, or 2.9%, in UK nationals, with HGV drivers in particular seeing a fall of 17,693, or 6.3%, in the UK-national head count.

While the number of people employed in logistics fell in Q1 2019, there were some increases for warehouse and storage occupations (warehouse and storage managers, forklift drivers and elementary storage occupations) and van drivers (12.4% growth), driven by rising demand for warehouse space and deliveries from online retailing. The popularity of online shopping contributed to record-breaking take-up of warehouse space in 2018. The first half of 2019 was lower than the same time the previous year but was above the half-year take-up average for the past 10 years². The online retail sector represented over 30.6% of overall take-up. The second largest sector was third-party logistics (3PL) providers (who also serve online retailers), with 28.5% of take-up.

Nationality demographics

According to latest available data, EU net migration is at its lowest level since 2012, and the most recent decrease

¹ Labour Force Survey, ONS, Q1 2019

² United Kingdom Logistics, Q2, CBRE, 2019

1 Employment in logistics: numbers and percentages employed Q1 2019

Logistics occupations	Employment (thousands)				By nationality (thousands)			
	Logistics sector	All other sectors	Total	%	UK	EU	EU%	Other
Purchasing managers and directors	14,235	46,888	61,123	2.4%	56,895	2,733	4.5%	1,495
Managers and directors in transport and distribution	33,400	52,982	86,382	3.3%	83,390	1,538	1.8%	1,454
Managers and directors in storage and warehousing	27,968	81,914	109,882	4.2%	99,646	7,293	6.6%	2,943
Importers and exporters	2,370	3,821	6,191	0.2%	4,985	1,206	19.5%	0
Transport and distribution clerks and assistants	19,993	44,323	64,316	2.5%	53,732	9,000	14.0%	1,584
Heavy goods vehicle drivers	171,364	130,281	301,645	11.6%	261,328	37,442	12.4%	2,875
Van drivers	106,215	183,347	289,562	11.1%	237,579	41,008	14.2%	10,975
Forklift truck drivers	36,995	54,442	91,437	3.5%	58,879	31,113	34.0%	1,445
Postal workers, mail sorters, messengers and couriers	124,640	29,152	153,792	5.9%	140,138	8,626	5.6%	5,028
Elementary storage occupations	191,729	264,054	455,783	17.5%	347,885	92,065	20.2%	15,833
Other occupations within the logistics sector	978,584	N/A	978,584	37.8%	834,845	111,732	11.4%	32,007
Total	1,707,493	891,204	2,598,697	100.00%	2,179,302	343,756	13.2%	75,639

Source: Repgraph analysis for FTA, Labour Force Survey, ONS, Q1 2019

can be accounted for by a fall in the number coming to the UK for a definite job over the last year, particularly citizens of EU15 countries. However, non-EU net migration has returned to a similar level to that seen in 2011. EU immigration has continued to fall since 2016, mainly because of a fall in immigration for work. In the year ending March 2019, the number of EU citizens arriving for work fell to 92,000, which is less than half the level at its peak (190,000) in the year ending June 2016³. The latest levels are similar to those seen in 2012.

The main reason for the low level of net EU migration (the difference between the number of those arriving in the UK and the number leaving, not including UK citizens) is that, at 59,000, is less than a third of its peak level of 219,000 in the year ending March 2015.

Even though EU immigration has fallen, there are still more EU citizens moving to the UK than leaving. However, EU8 citizens (those from the Central and Eastern European countries) do not follow this general pattern. For the past year, net migration estimates have shown more EU8 citizens leaving than arriving. Over the last year, 7,000 more EU8 citizens (those from the Central and Eastern European countries who joined the EU in 2004) left the UK than arrived.

³ Migration Statistics Quarterly Report, ONS, August 2019

Non-EU immigration has stabilised over the last year, after a gradual increase since 2013. However, there has been an increase in immigration for study over the last year, seen in all available data sources.

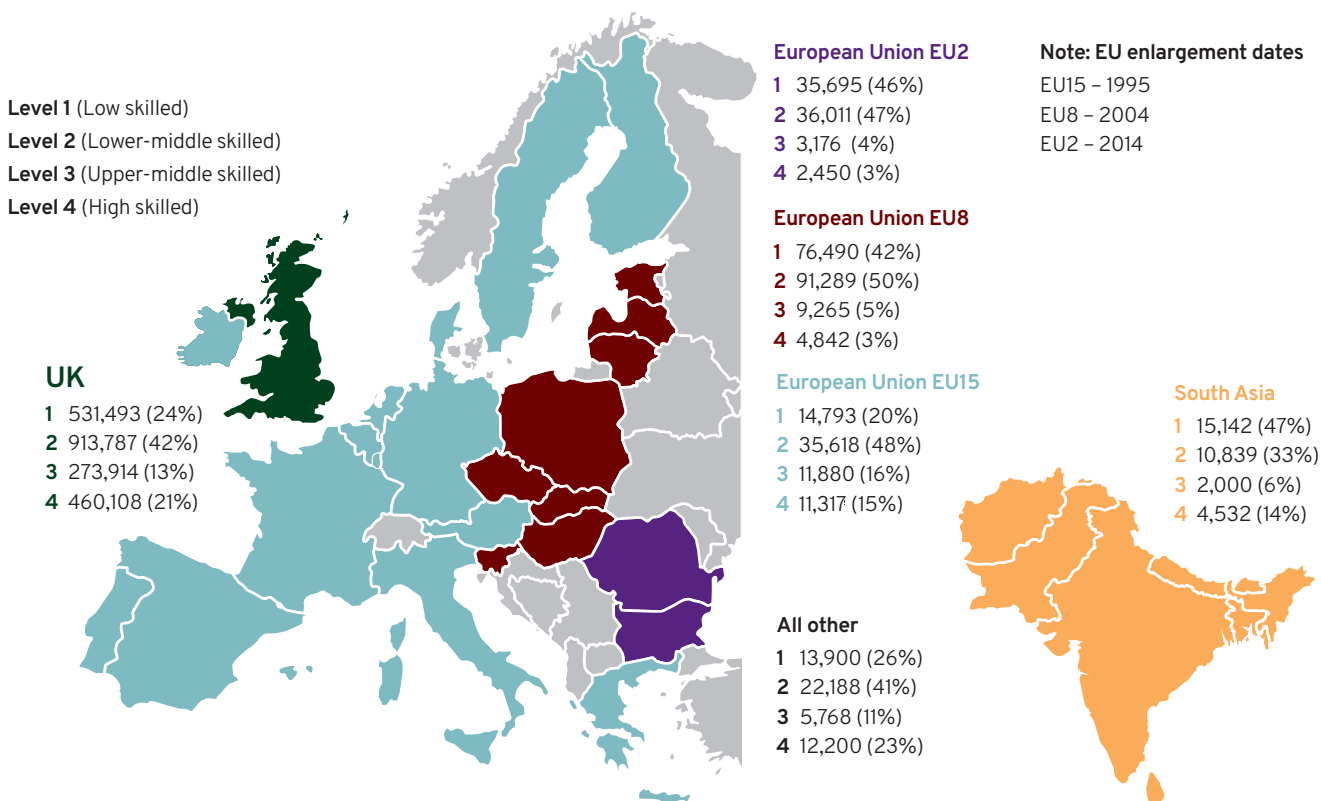
Work remains the main reason for EU citizens moving to the UK, while study remains the main reason for non-EU citizens moving to the UK.

Nationality demographics in the logistics sector

In Q1 2019, there was a net increase of 48,671 EU nationals and a net deficit of 67,068 UK nationals working in logistics⁴. There were around 20,000 new EU2 nationals (Romania and Bulgaria) in the logistics workforce, an increase of 35.2% in the year, while EU8 workers fell by 1.1%, following the pattern in the general workforce. These figures are not unexpected, since EU2 nationals traditionally tend to work in low-skilled jobs in warehousing and storage, but are likely to upskill to driver jobs as demand increases. As the Polish and other EU economies improve and Sterling remains weak, coupled with UK domestic political uncertainty, citizens from EU8 countries with stronger economies have left, whilst those from less buoyant economies (Romania, Bulgaria and also South Asia) continue to arrive. Indeed, South Asian

⁴ Labour Force Survey, ONS, Q1 2019

2 UK logistics jobs by skill level for nationality groupings



Source: Repgraph analysis for FTA, Labour Force Survey, ONS, Q1 2019

nationals (mainly from India, Pakistan and Bangladesh) experienced an increase of over 12,000 in the year to Q1 2019, up by nearly two-thirds in the year.

Like EU2 nationals, there was also an increase of around 25,000 EU15 nationals in the logistics sector, which can be attributed mainly to the general rise in storage and distribution jobs. Further analysis showed that around 10,000 of the extra EU15 workers filled upper-middle or highly-skilled jobs. It is not possible to identify which vocations within these skill levels EU15 nationals were filling; they are traditionally well represented in transport management and storage management, as well as high and upper-middle skilled IT vocations within the logistics sector. The majority of the remainder of the EU15 increase was accounted for by a rise of approximately 12,000 jobs in the lower-middle skill band, where they are most abundant in van and forklift driving. The smallest proportion of the extra EU15 jobs was for the low-skilled level, which follows a longstanding pattern (ie, EU15 nationals are represented in far greater proportion in middle and highly skilled jobs).

Logistics jobs by skill level

Figure 2 provides a breakdown of logistics jobs by skill level for the nationality groupings.

The greatest proportion of jobs across all nationality groupings are level two, which is lower-middle skilled (42.7%), followed by low skilled (26.5%). The proportion of logistics jobs considered to be low and lower-middle skilled is greater than the national average, where they represent only 10.4% and 32.6% respectively of all jobs in the economy. Within logistics, UK nationals are represented proportionately. EU15 nationals are over-represented in the lower-middle category and under-represented in the upper-middle skilled band. For both EU8 and EU2 nationals, there is a very strong bias towards low and lower-middle skilled jobs. South Asian nationals, on the other hand, occupy a high proportion of low skilled

jobs but also a larger share of upper-middle skilled (the latter probably reflecting the current skills-based immigration criteria). The large number and proportion of EU2 and EU8 nationals in low and lower-middle skilled jobs reflects logistics' and warehousing's heavy reliance on workers from these countries. The recent improvement of some economies, such as Poland, has triggered a net outflow of these citizens which has, in turn, increased the reliance of logistics on EU2 nationals (whose economies are not yet sufficiently strong to attract workers back).

EU2 and EU8 nationals by skill Level

There is also evidence that, across all sectors of the economy, EU2 nationals are increasing their share of more highly skilled as well as lower-skilled jobs. EU2 nationals have increased their share of low skilled jobs to 4.0% in 2019 (fig 3), up from 3.6% in 2018 and 1.7% in 2015. However, it is worth noting that low skilled jobs only account for around 10% of all posts in the UK. For upper-middle and high skilled jobs, EU8 nationals increased their share to 2.2% and 1.2% respectively (from 2.1% and 1.0% in 2018) while EU2 nationals increased their share of upper-middle skilled jobs by over half a percent since 2015. Upper-middle and high skilled jobs, which tend to attract higher pay, account for over 18.5 million jobs out of the 32.6 million UK total.

Logistics workers by salary threshold

In September 2018, the Migration Advisory Committee published a key report⁵, commissioned by the government, which outlined migration policy recommendations to be implemented after the UK leaves the EU. EU migrants, who wish to live and work in the UK after Brexit, would have to meet the skill level and minimum salary non-EU citizens currently have to when they come to the UK on 'Tier 2'

⁵ EEA migration in the UK: Final report Migration Advisory Committee September 2018

3 Job totals for each skill level for EU national groupings for all sectors

Skill level	% share of the job total			
	2019			
	UK	EU8	EU2	Other
Level 1 (low skilled)	81.0%	6.6%	4.0%	8.4%
Level 2 (lower-middle skilled)	88.7%	3.6%	1.4%	6.4%
Level 3 (upper-middle Skilled)	90.5%	2.2%	1.1%	6.3%
Level 4 (high skilled)	89.2%	1.2%	0.5%	9.1%

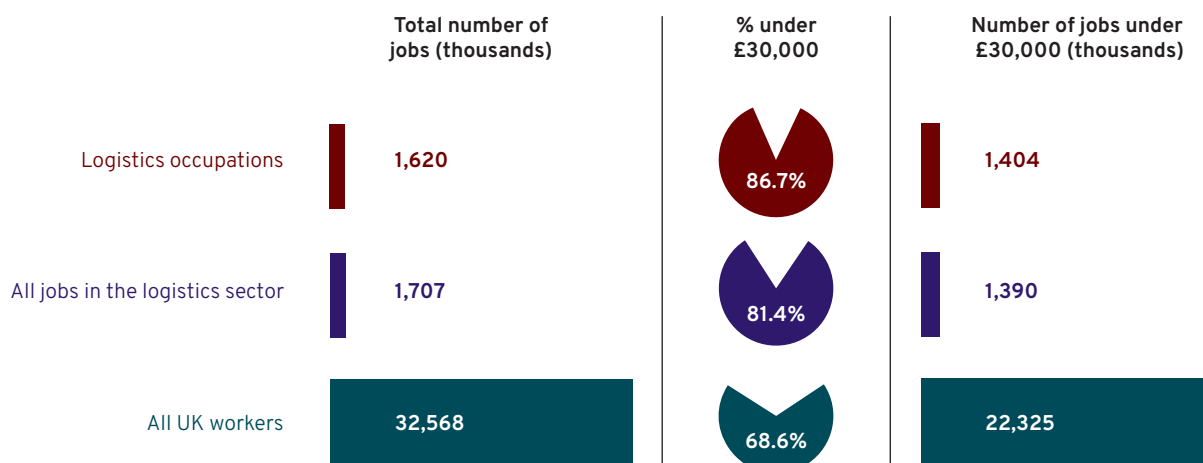
Source: Repgraph analysis for FTA, Labour Force Survey, ONS, Q1 2019

work visas. The minimum salary threshold is currently £30,000 for non-EU workers.

The logistics sector and logistics-related occupations share a higher proportion of jobs paying below £30,000 per annum. This proportion within logistics occupations is 86.7%, and for the logistics sector an estimated four

in five jobs pay less than £30,000 (fig 4). With a smaller proportion of 68.6% of all jobs in the UK paying below this threshold, it is clear logistics would be disadvantaged by such a policy and would therefore have to find ways to improve recruitment of UK nationals in order to grow and retain staff.

4 Estimated proportion and number of logistics jobs below the £30,000 threshold



Source: Repgraph analysis for FTA, Labour Force Survey, ONS, Q1 2019

5 Ethnicity and logistics job roles

Logistics occupations	White*	Black**	Indian	Pakistani	Chinese	Bangladeshi	Mixed ethnic/ other
Purchasing managers and directors	96.2%	1.5%	1.1%	1.2%	0.0%	0.0%	0.0%
Managers and directors in transport and distribution	92.5%	0.0%	2.3%	0.0%	0.0%	0.0%	5.2%
Managers and directors in storage and warehousing	90.6%	3.0%	2.0%	0.0%	1.0%	0.0%	3.4%
Importers and exporters	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Transport and distribution clerks and assistants	93.2%	2.5%	0.0%	0.0%	0.0%	0.0%	4.3%
Heavy goods vehicle drivers	95.4%	2.4%	0.7%	0.0%	0.0%	0.3%	1.2%
Van drivers	83.4%	3.8%	1.4%	3.0%	0.2%	2.5%	5.7%
Forklift drivers	95.5%	1.7%	2.8%	0.0%	0.0%	0.0%	0.0%
Postal workers, mail sorters, messengers and couriers	83.4%	6.3%	2.7%	1.4%	0.0%	1.5%	4.7%
Elementary storage occupations	89.1%	3.2%	1.6%	2.7%	0.0%	1.3%	2.1%
Total	89.8%	3.1%	1.5%	1.5%	0.1%	1.0%	3.0%

* White includes respondents in England, Wales and Scotland identifying themselves as 'White-Gypsy or Irish Traveller' and respondents in Scotland identifying themselves as 'White-Polish'.

**Black/African/Caribbean/Black British.

Source: Repgraph analysis for FTA, Labour Force Survey, ONS, Q1 2019

Logistics workers: ethnicity and gender













Ethnicity

Data were analysed to ascertain the ethnic make-up of the logistics sector (fig 5). For this exercise, 'other occupations within the logistics sector' were excluded, and the main logistics professions were examined. Overall, the logistics sector continued to be dominated by people who describe themselves as ethnically white (89.8%). The second largest single ethnic group was black (3.1%), followed by Indian and Pakistani. These figures are broadly identical to ethnicity estimates for Q1 2018.

Gender

The following table summarises the Office of National Statistics (ONS) estimates of the gender of individuals working in key logistics vocations (fig 6). The logistics sector continued to be dominated by male workers (86.8%) with a small decrease in the proportion of women in logistics professions (from 14.4% in Q2 2017 to 13.2% in Q1 2019). Estimates for the number of female HGV drivers, forklift drivers and either sex for importers and exporters were not possible, as there were too few respondents to the Labour Force Survey in these cases for statistical significance.

6 Gender and logistics job roles

		
Purchasing managers and directors 	59.7%	40.3%
Managers and directors in transport and distribution 	84.1%	15.9%
Managers and directors in storage and warehousing 	84.0%	16.0%
Importers and exporters 	ts	ts
Transport and distribution clerks and assistants 	69.8%	30.2%
Heavy goods vehicle drivers 	99.0%	ts
Van drivers 	92.2%	7.8%
Forklift truck drivers 	100.0%	ts
Postal workers, mail sorters, messengers and couriers 	78.6%	21.4%
Elementary storage occupations 	82.2%	17.8%
Total	86.8%	13.2%

Note: ts = the sample was too small to report

Source: Repgraph analysis for FTA, Labour Force Survey, ONS, Q1 2019



The single biggest challenge for the logistics industry is addressing the current labour shortages. That means finding thousands of fleet engineers, drivers, warehouse staff and other workers at a time of record low unemployment. One key issue for successfully tackling these shortages is addressing the lack of diversity in logistics.

Last year's report suggested that, overall, 13% of the workers in the sector and only 1% of LGV drivers were women, yet they make up 47% of the working population.

We know from research that more diverse companies perform better and are more profitable, so there is a clear business advantage to developing and delivering a diversity and inclusion policy. PWC have found that 80% of millennials believe a diversity and inclusion policy is important when deciding to work for a company.

We want to help the sector to make itself more attractive as a career option for women, for people with young families and for minorities. In doing this, it will reap the benefits of a more dynamic workforce, be able to adjust to new technologies and continue to keep our economy moving.

Phil Martin
Department for Transport

Skill shortages and gaps

According to research by the Open University, in 2019, 63% of UK organisations are currently experiencing a skills shortage; this is up slightly from 62% in 2018 and is costing £4.4 billion⁶. The transport and storage figure is slightly higher than the average, at 64%. The latest UK Employer Skills Survey (ESS), which uses data from 2017⁷, reported that employers are struggling to fill vacancies due to a lack of skills, qualifications and experience among applicants, with higher skilled roles more difficult to fill than jobs considered lower skilled.



Vacancies

According to ONS statistics, in Q1 2019, there were 43,000 vacancies in the wider transport and storage industry (which includes passenger transport); this is unchanged from the previous year. However, there was a large increase of 43% from 30,000 in Q1 2017 and in Q1 2016⁸. The growth in vacancies is a reflection of full employment and a reduction in claimant count. While the number of vacancies has been generally increasing since 2012, it has been falling since early 2019, with provisional data indicating that for June to August 2019 there were 35,000 transport and storage vacancies.

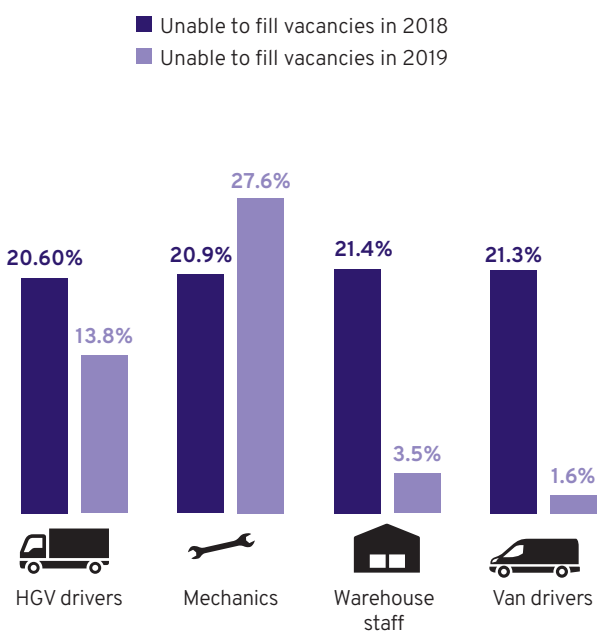
A third of vacancies in the UK were considered hard to fill, and these are known as ‘skill-shortage vacancies’. These were much higher than average for skilled trades in transport and storage⁹.

⁶ The Open University Business Barometer July 2019

⁷ UK Employer Skills Survey, 2017, Department for Education, 2018

⁸ VACS02: Vacancies by industry, ONS, September 2019

7 Proportion of respondents unable to fill job vacancies 2018 vs 2019



Source: Transport Manager Survey: findings, FTA, 2019

These findings are in line with the results from FTA’s Transport Manager Survey 2019, where it was found that more skilled roles (HGV drivers) are difficult to fill than jobs that do not necessarily require specialist qualifications (van drivers). Staff recruitment, for HGV drivers and mechanics in particular, was an ongoing problem for transport managers. 62.4% of respondents reported they were either unable to fill vacancies for mechanics or had experienced long delays in doing so (fig 7). In respect of HGV drivers, the percentage of respondents reporting that they were either unable to fill vacancies or had experienced long delays rose to 44.8%. However, the difficulty in recruitment for other, less skilled roles eased. For other vocations, there was a significant decrease in problems hiring van driver and warehouse staff. In 2018, around one-fifth of respondents stated they had been unable to fill warehouse or van driver positions, but this fell back to 3.5% and 1.6% respectively, in 2019.

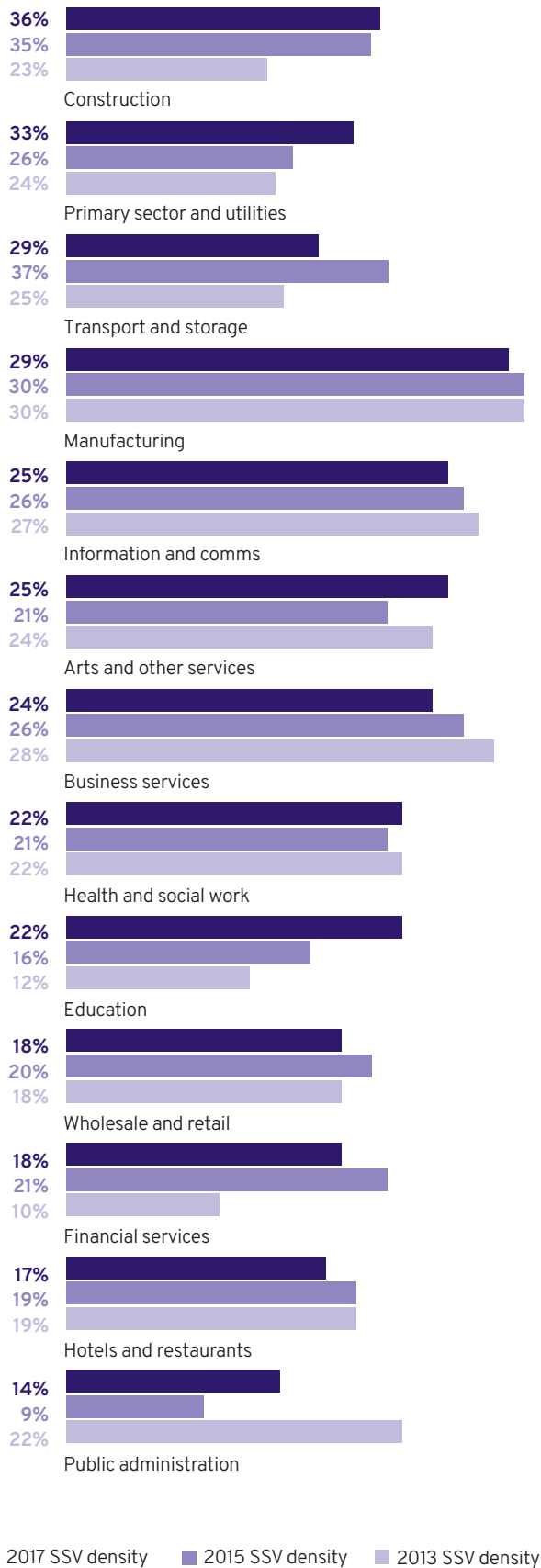
The ESS report¹⁰ acknowledged that skill gaps arise when employees lack proficiency to fulfil their role. These skills gaps may impede a business’ ability to function to its full potential in terms of productivity and profitability.

The density of skill-shortage vacancies (the proportion of vacancies that were hard to fill because of reported skill shortages) varies by sector. As a proportion of all vacancies

⁹ UK Employer Skills Survey, 2017, Department for Education, 2018

¹⁰ Employer Skills Survey, 2017, Department for Education, 2018

8 Density of skill-shortage vacancies (SSVs), by sector



Source: Employer Skills Survey (IFF Research) 2017, DfE, 2018

in the sector, the density of skill-shortage vacancies was highest in construction, with transport and storage in third place behind utilities (fig 8).

There was also variation by sector in the proportion of employers that had not taken action in response to skill-shortage vacancies, with it being most prevalent in transport and storage (17%), followed by wholesale and retail (16%), construction (16%), and primary sector and utilities (15%) – 11% across all on average.

Recruitment of EU nationals was a frequent method employed to fill hard-to-fill vacancies in the hotels and restaurants sector (53%) and was also above average (in the region of 38% to 40%) for transport and storage, manufacturing, health and social work and information and communications.

Logistics job shortage rankings

Job shortage scores were calculated for the main logistics occupations (fig 9). A higher score indicates a relatively more substantial job shortage (see Appendix B for the job shortage and constituent measures).

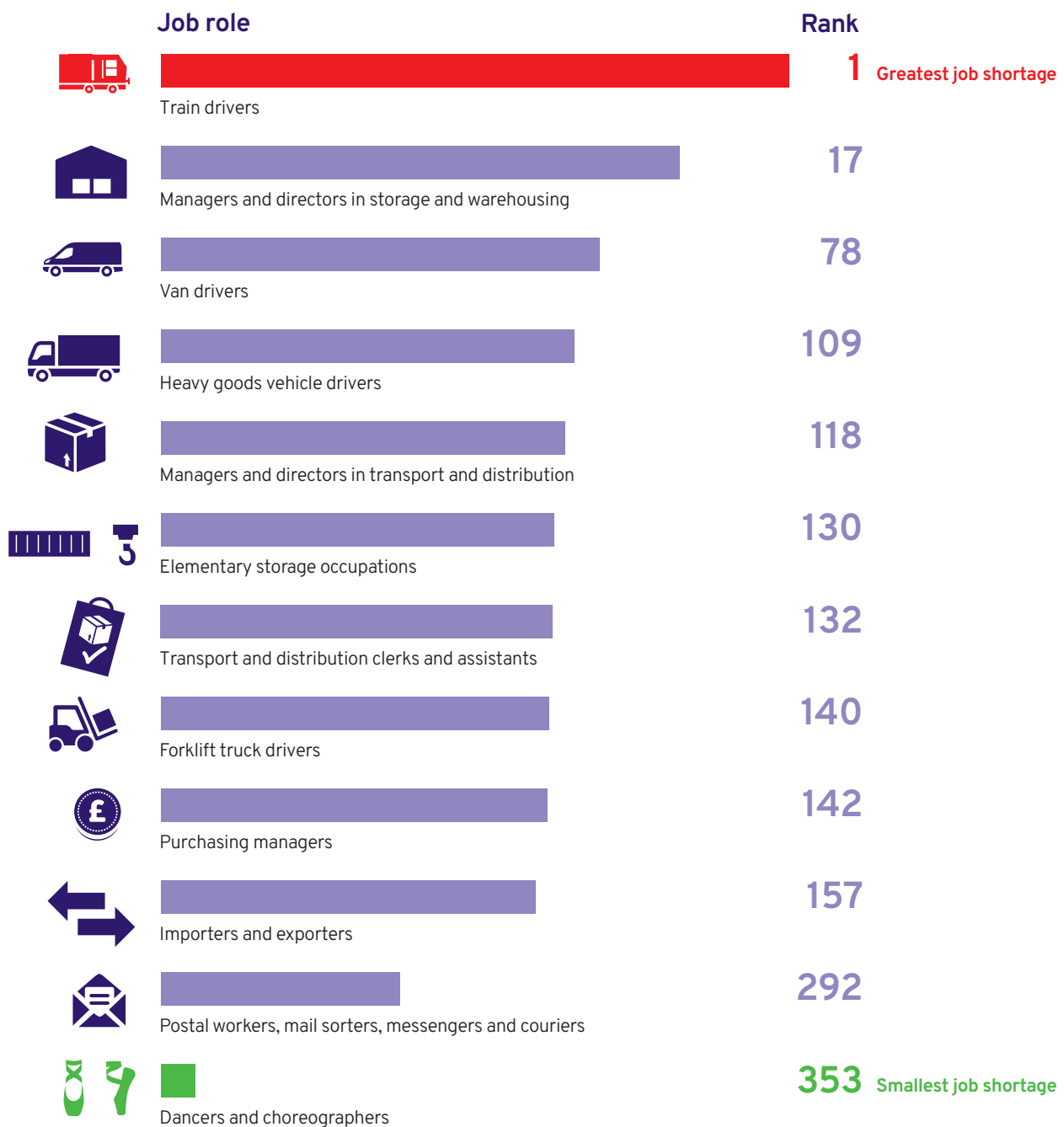
There is increasing demand for logistics vocations relative to other professions, as evidenced by the movement in the job shortage rankings (fig. 9). The most significant annual movement was the increase in the demand for managers and directors in transport and distribution, moving 151 places up the rankings from 269 in 2018 to 118 in Q1 2019. Demand for transport and distribution clerks and managers and directors in storage and warehousing also increased, moving up 91 and 54 places respectively. HGV drivers fell slightly down the rankings, reaching 109th place, but are still in the top third for in-demand jobs. For managers and directors in transport and distribution, the increase in ranking was driven by a combination of comparatively modest job numbers and average pay increases. The rise of transport and distribution clerks was driven mainly by a surge in average pay. The high ranking of managers and directors in storage and warehousing and the increase in score for elementary storage occupations reflects the demand, primarily from online retailing, for more and more warehousing and storage space.

Skills gaps

A shortage of skills in the labour market can manifest itself not only through recruitment difficulties but also through the related issue of skills gaps within the existing workforce.

According to a Confederation of British Industry (CBI) survey, more than three-quarters (79%) of businesses expect to increase the number of higher-skilled roles over the coming years. Yet two-thirds (66%) fear there will

9 Overall job shortage rankings for logistics occupation categories



Reprgraph analysis for FTA, Labour Force Survey, ONS, Q1 2019
Jobseeker's Allowance by occupation, Nomis, ONS, March 2019

be a lack of sufficiently skilled people to fill vacancies¹¹. A Chartered Institute of Personnel and Development (CIPD) survey found that more than a third (37%) of workers have the skills to cope with more demanding duties and that one in 10 (12%) lacked the skills needed to carry out their current job effectively¹². This means that as many as half (49%) of UK workers could be in the wrong job, based on

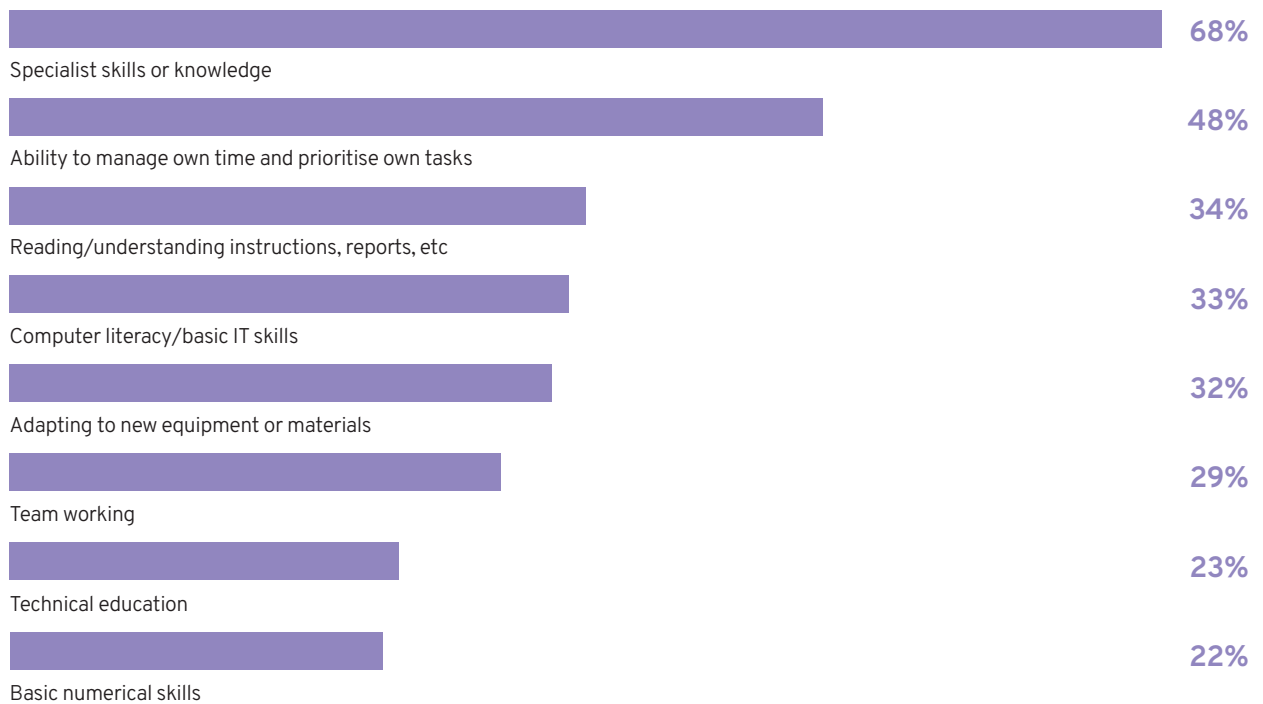
¹¹ CBI Education and Skills Annual Report, in partnership with Pearson, 2018

¹² Over-skilled and underused: Investigating the untapped potential of UK skills, CIPD, October 2018

their skill level; this rises to 56% for workers in transport, storage and communication sectors.

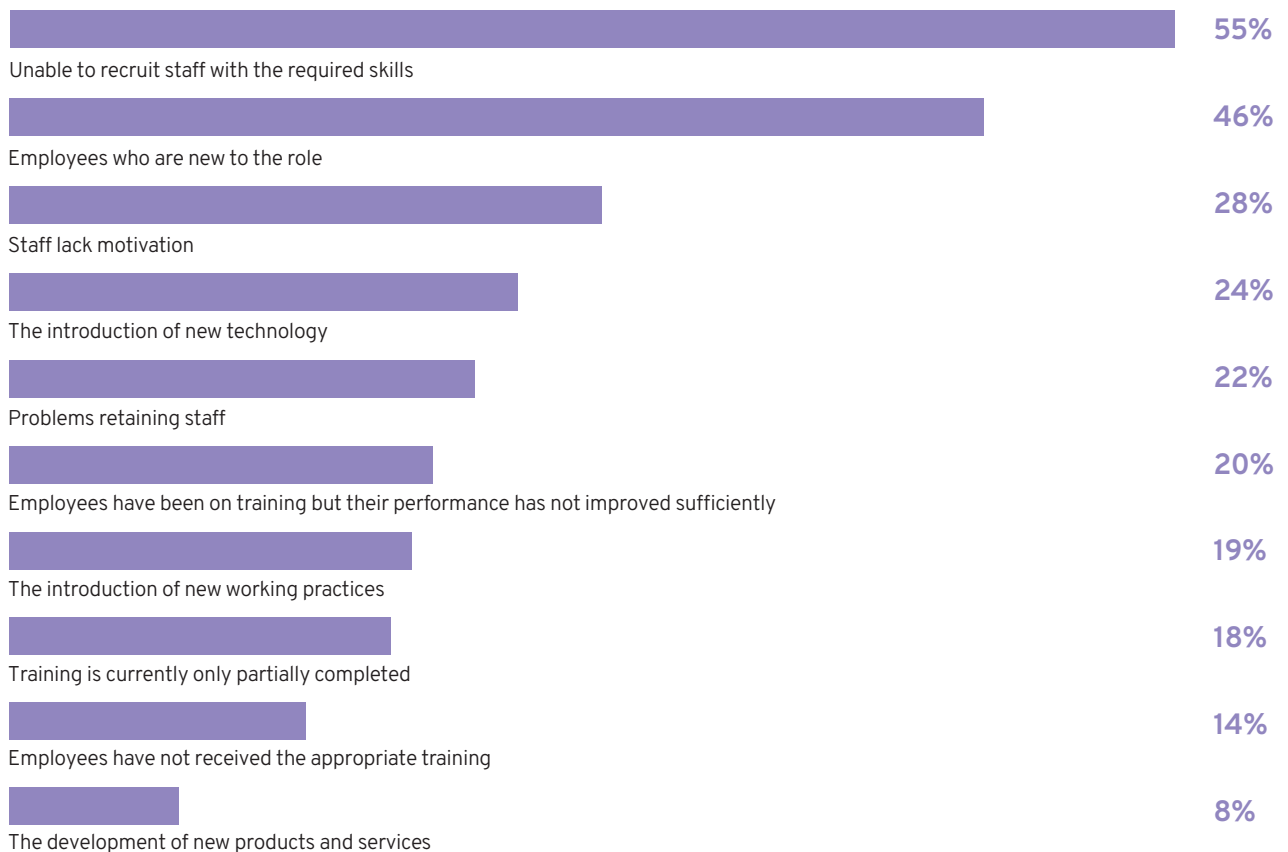
FTA's Member Survey 2019 posed a series of questions, adapted from the Employer Skills Survey, related to skills gaps in logistics roles. 68% of respondents stated that specialist skills or knowledge was the skill most lacking among applicants, followed by the ability to manage own time and prioritise (48% (fig 10)). The main causes of skills gaps were reported to be the inability to recruit staff with the right skills, employees new to the role and staff lacking motivation (fig 11). The vast majority of

10 When recruiting staff, in general which skills are, lacking among applicants?



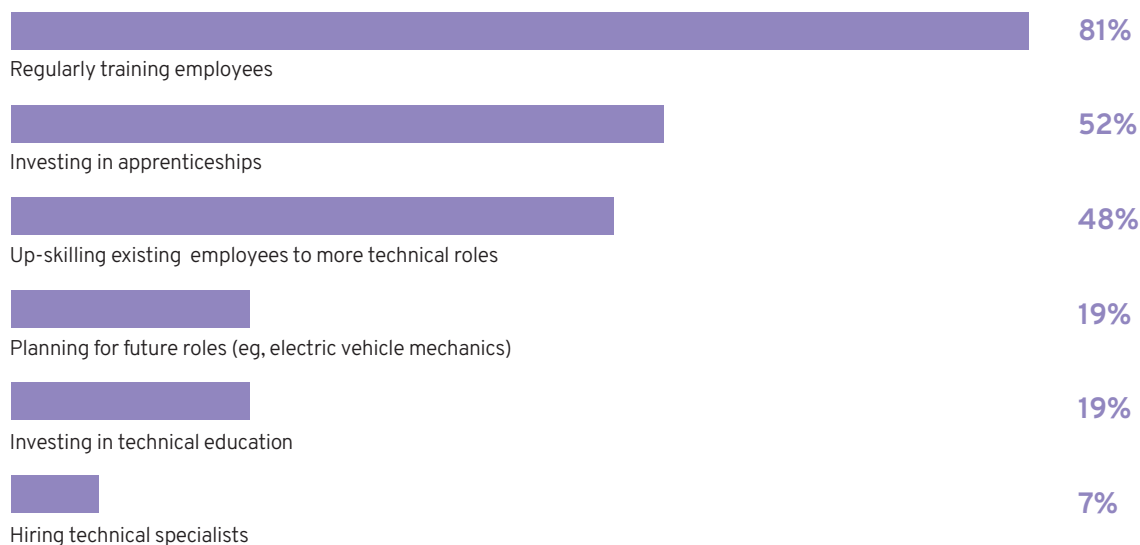
Source: FTA Member Survey, FTA, 2019

11 What do you think are the main causes of the skills gap in your organisation?



Source: FTA Member Survey, FTA, 2019

12 Is your organisation doing any of the following to narrow, the skills gap?



Source: FTA Member Survey, FTA, 2019

logistics organisations were investing in regular training (81%) to narrow the skills gap, while just over half were investing in apprenticeships (fig 12). Overwhelmingly, 87.1% of respondents thought that employers were most responsible for keeping workers’ skills up to date (fig 13).

Logistics roles: HGV drivers

Driver shortage headline figure

The method for calculating driver shortage number compares the growth in jobs in the economy with the trends in HGV driver jobs, as reported in the ONS Labour Force Survey. The calculation has been rebased using Q2 2007 as the new baseline (see Appendix A). The baseline was moved from Q2 2001 to coincide with the period preceding the recession. From the Q1 Labour Force Survey for 2019, the calculated shortfall is around **59,000** drivers.

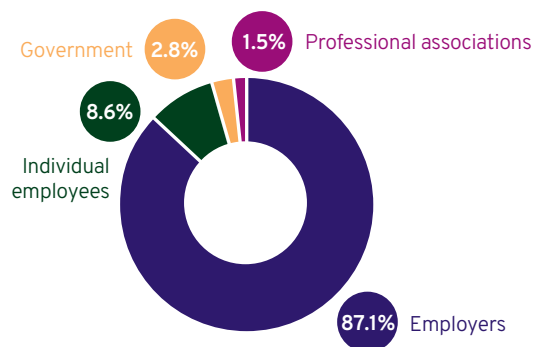
HGV driver claimant count

According to the UK Labour Market statistics published by the ONS, the UK claimant count was higher (up 6.1%) in Q1 2019 compared to Q4 2018, while the number of HGV drivers claiming Jobseeker’s Allowance was 17.4% lower in the same period¹³. The number of HGV drivers claiming Jobseeker’s Allowance was 237 in Q1 2019, down 39.6% from a year ago, continuing the overall downward

trajectory, and the lowest since comparable records began in 2005. The claimant count for the whole of the UK was 1,036,500 in Q1 2019, up 24.0% from a year ago.

This worrying statistic shows that labour market trends for HGV drivers in the UK is out of step with general labour market trends. On the surface, this may seem like good news but, in reality, there is an ever-shrinking pool of active jobseekers from which to recruit drivers. The HGV drivers’ claimant count in Q1 2019 is 93.3% lower than the peak of 14,028 in Q2 2009 during the economic downturn, almost triple that of the whole of the UK, which fell 32.9% in the same period.

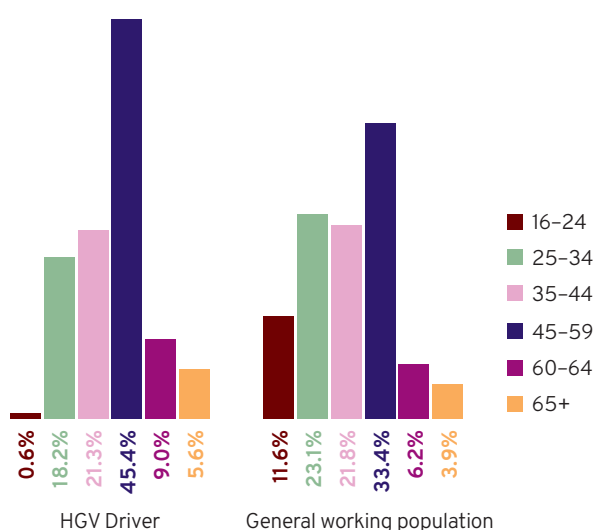
13 Who do you think is most responsible for keeping workers’ skills up to date?



Source: FTA Member Survey, FTA, 2019

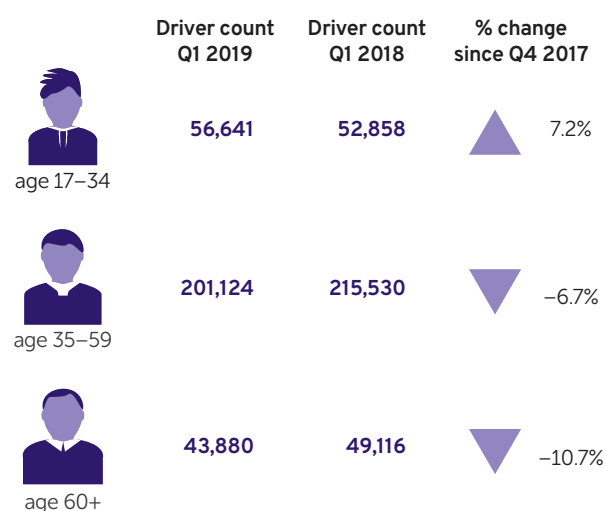
¹³ Jobseeker’s Allowance by occupation, Nomis, ONS, March 2019

14 HGV driver age compared with the working population age



Source: Repgraph analysis of Labour Force Survey, ONS, Q1 2019

15 HGV driver numbers by age



Source: Repgraph analysis for FTA, Labour Force Survey, ONS, Q1 2019

Driver age profile

In Q1 2019, the average age of an HGV driver was 48.2 years, slightly down from 48.4 years in Q1 2018. Figure 14 shows a comparison of HGV age demography with the general working population. HGV drivers display a significantly older age profile than the general population.

Comparing HGV drivers to the general working population, in Q1 2019, the proportion of drivers over the age of 44 was 60.0% (falling from 63.3% in Q1 2018).

Of concern to the logistics sector is the dearth of younger people training to become HGV drivers. In Q1 2019, the proportion of people under the age of 24 driving HGVs fell by two-thirds, to 1,782, compared to Q1 2018. However, the percentage of all drivers under the age of 45 was 40.0%, up from 36.7% on the previous year.

Changes in HGV drivers by age band

As stated at the beginning of this report, the number of HGV drivers was down 15,859, or 5.0%¹⁴, driven by a 10.7% decline in drivers aged over 60 who are retiring and by a 6.7% decrease in the middle age band (fig 15). In better news, those under the age of 35 increased by 7.2%, but these were at the upper end of the age range.

Driver salary by region

FTA’s Manager’s Guide to Distribution Costs adjusted HGV driver pay rates from the Annual Survey of Hours

and Earnings (ASHE)¹⁵ by inflation and average earnings, to yield pay changes in real terms to estimate earnings as at 1 July 2019 (this data excludes Northern Ireland). The median pay rates and hours worked for HGV drivers by English region and devolved nation are shown in figure 16.

Unsurprisingly, the highest rate of pay is found in London, where HGV drivers have an annual average salary of £32,747. Wales has the lowest pay with an average salary of £27,382.

New entrants and test pass rates

Initial qualification

The figures for drivers acquiring a Driver Certificate of Professional Competence (DCPC) through initial qualification (which represents new entrants to the sector who did not hold a category C licence prior to 10 September 2009)¹⁶ have increased slightly over the past three years (fig 17). There was an increase of 2.7% in new entrants for the year ending 31 March 2019 compared to the previous year.

HGV pass rate

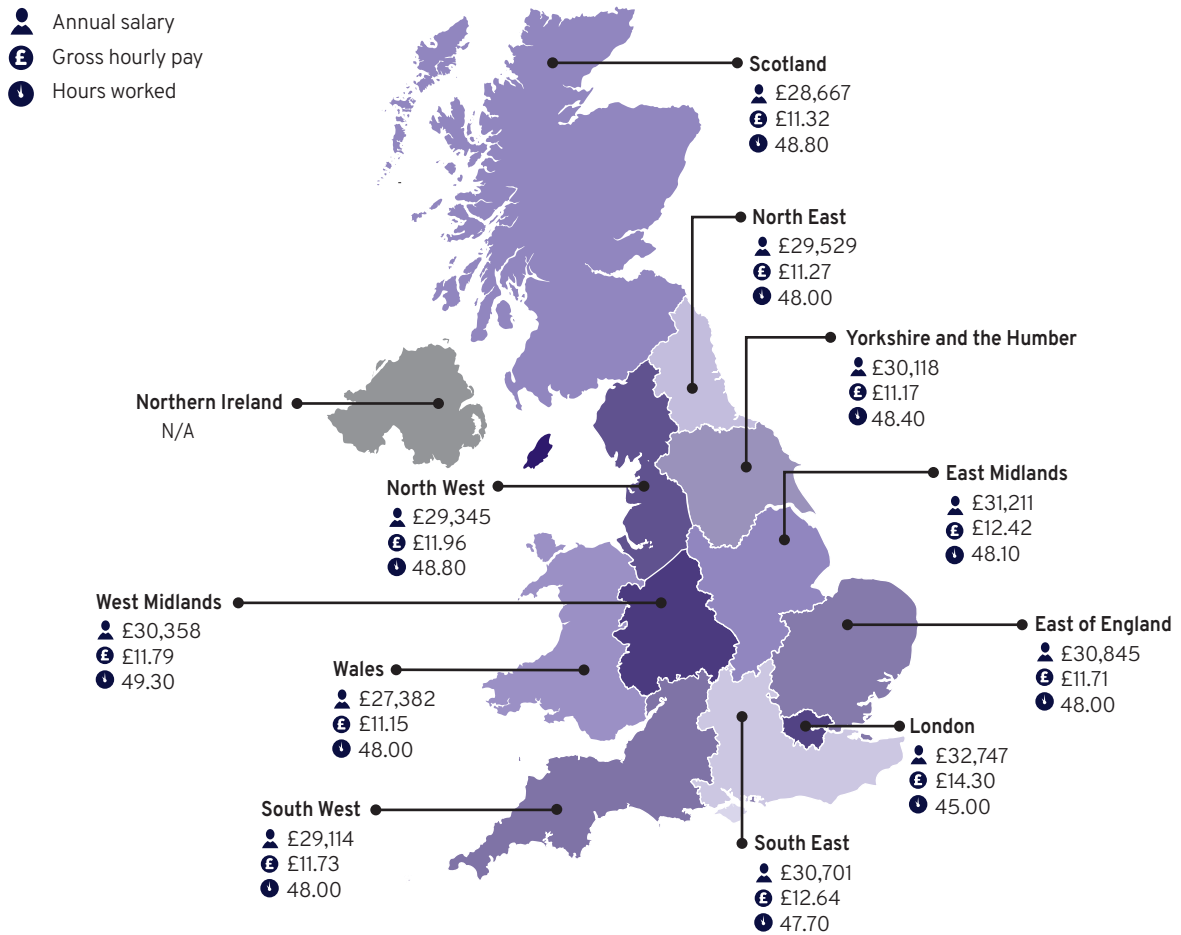
The pass rate for HGV drivers affects the number of drivers in employment. In the 2018/19 financial year, the pass rate for practical tests reached its highest level at 58.3% (fig 18). The pass rate has risen consistently over the past decade.

¹⁵ Annual Survey of Hours and Earnings (ASHE) 2018, Office for National Statistics, October 2018

¹⁶ www.gov.uk/government/statistical-data-sets/driver-cpc-qualification-and-training-data

¹⁴ Repgraph analysis for FTA, Labour Force Survey, ONS, Q1 2019

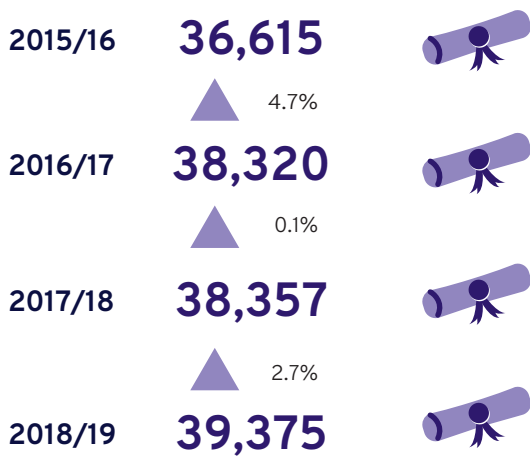
16 Driver salary by region



©Maps In Minutes™/Collins Bartholomews 2019

Sources: Annual Survey of Hours and Earnings (ASHE), Nomis, ONS, October 2018 (updated by annual percentage change in average weekly earnings and adjusted for inflation to Q1 2019) Manager's Guide to Distribution Costs, FTA, 2019

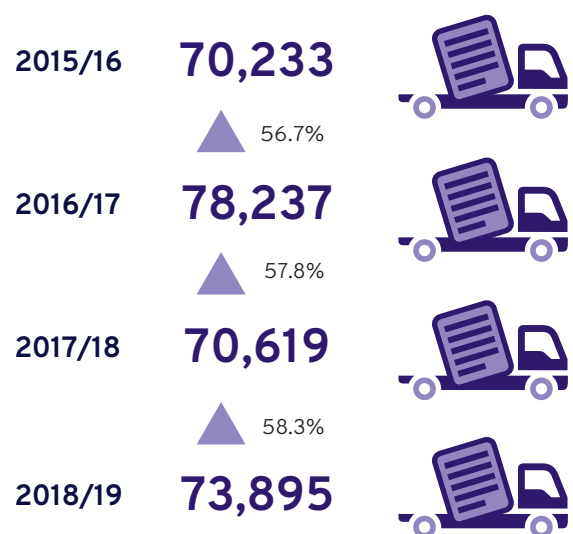
17 DCPC initial qualification



Note: includes both lorry and bus drivers combined.

Source: Driver CPC qualification and training data, DVSA, July 2019

18 Practical heavy goods vehicle (HGV, also known as LGV) test, Great Britain: 2008-2019



Source: Practical large goods vehicles (LGV) test pass rates (DRT0501), DfT, 2019

Age of test takers

In the year to the end of March 2019, those under the age of 35 took 60% of all tests. In addition, the average age of a person taking a practical test was 34.7 years, which is moving towards the middle age band, consistent with the driver age band.

Gender of test takers

The number of women taking practical HGV tests remained stubbornly at 6% to 7% from 2008 to 2016. However, since then the rate has risen steadily to 8.6% in 2018/19. The pass rate for women is consistently higher than for their male counterparts (fig 19).

Driver shortage in Europe

The driver shortage is not just a problem for the UK. A survey by the International Road Transport Union (IRU)¹⁷ found that in the road freight transport sector there is a driver shortage of 21% across Europe.

IRU’s work points to several issues within the industry, including image, working conditions and an ageing workforce. There is a challenge to attract female drivers, with just 2% of women in the European HGV driver population. In addition, the average age of a European driver is 50 years of age.

- The average age in the German transport sector is over 47, and around 40% of the HGV workforce are expected to retire by 2027, creating a shortfall of around 185,000 drivers.
- In 2018, truck operators in Romania faced a current driver shortage of 37% and expect that 32% more drivers will be needed in 2019. This means a driver shortage of almost 70%.
- Haulage companies in Norway estimate that, in 2019, the industry’s driver shortage is 35%.

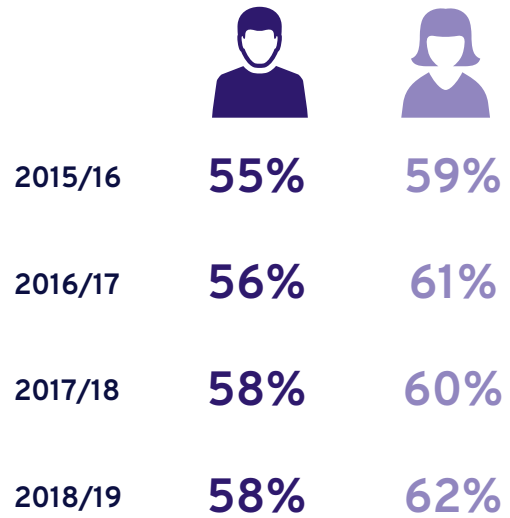
Job trends for other logistics roles

The shortage issue does not just affect HGV drivers. Consistent with the overall reduction in logistics employees in Q1 2019 compared to Q1 2018, other roles in the industry have also seen a fall in numbers.

Purchasing managers and directors, importers and exporters, transport distribution clerks and assistants and postal workers all decreased in number (fig 20). Since 2008, the most notable shifts in job growth are for warehouse and storage occupations (warehouse and storage managers and directors and elementary storage occupations), as well as van drivers and managers and directors in transport and distribution. This reflects the growing requirement for more warehouse space,

¹⁷ Tackling Driver Shortage in Europe, IRU, March 2019

19 Pass rates for men and women



Source: Practical large goods vehicles (LGV) test pass rates (DRT0501), DfT, 2019

driven in part by changing shopping habits and a shift to online retailing.

A note on vehicle technicians, mechanics and electricians

The numbers of vehicle mechanics (SOC 5231: vehicle technicians, mechanics and electricians) in employment fell slightly by 0.2% in the year to Q1 2019. Reliable analysis of data on vehicle technicians, mechanics and electricians for the logistics sector is not possible as the numbers are small and HGV mechanics are not captured separately. Nonetheless, the number of logistics employees in this occupation more than doubled from 6,597 in Q1 2018 to 15,052 in Q1 2019.

“

These statistics show that more investment is needed to reverse the impact of driver retirement. Manpower has partnered with Specialised Training Services to boost the number of newly qualified HGV drivers. We’re aiming to support more than 4,500 people through our Driver Academy each year.

Jason Greaves
Operations Director
Manpower UK

Furthermore, analysis from the Institute of the Motor Industry (IMI) shows that only 3% of all vehicle technicians are currently qualified to work safely on electric vehicles. The majority of those that are qualified work in franchised dealerships. The government has confirmed that the sale of new vehicles with petrol or diesel internal combustion engines as their only source of propulsion will be banned from 2040 and full electric and plug-in hybrid (PHEV) vehicles, are estimated to exceed one million on UK roads by 2020.

Even though there is an increase in mechanics in the logistics sector, overall the numbers are slightly down and there is a need to look to future needs and to train electric vehicle mechanics.

Logistics apprenticeships in the UK

The Apprenticeship Levy was introduced on 6 April 2017 to increase the number of people training at work by imposing a 0.5% tax on UK employers with payroll costs in excess of £3 million, who are then given a rolling 24-month deadline to spend it. If Levy-paying employers



The government's plan for apprenticeships is clearly not working for the transport industry – new blood and the best candidates are vital for all our futures.

Gary Austin
Maritime Transport

do not reclaim their payments within the two years, they lose access to the money and unused funds are then available to small- and medium-sized enterprises (SMEs) that do not pay the Levy to train apprentices.

In 2019-20, funding available for investment in apprenticeships in England was £2.5 billion¹⁸.

Between May 2017 and April 2019, Levy-paying employers spent only 18% of the funds available to them on the training and assessment of new apprentices¹⁹. As the Levy

¹⁸ www.parliament.uk/business/publications/written-questions-answers-statements/written-question/Commons/2019-09-02/285263/

¹⁹ www.parliament.uk/business/publications/written-questions-answers-statements/written-question/Commons/2019-07-01/271484/

20 Job trends in other logistics roles

		Q1 2019	% change since Q1 2018	% change since Q1 2008
Purchasing managers and directors		61,123	▼ -6.2%	▲ 52.5%
Managers and directors in transport and distribution		86,382	▲ 14.0%	▼ -1.4%
Managers and directors in storage and warehousing		109,882	▲ 1.6%	▲ 32.4%
Importers and exporters		6,191	▼ -18.0%	▲ 15.1%
Transport and distribution clerks and assistants		64,316	▼ -9.0%	▼ -13.7%
Van drivers		289,562	▲ 12.4%	▼ 43.0%
Forklift truck drivers		91,437	▼ 9.0%	▼ -15.2%
Postal workers, mail sorters, messengers and couriers		153,792	▲ -6.3%	▲ -29.1%
Elementary storage occupations		455,783	▲ 1.4%	▲ 20.9%

Source: Repgraph analysis for FTA, Labour Force Survey, ONS, Q1 2019

scheme was introduced in April 2017, the first month that funds expired was May 2019. A series of parliamentary and written questions revealed that, from May to August 2019, employers have not claimed £133 million of Apprenticeship Levy funds.

Apprenticeship Levy and Spring Statement 2019

The Office for Budget Responsibility (OBR) in its Economic and fiscal outlook (accompanying the Spring Statement in March 2019), reported £2.6 billion was received in Apprenticeship Levy funds in 2017/18; this was £100 million lower than forecast. The forecast was also revised down by £100 million to £2.7 billion for 2018/19, while the prediction for 2019/20 is revised up by £100 million to £2.9 billion. Over the four-year period 2017/18 to 2020/21, the Levy is expected to bring in £11.7 billion in receipts, which is 2.6% higher than forecast in the November 2018 Budget (or an increase of £300 million).

Amount paid into the Levy by logistics businesses

The total value of payments for the Apprenticeship Levy charge made during the period 1 August 2018 to 31 July 2019 was £2.7 billion²⁰. HM Revenue and Customs (HMRC)

²⁰ www.gov.uk/government/statistics/hmrc-tax-and-nics-receipts-for-the-uk

records indicate that the 'transportation and storage' sector paid £155 million* (or 6%) into the Apprenticeship Levy in the same period²¹.

*Figures are rounded to the nearest £5 million.

UK logistics apprenticeships by country

Data on logistic apprenticeships were gathered for each country in the UK: England, Scotland, Wales and Northern Ireland. Databases and statistical sets related to apprenticeship starts differ for each country and, where data were not available, information requests were sent. Dataset sources are referenced under each country below.

It should be noted that England, Wales and Northern Ireland cover academic year 1 August to 31 July, while data for Scotland use different months, quarters and academic years (1 April to 31 March).

England

In August 2019, the Department for Education published provisional figures for the first 11 months of apprenticeship starts for the academic year 2018/19 (fig 21). There have been 361,400 apprenticeship starts reported to date between August 2018 and June 2019 for the 2018/19

²¹ Information provided by HMRC outside of the FOI Act on a discretionary basis, September 2019

21 Logistics apprenticeship starts – England (1 August–31 July)

Framework	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19*
Driving Goods Vehicles	5,510	4,000	4,933	5,486	4,961	2,326	1,692
International Freight Forwarding Specialist						15	182
International Trade and Logistics Operations	140	90	117	127	119	103	58
Large Goods Vehicle (LGV) Driver				15	208	1,271	1,542
Logistics Operations Management	1,480	580	777	792	869	457	301
Supply Chain Operator				45	8	95	114
Supply Chain Warehouse Operative					198	1,397	1,667
Transport Engineering and Maintenance	210	260	350	394	289	238	1
Vehicle Maintenance and Repair	8,390	8,500	9,008	9,495	9,454	5,937	4,146
Warehousing and Storage	7,070	7,110	8,435	8,065	7,109	2,532	1,389
Heavy Vehicle Service and Maintenance Technician					9	593	669
Total logistics	22,800	20,540	23,620	24,419	23,224	14,964	11,761

*The 2018 to 2019 provisional figures cover the 11-month period August 2018 to June 2019 reported as of August 2019.

Source: Apprenticeship and levy statistics, Department for Education, August 2019

22 Logistics apprenticeship starts – Scotland (1 April–31 March)

Framework	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19*
Transport and Logistics*	2,058	1,530	1,683	1,476	1,106	1,570	1,223

*Transport and Logistics – occupation sector includes: Freight Logistics, PCV driving and Supply chain management

Source: Modern Apprenticeship Statistics, Skills Development Scotland, June 2019

23 Logistics apprenticeship starts – Wales (1 August–31 July)

Framework	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
Warehousing and Storage	260	105	95	120	125	150
Driving Goods Vehicles	65	180	50	20	*	65
Vehicle Maintenance and Repair	555	720	540	550	480	555
Other sector frameworks – Transport	35	30	40	30	50	20
Total Logistics	915	1,035	725	720	655	790

Any values greater than zero and less than five have been suppressed and replaced with an asterisk (*)

Source: Learning programme starts in work-based learning provision, StatsWales, 2019

24 Logistics apprenticeship starts – Northern Ireland (1 August–31 July)

Framework	2017/18	2018/19
Distribution and Warehousing	54	66
Driving Goods Vehicles	5	3
Vehicle Maintenance and Repair	362	302

*9 month period August 2018 to April 2019

Source: NI Department for the Economy, Youth Training Statistics and Research Branch, September 2019

academic year. This compares to 341,700 reported in the equivalent period in 2017/18.

The latest full year figures available cover the period from 1 August 2017 to 31 July 2018, and these data are used to track changes in apprenticeship numbers for logistics. Overall, there were 375,800 apprenticeship starts, a fall of 24.1% on the previous year and a 26.2% drop since 2015/16, before the Levy was introduced.

Figures indicate there were 14,964 new logistics apprenticeship starts in 2017/18. Year on year, the overall number of logistics apprenticeship starts fell by 35.6%.

Driving goods vehicles (combined with the new framework 'LGV driver') fell by 30.4% at the same time, from 5,169 to 3,597 starts. Warehousing and storage (combined with the new 'supply chain warehouse') was 46.2% lower than the previous year.

Scotland

In 2018/19, there were 27,270 starts in Modern Apprenticeships in Scotland, which is a slight increase of 0.5% on the previous year. Transport and logistics starts in the year to 31 March 2019 decreased by 22.1% compared with 2017/18; this follows a 42% increase in starts in 2017/18 (fig 22).

Wales

Annual data for 2018/19 are not available for Wales. The latest annual year-on-year data shows the number of logistics apprenticeship starts increased by 20.6% in 2017/18 compared with 2016/17 (fig 23). Driving goods vehicles increased significantly to 65 starts at the same time.

Northern Ireland

Northern Ireland does not publish starts per year by framework, but a request to the Northern Ireland Department for the Economy regarding starts data for logistics apprenticeships revealed data for starts were available from 1 August 2017 to 30 April 2019 (fig 24).



To attract a diverse workforce, the logistics sector needs the ability to train people in a variety of ways. Currently, funding for vocational training that could help women returning to work, self-employed people upskill or part-time workers retrain is not available. FTA believes government must prioritise vocational training to ensure employers have access to and can use the training that fits their needs, to plug the skills gaps and enable people from all backgrounds to learn.

The future of work

Disruptive forces, including digitalisation and automation, are already shaping the world of work as well as our leisure time. These factors will also affect the skills needed by logistics and some logistics roles – or aspects of them – will be at risk of automation. But these disruptive forces may also have a transformative effect on job roles and offer new opportunities for logistics.

The changing nature of work

State-of-the-art technological advances, particularly in the domains of artificial intelligence, information and communication technologies (ICTs) and robotics, are changing the way individuals live, work and learn. According to the recent Organisation for Economic Co-Operation and Development (OECD) *Employment Outlook 2019 report*¹, the world of work is changing in response to technological progress, globalisation and ageing populations.

Digitalisation has the potential to improve efficiency and bring new opportunities but, at the same time, it may exacerbate inequalities among workers. New organisational business models and evolving worker preferences, such as remote working, self-employment and co-working, are all contributing to the emergence of new forms of occupation.

OECD considers that fears of a sharp decline in overall employment are largely unfounded since, as some jobs and tasks decline, others are emerging and, in general,

employment has been growing. However, the OECD identified a key challenge, to manage the transition of workers in declining industries and regions towards new job opportunities.

Countries with high proportions of people with well-rounded skills and few individuals lacking basic skills are better able to adapt to automation or technological change than countries that have lower proportions. Technology can replace workers in routine tasks that are easy to automate and augment workers in more cognitively demanding tasks that require creativity and problem solving.

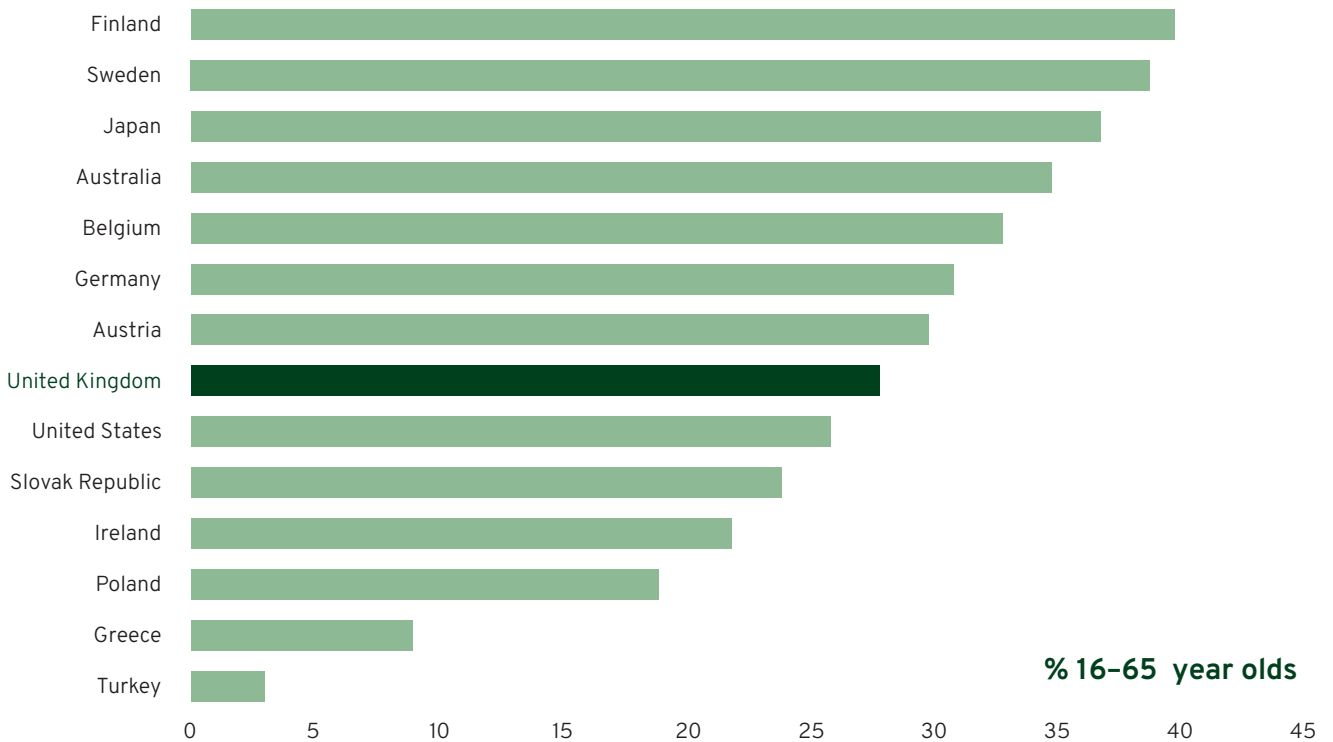
Therefore, workers require a range of skills, including digital, cognitive and socio-emotional skills².

Figure 25 assesses the well-rounded skills mix (literacy, numeracy and problem-solving skills) of countries' populations that is required for learning new approaches, methods or technologies for work. It does not cover other important types of skills, such as social and emotional skills. In the UK, 28% of individuals aged 16–65 have been found to have well-rounded cognitive skills, with Finland at the top with 40% of adults.

¹ OECD *Employment Outlook 2019*, OECD, April 2019

² OECD *Skills Outlook 2019: Thriving in a Digital World*, OECD, May 2019

25 Share of 16–65 year-olds with a well-rounded skill set, by country (%)



Source: OECD *Skills Outlook 2019: Thriving in a Digital World*, OECD, May 2019

Skills and automation

“Automation involves replacing tasks currently done by workers with technology, which could include computer programs, algorithms, or even robots” (ONS, 2019)³. The speed at which new technologies are being adopted is intensifying. For example, in Shanghai, a fulfilment centre is now able to process 200,000 orders per day with just four employees⁴.

Anxiety about mass automation is widespread. In one study, 34% of UK workers surveyed believed automation would result in large job losses and that few will be replaced by new and different roles⁵. However, technology is still limited in what it can do and is transforming jobs rather than eradicating occupations. A report by the Royal Society for the Encouragement of Arts, Manufactures and Commerce (RSA) identifies that two types of jobs will emerge:

- ‘Hi-tech’ – involving creating, maintaining and interpreting machines.
- ‘Hi-touch’ – entirely resistant to automation, such as social care workers and hospitality staff⁶.

Skills and job quality

While diversity in employment contracts can provide welcome flexibility for many firms and workers, important challenges remain in ensuring the quality of non-standard work roles.

The UK is one of the OECD countries that has experienced the fastest growth in ICT use in the workplace over the past two decades. Despite this, jobs in the UK are at a lower risk of automation than the OECD average. Certain types of non-standard work (specifically, short part-time and dependent self-employment) are more prevalent in the UK than the OECD average. Some of these short part-time contracts are zero-hour contracts, in which there are no guaranteed minimum hours. Nearly 3% of people in employment (about 900,000 people) said they were on a zero-hour contract.



Job and task automation

There is evidence that automation does not replace whole job roles but substitutes for individual tasks⁷. This means it can be a complementing force, enabling workers to achieve more and better quality work. However, there is disparity among workers, with most automation studies indicating that low skilled workers in jobs at high risk of automation, as well as older adults and displaced workers (ie, workers who have lost their jobs for economic reasons and/or in mass layoffs) are likely to be left behind⁸.

Job automation is less the science fiction scenario of robots taking over but more that mundane, repetitive tasks may be carried out more efficiently by an algorithm or a machine designed for one specific function. Overall, the OECD takes a nuanced approach to jobs at risk of automation; focusing attention on the tasks carried out within occupations, its report concluded that 14% of jobs in OECD countries are highly automatable, while another 32% will be radically transformed by technological progress⁹.

There is disagreement about the predictions of job losses due to automation. OECD posited that in the UK, 11.7% of jobs are highly automatable with 26% at significant risk of change¹⁰. The University of Oxford considered 35% of UK jobs have the potential to be automated¹¹ and PwC suggested the figure is more likely to be 30%¹², while

³ Which occupations are at highest risk of being automated? ONS, March 2019

⁴ Good Work in an Age of Radical Technologies, RSA, September 2018

⁵ Ibid

⁶ Ibid

⁷ Good Work in an Age of Radical Technologies, RSA, September 2018

⁸ OECD Employment Outlook 2019, OECD, April 2019

⁹ OECD Employment Outlook 2019, OECD, April 2019

¹⁰ Ibid

¹¹ OECD Employment Outlook 2019, OECD, April 2019

¹² UK Economic Outlook, PwC, 2017

a 2017 McKinsey report said 5% of UK jobs are highly automatable¹³.

Note: According to the ONS (2019)¹⁴, McKinsey based their estimates on a threshold of being at high risk of automation set at 100%, rather than the 70% adopted by the other studies. If changed to 70%, their model suggests around 30% of jobs are automatable, a figure similar to PwC's.

Jobs at risk of automation in England – focus on logistics sector

The Office for National Statistics (ONS) analysed 20 million jobs in England (using 2017 data) and found that 7.4% are at high risk of automation, 64.9% at medium risk and 27.7% at low risk¹⁵. Younger people are more likely to

be in roles affected by job automation. Of those aged 20 to 24 years who are employed, 15.7% were in jobs at high risk of automation. The risk of job automation decreases for older workers and is lowest for workers aged between 35 and 39 years. Just 1.3% of people in this age bracket are in roles at high risk of automation. The risk then increases from the age group 40 to 44 upwards.

The analysis by ONS looked at the tasks performed by people in jobs across the whole labour market, to assess the probability that some of these tasks could be replaced through automation. The skills that people use at work and the tasks they carry out determine whether the job is likely to be automated.

There were three levels of risk corresponding to whether some or all of the duties were being automated:

- High risk: More than 70% of some or all duties being automated.
- Medium risk: 31% to 69% of some or all duties being automated.
- Low risk: Less than 30% of some or all duties being automated.

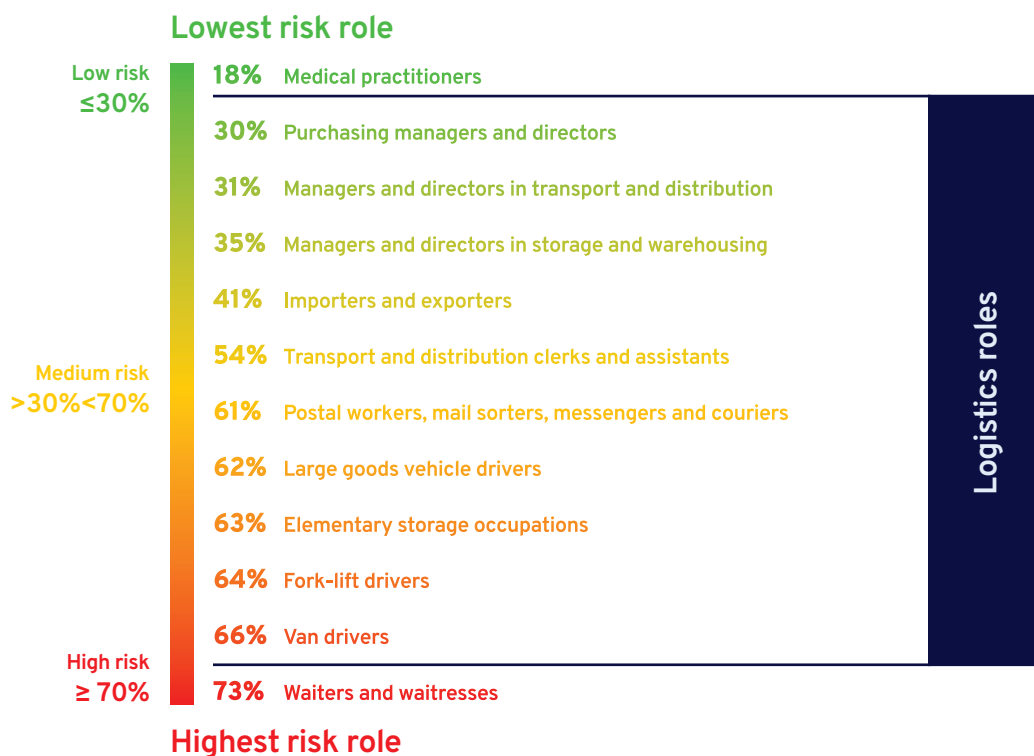
The three occupations with the highest probability of automation are waiters and waitresses, shelf fillers and elementary sales occupations, all of which are low skilled

¹³ A Future that Works: Automation, Employment, and Productivity, McKinsey Global Institute, 2017

¹⁴ The probability of automation in England: 2011 and 2017, ONS, March 2019

¹⁵ The probability of automation in England: 2011 and 2017, ONS, March 2019

26 Logistics jobs at risk of automation in England-



Source: Repgraph analysis of: Which occupations are at highest risk of being automated? ONS, March 2019



or routine. The three occupations at the lowest risk of automation are medical practitioners, higher education teaching professionals and senior professionals of educational establishments. These occupations are all considered high skilled.

Logistics jobs at risk of automation

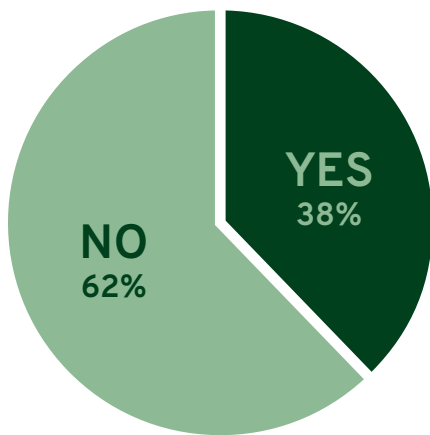
Figure 26 shows the risk level of logistics roles. Only one occupation can be considered low risk (purchasing managers and directors), while van drivers, forklift drivers and HGV drivers are approaching the 70% high-risk threshold.

As discussed earlier, automation does not replace whole job roles, but substitutes for individual tasks¹⁶, and this is borne out by the results from a survey of 448 FTA members undertaken in July 2019.

FTA members were asked a series of questions on skills and automation. Around 38% of respondents expected some logistics roles to be fully or semi-automated in the next five years (fig 27), 36% stated that automation would have a positive impact on the role and responsibilities of transport managers, with 40% indicating they had not thought about it (fig 28). Those surveyed referred to tasks and not 'roles', reflecting the transformational rather than the destructive nature of automation on jobs; although driver roles (van, forklift and HGV) may be at risk (fig 26), it is not the role itself but elements of the job, such as vehicle walkaround

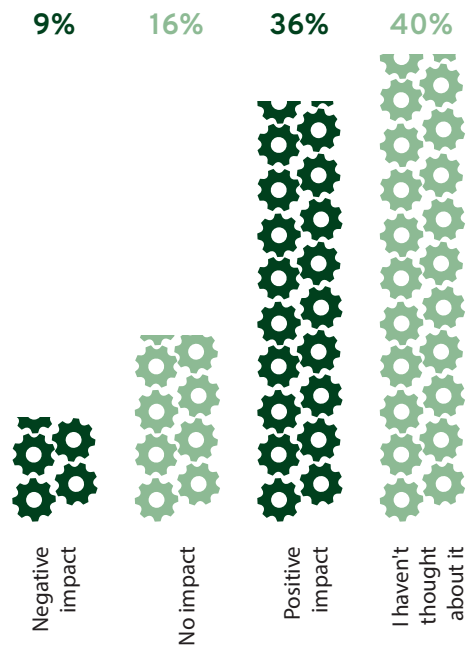
¹⁶ Good Work in an Age of Radical Technologies, RSA, September 2018

27 Do you expect some logistics roles in your organisation to be fully or semi-automated in the next five years?



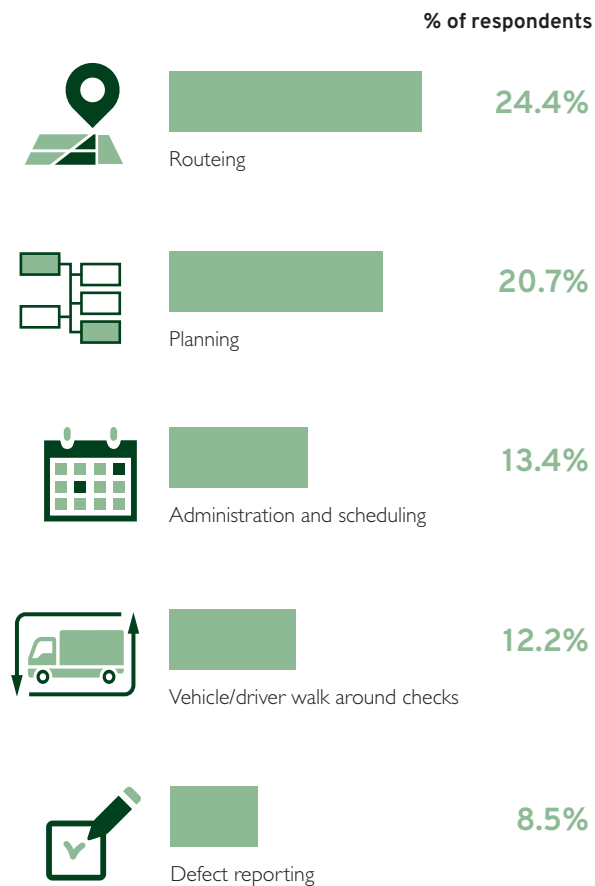
Source: FTA Member Survey, FTA, 2019

28 Have you considered the impact of automation on the role and responsibilities of Transport Managers?



Source: FTA Member Survey, FTA, 2019

29 Logistics tasks likely to be automated in the next five years



Source: FTA Member Survey, FTA, 2019

checks (fig 29), as these are tasks that can be replaced with algorithms. Platooning trials and driverless HGVs are currently being tested, but these are only designed to be driverless when on major roads and, given the scale of the current driver shortage, there is even more need for HGV drivers, not less.

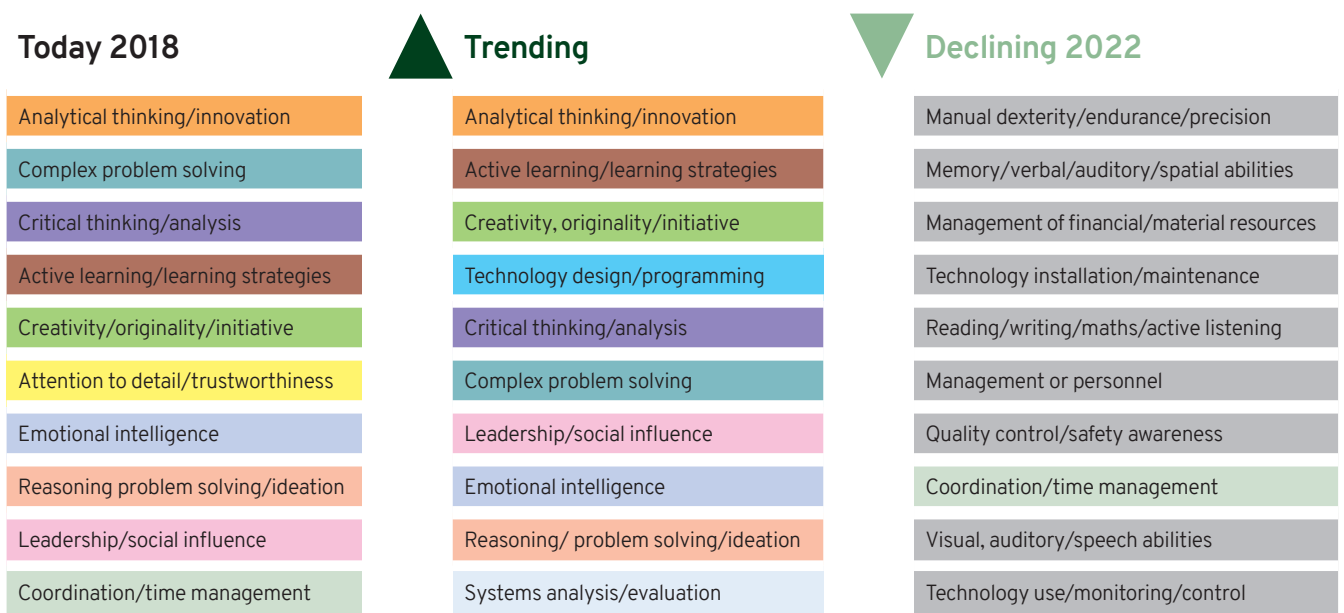
Future skills

The World Economic Forum (WEF) published its report *The Future of Jobs*, in November 2018, which profiled 20 countries and all regions. It found that, overall, skill demand will change in the coming years, and roles requiring manual dexterity and precision will start to decline by 2022, with analytical thinking and innovation top for both 2018 and 2022 (fig 30).

Furthermore, the WEF report categorised findings by country and observed several key emerging roles and skills expected to experience an increase in demand across the UK over the 2018–2022 period (fig 31). Software developers, managing directors and sales and marketing professionals are key emerging jobs while, in addition to analytical skills, socio-emotional skills such as creativity, originality and initiative, social influence, and emotional intelligence will be critical.









Expected re-skilling needs over the 2018–2022 period across the UK are shown in figure 32. This represents the distribution of the UK's workforce according to the

30 Comparison of skills demand, 2018 vs 2022 – top 10



Source: Future of Jobs 2018, World Economic Forum, 2018

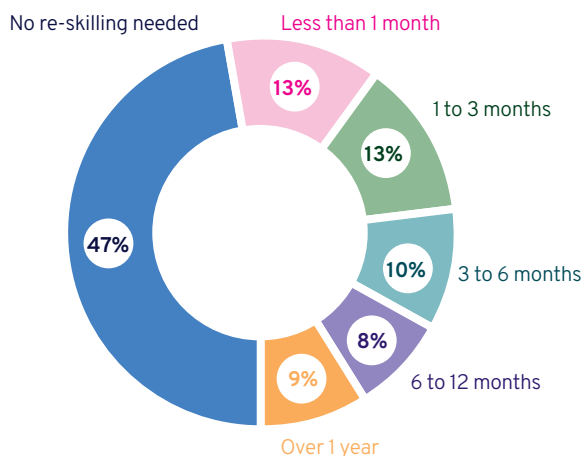
31 Key emerging job roles and skills in the UK

Job roles	Skills
 Software and applications developers and analysts	Analytical thinking and innovation
 Managing directors and chief executives	Creativity, originality and initiative
 Sales and marketing professionals	Active learning and learning strategies
 Data analysts and scientists	Technology design and programming
 General and operation managers	Complex problem solving
 Sales representatives, wholesale and manufacturing, technical and scientific products	Critical thinking and analysis
 Assembly and factory workers	Leadership and social influence
 Human resources specialists	Systems analysis and evaluation
 Financial and investment advisers	Reasoning, problem solving and ideation
 Financial analysts	Emotional intelligence

Source: The Future of Jobs 2018, World Economic Forum, 2018

32 UK re-skilling needs

Average re-skilling needs (share of workforce)



Source: Future of Jobs 2018, World Economic Forum, 2018

expected average timeframe required to re-train or up-skill affected workers. 53% of all employees will require significant re-skilling and up-skilling. 36% are expected to require training of up to six months, while 9% will require additional skills training of more than a year (fig 32).

In the UK, the participation of workers in adult learning is above the OECD average. However, workers more exposed to the risk of automation and the low skilled participate less in training than workers at low risk of automation and high-skilled workers¹⁷.

¹⁷ Source: OECD Skills Outlook 2019: Thriving in a Digital World, OECD, May 2019

Future logistics and automation

The history of logistics is also a history of automation, from the steam engine to the forklift to today’s robotic pickers and packers.

Automation is emerging to varying degrees across the global logistics chain, with warehousing having the highest extent of automation (fig 33)¹⁸. McKinsey Global Institute estimates that the transportation and warehousing industry has the third-highest automation potential of any sector¹⁹. The van sector, in terms of contract logistics and parcel companies particularly, stand to benefit.

Currently, 80% of warehouses are manually operated without automation support. However, many logistics companies are looking to turn to robotics for efficiency, accuracy and long-term cost savings²⁰.

¹⁸ Automation in logistics: Big opportunity, bigger uncertainty, McKinsey, April 2019

¹⁹ Automation in logistics: Big opportunity, bigger uncertainty, McKinsey, April 2019

²⁰ Robotics and automation in logistics, Michael Page Logistics, 2019

The popularity of online shopping has contributed to record-breaking take-up of warehouse space. In the first half of 2019, the main driver of demand was the online retail sector, which represented 30% of overall take-up. Other retailers also increased their activity on the second quarter of the year, particularly food retailers and apparel companies. The second largest sector was third-party logistics (3PL) providers (who also serve online retailers), with 28.5% of take-up²¹.

Trends driving automation

Three main trends driving automation:

- 1 A growing shortage of labour.
- 2 An explosion in demand from online retailers (e-commerce).
- 3 Technical advances²².

²¹ Logistics Property Perspective, H1 2019, CBRE

²² Automation in logistics: Big opportunity, bigger uncertainty, McKinsey, April 2019

33 Global logistics chainland degree of automation

Automation is emerging to varying degrees across the global logistics chain.

Today's global logistics chain



Source: Automation in logistics: Big opportunity, bigger uncertainty, McKinsey, April 2019

Labour shortages

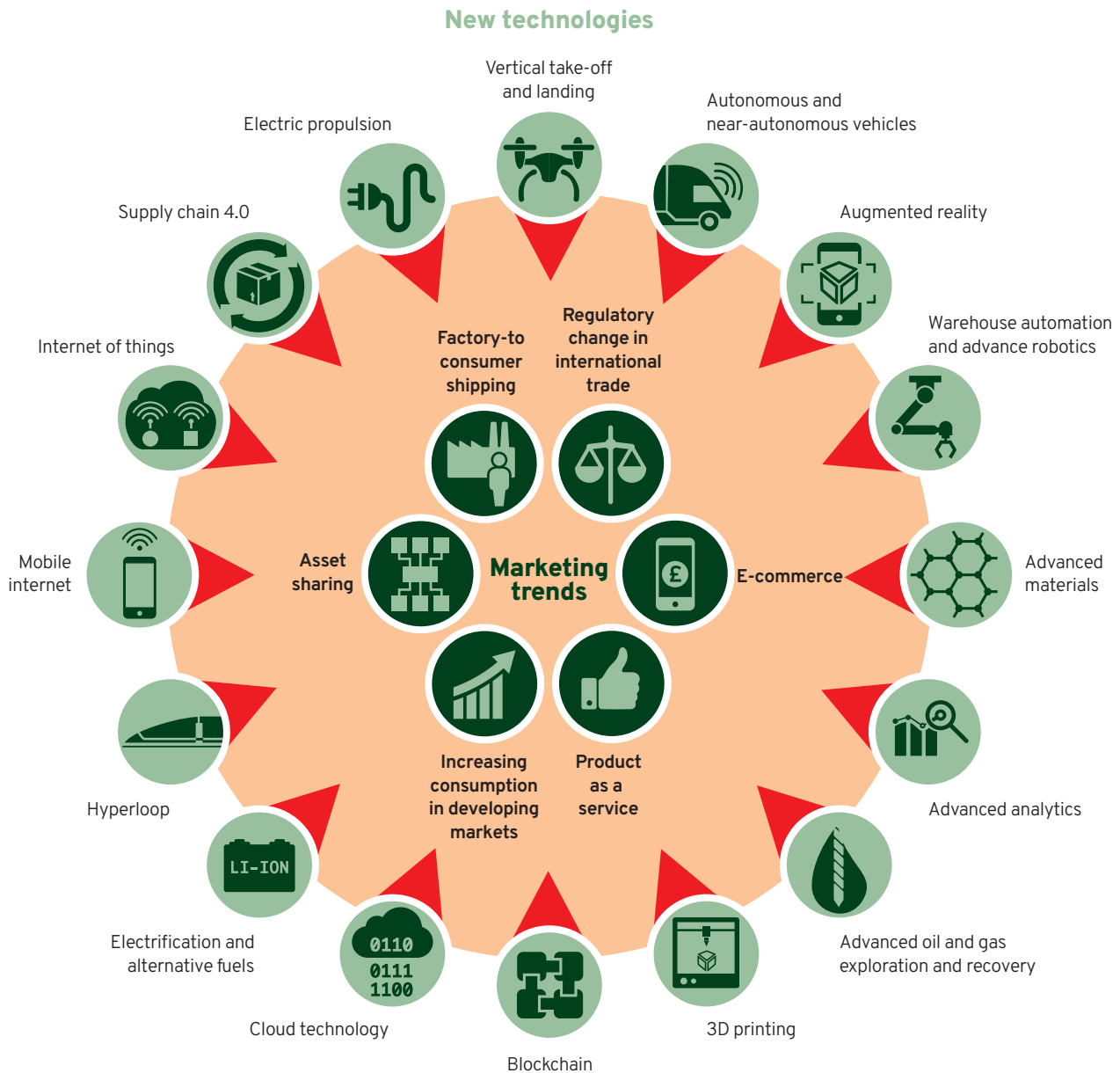
Starting with a shortage of workers, warehouse space (which facilitates e-commerce and the van sector) is premium. Broadly, the UK warehouse sector employs 643,000 people directly, which is nearly a quarter of logistics employees. As discussed in detail earlier, automation will affect employment but is mainly related to individual tasks, rather than complete job roles.

E-commerce

In Great Britain, online sales continue to grow, accounting for 19.7% of all retail sales. Internet sales increased by 2.7% for the amount spent in August 2019 when compared with August 2018; this is a slowdown compared to the stronger growth experienced earlier in the year which peaked at 6.7% in March 2019²³.

²³ Retail sales, Great Britain: August 2019, ONS, 19 September 2019

34 New technologies and market trends can disrupt the logistics industry



Source: *Distraction or disruption? Autonomous trucks gain ground in US logistics*, McKinsey, Dec 2018



The sector has a negative image; government needs to do more to help improve the public perception. Technology has changed the sector significantly and career opportunities are diverse. We will need to attract the younger generation to fulfil future growth, and FTA believes government must do more to help promote this within schools and colleges and put greater emphasis on the value of vocational training.

Appendices

Appendix A

Labour Force Survey use and limitations

The Labour Force Survey (LFS) is a survey of households living at private addresses in the UK. Its purpose is to provide information on the UK labour market which can then be used to develop, manage, evaluate and report on labour market policies. The survey is administered by the Office for National Statistics (ONS) in Great Britain and by the Central Survey Unit of the Department of Finance and Personnel in Northern Ireland on behalf of the Department of Enterprise, Trade and Investment (DETINI).

The LFS is intended to be representative of the whole population of the UK, and the sample design currently consists of around 38,000 responding households in every quarter. The quarterly survey has a panel design, whereby households stay in the sample for five consecutive quarters (or waves), with a fifth of the sample replaced each quarter. Thus, there is an 80% overlap in the samples for each successive survey. The LGV driver population of around 300,000 is

estimated from a sample of approximately 440 survey responses each quarter.

Because the sampling methodology of the LFS has been developed over many years to reflect the national population as closely as possible, it is considered to be a generally reliable source of many statistical estimates such as employment, nationality and country of birth. It is also a useful means of tracking longitudinal trends such as occupational job numbers, age demographics, etc.

There are some inevitable shortcomings and limitations with the survey. Since the sampling methodology uses households, it does not tend to capture information regarding individuals without a long-term residential address (for example, seasonal workers or those for whom their employer provides accommodation). The survey is also based on a smaller sample size than some other national surveys (such as the Annual Survey of Hours and Earnings).

Appendix B

The job shortage measure

Absolute job shortages are very difficult to measure due to a number of factors, including the reliability and consistency of measurable data across all occupations. For this reason, RepGraph developed a measure that provides a relative ranking of occupations, based on the following factors:

- Rising demand for labour: reflected in an increase in job numbers.
- Falling supply of labour: measured by a decrease in the claimant count.
- The need to attract and retain staff: manifested in rising pay.

Therefore, occupations that experience the most significant labour shortages typically see high growth in worker numbers, accompanied by large falls in claimant count and increases in pay. The relative job shortage measure is used in this report to compare potential job shortage issues in logistics occupations. The measure is comprised of the sum of the three labour market factors which are thought to correlate strongly with job shortages.

- 1 Claimant count¹ (ranking 1-353 where 353 = greatest percentage fall in claimant count).

¹ Official Labour Market Statistics: Claimant Counts by Occupation. Claimant count values are calculated as the mean of monthly claimant count values for October, November and December (the three months of Q4)

- 2 Job totals² (ranking 1-353 where 353 = most substantial percentage rise in job numbers).
- 3 Average weekly earnings³ (ranking 1-353 where 353 = largest percentage increase in average weekly pay).

The shortage ranking measurement uses data from Labour Force Surveys for Q2 2018 to Q1 2019, along with ONS claimant count data for the same periods. The percentage difference was determined for each of the ONS occupational categories across a four-quarter mean of the three job shortage measurement factors outlined above (ie, claimant count, job totals and average weekly earnings). Percentage differences were calculated for each occupation category, and these were ranked relative to each other. The rankings for the three measurement factors were then combined to give an overall relative job shortage score per occupation category. The highest score for the job shortage ranking measure represents the most significant labour shortage (the maximum possible value is 1,059 and the lowest possible is three).

² Labour Force Surveys, ONS, 2018 to 2019.

³ Earnings are the median weekly earnings values, calculated according to ONS guidelines, described in the Labour Force Survey Manuals.

Appendix C

Driver shortage calculation

The method for calculating driver shortage number compares the growth in jobs as specified in the ONS Labour Force Survey statistics. This calculation has been rebased to coincide with the period preceding the recession. Q2 2007 is the new baseline for this calculation (it was Q2 2001 in previous reports).

Labour Force Survey analysis

- 1 In 2007 there was an estimated 321,455 LGV drivers in the UK.
- 2 As of March 2019, there were 301,645 LGV drivers.
- 3 At the same time, the total UK economy had added 9% more jobs compared to 2007.

- 4 Assuming the industries employing LGV drivers have tracked the economy as a whole in terms of demand for jobs, then there should be a 9% increase in the demand for LGV drivers since 2007.
- 5 This equates to 360,467 LGV drivers required. Therefore, the shortfall in the number of drivers is estimated to be 360,467 - 301,645 = 58,822 as of Q1 2019.

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